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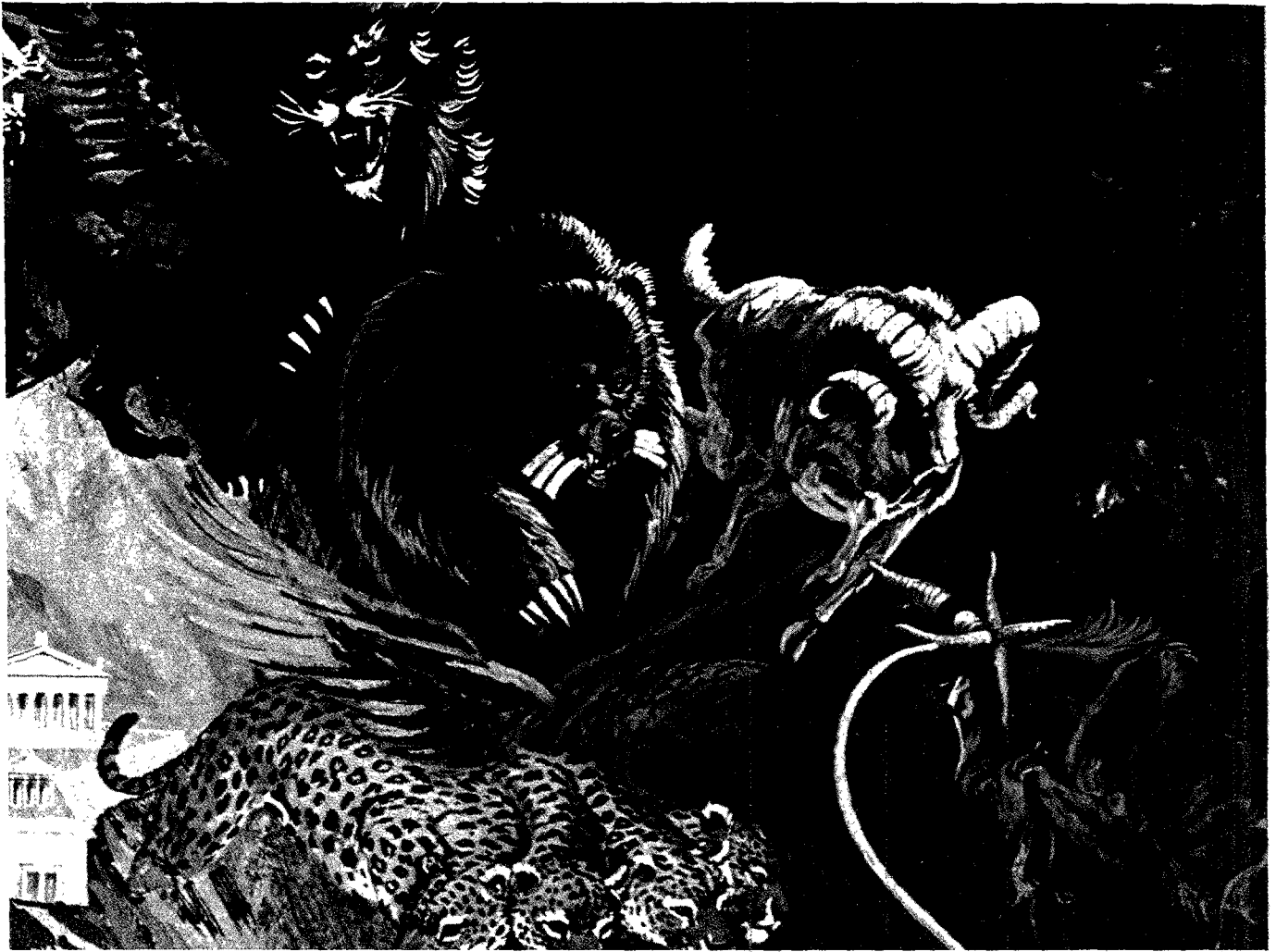
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Applying the Apocalyptic

"WHAT'S GOING ON? Why can't you ministers agree? It's awfully frustrating to laymen like myself when one minister explains a prophecy one way, and another in a completely different way. Isn't there some way you fellows can get together so that we can have a clear idea of what Bible prophecy is teaching?"

We cannot but sympathize with this kind of frustrated explosion, especially in the light of the many prophetic interpretations being expressed from the pulpit and in the religious press today. It's no wonder that many who find it difficult, if not impossible, to wade through Daniel and Revelation are thoroughly confused by the variety of viewpoints currently being circulated.

On the other hand, aren't the proph-









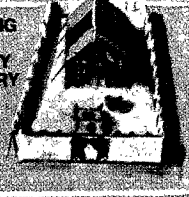
STAFF

ecies given for a purpose? Aren't they part of the "all Scripture" that "is inspired by God and is useful for teaching the truth, rebuking error, correcting faults, and giving instruction for right living" (2 Tim. 3:16, T.E.V.)?*

It is only to be expected that owing to the wide diversity of theological orientation, background, and approach to the Scriptures, there will be differences in position held in good faith by honest men. Therefore, just because we differ in interpretation from someone else we should not impugn his integrity as a Bible scholar. All honest scholars are striving in their study of prophecy to discover not only what the writer had

ILLUSTRATED BY
THOMAS DUNBEBIN

* From *Today's English Version of the New Testament*. Copyright © American Bible Society 1966, 1971.

DANIEL 2	DANIEL 8	DANIEL 8	DANIEL 11, 12
GOLD	BABYLON	NONE	NONE
SILVER	MEDO-PERSIA	 RAM WITH TWO HORNS	 FOUR KINGS (Verse 2)
BRASS	GREECE	 THE GOAT	 MIGHTY KING (Verses 3-13)
IRON	ROME	 LITTLE HORN FROM FOUR HORNS	 KING OF THE NORTH (Verses 14-35)
IRON AND CLAY	DIVIDED KINGDOMS 1260 YEARS	 LITTLE HORN GREAT WAXED	 KING OF THE NORTH (Verses 30-39)
STONE CUT OFF WITHOUT MAN'S HANDS	INVESTIGATIVE JUDGMENT	 CLEANSING OF HEAVENLY SANCTUARY	TIME OF THE END (Verses 40-45)
STONE FILLS WHOLE EARTH	CHRIST'S KINGDOM	EXECUTIVE JUDGMENT	MICHAEL STANDS UP (Chapter 12:1-3)

in mind but what the Holy Spirit is saying to us through him.

Not only was the prophet the "forth-teller," God's spokesman to his age, but many of those having this gift received an unnatural and humanly inexplicable ability—that of seeing into and predicting the future. There is no problem in understanding this if we recognize that God's omniscience includes His knowledge of what is going to take place in the future. Evidence that He does is

found in such passages as Isaiah 42:9; 46:9, 10; 48:3-6 and Daniel 2:28. It is only divine guidance that can explain how prophets could write about events that would be fulfilled in time periods far removed from their day.

Principles of Interpretation

Among Adventist scholars of prophecy, L. E. Froom looms large as the result of his masterful four-volume set entitled *The Prophetic Faith of Our*

Fathers. Most of the historical development of prophetic understanding outlined in this article is based on his work. Froom traces the interpretation of the Bible's two apocalyptic books, Daniel and Revelation, from the pre-Christian period down to our time.¹ He takes the position that the historic mainstream of interpretation revolves around three unique characteristics:

1. Both Daniel and Revelation contain several series of often-parallel outline prophecies that unfold an unbroken sequence of events leading up to the establishment of the eternal kingdom of God.

2. The focus of these outline prophecies is the perennial conflict between the nations and God's people, between the Antichrist and Christ.

3. Each distinct series reveals a repetition and further enlargement of certain parts of a previous series, always focusing on redemptive history, specifically on the final conflict of good and evil.

Referring to these characteristics, Hans K. LaRondelle points out that they "set the stage for some principles of end-time prophetic interpretation," and adds that on the basis of law and order ruling "in the realm of Biblical apocalyptic, Christ being the bright center of all covenant promises," there are certain guiding hermeneutical principles for apocalyptic interpretation.² Adapting his suggestions, we arrive at the following list of principles:

1. In and through Jesus Christ both the Old Testament and New Testament apocalyptic are to be viewed as a general spiritual unity.

2. It is important to determine, when the data permits, where each prophetic outline series passes the time of the cross of Christ, since Old Testament terminology and imagery from that point on should receive a Christological interpretation.

3. Old Testament apocalyptic prophecies that have remained unfulfilled, generally because of Israel's failure to meet God's conditions, will, according to the New Testament, find their fulfillment in the faithful remnant people of Jesus Christ.

4. When interpreting the New Testament apocalyptic we must first consider the historical and theological Old Testament context, yet recognize the weight of the wider context of both Testaments.

5. Although the same prophetic symbol may most often carry the same

Cover: *The great sweep of Daniel's prophetic symbols is portrayed, beginning with the image of Daniel 2 and including the beasts of Daniel 7 and 8. Courtesy of the Theater of the Universe, located at the Dempsey Center, Portland, Oregon.*

basic meaning, the specific application of each symbol is to be determined by its own immediate context.

6. Since the book of Revelation refers more than 490 times to the Old Testament, we should seek to discover how the redemptive history and message of each book finds its culmination in the Apocalypse.

LaRondelle goes on to suggest a multiplex approach that includes a recognition of the typological structure, the promise-fulfillment idea, and the salvation-historical perspective found in the books of Daniel and Revelation. In viewing Revelation as the advanced unfolding and Christological interpretation of Daniel, he maintains the theological unity of the Old and New Testament apocalyptic that uplifts Christ as the divine and faithful Saviour of Israel.³

Understanding Daniel

With this framework in mind, we see that the book of Daniel itself clarifies the basic meaning and application of the prophetic symbols introduced. In chapter 2, Daniel plainly identifies the successive deterioration of metals in the great statue as applying to Babylon and the three empires that will follow. These in turn are succeeded by a period of division, and culminate in the establishment of the kingdom of God, which stands forever. In Daniel 7 the succession of empires is described again, with more detail added, especially those that concern the fourth power and the final judgment, at which time Christ's everlasting kingdom will come into being.

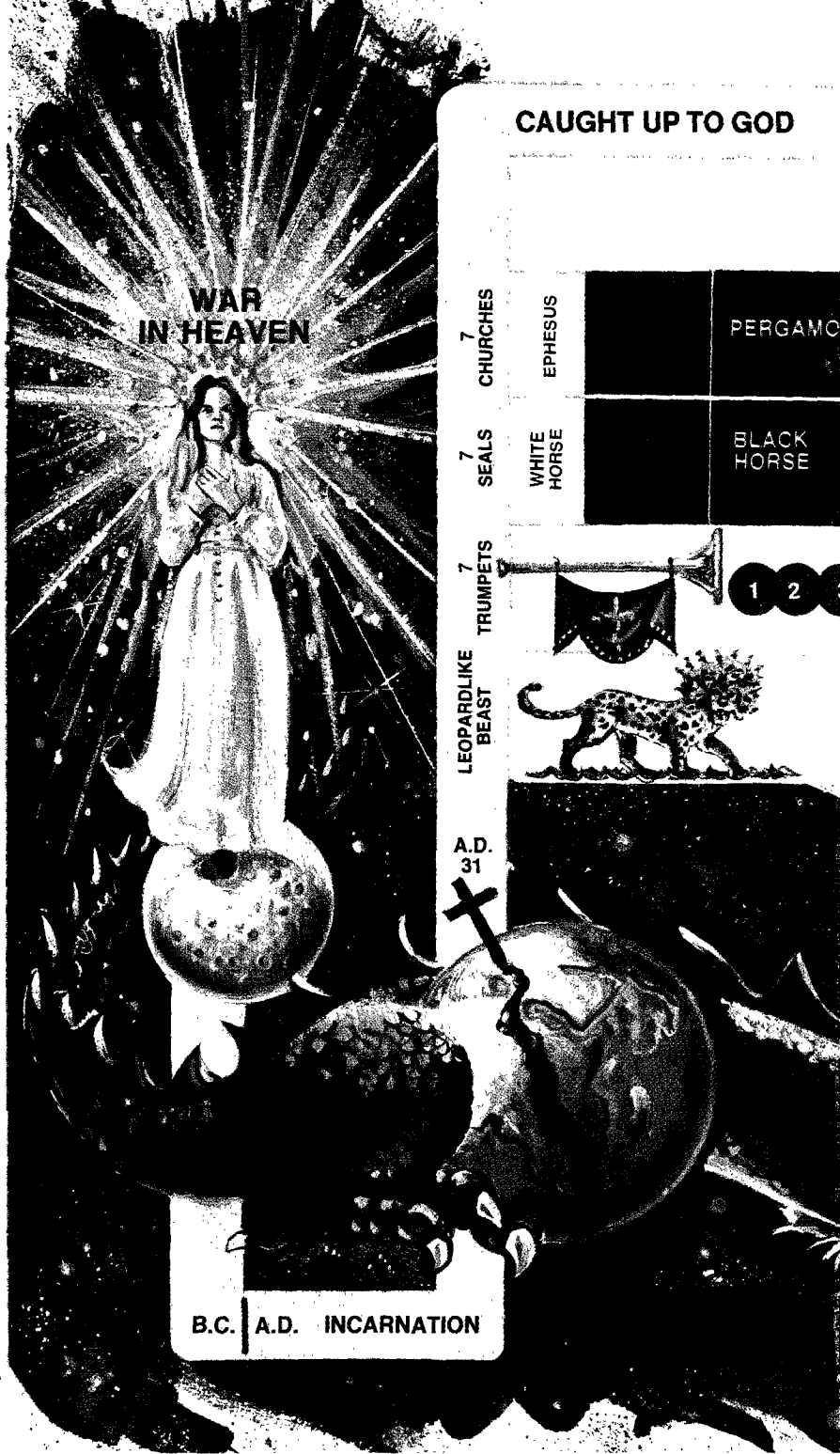
Chapter 8 enlarges the description, specifying the second and third in the series of empires as Medo-Persia and Greece and giving us a description of the fourth power, which seems to point clearly to Rome. More detail is added in chapter 11, along with the clue that after the breakup and division of the Greek Empire there will be a period of contention between powers to the north and the south of Palestine (obviously Syria and Egypt) until such time as the "robbers of thy people" come on the stage of action. During the period of control of the holy land by this power the "prince of the covenant" shall be broken (chap. 11:22). Again, these details point quite clearly to Rome as being the fourth empire involved. Finally, according to chapter 12, Michael stands up at the end of time, and God's people will be delivered as Christ's everlasting kingdom is established.

The succession of historic prophetic interpreters of Daniel begins with Jaddua, the Jewish high priest about 332 B.C., who is presumed to have understood from his study of Daniel that Persia was about to be overthrown by Greece. Jaddua is said to have fascinated Alexander the Great by showing him this prophecy, thus gaining Alexander's favor shortly before he won the decisive battle at Arbela.⁴ The Talmud and Targum, Irenaeus, Jerome, Thomas Aquinas, Wycliffe, Luther, Latimer, Newton, Matthew Henry, Adam Clarke, Alexander Campbell, and Henry Dana Ward are among those authorities that take the position that Daniel's succession of empires included Babylon, Persia, Greece, and Rome.

There is less unanimity in regard to the prophetic time periods in Daniel as far as specific applications are concerned, although there is a general recognition of the principle that a day of prophetic time represents a year. This year-day principle was widely accepted by the time of the Reformation. For instance, Sir Isaac Newton applied the three and one-half times (or three and one-half prophetic years of 360 days each) of Daniel 7 to a 1260-year period, the 2300 days of Daniel 8 as 2300 years, and the 70 weeks of Daniel 9 as a period of 490 years (70 weeks x 7 days = 490 day-years) extending from 457 B.C. to A.D. 34.⁵ Tillinghast, in 1654, saw that there was a definite connection between the 70 weeks of Daniel 9 and the 2300 days of Daniel 8:14.⁶

Granted that the historical weight given these interpretations is not in itself conclusive; it is, nevertheless, impressive. There seems to be a progressive development in understanding and interpreting prophecy that through the centuries has built on the historical mainstream of interpretation. Our position is that the burden of proof rests on those who deviate from this mainstream rather than on those who agree with it.

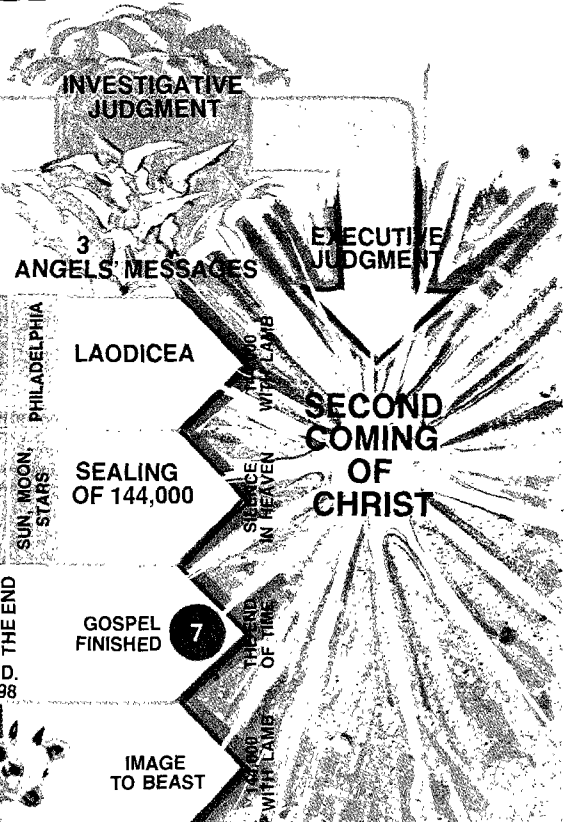
As is obviously true of the past, there are some prophecies that yet remain to be fulfilled. Differences of opinion and various speculations naturally surround such unfulfilled prophecy. It is the conviction of the writers that prophecy is given not so much that we may be able to predict accurately the future, but rather to enable us to understand what is happening when the predicted events take place. Nevertheless, there are certain clear and well-attested future events, such as those surrounding the



second advent of Christ, that can be and have been understood by the mainstream of prophetic scholars and that give us solid and specific "hitching posts" on which to tie our interpretation of what is yet to take place. On these we can give and are to "give the trumpet a certain sound" just as Jesus did in Matthew 24 and 25 and Luke 21.

The student of prophecy has distinct advantages in understanding the last book in our canon, Revelation. One ad-

(CHRIST OUR HIGH PRIEST)



THYATIRA

SARDIS

LAODICEA

PHILADELPHIA

PALE HORSE

SOULS UNDER ALTAR

SEALING OF 144,000

SECOND COMING OF CHRIST

4 WESTERN ROME FALLS

5 EASTERN ROME FALLS

6 OTTOMAN EMPIRE

7 GOSPEL FINISHED

TIME OF THE END
A.D. 1798

DARK AGES

42 MONTHS 1260 DAY-YEARS TIME, TIMES, 1/2 TIME

IMAGE TO BEAST



WOMAN (CHURCH) IN WILDERNESS

A THOUSAND TWO HUNDRED AND THREE SCORE (1260) DAY-YEARS

A.D. 1798 A.D. 1844

WAR ON REMNANT

vantage is that so much of the symbolism and language reflects previous apocalyptic writings, as well as other Bible prophecies. The major disadvantage is that, since it is one of the last Bible books produced, we do not have the guidance of a large body of later inspired interpreters to guide us in our understanding as we do with the book of Daniel.

Contrary to those who might feel that the book of Revelation is a complicated

enigma, there is a special blessing pronounced on those who seek to understand. "Blessed is he that readeth, and they that hear the words of this prophecy, and keep those things which are written therein: for the time is at hand" (chap. 1:3). We can also be assured that the same Holy Spirit who guided in the production of the book (verse 10) will especially bless us in hearing and understanding "what the Spirit saith unto the churches" (chap. 2:11).

LAST DAYS

**1st
RESUR-
RECTION**

1000 YEARS

**2nd
RESUR-
RECTION**

ETERNITY . . .



RETURN OF JESUS
(Matt. 24:30)

**CHRIST, SAINTS AND
CITY DESCEND**
(Rev. 21:2,10; 20:9)

RIGHTEOUS DEAD RAISED
(Rev. 20:6; 1 Thess. 4:16)

WICKED DEAD RAISED
(John 5:28,29; Rev. 20:5)

SATAN BOUND
(Rev. 20:1-4)

**THE
MILLENNIUM**

SATAN LOOSED
(Rev. 20:7, 8)

LIVING SAINTS CAUGHT UP
(Matt. 24:31; 1 Thess. 4:17)

RIGHTEOUS IN HEAVEN
(Rev. 20:4,6; 15:2,3)

LAST JUDGMENT
(Rev. 20:11-15; 21:8)

WICKED SLAIN
(Jer. 25:33; Matt. 13:39-42)

WICKED REMAIN DEAD
(Rev. 20:5)

**SATAN AND SINNERS
DESTROYED**
(Rev. 20:9,10)

EARTH DESOLATED
(Jer. 4:23-27)

**SATAN AND EVIL ANGELS ALIVE AND
BOUND ON EARTH**
(Rev. 20:1-4)

**EARTH CLEANSED
AND RENEWED**
(2 Pet. 3:10-13 Rev. 21, 22)

EARTH REMAINS DESOLATE
(Jer. 4:23-27)

Fortunately, there are internal clues and applications made throughout the book that help clarify its meaning (see, for instance, chaps. 1:20; 7:13-17; 12:9, and 17:7-18).

Although there are a few flashbacks to the beginning of the great controversy between Christ and Satan, such as in chapter 12:7-9, the main thrust of the predictions in the book of Revelation is just that—a revelation or description of what will yet take place in the experience of the church and of the climax of history in earth's final day of judgment.

Many of the messages undoubtedly had local applications as far as the original recipients were concerned, but the majestic sweep and scope of its apocalyptic message obviously reaches

far beyond local application. In it we find *continuity*—extending from John's day to the end of time; *comprehensiveness*—based on the framework of world events and the great controversy theme mentioned above; and *repetition*—going back and covering the same general outline seven times, through the line of the seven churches, then the seven seals, the seven trumpets, the two witnesses, the dragon, the beast, and the mystery woman on the scarlet beast: and finally comes the millennium and the New Jerusalem in the new earth forevermore.”⁷

“Tertullian (c. 240) pioneered the way, with his exposition of the woman of Revelation 12 as the church, the man child as Christ, the dragon as Rome, and the beast of Revelation 13 as the coming

Antichrist. Then came Victorinus (c. 304) enunciating what was later to become the key principle of repetition—that the trumpets, vials, and so on, repeat in time—covering the same period in successive sweeps to the end of the age.”⁸

There is a striking unanimity of belief among the Reformation Protestant interpreters, hundreds strong, that “the Papacy is assuredly the predicted Antichrist, variantly called the Little Horn of Daniel 8, the Abomination of Desolation, the Man of Sin, the Beast, Babylon, and the Harlot of Old and New Testament prophecy.”⁹ It might also be noted in passing that they constantly emphasized the establishment of the kingdom of God at the time of, and as a consequence of, the second coming of Christ.

Gap Theory

The Jesuit Counter Reformation writers who made their appearance at the close of the Reformation period introduced (Froom says “adroitly introduced”) the conflicting Futurist and Preterist schemes of interpretation that began to challenge the uniform application made by Protestants. The Preterist school put most of the symbolic events introduced in Revelation completely in the past, and the Futurist school, “in a burst of speculative literalism,” emphasized future fulfillment of such prophecies. This eventually resulted in a gap scheme in interpreting time prophecy that has created a wave of confusion.

In the post-Reformation period the understanding of the parallel character of the seven churches, seven seals, and seven trumpets grew in clarity, but three millennial views vied for acceptance—the Catholic Augustinian position that the millennium began at Christ’s first advent, the premillennial view held by the majority of post-Reformation interpreters through the middle of the nineteenth century, and the new Whittyan postmillennial view, which began to grow in popularity.

Seventh-day Adventist understanding has consistently followed the historical school of prophetic interpretation. This school of thought gradually lost out during the nineteenth century to the rationalistic theologians, who denied that there was any such thing as inspired prophecy. This has resulted in the increasingly complex and variant interpretations that persist today. Froom, however, documents what he terms “a singular continuity and persistence of

Chart Reprints

If there is enough interest, The Ministry is willing to make available at cost a four-page colored brochure reprint of the charts published in this issue. These might be used for individual or group study or for distribution at public meetings. If interested, please let us know as soon as possible and indicate how many copies you might wish to order if the demand warrants our reprinting these charts. Such response will not be considered an order.

premillennialism.”¹⁰ He cites the strong premillennial position taken by the interdenominational prophetic congress in the Church of the Holy Trinity in New York City in 1878 and at the second international conference held in Chicago in 1886. Later prophetic conferences around the turn of the century, however, veered sharply away from this emphasis in the direction of futurist dispensationalism.

Seventh-day Adventists, coming out of the Advent Awakening at the turn of the nineteenth century that emphasized the nearness of the second coming of Christ and the beginning of the final judgment in the heavenly sanctuary, have kept to the strong premillennial position that marked our early development and understand the last section of the Apocalypse as fitting into the scheme outlined in the chart on page 8.

The development of the relationship of Christ’s ministry in the heavenly sanctuary to the events connected with His second coming demand more thorough development than we can give it in the space allotted in this month’s issue. We’ll reserve this subject, therefore, for a later article.

We have attempted here to trace the broad scope of prophetic interpretation through its development in what has come to be called the historic school of interpretation and demonstrate that, for the most part, there has been a progressive and developing understanding of the basic expositions and a somewhat general agreement as to the significance of the major outlines of apocalyptic interpretation. The current confusion that admittedly now exists in this field may be alleviated to some extent, at least, by carefully studying and weighing the consensus that marked the works of so many of the great scholars and expositors of past centuries.

The charts associated with this article are an attempt to put in graphic form the historical consensus of prophecy as developed herein. We are aware that many of our readers will not agree with specific applications, but we hope that these will be helpful in understanding the broad sweep and scope of the prophecies of Daniel and Revelation. We invite you to save this article and these charts for future reference as we develop specific lines of prophecies in issues yet to come.

At first, the Revelation chart in particular may seem to be a confused mixture of history and symbolism, but care-

ful study, based on the hermeneutical principles outlined at the beginning of this article, may help our readers sense the fact that God has revealed a consistent and unified body of truth in the apocalyptic books.

Remember that He wasn't writing only for twentieth-century Western minds, but for people of every age and every culture. The vivid symbols used are universal in their appeal and startling in their challenge to in-depth study. Evidence of this, we believe, is seen in the fact that, even in the Western world, we use symbols such as lions, bears, eagles, and dragons to represent nations, and in the United States our two major political parties are identified by the symbols of the elephant and the donkey.

If the charts developed for this presentation do nothing more than stimulate our readers to renewed interest in and study of the books of Daniel and Revelation we will consider that we have achieved our purpose. In light of current

events, is it not time for there to be more thorough study of God's will and plan for this world as revealed in these majestic prophecies?

In studying these books, there may be room for interpretive divergence of opinion on minor details, but it is our conviction that when the historical system of prophetic interpretation is consistently applied the pieces of the prophetic puzzle will fit together in a graphic, harmonious whole that presents a clear, convincing, unified picture of past, present, and future events. ■

¹ L. E. Froom, *The Prophetic Faith of Our Fathers*, vol. 1 (Washington, D.C.: Review and Herald Publishing Association, 1950).

² H. K. LaRondelle, "Interpretation of Prophetic and Apocalyptic Eschatology," in Gordon Hyde (ed.), *A Symposium on Biblical Hermeneutics*.

³ *Ibid.*, p. 246.

⁴ Froom, *op. cit.*, pp. 167-169.

⁵ *Ibid.*, vol. 2, pp. 784, 785.

⁶ *Ibid.*, p. 787.

⁷ *Ibid.*, vol. 1, p. 95.

⁸ *Ibid.*, p. 460.

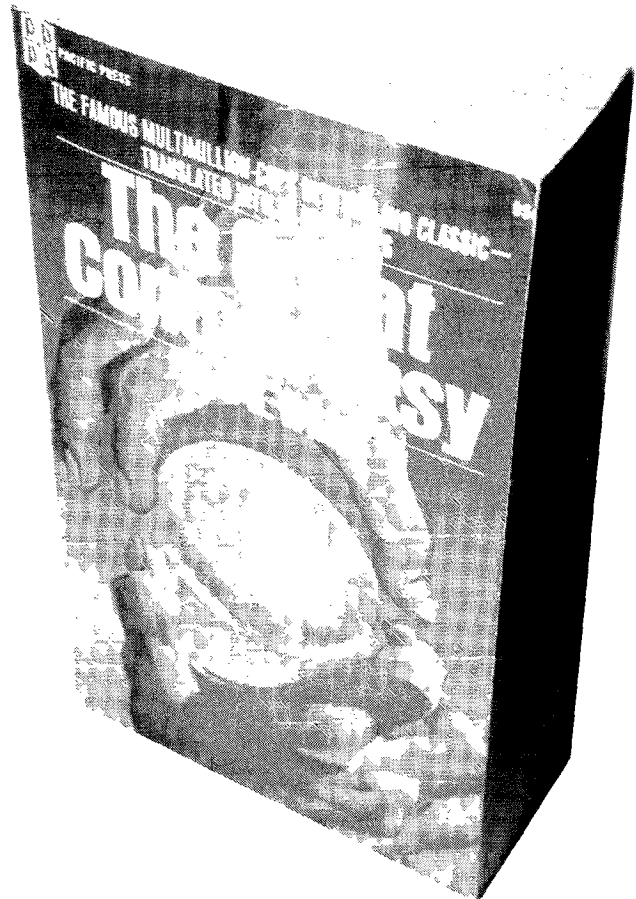
⁹ *Ibid.*, vol. 2, p. 529.

¹⁰ *Ibid.*, vol. 4, p. 1178.

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YOU WANT to be a powerful preacher for Christ! Right? Right! *God wants* you to be a mighty preacher for Him! Right? Right!

How do we as ministers of reconciliation make our preaching ministry effective for Him? Let us look to Jesus Christ, the greatest preacher this world has ever known. His preaching reached hearts and changed lives. Men and women could never be the same after listening to His sermons. "He taught them as one having authority, and not as the scribes" (Matthew 7:29). "Never man spake like this man" was the bold testimony of Christ's contemporaries in John 7:46.

The words of Christ made the warm truth come alive. They moved and changed those who heard them. "The words that I speak unto you, they are spirit, and they are life" (John 6:63). There was nothing dead, nothing drab and monotonous about Jesus' preaching. People did not go to sleep while He spoke! Men and women, boys and girls, sat up and listened when the Saviour preached.

What was there about Christ's sermons, His preaching and teaching, that made such a powerful impression upon His listeners? What lent His preaching power?

Our first response is probably that God was with Him. He spoke with the power of the Holy Spirit. This, of course, is true and must be just as true of every preacher of the gospel today as it was in Christ's day. But notice something else that offers an insight into the secret of

*From One Leader
to Another*



Robert H. Pierson

*Robert H. Pierson
is president
of the General
Conference
of Seventh-day
Adventists.*

Christ's power with the people in His preaching ministry. It is very relevant to our needs as preachers of righteousness today!

Jesus *spoke* powerfully because He *lived* powerfully! "What He taught, He lived. . . . What He taught, He was. His words were the expression, not only of His own life experience, but of His own character. Not only did He teach the truth, but He was the truth. It was this that gave His teaching power."—*Education*, pp. 78, 79.

Using a well-worn cliché, Jesus *practiced* what He *preached*. This was the dimension of His preaching that lent power with the people! When Jesus declared, "I am the way, the truth, and the life," the people instinctively knew what Jesus was talking about. They saw this truth lived out in His life every day whether He was *preaching* in the synagogue or on the hillside, or whether He was *practicing* in His daily life in contact with others.

There was nothing irrelevant about the teaching and preaching of Christ! When He spoke to people about sanctification, about victory over sin, there was nothing ethereal or other-worldly about His words. They saw sanctification and victory over sin in His every act, every moment of every day.

Christ's living was the secret of His positive and effective preaching.

"The officers who were sent to Jesus came back with the report that never man spoke as He spoke. But the reason for this was that never man lived as He lived. Had His life been other than it was, He could not have spoken as He did. His words bore with them a convincing power, because they came from a heart pure and holy, full of love and sympathy, benevolence and truth."—*The Ministry of Healing*, p. 469.

If you and I are going to preach powerfully, our words from the pulpit must find their source in pure hearts and Christlike life-styles. Those who sit under our ministry must see love, sympathy, benevolence, and truth in our lives. They must know indeed that we have been with Jesus. In short, we will *practice* what we *preach*.

"Sermons should be lived before they are preached," Elder M. L. Andreasen once said. If the words that we speak contain spirit and life for those who sit under our ministry, they must be given power by godly lives that echo our preaching with a loud "Amen!"

Charles G. Finney—

Prototype of the Modern Evangelist

WHEN CHARLES Grandison Finney left his law office in 1821 to devote his life to the gospel ministry he inaugurated a new era in American revivalism. Not only did he develop new techniques for promoting conversions and a new style for pulpit oratory but he transformed the whole philosophy and process of evangelism.

It has been said "evangelism entered modernity with him."¹ It was Finney who originated many of the methods used by such famous revivalists as Moody, Chapman, and Mills, who in turn passed them on to be adapted later by men such as Billy Sunday and Billy Graham.

It is the purpose of this study to review Finney's contribution, especially from the standpoint of these "new measures," as they came to be termed.

Finney's "New Measures"

In 1835 Finney published his *Lectures on Revival*, a careful delineation of the means and measures for promoting revivals that had been developed in thirteen years of extensive preaching experience and shrewd observation.

In the first lecture Finney asserted with the finality of a physicist defining a law of leverage that a revival "is a purely philosophical result of the right use of the constitutional means,"² and by philosophical he meant scientific. Though these means seem common now,

ARNOLD KURTZ

Arnold Kurtz, Ph.D., is professor of church organization at Andrews University, Berrien Springs, Michigan.

they were new in Finney's time and aroused considerable resistance, especially among the Presbyterian and Congregational clergy. The Princeton reviewer of the *Lectures*, Professor Albert Dod, declared that through Finney's "experiments with the efficacy of different measures . . . the house of God becomes transformed into a kind of laboratory."³

The most prominent "new measures" were (1) basing sermons on sound oratorical and psychological principles, (2) protracted meetings, (3) securing decisions by the use of the "anxious seat," (4) using music to give the audience a sense of participation and to put them in the proper frame of mind, (5) advertising the time and the place of the meetings, (6) allowing women to pray in public in the presence of men, and (7) praying for people by name in open meetings.

Revival Preaching

To be practical, said Finney, revival preaching had to attract attention. To do this it had to be exciting. It had to suit the tastes of the age, to reach the understanding of common people, and to produce an active response on the part of the auditor.

"We must have exciting powerful preaching, or the devil will have the people except for what the Methodists can save," he said. Few Presbyterian ministers in recent years, he continued, "have gathered so large assemblies or won so many souls" as the Methodists simply because they failed to see that "the character of the age is changed." Instead of conforming to the new age many ministers still "retain the same stiff, dry, prosing style of preaching that answered half a century ago." What was needed was a "plain, pointed, and simple but warm and animated mode of preaching."⁴ Ministers educated at the eastern seminaries were taught to write out their sermons and to make them "literary essays," in which the artificial rhetoric of classical antiquity replaced the natural eloquence that came from burning conviction. "No doubt written sermons have done a great deal of good, but they can never give to the gospel its great power."⁵

"They used to complain," Finney wrote in his *Memoirs* in reference to college-educated ministers, "that I let down the dignity of the pulpit; that I was a disgrace to the ministerial profession; that I talked like a lawyer at the bar; that I talked to the people in a colloquial manner; that I said 'you' instead of preaching

about sin and sinners and saying 'they'; that I said 'hell' and with such emphasis as often to shock the people."⁶

Seminary graduates illustrated their sermons by references to ancient history; Finney illustrated his ideas "by references to the common affairs of men," and "among farmers and mechanics and other classes of men I borrowed my illustrations from their various occupations." He addressed them "in the language of the common people."⁷ Preaching should be "conversational" and should arouse interest by anecdotes "real or supposed." If the learned complain, "He tells stories" or "He is simply a story-telling minister," let them remember that "that is the way Jesus preached. And it is the only way to preach."⁸

Finney objected to manuscript preaching not only because it impeded the natural flow of thought but also the natural flow of emotions and the use of gestures. "Gestures are of more importance than is generally supposed. Mere words will never express the full meaning of the gospel." If a minister only feels what he says, and acts as he feels, "he will be eloquent." A minister must do what the actor does, "so throw himself into the spirit and meaning of the writer as to adopt his sentiments . . . embody them, throw them out upon the audience as a living reality. . . . If by 'theatrical' be meant the strongest possible representation of the sentiments expressed, then the more theatrical a sermon is the better."⁹

When objectors cry out that this is letting down "the dignity of the pulpit," they ought to remember that while they are preaching "sanctimonious starch" the "theatres will be thronged every night," for "the common-sense people will be entertained."¹⁰

Those who objected to revivalists' arousing the emotions forgot, said Finney, that "God has found it necessary to take advantage of the excitability there is in mankind to produce powerful excitements among them before He can lead them to obey."¹¹

Yet Finney was no advocate of emotionalism for its own sake. He emphasized the necessity for the revivalist to keep control over his meetings. He quoted the Biblical injunction, "Let all things be done decently and in order," and deplored the "fanaticism" and "rash zeal" of the great revivals of Edwards and Whitefield.¹²

Finney believed that almost every conversion took place in two stages: that



Charles G. Finney

of being awakened and that of being quickened. During the first stage the revivalist was to address himself to the "animal feelings" or the natural affections, while during the second he addressed the spiritual or religious affections. It was all very well to excite individuals in order to "awaken" them, but a very different approach was necessary to get them from that state to a state of conviction. The ignorant revivalists stopped at arousing the animal emotions, instead of proceeding to appeal to the religious affections.

Protracted Meetings

The only thing more effective in converting sinners than a good sermon based on these sound oratorical and psychological principles was a series of such sermons. Hence he advocated the use of "protracted meetings." "The design" of a protracted meeting, he said, was "to devote a series of days to religious services in order to make a more powerful impression of divine things upon the minds of the people."¹³

Finney's justification of these meetings was typical of his outlook. "Their novelty excites and fixes attention. Their being continued from day to day served to enlighten the mind and has a philosophical tendency to issue in conversions."¹⁴ He knew that protracted meetings could be overdone and realized that they must not interfere with worldly duties or family devotions. The minister must use common sense in scheduling meetings, particularly during such unusually busy periods as the planting and harvest seasons.

Later evangelists used protracted meetings as a matter of course. Moody regularly conducted two or three meetings a day, and sometimes held all-day meetings.¹⁵ Finney's advice to have one minister or evangelist conduct the protracted meetings from beginning to end, coupled with the idea of a continuous series of services for prayer and preaching over a long period of time, was the start of the standard type of revival meeting that became prevalent throughout the United States in the nineteenth century.

The Anxious Seat

Finney described the anxious seat as "the appointment of some particular seat in the place of meeting (usually the front benches or pews) where the anxious may come and be addressed particularly and be made the subject of prayers and sometimes conversed with individually." He

was convinced from experience that the use of anxious seats and anxious meetings was "undoubtedly philosophical and according to the laws of mind." They not only helped to break the "chains of pride" but they forced a definite commitment "to be on the Lord's side" from persons who might otherwise hold back.¹⁶ This, too, was a comparatively new measure that went back no farther than the use of the "mourners' bench" at the Methodist camp meetings. The practice of requiring awakened sinners to come forward publicly at the close of a sermon and express their desire or purpose to be saved became part of all revivals after Finney's day.

The Use of Music

An extremely important aspect of revival meetings (which Finney failed to discuss in his *Lectures*) was his use of music. The frontier camp meeting had strongly emphasized congregational singing, but the Presbyterian and Congregational churches were slow to abandon the old psalms and the stolid hymns of Isaac Watts. Finney did his best to promote good choir singing and introduced more modern music into his meetings.

When Finney came to New York in 1832 he brought with him as his musical assistant a man named Thomas Hastings of Utica. Hastings compiled several songbooks, taught and wrote music, directed Finney's choir, and composed the melody for "Rock of Ages." Hastings set a precedent for future "choristers" and musical "co-evangelists."

Advertising

For some reason Finney did not include in his lectures on revivals some of the techniques he had employed to promote his meetings at the Chatham Street Chapel. For example, he carefully "trained" the members of his church in New York to "go out in the highways and hedges to bring people to hear preaching. When we wished to give notice of any extra meetings, little slips of paper, on which was printed an invitation to attend the services, would be carried from house to house in every direction" by both men and women of the congregation. By this method of advertising "the house could be filled any evening in the week."¹⁷

A minister who wished to work up a revival, he believed, should show the same wisdom as the politician and use "the appropriate means to the end. . . . What do the politicians do? They get up



Charles G. Finney

meetings, circulate handbills and pamphlets, blaze away in the newspapers, send coaches all over town with handbills, . . . all to gain attention to their cause and elect their candidate."¹⁸

These, and other of Finney's new measures, were resisted because they violated the customs of the day. In an age when laymen were expected to do little in the church other than absorb the minister's teachings, and women were not thought to be equal with men in any way, Finney's allowance of public prayer by laymen and particularly by women was shocking to consider. To people unused to aggressive and incessant advertising campaigns, the thought of God's services competing for attention with theaters and patent medicines was too horrible to contemplate. But all of those aspects of revival technique used by Finney became a part of modern evangelism.

Finney is worthy of our attention because he popularized many techniques of the evangelist that were to become standard practice for years to come. If not all of the "new measures" were entirely original with Finney, nevertheless he did modify them and amalgamate them into a completely new approach to evangelism, an approach that later revivalists adapted to the changing times but never basically altered.

Finney represents the transition in religious oratory from the frontier preacher to the city evangelist and was one of the few men in his time who practiced in speech delivery the modern concept of "energized conversation." The correctness of his ideas is attested to by many of his critics, who laid aside their objections after observing him work, as well as by the great numbers of city evangelists who eventually adopted his theories and methods. ■■

¹ Grover C. Loud, *Evangelized America*, p. 228, cited in Rollin W. Quimby, "Charles Grandison Finney: Herald of Modern Revivalism," *Speech Monographs*, November, 1953, p. 293.

² Charles G. Finney, *Lectures on Revival* (W. G. McLoughlin, ed.) (Cambridge, Mass.: The Belknap Press, Harvard University Press, 1960), pp. 17, 13, 12.

³ William G. McLoughlin, Jr., *Modern Revivalism* (New York: The Ronald Press Company, 1959), p. 84.

⁴ *Lectures on Revival*, pp. 272-275.

⁵ *Ibid.*, p. 216.

⁶ Charles G. Finney, *The Memoirs of the Rev. Charles G. Finney* (New York: A. S. Barnes and Company, 1876), p. 83.

⁷ *Ibid.*, p. 81.

⁸ *Lectures on Revival*, p. 209.

⁹ *Ibid.*, p. 220.

¹⁰ *Ibid.*

¹¹ *Ibid.*, pp. 9, 10.

¹² McLoughlin, *op. cit.*, p. 91.

¹³ *Lectures on Revival*, pp. 262-265.

¹⁴ *Ibid.*

¹⁵ Quimby, *op. cit.*, p. 298.

¹⁶ *Lectures on Revival*, pp. 267, 268. (For a discussion of objections to the use of the anxious seat see Introduction to 1960 edition of *Lectures on Revival*.)

¹⁷ McLoughlin, *op. cit.*, p. 98.

¹⁸ *Lectures on Revival*, p. 167.

Free Indeed!

Tetelestai! "It is finished." That dramatic cry from the cross was the most comprehensive ever uttered by human lips. It was a shout of victory. Something tremendous had happened, affecting not only the earth but the entire universe. In one single act the massive tyranny of darkness was overthrown and its leader unmasked.

The age-old conflict between two invisible kingdoms—the kingdom of light and the kingdom of darkness, the kingdom of love and the kingdom of hate, the kingdom of Christ and the kingdom of Satan—culminated at the cross. On Calvary the character of God was revealed, and the great gulf that separated heaven and earth was bridged. In that death grapple in the darkness we were reconciled to God. It was wholly God's work. Humanity had no part in it. Nor did anyone on earth except Jesus know what was really happening. "They know not what they do," Christ stated in His prayer for their forgiveness. "None of the Powers of this world understand it," said the apostle Paul, "(if they had, they would never have crucified the Lord of glory)" (1 Cor. 2:8, Moffatt).*

How could it be that this mighty act, which meant so much to the human race, was misunderstood by the very men God had called to make known His salvation? Although each of the Gospel writers tells the story of Christ's crucifixion and resurrection, Luke alone records the journey of Cleopas and an unnamed companion, two disciples who left Jerusalem to return to their hometown, Emmaus. As do all of Luke's stories, it unfolds in beautiful simplicity. Emmaus was about eight miles from Jerusalem and on the day of the resurrection the whole city

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was astir. All knew that Jesus, the Great Teacher, the One whom many hoped might be the Messiah, had been crucified on Friday, and many knew that His body was laid away in Joseph's new sepulcher. But that body was no longer in the tomb. Strange and contradictory reports filled the city. Some were saying, "He is alive"; others insisted His body had been stolen.

Leaving the confusion of the city, Cleopas and his companion started on what was to be the most memorable journey of their lives.

Cleopas is mentioned in John 19:25 as the husband of a woman named Mary. Tradition has it that these two, Cleopas and his unnamed companion in grief, were husband and wife. This may be true, for the record simply says that when they reached their home "they constrained him, saying, Abide with us: for it is toward evening."

In their excitement they tell the story: "A Stranger, a wonderful Person, joined us along the road; and noticing our sadness, He drew us out in conversation. Then He began to unfold to us God's way and God's Word. On the way down our grief-stricken moan was, 'We trusted that it had been he which should have redeemed Israel.' With our restricted vision we failed to understand. But as He talked to us, we realized that something wonderful had happened, much more wonderful than the mere driving of the Romans out of Palestine. We are different since He talked to us."

The Scriptures Testify of Christ

Our Lord was much more concerned about driving the evil from the hearts of His people than driving the foreigners out of Palestine. Then, "beginning at Moses and all the prophets, he expounded unto them in all the scriptures the things concerning himself." Actually, this was the earliest truly Christian sermon. It was preached on the day of the resurrection, not in the Temple, but on a country road a few miles from Jerusalem. Two Jewish peasants comprised the audience. But the theme was the most stupendous in the Word of God—"Christ in all the Scriptures."

Recalling the effect of that sermon, Cleopas and his companion later said, "Did not our heart burn within us, while he talked with us by the way, and while he opened to us the scriptures?" (Luke 24:32). No home can ever be the same when once the Lord has walked and talked with the members of the household.

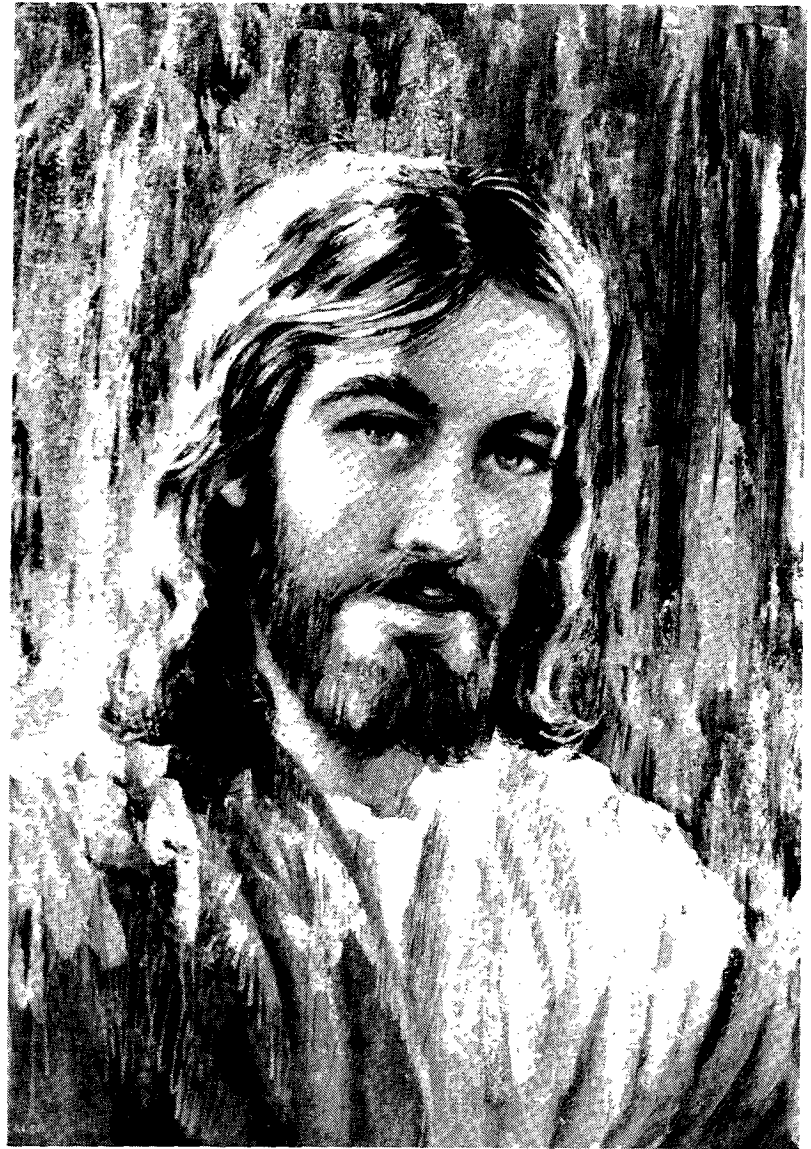
The New Testament message that the first evangelists proclaimed with such power rested not only on the mighty facts of our Lord's death and resurrection but also that those great events were a fulfillment of God's Word. This gave authority to their witness. When the Bible is studied in the light of the empty tomb, history and poetry, symbol and sacrifice, narrative and biography, glow with new meaning.

In the earliest decades of Christianity neither the four Gospels nor the other portions of the New Testament were available. And the New Testament began not with the writings of the Gospels, but with the letters Paul and others wrote to individuals or to groups. Realizing the value of the truths set forth in these Epistles, leaders of the early church had them copied and sent to other localities, especially those where similar conditions existed.

In his letter to Corinth Paul wrote, "I delivered unto you first of all that which I also received, how that Christ died for our sins." We sing today of the glory of the cross, but in the first few decades of the Christian Era, no glory was associated with a cross. It was a symbol of shame, defeat, and humiliation. It was a Roman means of execution, reserved for those whom they were particularly eager to dishonor. The association of the cross with everything shameful made it difficult for both the Greeks and the Hebrews to grasp the full meaning of the apostolic message. To the Hebrews the cross was "a stumbling block," and to the Greeks, "a scandal." Only when the Spirit of God opens our eyes to the real meaning of the cross does it become something in which we can glory.

To his Corinthian friends Paul wrote: "I must remind you of the gospel that I preached to you; the gospel which you received, on which you have taken your stand. . . . First and foremost, I handed on to you the facts which had been imparted to me: that Christ died for our sins, in accordance with the scriptures; that he was buried; that he was raised to life on the third day, according to the scriptures" (1 Cor. 15:1-4, N.E.B.).†

His mention of the Scriptures is interesting. Jesus Himself set that pattern of study. He turned first to the books of Moses, then to the Psalms, and then to all the prophets, as He expounded the truths concerning Himself. He wanted His disciples to know that He is the center of all truth, the One of whom all the



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prophets have testified. As we study their messages in the light streaming from the empty tomb, those Old Testament scriptures flash with new radiance and beauty.

In Isaiah's prophecy we read of One who was "despised and rejected of men"; One who was wounded, but not for His own sins; One who suffered, but not for His own iniquities. It was for the transgression of His people that He was stricken. "The chastisement of our peace was upon him," for "*the Lord hath laid on him the iniquity of us all.*" Even more astounding are these words: "It pleased the Lord to bruise him; he hath put him to grief" (Isa. 53:3-6, 10).

The Christian church from its very beginning has applied this prophecy to Christ. His death was no accident; it was planned and was the fulfillment of an eternal purpose. A covenant of peace

from the days of eternity had been made between the Father and the Son, members of the Godhead. And that covenant concerned the salvation of the human race, if and when such salvation was needed.

When Peter preached to the multitude in Jerusalem on the day of Pentecost, he declared emphatically that the One whom the Jews and Romans had slain was actually "delivered by the determinate counsel and foreknowledge of God" (Acts 2:23). Paul says He was "delivered for our offences, and was raised again for our justification" (Rom. 4:25). That is, He rose from the dead that He might become goodness in us, thus making justification possible. Jesus' resurrection gave meaning to all that had happened, and made the cross a triumph, not a defeat. And for all who accept of His grace, life takes on new meaning.

Goth Chief Captured by Girl Slave

Sixteen centuries ago, when Emperor Constantine came to the throne of the Roman Empire, one of the first things he did was to answer a request from a tribe of Goths on the north shore of the Black Sea. The chief told how a Christian girl whom they captured had so witnessed for her Lord that the whole tribe accepted the gospel. Now they wanted a Christian teacher. Could there be a greater symbol of human helplessness than to be a slave of the plundering Goths? But even though they had captured her, she really captured them for Christ. That helpless girl became a mighty power through the grace of God. The same power that raised Christ from the dead was at work in and through that little slave. How many times we have seen that power change lives!

There is the story of Manasseh, the young prince of Judah. He was only 12 years old when his father, the king, died and he became king. While King Hezekiah had been a wonderful example to the nation, his son soon became known as the wickedest king that ever ruled.

He was a murderer—he shed much innocent blood. He turned from the God of his fathers and went into gross idolatry and spirit worship, worse even than the licentious Amorites. He resisted every attempt on the part of good men to halt the spread of evil.

But his reign came to a sudden end when "the captains of the host of the king of Assyria . . . took Manasseh among the thorns, and bound him with fetters, and carried him to Babylon" (2 Chron. 33:11).

God can turn the most impossible situation into victory.

Although he was a king, he could not escape the consequences of his sin. In a Babylonian dungeon with his feet manacled and his hands in chains he had time to think.

The story does not end there. "When he was in affliction, he besought the Lord his God, and humbled himself greatly before the God of his fathers, and prayed unto him." It had been a long time since Manasseh had done any praying. But now in deep remorse he sought the God he had spurned, and the Lord "heard his supplication, and brought him again to Jerusalem into his kingdom" (verses 12, 13).

Of all men Manasseh deserved death. But when he turned to the Lord in earnest, humble confession, the Lord heard him, and the king of Babylon permitted him to return and occupy his throne in Jerusalem. To his credit, when Manasseh reached home, he set to work to undo the results of his folly. "He took away the strange gods," "he repaired the altar of the Lord," and strengthened the defenses of his nation.

Looking at this king from a human standpoint, all could have said, "This wicked, defiant man is hopeless. He has gone too far." But God can turn the most impossible situation into victory. By His grace He can also reach out and save even those who have never known Him and those who seem the most hopeless.

New Yorker Wanders Into Madison Square Garden

I was listening to Dr. Billy Graham preaching at Madison Square Garden in New York a few years ago. He made the story of Manasseh the setting for his message. In dramatic language he related how this young king ended up a prisoner in a dark Babylonian dungeon.

In the top balcony sat a man who had never before attended a meeting like this. He had happened to be walking past Madison Square Garden when he saw the crowds and he followed them inside, thinking it was another prize fight. When he discovered that the admission was free, he was all the more pleased. Unable to find a seat on the main floor, he took the elevator to the top balcony, where an usher showed him to the only seat available. It was right on the front row.


The choir was singing, and after Beverly Shea's magnificent solo the evangelist rose to give his message. "I am going to speak tonight about the wickedest man that ever lived," Dr. Graham

began. In seconds everyone was gripped, except the man in the front row of the top balcony. He was still not sure what was going on.

After a few minutes he left. When the usher asked if there was anything he could do for him, he said, "No, just let me out of this place. This must be something like church. I've never been to church in all my life. I don't belong here." He took the elevator to the Eighth Avenue exit. When he had walked three blocks the traffic lights changed, and he had to wait while the cars swept by. Looking up, he saw those familiar words on the New York traffic signal, "Don't Walk." He had read them many times before, but now the Spirit of God was impressing him.

In his soul he seemed to hear, "Don't walk, don't walk, don't walk." And believe it or not that man turned and went back to Madison Square Garden. He took the elevator to the top floor again and sat in the seat he had left. During the next twenty-five minutes he drank in the message. Dr. Graham emphasized how God in His love heard the prayers of wicked Manasseh who in defiance had led the whole nation astray. God gave him another chance. "If God could do that for a man as wicked as Manasseh," said the evangelist, "He can do it for you, whoever you are, whatever your background, if you will only give yourself to Him now." Then in his accustomed way he invited those who wanted deliverance to come forward.

The man in the balcony responded. He was one of the first to go forward and receive the Lord Jesus Christ as his Saviour. Never in his life had he even prayed, but now he was standing there among the seekers. Later in the inquiry room he and hundreds of others were given simple instructions on how to live a Christian life. When he came to that meeting, he was a poor lost soul; when he left, he was a child of God.

How many times we have seen the chains of sin and vice broken by the power of the living God. God forgave Manasseh, and he was again placed on the throne of glory. "To him that overcometh will I grant to sit with me in my throne" (Rev. 3:21). If the Son has made us free we are free indeed. 

science and religion

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The Evidence for Creation Part I

IT HAS been more than one hundred years since Darwin published his theory of evolution, and many bookshelves could be filled with books discussing evolutionary theory as it has subsequently developed and giving purported evidence to support it. But when the scientists who write these books analyze the evidence that might tell us something about the history of life on this earth, do they ask the question "Can this data be best explained by Creation, or by evolution?" For 99 per cent or more, the answer is probably No. Most people are educated from their childhood to believe that evolution is true, and thus they consider the principal tenets of the evolution theory to be "known facts." When they are analyzing scientific data they ask the question "How does this data best fit into the evolution theory?" rather than the broader question "Is this data best explained by evolution, or by Creation?" When we ask that broader question, we find that the data that are often used to support evolution can be equally well explained by Creation.

Microevolution and Macroevolution

In order to simplify our discussion, we can divide evolutionary theory into two parts: microevolution and macroevolution. Microevolution is genetic variation within groups of animals, as within the dog family, or within the various groups of rodents. This type of variation could have occurred since Creation, and thus is not in conflict with the Bible.

The rest of this article will discuss macroevolution—the theory that all of the different groups of animals and plants have evolved from common ancestors. According to this theory, life began in the form of simple one-celled organisms. Some of these developed the characteristics of plants and some evolved into animals, and the plants and the animals gradually evolved into

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more and more complex levels of organization.

The most important kinds of evidence used to support the theory of macroevolution are similarities in the embryos of different kinds of animals, homologous body parts or physiological functions, vestigial organs, and fossils. All of these types of evidence are used in developing phylogenetic trees (diagrams illustrating the presumed evolutionary lines of descent), but we will demonstrate how this same evidence also supports the Biblical story of Creation.

A very young mammal embryo develops a simple kidney, called a pronephros (Fig. 1). It is nothing more than a few simple ciliated ducts along the end of a long tubule. A little later, along the same tubule, the embryo develops a series of

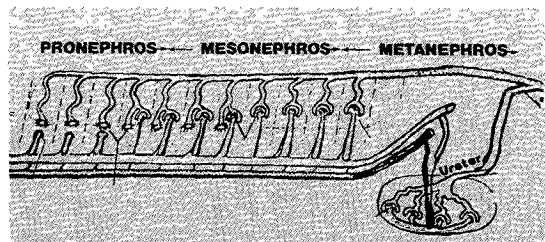


Fig. 1. Three stages in the development of the mammalian kidney.

more complex tubular corpuscles, which come into close contact with knots of blood capillaries. This new kidney is called a mesonephros. The pronephros and the mesonephros function as the organs that clear metabolic waste products out of the blood while the adult kidney, or metanephros, is developing. When the metanephros is fully developed it begins to operate, and the pronephros and mesonephros degenerate and disappear.

Perhaps you are wondering why an embryo goes through the effort of producing a pronephric and mesonephric kidney, and then destroys them. The kidney performs a vital function in clearing metabolic waste products from the blood, and even very young embryos produce waste products that must be disposed of. The simple pronephric kidney can develop quickly, and can keep the blood purified while the larger mesonephric kidney is growing. They continue their operation during the long period of time that it takes for the complex metanephric kidney to grow and begin to function. When that finally happens the simpler kidneys are no longer needed and are broken down.

There are those, however, who believe that this sequence of development from

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pronephros to mesonephros to metanephros represents a remnant of our evolutionary past. It has sometimes been said that a mammalian embryo passes through a simple stage with a kidney (pronephros) derived from some primitive ancestor. Then the embryo advances to a higher stage with kidney (mesonephros) similar to a hagfishlike ancestor, and finally reaches the fully evolved mammalian level with its metanephric kidney. It is now recognized, however, that the evidence does not necessarily support that interpretation.

Dr. A. S. Romer, from Harvard, accepts the theory of evolution, but he points out that "we see in this story the development in the amniote embryo of three successive kidney structures—pronephros, mesonephros, metanephros. It is often stated or implied that these three are distinct kidneys which have succeeded one another phylogenetically as they do embryologically. Upon consideration, however, it will be seen that there is no strong reason to believe this. The differences are readily explainable on functional grounds; the three appear to be regionally specialized parts of the original holonephros, which serve different functions. . . . Both mesonephros and metanephros are portions of the opisthonephros; the former is developed rapidly to function in the embryo during the period of the necessarily slower formation of the complex metanephros."—A. S. Romer, *The Vertebrate Body* (1965), pp. 283, 284.

The theory that embryos pass through stages with kidneys like their evolutionary ancestors is part of a broader theory developed by Ernst Haeckel, called the biogenetic law. According to this theory, an animal's embryological development (ontogeny) recapitulates, or repeats, its evolutionary history (phylogeny). Haeckel's original illustration (Fig. 2) is still

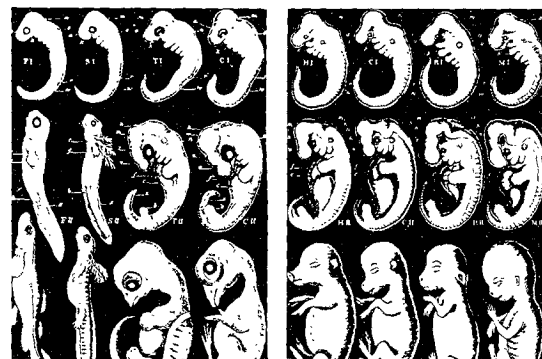


Fig. 2. An illustration of Haeckel's theory, showing the similarities in the embryos of several types of vertebrates.

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occasionally printed in popular books or elementary textbooks, even though scientists who study embryology no longer believe Haeckel's "law." It is now understood that in some of the embryonic stages, different kinds of animals do not look as similar as Haeckel drew them. Another point that Haeckel could not have taken into consideration was that even though a young embryo of a mammal, for instance, may look superficially similar to a young fish embryo, the mammal embryo already has the genetic instructions for making the chemical organizers in its cells that will cause it to produce mammal tissues and organs, and not "ancestral" fish structures.

The similarities between the embryos of different kinds of animals can now be explained the same way by creationists and evolutionists. Adult mammals, birds, reptiles, and amphibians look quite different, but they all have a more-or-less oblong body, a head at one end, and most have two limbs at each end of the body. They all begin life as a single cell and follow the same developmental pathway in transforming from one cell to the body-with-the-beginnings-of-a-head-and-four-legs stage. As the head begins to develop, it doesn't look much like a fully developed head. The limbs at first are only limb buds. The limb buds gradually grow longer, and the head continues to fill out to its mature shape, but the basic vertebrate form is evident before the distinguishing characteristics of bird, mammal, or reptile are very obvious, just as the finishing touches on a building do not appear until after the foundation and framework are built. Thus, very young embryos may be expected to look quite similar, and the different characteristics of each group of animals may be expected to appear gradually as the embryo grows.

Vestigial Organs

If animals are evolving we should find vestiges of organs that were once useful and have lost their function, but haven't quite disappeared yet. A creationist, on the other hand, would not expect to find useless organs, unless degeneration had occurred since Creation. Seventy years ago there was a long list of organs that many biologists considered to be useless, vestigial structures. It is now known that many of these organs perform useful functions, and some (e.g., the adrenals and the pituitary) are essential for life.

There are a few organs, though, that are still referred to in elementary text-

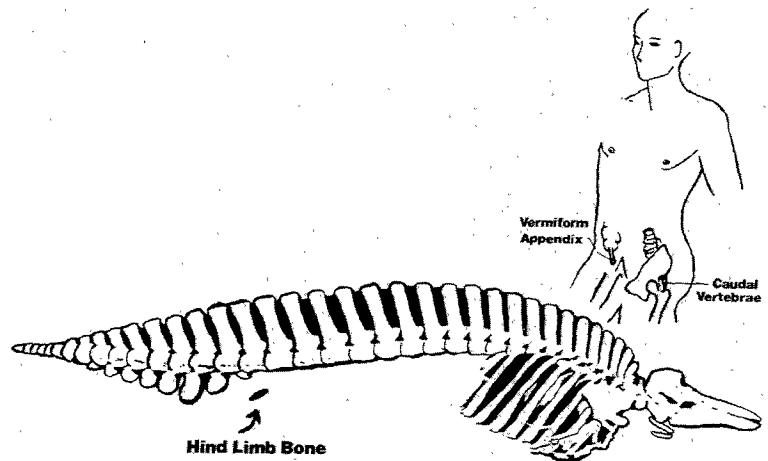


Fig. 3. Several organs in man and whale that have been interpreted as vestigial organs.

books as vestigial (Fig. 3), but these also perform necessary functions. One of these is the tail bone, or coccyx, in humans. This short, stocky bone is composed of several fused vertebrae and is very important as a point of attachment for the muscles that enable us to stand upright. Another is the appendix, which is not vestigial but is part of the lymphatic system. It helps to remove impurities from the body fluids. The only reason for surgically removing it is because it sometimes becomes infected.

Whales do not have hind limbs, but they have small bones, homologous to hind limb bones, completely embedded in flesh. These bones provide a point of attachment for muscles of the reproductive tract, and thus are just another modification of the limb bones to serve a unique function, and there is no convincing reason for believing that they are evolutionary vestiges.

Natural Laws and Miracles

One of the reasons why modern science does not recognize the possibility of Divine creation is that it is generally believed that the universe is governed by natural law, and that God could not perform miracles that are contrary to natural law. It is often thought that if He did, the universe (or at least part of it) would appear to be chaotic, instead of the orderly universe that, from our observation, appears to be governed by fixed laws.

However, as a personal being, God can interfere in earth history without necessarily breaking any natural laws. If an apple falls out of a tree the law of gravity dictates that it should fall to the ground. If I catch the apple and thus pre-

vent it from falling to the ground I have not broken the law of gravity, I have merely counteracted it with another law. Certainly God could do the same thing. For example, He could cause a worldwide flood by using His power to alter the normal course of nature.

Another factor that we must recognize is that the laws through which God runs the universe include much more than science normally deals with. We can place these laws in several categories, as follows:

Ten Commandments	Laws that science has discovered	Laws that man has not discovered
"laws of nature"		supernatural, miracles

An important difference between "natural" and "supernatural" is that we don't understand the supernatural. If we could resurrect a man who had lived 1,000 years ago and show him an electric light or a radio, he would undoubtedly be certain that what he was witnessing was a supernatural miracle, because he would not understand the processes and source of power involved.

Creation seems supernatural and unscientific to modern man for the same reason: we do not understand the laws or the source of power involved. The things we call natural and supernatural

make up a consistent whole, the total structure within which God runs the universe. We have no way of knowing whether God ever, on rare occasions, performs a miracle that is outside the realm of these laws, but certainly God understands all natural laws, because they are His laws. He made them, and He works through them to accomplish His purposes. Nature is the servant of the Creator, therefore I consider it fair to state that "God does not annul His laws or work contrary to them, but He is continually using them as His instruments" (*Patriarchs and Prophets*, p. 114).

The more we learn about these laws that govern the universe the more we can comprehend and appreciate the works of God. The coming of the Atomic Age has brought insecurity and fear to the earth, but for the Christian it has made it easier to understand how God can create matter where there was none before. An atomic explosion is produced by the conversion of mass into energy. Knowing that mass and energy are interchangeable makes it easier to grasp the idea that God can create matter, even though we don't know just how He does it. Perhaps He just reverses the process that occurs in nuclear particle annihilation reactions, and changes some of His great energy into matter.

"O Lord, how manifold are thy works! in wisdom hast thou made them all: the earth is full of thy riches" (Psalm 104: 24).

(To be continued)

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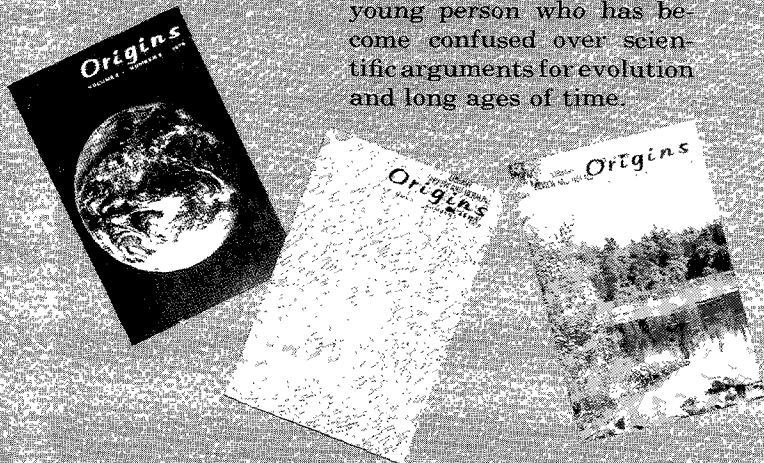
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“My Lord and My God”

Part 2

BRUCE M. METZGER, professor of New Testament language at Princeton Theological Seminary, has studied extensively the Watchtower's position on the deity of Christ and published his findings in a twenty-page article entitled "The Jehovah's Witnesses and Jesus Christ." Dr. Metzger compares the various translations of the Watchtower to the most authoritative Greek texts available and presents a scholarly evaluation of their methods of interpretation. Metzger indicates that the Watchtower translations obscure the clear meaning of several texts. In connection with 2 Peter 1:1 and Titus 2:13 he refers to Granville Sharp's accepted rule of grammar, that when the Greek word *kai* ("and") "connects two nouns of the same case, if the article precedes the first noun and is not repeated before the second noun, the latter always refers to the same person that is expressed or described by the first noun."

Metzger takes the unequivocal position that 2 Peter 1:1 should be translated, "To those who have obtained a faith of equal standing with our God and Saviour Jesus Christ," and that Titus 2:13 is most accurately rendered, "Awaiting our blessed hope, the appearing of the glory of our great God and Saviour Jesus Christ."¹ All reliable translations that I'm aware of concur with this conclusion.

It is the name of Jesus that is so important to know, for "God exalted him to a superior position and kindly gave him the name that is above every other name, so that in the name of Jesus every knee should bend of those in heaven and those on earth and those under the ground, and every tongue should openly acknowledge that Jesus Christ is Lord to the glory of God the Father" (Phil. 2:9, 10).² In other words, everyone should render worship to the Son of God who is the very manifestation of God. Paul was cognizant of the identity of Jesus, because under the influence of the Holy Spirit he applies Isaiah's words about Jehovah to Christ (Isa. 45:21, 23). He also makes a direct reference to God's prophetic announcement when he writes: "For it is written:

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'As I live,' says Jehovah, 'to me every knee will bend down, and every tongue will make open acknowledgement to God' " (Rom. 14:11).

Jesus Called Jehovah

In the Watchtower Greek Interlinear Translation, the exact Greek word is used for this "Lord" who is to be worshiped. If the Watchtower translators had been consistent and properly rendered the word *Jehovah*, they would have absolutely verified that "Jesus Christ is *Jehovah* to God the Father." The acknowledgment of this divine truth is vitally important, because "everyone who calls on the name of Jehovah will be saved" (chap. 10:13). What, then, is the name of Jehovah? Peter settled the matter for those who doubted the deity of Jesus the Messiah and the saving power of His name. He said, "Furthermore, there is no salvation in anyone else, for there is not another name under heaven that has been given among men by which we must get saved" (Acts 4:12). The apostle Paul "decided not to know anything . . . except Jesus Christ, and him impaled" (1 Cor. 2:2). Paul, like his Christian contemporary Peter, was convinced that there was salvation only in Christ.

Jesus was not just a perfect man who had once been an angel and after dying became an angel again. He was in truth the One who said, "Is it not I, Jehovah, besides whom there is no other God; a righteous God and a Savior, there being none excepting me? Turn to me and be saved, all of you [at the] ends of the earth; for I am God, and there is no one else" (Isa. 45:21, 22). To hear it declared that Jehovah God is Jesus Christ is rather offensive to Witnesses, even though it is proved beyond question from a careful study of their own Bible.

Romans 10:9 drives home the point, "For if you publicly declare that 'word in your own mouth,' that Jesus is Lord, and exercise faith in your heart that God raised him from the dead, you will be saved." Paul is not talking about an intellectual assent, but rather total commitment in faith based on God's revelation of Himself in nature and His inspired Word. This kind of acceptance can only be brought about when one is in tune with the Spirit of God; "Therefore I would have you know that nobody when speaking by God's spirit says: 'Jesus is accursed!' and nobody can say: 'Jesus is Lord!' except by holy spirit" (1 Cor. 12:3).

The texts above and numerous others that refer to "Lord" (*kurios*) should be

rendered consistently, as is true in all Bible translations except the *New World Translation*. The Watchtower should at least be consistent when using "Jehovah" and "Lord" so that the true meaning of the scriptures regarding the deity of Christ would be made clear. To receive the gift of everlasting life we must believe that "God gave us everlasting life, and this life is in his Son. He that has the Son has this life" (1 John 5:11, 12). Notice that Jesus is "everlasting life," and even though the N.W.T. attempts to obscure it, "This is the true God and life everlasting" (verse 20). There is only one Saviour and one name in which to appeal to God, Jesus Christ.

Jesus Is to Be Worshiped

Probably the greatest single threat to the Arian theology of the Watchtower is the adoration of Thomas when he recognized his "Lord" and his "God." Witnesses will sometimes try to counter this text (John 20:28) by saying that Thomas was overcome at seeing Jesus again and somewhat confused. Also it has been said (the writer himself used this argument at one time) that Thomas was speaking to Christ when he said "Lord" and to Jehovah when he said "God." Reading this passage in context we see Jesus trying to restore faith in a doubting man by inviting him to touch His wounded flesh.

Notice carefully the response of recognition on the part of Thomas: "In answer Thomas said to him: 'My Lord and my God.'" If there should be even the slightest bit of doubt that Thomas was speaking "to him," the reply that Jesus gave should remove all question. "Jesus said to him: 'Because you have seen me have you believed? Happy are those who do not see and yet believe'" (verse 29). The Greek expression *kurios*, as used in Romans, Philippians, and all through the New Testament, is exactly the same word used in John 20:28. Thomas was putting faith in the resurrected Jesus as Jehovah his God, and he worshiped Him.

As the God-man, Christ was worshiped no doubt by thousands while He was on earth. The Bible specifically tells us of several occasions when people prostrated themselves in worship before Him. Among such, the Scriptures mention the following people: the philosophers (Wise Men) from the East, Matthew 2:11; the leper, Matthew 8:2; the ruler, Matthew 9:18; and the Canaanite woman, Matthew 15:33. Also He received worship from His disciples (Matt. 14:33; 28:9;

***Christ was
worshiped as
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on earth.***

John 9:38). The Greek word *proskuneō* means "worship and adoration" and is used to describe the worship of God specifically in Matthew 4:10, John 4:21-24, and 1 Corinthians 14:25. Jehovah's Witnesses object to the rendering of the Greek word *proskuneō* as "worship" when it is used in connection with Christ.

According to the comprehensive study undertaken by the Canadian author F. W. Thomas, Greek scholars have agreed to the following: "The term *proskuneō* is found sixty-one times in the New Testament, . . . there are twenty-two cases in which *proskuneō* is used of worship to God the Father; five instances of divine worship used intransitively; fifteen cases where it is used of worship to Christ; seventeen instances where idolatrous worship is condemned; and only two disputed cases where it might be in reference to man." ³

When Jesus in glorified form appeared before John, the apostle turned to see Him and then "fell as dead at his feet" (Rev. 1:17). This was an act of worship. If standing for the national anthem is construed as a religious act of devotion by the Watchtower, then certainly falling at the feet of the Saviour must be even more so a *definite act of worship*. Even the *New World Translation* inadvertently admits that Christ received worship. In Revelation 4:9-11 we are told that the "living creatures offer glory and honor" and that the "twenty-four older persons fall down" and "worship the one that lives forever and ever . . . saying, 'You are worthy, Jehovah, even our God, to receive the glory and the honor and the power, because you created all things.'" A similar scene takes place in Revelation 5:11-14, where the Lamb is given "power and riches and wisdom and strength and honor and glory and blessing," and every creature alive exalts the Lamb and the One on the throne in worship. Remember, Jesus is named as the creator of "all things" (Col. 1:15-17).

The apostle Paul opens his letter to the Christians in Corinth by addressing them, "to you who have been sanctified in union with Christ Jesus, called to be holy ones, together with all who everywhere are calling upon the name of our Lord, Jesus Christ, their Lord and ours" (1 Cor. 1:2). The expression "to call upon the name of the Lord" carries the concrete meaning of worship. Accordingly, Thayer's *Greek-English Lexicon* gives the definition, "to invoke, adore, worship the Lord, i.e., Christ." ⁴

Even to pray to God is an act of worship, because you are invoking His presence. Stephen worshiped Christ when he said, "Lord Jesus, receive my spirit." Then, bending his knees, he cried out with a strong voice: 'Jehovah, do not charge this sin against them'" (Acts 7:59, 60). How many Gods was he worshipping? He was worshipping just one God. If the teaching of Jehovah's Witnesses were correct, then Stephen would have been a polytheist, denying God's clear command, "You must not have any other gods against my face" (Ex. 20:3). The Jews were strict monotheists, and worshipping more than one God was repugnant to them.

Jehovah's Witnesses often tell people that their *New World Translation* is superior to other translations because it uses modern English rather than archaic language. The following passage is taken from Hebrews 1:6, according to the modern English *Living Bible*: "And still another time—when his firstborn Son came to earth—God said, 'Let all the angels of God worship him.'" ⁵ God the Father commands the angels to worship Jesus. This text has been checked in twenty-six different translations and in essence they all say the same thing.⁶ Why is it that the *New World Translation* uses the word "obeisance" in place of worship? The answer seems obvious. In fact, the footnote for the word "obeisance" in the Watchtower translation says, "Or, 'worship him.'" ⁷

When Jesus faced His temptation in the wilderness, Satan urged Him to fall down and "do an act of worship" and the Son of God rebuked him by quoting from Deuteronomy 6:13, "It is written, 'It is Jehovah your God you must worship, and it is to him alone you must render sacred service'" (Luke 4:8). The words of Jesus are indisputable evidence that only God is to be worshiped. When the Father commands the angels to worship the Son He is commanding them to worship God. Under these circumstances when the word *obeisance* is used under command by the Father toward the Son there can be no other meaning but worship.

The evidence to establish the full and complete deity of Jesus is abundant. Still there are some who confuse His deity with His humanity. Just as He was fully God so was He also fully man. Whenever the Scriptures speak of the superiority of the Father or the subjection of the Son there is no chance for contradiction if we understand the true significance of Philippians 2:1-11.

It is presumption for anyone to deny the revelation of God's nature because he cannot fully comprehend it.

Paul in that passage speaks to a group of Macedonian Christians, encouraging them to follow the example of Christ's humility. Although they were all equal as brothers, they were to become servants of one another and attend to the interests of the brotherhood. "Have this mind among yourselves, which you have in Christ Jesus, who, though he was in the form of God, did not count equality with God a thing to be grasped, but emptied himself, taking the form of a servant, being born in the likeness of men" (Phil. 2:5-7, R.S.V.). Equality, or oneness with God the Father, was something the Son willingly laid aside in order to become man.

Thayer's *Greek-English Lexicon* makes this passage very clear: "Who, although (formerly when he was *logos asakos*) he bore the form (in which he appeared to the inhabitants of heaven) of God . . . yet he did not think that this equality with God was to be eagerly clung to or retained."⁸ This is why Christ's humanity could cry out to the Father in anguish while He hung on the cross (Matt. 27:46). This is why He prayed to His Father (Matt. 6:7-14) and why the apostle Paul could refer to God as being the head of Christ (1 Cor. 11:3). This self-imposed restraint of His full Godship while existing as a man is one of the most profound examples of God's love.

There are many things in the Bible that we cannot completely understand! Can you explain the virgin birth? How did Jesus raise people from the dead? How is it possible that God has always existed? These are just a few of the many questions that relate to the infinite power and majesty of the Creator. It is presumption for anyone to deny the revelation of God's nature because they cannot fully comprehend it.

Those who examine the claims of Christ and accept the Bible as the inspired word of God, must do so in faith, saying as Thomas did, "My Lord and my God" (John 20:28, K.J.V.).

¹ Anthony Hoekema, *Jehovah's Witnesses* (Grand Rapids: Eerdmans Publishing Company, 1972), p. 132.

² Unless otherwise credited, the texts in this article are from the *New World Translation*. Copyright 1961, by the Watchtower Bible and Tract Society.

³ F. W. Thomas, *Masters of Deception* (Grand Rapids: Baker Book House, 1974), p. 31.

⁴ Joseph Henry Thayer, *Greek-English Lexicon of the New Testament* (Grand Rapids: Zondervan, 1956), p. 239.

⁵ From *The Living Bible, Paraphrased* (Wheaton: Tyndale House Publishers, 1971). Used by permission.

⁶ Curtis Vaughan (ed.), *The New Testament from 26 Translations* (Grand Rapids: Zondervan, 1967).

⁷ *World Translation of Holy Scripture*, large print ed. (1971), p. 1244.

⁸ Thayer, *op. cit.*, p. 418.

Editor's Note: A preliminary report of the Ibagué, Colombia, evangelistic campaign appeared in the July, 1976, issue. Soon after submitting copy for that report we received the following article, which supplies additional information on this impressive campaign. In an even later letter Pastor Braña informs us that the evangelistic team is carrying on an intense visitation program, and 786 have been baptized to date.

PREPARATIONS for the evangelistic crusade began four months before the big tent was pitched and the meetings opened. After the churches were prepared spiritually, the members who were willing to work were organized into bands by zones and given materials to hand out. This first phase of the evangelistic plan was called Lay Evangelism in Action. Acting as missionary mailmen, the members handed out lessons from The Bible Speaks course both to backslidden Adventists and to newly interested persons. Many held Bible studies in homes, and some even led out in lay efforts and baptismal classes. Others visited homes with opinion surveys on the topics to be presented during the crusade. This phase of the preparation program climaxed with a mass graduation of 1,150 persons in two sessions. Two thousand three hundred people witnessed the two services, which were held on February 15.

On February 16 the Five-Day Plan to Stop Smoking drew 3,500 people. Because of the numbers wishing to take the course, two sessions were necessary every night, and yet it was physically impossible to accommodate everyone. Dr. Daniel González, a Venezuelan surgeon with much experience in group therapy, assisted us with the Five-Day Plan. At the close 2,450 persons had joined the club of ex-smokers.

The evening after the close of the Five-Day Plan the introductory lectures began with 1,800 people present for the two sessions. The attendance continued to increase until there was an average of 3,000 people every night. While the first meeting was in progress long lines of people would be forming outside for the second session. The crowds were so great it was necessary for the police to be called in to keep order. Even after the meetings had continued for more than two months there was still an average attendance of 1,900 people, and even more on weekends, especially when there was a baptismal ceremony.

It was impossible to respond to all the requests for special lectures and talks, but we did make presentations to several civic, business, and school groups.

World Report

Update on Ibagué, Colombia, Campaign

JOSE OSORIO
BRAÑA

José Osorio Braña is evangelist and ministerial secretary of the Colombia-Venezuela Union, Inter-American Division of Seventh-day Adventists.

On one occasion the entire sixth brigade of the national army with its officers came to the tent to listen to a special program. At the request of the city's chief of police two meetings were held for the benefit of the police force.

The introductory lectures were problem-centered, designed to meet the needs of the audience. We presented Christ as the answer to personal and national problems, and then we developed doctrinal topics. Our emphasis was on the importance of having a personal relationship with Christ through Bible study and prayer. Bible lessons are taken by a team member to the homes of those who indicate an interest. Thus the public presentation is combined with and reinforced by personal visitation.

As the crusade progressed, baptisms were held every Saturday evening before the two sessions, with an average of ninety persons being baptized. A new church building with a capacity of 700 has already been constructed to care for the new people joining the church, and we expect to organize two other new churches in other parts of the city. All this at a cost of only US\$10,000.

The evangelistic team was made up of five pastors, two Bible workers, and sixteen theology majors from the college, who worked harmoniously and efficiently. The sheer size of the crusade made it imperative that everything be well organized. Pastors Arturo González and Florentino Quintero served as associate evangelists. Seven lay preachers left their jobs for a month in order to carry on simultaneous campaigns in nearby suburbs. ■■



The 786 new members added to the Ibagué church in Colombia as a result of the recent campaign raise their hands in the victory sign.

biblical archeology

Sponsored by Lawrence T. Geraty,
assistant professor of Old Testament,
Andrews University.

Found in Jerusalem: Remains of the Babylonian Siege

ON THE last day of his 1975 season Professor Nachman Avigad, of Hebrew University, digging in the Jewish Quarter of the Old City of Jerusalem, discovered four arrowheads buried in ashes at the base of a massive stone defense tower. The tower was built by the Israelites more than 2,600 years ago—before the Babylonian destruction of the city in 586 B.C. It had been constructed to protect Jerusalem's vulnerable northern perimeter. The four arrowheads had fallen short of their mark, apparently hitting the outside wall of the tower. They came to rest in the ashes of the burning city—probably when soldiers of the Babylonian leader Nebuchadnezzar "came and burnt down the House of the Lord and the Royal palace and all the houses in Jerusalem . . . and the walls around Jerusalem were torn down" (2 Kings 25:9, 10).

The four arrowheads, one iron and three bronze, are thought to be the first remains ever recovered of the two-year Babylonian siege, which finally broke the defenses of the starving city. (In the 1960's British archaeologist Kathleen Kenyon found several Israelite homes on the Ophel which had been burned during the Babylonian destruction of the city.)

Three weeks after Professor Avigad's remarkable discovery, I stood with the 70-year-old archaeologist beside one of the deep rectangular excavation pits on the edge of the Jewish Quarter. Since 1969, Professor Avigad has been digging in the Jewish Quarter for nine

SUZANNE
SINGER

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Biblical Archae-
ology Review.*

months of every year (an impressively long archaeological season). The once-densely populated Jewish Quarter had been almost totally destroyed by the Jordanians between 1948 and 1967. Ironically enough, this destruction provided archaeologists with an unexpected opportunity to dig below modern levels in an area of unusual historic interest. In Herodian times, this area was known as the "Upper City," where the royal and the wealthy lived before the Romans destroyed the Second Temple in A.D. 70. Whether this area was occupied prior to the Herodian period was, until recent years, unclear. Archaeologists were unable to agree on when Solomon's Jerusalem—confined to the eastern ridge and the Hill of Ophel—became too restricted for an enlarged population, thereby forcing people to build their homes on the western ridge. Equally unanswerable was the question as to when the western ridge was finally included within the defensive walls surrounding the city. Professor Avigad's excavations have now removed much of this uncertainty.

In 1970 Professor Avigad unearthed the stone foundation of a wall—less than 150 feet from the Israelite tower he found in 1975. The foundation of the wall was 22 feet thick and obviously supported what was once the city wall. Avigad followed this wall base for 120 feet and was able to date it from the pottery associated with it to the latter part of the eighth century B.C. The wall base was built of large stones laid without bonding. The area of the wall which Avigad excavated included a sharp angle. The archaeologists also observed that the wall cut through a pre-existing house of the same period. This led Avigad to conclude that the western ridge had first been settled as an unwalled area in the eighth century B.C., then in the latter part of that century, perhaps during the reign of Hezekiah, the western ridge was brought within the city's defensive boundaries by this wall.

As Professor Avigad stood on the rim of the excavation explaining his most recent discoveries in the careful, technical language of the professional archaeologist, he could not mask the pride and pleasure he took in his accomplishment. He had waited five years to dig at the spot where he stood, amid new buildings and ruins, overlooking the newly discovered tower in the northwest corner of the Jewish Quarter. It had been important to continue explorations

here because of the proximity of the spot to the Israelite city wall he had discovered in 1970. But not until the shell of an old house was removed by the Jewish Quarter Reconstruction and Development Company was it possible to start working. The area opened for excavation was a square 28 feet on a side, bounded on the west by a ruined synagogue of the Moroccan community and on the east by a sheikh's tomb.

The first 10 feet of digging produced nothing but empty fill—accumulated refuse. Below this, the southern balk continued to reflect only fill, unsupported by masonry and threatening to fall on the crews working beneath it. In the north balk, a firm stone exterior wall of a Byzantine building appeared, which reduced the likelihood of collapse.

Bedrock was finally reached forty-five feet below today's ground level. On the bedrock Professor Avigad found what he called "a bit of fortification" from the Hasmonean period (second or first century B.C.). This "bit of fortification" was dated in two ways: first, by the masonry, which was characteristic of the period. Second, portions of the walls were bonded to a surface on and below which were found pottery sherds characteristic of the first and second centuries B.C.

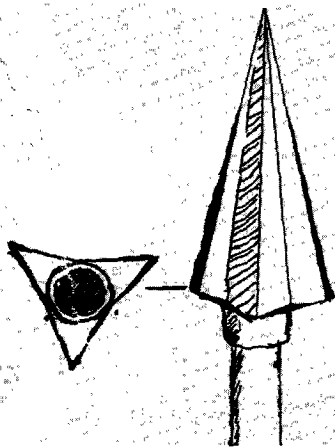
Since this was all found on bedrock, one might be tempted to conclude that the earliest occupation of the area was in the Hasmonean period. However, high above what remains of the Hasmonean fortification walls stood the

Avigad's discovery of the Israelite tower helped resolve a dispute between modern historians and Josephus.

22-foot tower. And the Hasmonean fortification walls had been built *against* the tower. Therefore, the tower must have been built before the Hasmonean fortifications. Moreover, this tower was of a strikingly different style of construction, completely unlike the abutting Hasmonean walls. The Hasmonean fortification walls were built from well-cut, close-fitting, rectangular stones with margins and bosses. The stones of the tower, looming above in the northwest corner, were large, rough-hewn boulders chinked between with small stones.

Avigad was able to date the mystery tower by using the same technique which had given him the date of the Hasmonean fortification. He removed part of the Hasmonean surface and about 3 feet below it found another surface of beaten earth, this one tightly bonded to the tower. On top of this surface in a layer of ashes were pottery sherds of the eighth and seventh centuries. In this ash layer Avigad also found the four arrowheads, one of which enabled him to pinpoint the date of the battle which occurred there. One of the arrowheads—in bronze—was of a Scythian type, widely used by archers, including Babylonian archers, after about 600 B.C. The Scythian-type arrowhead was distinguished from the others by its three triangular fins and a hollow socket into which a shaft was inserted (see drawing). It was always cast and in bronze. The Late Iron II pottery on the bonded surface of the Israelite tower indicated that a battle took place between 800 and 587 B.C.; but the Scythian-type arrowhead, which could not be earlier than about 600 B.C., narrowed the range of possible dates of the battle to within a few years of the siege of Jerusalem in 586 B.C.

Avigad next directed his team of diggers to remove the attached surface of beaten earth and excavate below—into the foundation trench of the tower. In this foundation trench were sealed materials which had been placed there when that part of the tower had been built. In the foundation trench, Avigad found more of the same type of eighth-seventh century Israelite pottery, unmixed with any later material. The evidence was conclusive that the tower which we were looking at had also been seen by "King Nebuchadnezzar of Babylon (when he) and all his army marched upon Jerusalem and laid siege to it" (2 Kings 25:1).



Drawing of a Scythian-type arrowhead. The shadowed part (and the unshadowed section just to the right) indicates a triangular fin, which is repeated on all three sides. That a fin is on all three sides is indicated by the section drawing on the left, which is in effect a view looking up the shaft of the arrowhead.



THE HEBREW UNIVERSITY OF JERUSALEM.

Avigad's discovery of the Israelite tower, against which the Hasmoneans 500 years later built their own fortifications, helped resolve a dispute between some modern historians and the first-century historian, Josephus. In *The Jewish Wars* Josephus describes three walls which protected Jerusalem on the north from the Roman siege in A.D. 70. The first (innermost) or "old" defense wall which surrounded Jerusalem at the time was, according to Josephus, "almost impregnable." He also says that "David and Solomon, and later kings too . . . tackled the work (of constructing this wall) with enthusiasm." Some historians have assumed that Josephus exaggerated the antiquity of the first wall and that in fact the wall which he described was built by the Hasmoneans only about 200 years before his time. From the great height of the Israelite tower still extant today it is obvious

In the background the rough stones show part of a fortification from Israelite period eighth-seventh centuries B.C. In the foreground Hasmonean city-wall tower from second century B.C. excavated by Hebrew University archaeologists in the Jewish quarter of the Old City of Jerusalem.

that in Josephus' time the tower was a dramatically visible structure. As a result of Professor Avigad's excavation, we know the tower, which must have been part of a defense wall, was built in about the eighth century B.C., during the Judean monarchy. Thus, although Josephus may have exaggerated somewhat when he called the wall of which the tower was a part Davidic, his exaggeration regarding the Israelite tower was by no more than about 250 years. (David ruled from approximately 1000 B.C. to 960 B.C.).

The location of the wall discovered in 1970 so near to the line described by Josephus as stretching from Hippicus (near today's Jaffa Gate) to the west colonnade of the Temple is additional confirmation that Josephus' account is reliable as an eye-witness observation.

Next season Professor Avigad plans to follow the line of the Israelite tower to the west by continuing to dig in front of the Moroccan synagogue now being restored. Although he cautiously refrains from speculating about what he may find, it is probable that further digging to the north will show that the Israelite city wall foundation found in 1970 was originally linked to the massive tower which Avigad found in 1975.

By the time this appears in print, Avigad's Israelite tower will be buried again—but only for a relatively short period—to permit construction of a modern building above it. However, like other unique discoveries in the Jewish Quarter (Herodian frescoes, mosaics, and a Herodian house burned in A.D. 70), the Israelite tower will once again be reopened to view when the modern construction is completed. At that time, all will be able to visit the remnants of ancient Jerusalem beneath the reconstructed homes of the twentieth century.

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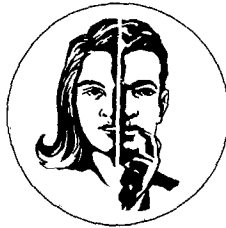
The Biblical Archaeology Review is an exciting new magazine now completing its second year. It has been widely acclaimed by clergy, scholars, librarians, students, and laymen for its understandable, accurate, and up-to-date reports on the ways archeology is illuminating the Bible. Subscriptions are available at \$8.50 per year (four issues) and may be ordered by addressing the *Review* at 1819 H Street, NW., Washington, D.C. 20006. Free sample copies available.

by his side

Sponsored by Catherine Dower
for the Shepherdess.

Dear Shepherdess: Years ago when our family—parents, brothers, sisters, children, and guests—were together at Thanksgiving time, after the blessing Grandpa Dower would lead us in singing "Praise God from whom all blessings flow." It was indeed a hymn of thanks.

Now, when we are together, we still sing, but a great lump fills my throat. The group is smaller. Thankfulness is still there, for there are still many, many blessings, but memories of yester-



year flood the thoughts. Then reason takes over. We count the present blessings and again rejoice. We exclaim with the psalmist in the 95th Psalm, "O come, let us sing unto the Lord: let us make a joyful noise to the rock of our salvation. Let us come before his presence with thanksgiving, and make a joyful noise unto him with psalms. For the Lord is a great God, and a great King above all gods."

This month we are indebted to *Sunshine Magazine* for the story "The Tale of a Blessing," by Mary Jane Comstock.

Although an invalid from polio, Mary Jane has pursued a successful writing career. She resides with her parents on an eighty-acre pecan farm in Sparks, Oklahoma.

Happy Thanksgiving and happiness always. With love, Kay.

THE SUN was hiding that Thursday as the wind and leaves danced their last fling before winter, whirling around the snug little homes on Mulberry Street.

Tilda Hawkins stood squinting at the television set as the picture stopped rolling and the clowns and huge balloon figures came into focus. She smiled. "Well," she said briskly, "it's going to be a different Thanksgiving for us, but a nice one."

Her eyes went to the framed photos on the piano. Her own dear Bill was gone now, and the children were married and scattered across the country. "No, it won't be a big celebration, but it will still be Thanksgiving!"

Her remarks were directed to the only other occupant of the room, a large gray-and-white cat dozing contentedly in a chair. "I bought," Tilda continued, "a deluxe TV turkey dinner for myself, and for you, King Rupert, a can of turkey and liver. Rather expensive, but this is Thanksgiving."

She beamed at the cat. "H-m-m, smell that bread?" She hurried to the kitchen just as the timer buzzed. Humming a favorite old church song, Tilda put on oven mitts and lifted out the large pan of light-brown rolls. She sniffed and smiled. Still humming, she turned out the steaming rolls and piled them in a large bowl. Leaving two for herself, she spread a napkin over the heaped rolls and, taking a breath, began to speak.

The Tale of a Blessing

MARY JANE
COMSTOCK

"Dear Father, thank You for allowing me to continue our custom of giving. Bless this food and bless the ones who receive it. Fill their home and their lives with love as You have always filled mine. Bless everyone, everywhere, on this day." Tilda paused, trembling a bit. "Thank you, Father. Amen."

For a moment she stood there, held by the emotional pull of her concern for others. Then she pulled on a sweater, picked up the bowl and called, "I'll be right back, Rupert."

She darted out her back door and crossed to her neighbor's back door. As she knocked, she heard children's voices, the TV, a dog, and a man's voice. The door was opened by little Nancy Freeman, and Tilda wondered how such a tiny woman could have six husky children.

"Mrs. Hawkins!" the little woman cried. "How nice!"

"Can't come in, dear. I just like to share on Thanksgiving." She gave her the rolls. "I hope you enjoy them." With a wave she added, "Happy Thanksgiving," and left.

Nancy pushed the door shut with her foot as she lifted the napkin. "H-m-m, homemade bread."

Dick Freeman walked in. "What did you say?"

"Homemade bread. Mrs. Hawkins brought us some fresh-baked, homemade rolls. Take a whiff."

Mary Jane
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free-lance
writer living in
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Oklahoma.

"That was nice of her. Maybe you should have asked her to eat with us." Then he frowned. "No, on second thought, she'd probably rather be alone."

Nancy wasn't listening. "Trouble is," she muttered, "the kids won't eat brown bread. Why don't I take out enough for us and your folks, and you take the rest to the Millers? I could save them, but, somehow, I'd rather share them."

Dick nodded, leaned forward to peck



his wife on the cheek. "That's because you are a very nice person."

A moment later, Dick Freeman was crossing the street to the little red brick house. Lettie Miller answered the door but Mel was right behind her. Two white-haired persons peered through two pair of round glasses. "Why, hello, Dick! Do come in," Lettie invited.

"No, thanks. I just brought you something to go with your dinner." Dick handed her the bowl and stepped back. "Happy Thanksgiving . . . from all of us." He turned to jog home.

"Oh, Mel, look here! Yeast rolls." She held them up.

Mel nodded. "Delicious!"

She frowned, so he frowned. "But I made bread pudding and that's too much bread for us," she said. Then she brightened. "But, we'll share, too! We'll take our pudding to the Sedbrooks!"

"Outstanding idea," he agreed.

Together they marched to the closet, helped each other with wraps, and walked rapidly next door.

Freckle-faced Jimmy answered the door, followed by Janie, Joel, Junie, Judy, and Irving. Irving was the dog. Judy was Mrs. Sedbrook. "Why, hello," she called. "Come in!"

The Millers stepped inside. Lettie began, "The Freemans were nice enough to give us some homemade bread. I had made a bread pudding though."

Mel picked up the story. "And that's too much bread for us, so we want to give you our pudding."

A deep, male voice said, "Did someone say 'bread pudding'?" Jim Sedbrook appeared.

Judy laughed. "That's his favorite."

Lettie's eyes twinkled. "Do you like it with raisins and some chocolate syrup dribbled through it, and then the egg and milk mixture to pour over it?" She held out a pitcher.

Jim sighed, "Oh boy, do I!"

The Millers both nodded, said "Good," and turned to leave, adding quickly, "Happy Thanksgiving!"

"That was nice of them." Judy paused. "You know, sometimes you begin to wonder." She didn't finish the sentence but just looked at her husband.

He nodded. "You wonder if there are any nice people left in the world."

"Yes, people seem so wrapped up in themselves." She took a breath and chewed her lip. "You know, I actually have an extra pie." Her eyes were questioning.

Jim Sedbrook smiled. "Why not?"

A moment later, young Jimmy was on his way to the old two-storied house on the corner where the Rodgers sisters lived. And then it wasn't long until Lucinda Rodgers was going around the corner with a covered dish in her hands, while her sister Durinda was going the other way with a pot of bright-yellow mums.

It kept spreading. Each show of kindness produced more kindness. In the 1400 block of Mulberry Street, a certain landlady who had just acquired a pot of yellow mums invited all her renters to bring their dinners and share her dining room.

Over on 21st Street, a retired teacher was so inspired by the gift of a fruit salad that she took her special cranberry-nut salad to the newlyweds who had just moved next door from another state.

That isn't the end of the tale, of course. An end can never be written, because a blessing once shared never stops.—*Sunshine Magazine*, November 1975, pp. 17-20. ■■

Prayers From the Parsonage

CHERRY B. HABENICHT

Can they possibly know what their hospitality means to us? Bless these dear people, Lord, for all they have done to make us feel welcome. Already I feel part of this city, this church, these members.

Their handshakes are firm, their smiles kind as we are introduced and try to match names with faces and try to keep the families straight. (Everyone seems to be related to someone else in the area.)

Carrots and squash, potatoes and onions have been shared from carefully tended gardens.

Each Sabbath we've eaten dinner with a different family, and we have so many invitations to stop by for a visit.

It is not because they feel obligated or seek to impress us. Pastors come and go, and we—since my husband is a young intern—may live here only a few months. Nor do they expect favors. How grateful I am to them and to You that we, though strangers in the State and far from family and familiar places, have found friends.

"They Gave Themselves to the Lord"

EDWIN LUDESCHER

Edwin Ludescher is president of the Euro-Africa Division of Seventh-day Adventists.

PAUL DIRECTED the Corinthians' attention to the exemplary generosity of the Macedonian churches. In order to prevent misunderstandings, Paul indicated at the beginning the source from which sprang this spontaneous and surprising liberality of the believers in Macedonia: "We want you to know, brethren, about the grace of God which has been shown in the churches of Macedonia" (2 Corinthians 8:1, R.S.V.).

Wherever people allow the grace of God to work on them, wherever they make room for it in their hearts, astonishing things happen. The working of the grace of God is not dependent upon exterior circumstances and factors, but upon the interior, spiritual condition of the human heart, and the readiness to be governed by it. The example of the believers of Macedonia is the best evidence for this:

"For in a severe test of affliction, their abundance of joy and their extreme poverty have overflowed in a wealth of liberality on their part. For they gave according to their means, as I can testify, and beyond their means, of their own free will, begging us earnestly for the favor of taking part in the relief of the saints" (verses 2-4).

Severe affliction, but, at the same time, an abundance of joy, extreme poverty, but, simultaneously, a wealth of liberality—this is not the way "natural man" behaves.

Here is the secret of Christian sacrifice and giving. The believers in Macedonia first "gave themselves to the Lord" (verse 5).

On the last Sabbath of the Week of Prayer (November 6) an appeal will be directed to Adventists everywhere to present a special offering to the Lord as an expression of our gratitude, of our surrender, and of our dedication. Last year the Week of Sacrifice offering amounted to \$1,834,000 for the world field. This year let us first give ourselves to the Lord, and then again our abundance of joy will overflow in a wealth of sacrifice and liberality.

Can Eating Meat Cause Disease?

ARE FOOD animals diseased—in the 1970's?

Are the current U.S.D.A. inspection methods adequate to prevent marketing of diseased flesh food? Are they enforced?

Is there evidence that meat eating is a significant cause of disease today?

Does eating flesh food shorten life?

Important questions, indeed—and especially for those who really want to be temples for the Holy Spirit.

MINISTRY wanted a fair, objective, 1976 answer. So we made several visits to a slaughterhouse within driving distance of Loma Linda University and, with permission of the manager, investigated and took pictures as we wished. We examined cattle before, during, and after slaughter, talked with the government inspector (a very capable veterinarian), then came home and checked out some of the latest professional literature in related areas, as well as some older, but still valid, stand-bys. Here is what we learned:

This particular slaughterhouse processes cattle originating in Arizona, Idaho, Nevada, and California. The animals are brought in large cattle trucks and discharged into fenced holding pens, where they are kept for up to three days. They are fed, and water is available. Some of the cows were still fresh—udders heavy with milk, often dripping. Inflamed teats and udders, probably indicating mastitis, were in evidence. During our first visit we looked over several of these holding pens fairly carefully. There were two cows with eye growths that the veterinarian diagnosed as "epithelioma of the eye"—a very common cancer in cattle. One young steer had a distorted face, with a

BERNELL E. AND
MARJORIE V.
BALDWIN

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prominent bulge above his nose. Actinomyces, thought Dr. Inspector. A number had swollen, apparently painful joints, probably arthritis.

On another visit about two dozen cattle in one pen had "B" branded on their cheeks. Dr. Inspector explained that these had reacted positively to a test for brucellosis, or undulant fever. Two cows, obviously sick, were lying just outside the closest pen. One had obvious mastitis. We took its temperature—104.4° F. Our informant said that if the temperature manifested a downward trend, this cow could be used for food. If not, she would be condemned. The other was bleeding from the uterus.

From the closest holding area, the animals walk single file up a narrow fenced ramp at the end of which they pass behind a curtain and are struck in the head. Frequently, sensing disaster ahead, an animal will attempt to turn around. Finding the trail too narrow, it will attempt to back down—sometimes in panic. A long, slender, flexible, electrified prod in the hands of a skillful operator assists in bovine cooperation. We saw the prod inserted into the rectum for special persuasion. These methods cannot but fill the body with stress hormones.

Once felled by a puncturing blow to the head, the cow, now inside the cooled building, is quickly strung up by the legs, and the neck is slit. Blood from all animals gushes into a below-floor-level tank and is then channeled to a waiting truck that carries it away to be processed. When drained of blood, the cow is serially processed by butchers in assembly-line style. Head and feet are removed; the skin is slit and removed; abdominal organs are emptied into a cart; head, liver, tongue, and feet are hung on respective racks with dozens of others; and the carcass is swung along on an overhead transport system (Fig. 1). It may then go to a refrigerated room to age for a day or two, thence to be boned, or packed, and shipped.

At every step a sharp-eyed inspector is on the job to ensure that the steps in dismemberment are taken in proper order, to keep the meat as clean as possible, and to check for signs of disease that would require condemning all or part of the carcass.

A telephone call to a processing plant in Los Angeles revealed that the offal from this packing house—including bones, entrails, condemned carcasses and organs, fetuses, and blood (but

not the skin), along with retail meat market rejects, is chopped in a drum, then fed continuously via a screw mechanism into cookers, where the temperature reaches 275° Fahrenheit. It remains in the heat processor two to two-and-a-half hours and leaves as either tallow or cracklings. After cleaning and refining, the tallow is shipped to the Orient, where it is used in soap making. The dehydrated cracklings, called "meat meal," are used as a blending agent in poultry and cattle feed, and in some dog food.

According to *The American Farmer* (January, 1974), suitable feed for beef and cattle and sheep can be made as silage, using 70 per cent crop wastes, either chopped cornstalks or oat straw, and 30 per cent cattle or poultry manure.

Are Food Animals Diseased in 1976?

Over a period of the past eight years, an average of 2 per cent of carcasses going through this slaughterhouse were condemned *in toto*. There has been no record kept of all partial condemnations—such as heads, single quarters, or single organs. On one of our recent visits we noted that of approximately 165 animals killed, four carcasses were condemned. At a market value of \$300 per carcass, the financial loss to the packinghouse owner can run in excess of \$130,000 per year.

We wanted to know why animals were condemned. Over the same eight-year period, the commonest causes were: malignant lymphoma (a cancer of the lymph glands), epithelioma (a cancer of the eye), pneumonia, pericarditis (inflamma-

No inspector can detect a disease process that was not apparent at time of slaughter but would have been obvious later.

tion of the sac that surrounds the heart), eosinophilic myositis (a nonspecific disease of muscle), pyemia (blood poisoning with multiple abscesses), metritis (inflammation of the womb), septicemia (blood poisoning), liposarcoma (cancer of fat). Various parasitic diseases such as cysticercosis, flukes, tapeworms, and echinococcus are fairly common. These usually do not require condemnation. However, if immature or mature forms involve heart or liver, these organs are condemned.

According to the *Atlas of Meat Inspection Pathology*, Agriculture Handbook No. 367, issued by the U.S. Department of Agriculture, May, 1972, the basic problem in meat inspection is "not essentially that of diagnosing pathological conditions for the purpose of disease control, but rather that of evaluating the fitness of the carcass for food and of assuring the public of protection against animal diseases that might be transmissible to man. Thus, the types of lesions found by meat inspectors vary considerably from those that might be routinely encountered during post-mortem examinations performed in a veterinary practice or in the pathology department of a veterinary college."—Page 1. The *Atlas* admittedly cannot include *all* problems noted in meat inspection, but it attempts to include those most frequently sent in for laboratory diagnosis by meat inspectors, either because of their professional interest or problems of diagnosis.

It lists both benign and malignant tumors. Among the latter are cancers of the skin, eye (Fig. 2), intestine, uterus, vagina, liver (Fig. 3), bile ducts, gallbladder, heart (Fig. 4), pericardium, lungs, pleura (lining of the lungs), lymph nodes, peritoneum (lining of the abdominal cavity), stomach, kidney, ovary, bone, cartilage, fat, blood vessels, muscle (both smooth and striated), and adrenal gland. During a two-year survey (1953-1954) in the Denver area, 4.6 per cent of cattle tumors and 26 per cent of sheep tumors collected were of one kind of malignancy called adenocarcinoma.

That's not all. We won't tax you with recitals of long scientific names, but the *Atlas* lists fifteen chronic infectious diseases caused by bacteria, eight chronic parasitic diseases, plus twenty miscellaneous diseases that are frequently submitted for diagnostic clarification.

We are *not* saying that all these diseases are known to be transmissible to

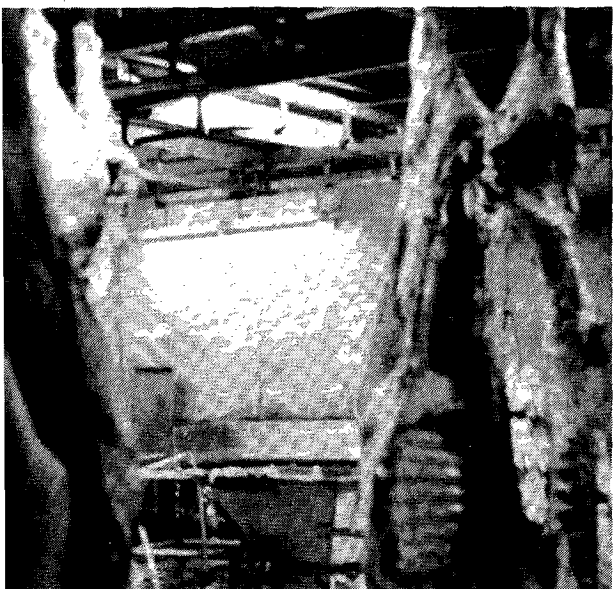


Fig. 1—Several partially butchered carcasses hanging from overhead racks.

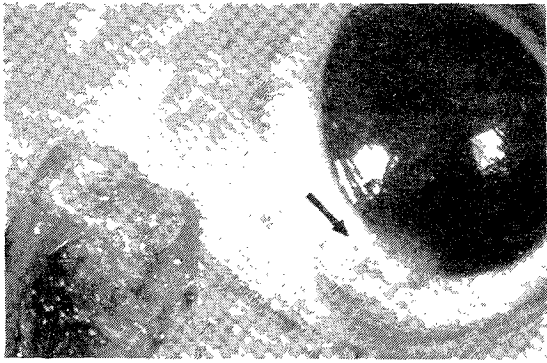


Fig. 2—Cancer of the eye in a cow.

man. We are merely indicating the types of disease most frequently seen. Certainly tuberculosis, anthrax, brucellosis, and other diseases are *much* less frequent now than before testing or vaccination was required by law.

Some idea of the prevalence of disease may be gained from the fact that "approximately 8 per cent of all animals slaughtered for food have lesions which require partial or entire condemnation of the carcass. This means that 8,000 per 100,000 carcasses are condemned in whole or in part."¹

Are Current Methods of Inspection Adequate?

If all meat inspectors can be typified by our friend, these people do make very honest attempts to see that no flesh is permitted to be marketed contrary to the stipulations of the U.S. Department of Agriculture. "Inspection includes ante-mortem and post-mortem examinations of each animal slaughtered and provision for condemnation of diseased or otherwise unfit carcasses and parts in accordance with established principles of meat hygiene. Essentially these principles are that meat is considered unfit if:

"1. It is derived from an animal suffering from an abnormal physiological state.

"2. It contains organisms or toxins dangerous to the consumer.

"3. It contains morbid or neoplastic [tumor] tissue.

"Under these principles, metastatic tumors [spreading cancers] are considered evidence of a generalized condition and the entire carcass is condemned. Carcasses affected with localized neoplasms [tumors] may be passed after removal of the neoplastic parts [parts involved in the tumor], unless there is evidence that the general health has been impaired by the size, position, or nature of the neoplasm."¹

Adequacy of inspection depends on the

acuity and integrity of the inspector and the adequacy of "established principles of meat hygiene." Certainly the conditions they specify make meat unfit. But no inspector, however careful and efficient he may be, can detect whether a cancer that appears localized to only one part has indeed spread to distant body sites, or if an animal is harboring a disease process that was not apparent at time of slaughter but would have been obvious at a later time.

Badly diseased animals are sometimes sent to irregular slaughterhouses, thus avoiding official inspection.

Is Meat Eating a Significant Cause of Disease Today?

Parasites frequently present in food animals are as dangerous to man as they ever were. The cautions sounded for many years and frequently unheeded, that all animal flesh should be thoroughly cooked, is still valid. Animals commonly used for food still harbor tapeworms, and anyone eating raw or rare beef that contained just one live bladderworm (cysticerci) can be infected.² Other tapeworms, including those of some fresh-water fish, and roundworms, including hookworms, are still common.

Tuberculosis, brucellosis, and anthrax, though not major problems in the United States at the present, still exist, and are kept at a low level by constant surveillance.

And what about the possibility of people acquiring *cancer* from flesh foods? Here we enter a most intriguing area, in which not all the answers are available at the present. But the evidence is growing. Let's examine it.

1. Population studies have found a direct relationship between intake of animal proteins and deaths from intestinal cancer. For example, there are five and one-half times as many deaths from intestinal cancer in the U.S. as there are in Colombia. The U.S. consumes three times as much animal protein.³

2. Heavy beef-consuming countries have the highest bowel-cancer rates. Cattle-raising Scots have the highest rate in the world. They eat less meat than their English neighbors but consume 20 per cent more beef and have 19 per cent more bowel cancer.⁴

3. A diet high in animal protein and animal fat correlates with a high incidence of colon cancer.⁵

4. Cancer is found in both food animals

and those not ordinarily used as food.^{1, 6, 7}

5. In the laboratory, human tissue cultures can develop cancer from animal viruses.^{7, 8}

6. Animals can get cancer from viruses of human origin.^{9, 10} Therefore, there may be an ecological relationship between animal and human cancer.

7. It is characteristic of viruses that after viral particles enter cells they may "go underground" by being hidden in code form in the DNA, the blueprints of heredity in the headquarters of the cells (nuclei). Later, these invaded cells can give birth to malignant cells without any obvious virus particles being present. The dreadful damage is already done. The DNA has been ruined. Whether the virus can be seen or not is beside the point. The cells are now cancerous, even though the villain is not visible.

8. Meat chemicals can change the chemical composition of the membrane surrounding the cell.^{11, 12} Meat, then, can change the cell's first line of defense.

9. Meat chemicals can also weaken the resistance to disease in general and to cancer in particular by altering the defense systems of the body, the immune mechanisms.⁷ When cells become accustomed to nonbody molecules, they tend to accept them. It follows that a meat diet, particularly in very young children, is most dangerous because it can build up immunological tolerance. Thereafter, the cells are open to viral invasion from that same source. This has been proved in animals, but not as yet in man.

Though specific chemicals, hormonal intolerance, use of tobacco, genetics, strong X-rays, and other factors can also cause cancer, the unique role of meat may well be that it is so frequently and widely used.

Cholesterol Also a Problem

But now for a moment let us suppose that all food animals, from fish and fowl through cattle and sheep to hogs, were entirely free of disease and constituted no such threat to man. What is inherent in the very nature of flesh itself that disbars it from the "most acceptable" list for human nutrition?

Best known is cholesterol. It is present as such in all foods of animal origin and absent from all plant foods. Reliable scientific experiments have shown that the more cholesterol a person eats, the

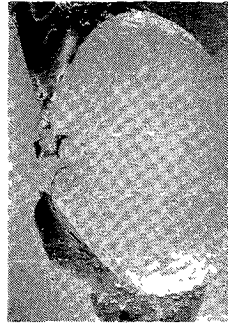


Fig. 3—Cancer of the liver in a young sheep.

more cholesterol there is in his blood.¹³ A person with a blood cholesterol of 260 milligrams per 100 milliliters has four times the risk of heart attack as one whose blood level is only 200.¹⁴

Of foods that contribute to an increase in cholesterol level, beef and pork top the list, not only because of their content of saturated fat but because they contain cholesterol as well.

Cholesterol, however, is only part of the problem, and perhaps not the major part. Less known is the role of animal blood in disease production in man. Blood-clotting chemicals are found in meat. This is why one meal of meat can increase the number of platelets and make them more sticky.¹⁵ Platelets are trigger cells for blood clotting.

Meat and the Brain

Then there are the false transmitters a meat diet feeds the brain. Transmitters are nerve chemicals that carry messages across the tiny gap between the transmitting tip of one nerve cell and the receiving spot of another. Some chemicals from a meat diet absorbed into the blood from the digestive tract can act as transmitters or imbalance brain chemistry.¹⁶ These stimulants may enhance activity in the lower centers¹⁷ that represent such functions as eating, drinking, sex, hostility, anger, and rage.¹⁷

Tyramine, a false transmitter formed in the intestines, especially when one eats a high-protein diet, can elevate blood pressure and upset the chemical balance of the lower centers of the brain.¹⁶ Another chemical that may be involved in a meat diet is xanthine. This is one of many by-products from the digestion of meat and high-protein diets. In the laboratory it can reduce the ability of the brain to make acetylcholine, a true transmitter of the cortex or highest level of the brain.¹⁸ This may help explain how meat stimulates the lower brain and depresses the cortex. No wonder the Bible says, speaking of the quail incident, "He gave them their request; but sent leanness into their soul" (Psalm 106:15). This text is centuries ahead of neurochemistry.

Leaving the brain, let's look at the adrenal glands. Russian research shows that in laboratory conditions *one meal* of meat causes significantly more of some stress hormones (the 17-hydroxycorticosteroids) to appear in the blood stream of dogs.¹⁹ This same mechanism can probably help explain a hormone-

induced sense of well-being and of strength people often experience after eating meat.

There is clear chemical evidence that smoked or charcoal-broiled meats contain benzopyrene, a well-known carcinogen.⁷ This helps explain why smoked fish and barbecued meat are dangerous. Also the nitrites that are frequently added to meat for coloring or preservation form a newly discovered group of carcinogens called nitrosamines in the stomach.⁷ Both of these chemicals are also found in tobacco smoke.

Obviously, no one will be giving one each of fifty identical newborn twins a vegetarian diet and the other identical fifty babies a meat diet for fifty to seventy-five years or more, keeping them under identical conditions for that time, and then seeing which group dies earlier—which would be the ideal scientific experiment to answer this question. But the Scriptures record one of the longest nutritional experiments in history, the result of a widespread change of eating habits, which does shed some light here. Before the Noachian deluge, on a vegetarian diet the life-span averaged more than 900 years, according to Genesis 5, with the two recorded exceptions of Enoch (who was translated to heaven and never died) and Lamech (who died too young)—at 777 years! After the Flood and the adoption of a flesh diet (Genesis 9:3, 4) the life-span dropped precipitously to around 200 years by the time of Abraham.

Ongoing research at Loma Linda University, in California, is designed to attempt to learn why Seventh-day Adventist men over age 35 in that State live an average of six to seven years longer than other California men.²⁰ Could this be a reflection, in part at least, of the diet of those who eat no meat?

Surely the means of shortening life are present in animal flesh—increased cholesterol, saturated fat, increased blood clotting, unbalancing of brain chemistry, disease-carrying parasites, and viruses that cause animal and possibly human cancer.

When you stop to think of it, there are really only two reasons most people eat flesh. The primary one is, no doubt, custom and preference. People like meat and are accustomed to its place in their diet. Some literally crave it. Seldom does anyone realize that meat without blood is unpalatable, and that some of the flavor chemicals are harmful. But tastes and preferences can be changed, es-

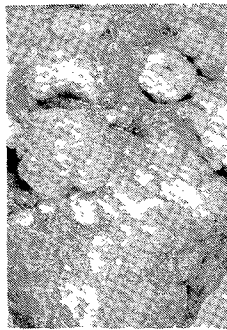


Fig. 4—Multiple cancers in the heart of a Holstein.

References documenting statements made in the article are available from The Ministry.

pecially when so much is at stake. A number of the plant proteins available commercially are so similar in flavor to many meats that most meat-conditioned palates can be pleasantly satisfied.

The second reason meat is eaten is for its protein content. It is easy, however, to obtain more than adequate protein, in both quantity and quality, on a diet of grains, fruits, and nuts, vegetables and legumes, such as peas, beans, lentils, and the like.

Surely, as one weighs the pros and cons, especially in the 1970's, and sees the earth and its inhabitants "waxing old like a garment," he finds that the best diet for spiritual, mental, and physical excellence is that originally given by our wonderful Creator.

"Behold, I have given you every plant yielding seed which is upon the face of all the earth, and every tree with seed in its fruit; you shall have them for food" (Genesis 1:29, R.S.V.).

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Correction

In the article by Marjorie Baldwin entitled "Ulcers—What You Should Know" (July, 1976), page 30, column 2, paragraph 4 should read "pyridoxine" rather than "pantothenic acid."



Fiber Facts

NUTRITIONISTS TODAY advocate a high-fiber diet. This isn't really new. In the 1920's it was also popular for nutritional experts to recommend a high-roughage diet. Is this just a fashion or a fad that is repeating itself?

First of all, we need to consider what is meant by dietary fiber. This term is used to indicate those plant constituents that resist digestion by the human gastro-intestinal tract, including various carbohydrate compounds such as cellulose, hemicellulose, pectin, and gum, as well as noncarbohydrates like lignin, the strengthening substance in wood plant cells. Fiber is often called "unavailable carbohydrate," but that is really not quite true, since it is not strictly unavailable nor is it entirely carbohydrate. Small portions disappear during digestion, probably because of the action of intestinal bacteria.

Unfortunately, it is extremely difficult to analyze for *dietary* fiber in the laboratory because the analysis must approximate the digestive processes of

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man. However, there is an inexpensive laboratory determination that is easy to perform in the laboratory and gives the same answer every time—that of *crude* fiber. But it does not approximate human digestion either. It involves an arbitrary technique in which the product to be analyzed is dried, ground, boiled in dilute sulphuric acid solution for a given length of time, filtered, washed, and boiled again in dilute alkali (sodium hydroxide) for a specified time, and then dried, and burned to an ash. The difference between the weight of the ash and the dried product is considered crude fiber.

Crude fiber contains mainly cellulose and lignin. Hemicellulose, pectin, gums, and other products have been dissolved in the treatment with the acid and alkali. Keep in mind that crude fiber is not the same as real or dietary fiber. The proportion of crude fiber to dietary fiber varies with each food.

Fiber should be added to the list of essential nutrients. The question is,

then, is there a specific deficiency disease caused by lack of fiber in the diet? Unfortunately, there is no incontrovertible evidence that such a deficiency state exists, unless we call constipation such a state. But how about diverticulosis, hemorrhoids, cancer of the colon, and varicose veins? Aren't these diseases also caused by lack of fiber in the diet? Burkitt and others, beginning around 1969, began to discover in specific populations an apparent relationship of dietary fiber to incidence of intestinal disease. Burkitt's report on information from more than 200 hospitals in twenty countries was astounding—no population group that ate a high-fiber diet had a high incidence of these bowel diseases. He further found that any population group that changed from a high-fiber to a low-fiber diet had a progressive increase in these diseases within one generation. These findings, Burkitt intimated, were suggestive rather than conclusive, and indicated that the role of dietary fiber in disease certainly deserves more attention.

Does lack of fiber then *cause* diverticulosis, hemorrhoids, and other intestinal problems? The theory of the physiological interaction sounds plausible, but there have not been enough scientifically planned studies of human beings to establish it at this time.

Can high-fiber diets *relieve* diverticulosis and hemorrhoids? Probably so, but it is very difficult to separate out the psychological effects from the physiological effects, since the large bowel is very sensitive to thought patterns. It would also be very difficult to design an experiment in which the patients did not know whether they were getting a high-fiber or low-fiber diet, since a high-fiber diet naturally would increase the bulk of the stool.

The next question is: Can a high-fiber diet *reverse* the conditions of diverticulosis or cure diverticulosis? There is no evidence at this time that it can, but certainly a much larger, wetter stool can usually keep the symptoms to a minimum.

Can colon cancer (the second most frequent cause of cancer deaths in the U.S.) be reduced with the aid of a high-fiber diet? No one knows for sure, but evidence from population studies suggests it can. Burkitt suggested that the possible relationship of low dietary fiber to increased incidence of colon cancer results from the increased time it takes feces, on a low-fiber diet, to be eliminated, thus

Is the best way to get more fiber to add bran to our highly refined diets?

allowing more time for diet-nurtured bacteria to form cancer-forming chemicals from bile salts.

Some experiments in both animals and humans seem to show that dietary fiber may lower blood cholesterol by binding bile salts and forcing the body to produce more, thus lowering the body's cholesterol supply. Obesity and diabetes mellitus may also be linked to low-fiber diets, because these diets have greater calorie concentration, and people get more calories with less bulk. Foods that contain fiber also require more chewing, which slows eating and allows sufficient time for the satiety (fullness) center of the brain to signal that one has had enough to eat. Also, fiber reduces the efficiency of food absorption by the small intestine.

It has been stated that the amount of dietary fiber in the American diet has been greatly reduced during the past fifty years, but this claim is difficult to substantiate. There has been a decrease in the use of whole grain, but there has been a big increase in the use of fresh fruits and vegetables, which also contain fiber. The amount of water held by the different fiber constituents in fruits and vegetables, as compared with cereals, varies, of course, with the cereal. It is generally thought that bran is able to hold and retain much water, therefore acting as a more efficient bulking agent than the fiber components of fresh fruits and vegetables.

There may be adverse effects of consuming large quantities of fiber. First of all, it may decrease the absorption of some minerals—for instance, calcium, magnesium, zinc, and phosphorus. In large amounts, it may temporarily increase abdominal gas. It might be harmful to patients with ulcerative colitis, regional ileitis, or diverticulitis, until the inflammation clears. Large amounts of bran and other bulk-producing agents should not be eaten dry because of the possibility of causing an obstruction in the esophagus.

Is the best way to get more fiber in our diet to add bran to our highly refined diets? That may be somewhat helpful, but the ideal involves formulating a different way of eating, emphasizing an abundance of fruits and vegetables, grains, which are all there without loss of germ and/or bran, and well-cooked legumes. A simple but deliciously prepared nutritious diet provides plenty of fiber and avoids the pitfalls that can be found on either side of the fiber question.

God's Basic Food Groups

MY FAMILY recently purchased a combination flour mill and bread maker and, naturally, I wanted to try it out immediately. My husband assembled it according to the instructions, and it appeared ready to go. No instructions on its use accompanied it but, since we had seen a demonstration of the machine, we decided to operate it as the demonstrator did. When we turned it on the motor hummed beautifully—but it wouldn't grind the grain. Nothing we did seemed to help. Finally we made a telephone call, got some verbal instructions, and were in business! Even then, however, we were limited in what we could do with it until we obtained an instruction book.

To use a piece of equipment most efficiently, we need an instruction manual and the good sense to follow it. Often this is neglected; thus the saying, "When all else fails, read the instructions."

Turning from machines to our bodies, we find a corollary—the human machinery also functions best when we follow the "instructions."

The Master Designer

The psalmist states, "Thy hands have made me and fashioned me: give me understanding, that I may learn thy commandments" (Psalm 119:73).

VIOLA LUTZ

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The human body is intricately designed with appropriate interaction between all its parts. When one part doesn't function properly, it has an effect, maybe undetectable for even long periods of time, on the rest of the body. Who is best qualified to tell us how to keep the body in good working order and to repair it when necessary? The One who designed it, of course.

This includes the care and feeding of the body machine. The original diet, as given by God in Genesis 1:29, included grains, seeds, nuts, and fruits. Undoubtedly, within each group there was a wide variety to appeal to all tastes and appetites. In fact, one of the most enjoyable memories from my teens is that of walking on our farm on Sabbath evenings, picking our supper as we went. Sometimes it was peaches or pears; other times, apricots or cherries. Apples were available for long periods of time. Except for the trials of trying to extricate them from thorny thickets, wild blackberries were favorites. Never did I feel deprived because all I had for supper was fruit!

Man's Diet Changed

The sad story of the fall in Genesis 3 points up the importance of paying attention to even the smallest instruction. After sin came, God included "the herb of the field" (Genesis 3:18) in the diet of Adam and Eve. He banished them from the Garden so they wouldn't have access to the tree of life and thus become eternal sinners (Genesis 3:22-24). Vegetables, or "herbs of the field," were added to help supply the necessary nutrients that earth's first family had obtained from the foods available in the Garden of Eden, including the tree of life.

Some centuries passed and another dietary change was given. When Noah left the ark and stepped out on the flood-ravaged land, little vegetation was available for food. The Lord then told man that "every moving thing that liveth shall be meat for you." A stipulation was also given. "But flesh with the life thereof, which is the blood thereof, shall ye not eat" (Genesis 9:3, 4). It was later stated in Leviticus 3:17 that not only the blood but also the fat was to be omitted from the diet. Yet today these commands are almost totally ignored.

Through succeeding ages man has adopted various food practices to satisfy his appetite as well as his hunger. Until this century, however, mankind largely has been dependent on what he could

find or produce where he lived. Today, particularly in industrial nations, man's diet is limited primarily by his economic status alone, and flesh food is considered a staple in many places.

Regardless of the widespread use of meat in the developed world, flesh eating is not a universal practice. More than half of the world's population, either by choice or from necessity, subsists on non-flesh diets. High fertility rates and exploding populations testify to the adequacy of such a diet. Fertility is low, however, and reproduction is greatly reduced if there is not adequate protein or if the protein does not have a proper ratio of amino acids.

Nutrient Contributions of Foods

Nonflesh diets can be nutritionally adequate. This is borne out as we consider the contributions supplied by various kinds of foods. Fruits and vegetables are a major source of vitamins, minerals, and fiber. When we think of vitamin C, citrus fruits and tomatoes immediately come to mind. Good amounts are also found in strawberries, cantaloupe, red or green sweet peppers, broccoli, and kale. An excellent and readily available source of this vitamin, largely overlooked until this decade, is obtained from sprouts of legumes and grains. The seeds contain no vitamin C, but sprouts 1/2 to 1 inch (1-2 cm.) long provide about four times as much as an equal weight of tomato.

Vitamin A is available in abundance in fruits and vegetables—the dark-green leafy vegetables and deep-red, orange or yellow ones contain the most. Kale, mustard greens, broccoli, asparagus, deep-colored sweet potatoes or yams, dried and fresh apricots, peaches, and pumpkin are just some of the many good sources for this vitamin.

"Nature's plan seems to have been that man should generate most of his supply of vitamin D by sunlight, for it is contained more sparsely in foods than is any other vitamin."¹ Because vitamin D is not readily available in food, some countries fortify milk, margarine, and dry breakfast cereals with it.

The best sources of vitamin E are seeds and their oils. Again, green leafy vegetables provide a good source of this vitamin.

These green leafy vegetables also are rich sources of riboflavin, and although other fruits and vegetables contribute less, they still contain appreciable amounts.

Calcium is in good supply in dark green leafy vegetables, as shown in Table I. Sesame seeds, artichokes, molasses, soybeans, and almonds contain significant amounts of this mineral.

Nutritional iron is almost synonymous with molasses, raisins, and dried apricots in the United States. But green leafy vegetables (Table I), sweet potatoes, and broccoli are also rich sources.

Grains and cereals are especially important for their content of carbohydrate, niacin, and iron. Because so much of these foods is often eaten, cereals add significantly to the daily protein requirement, as well. Developing countries not

Table I. Comparison of Greens and Milk as Nutrient Sources

Amount	Protein	Calcium	Riboflavin	Iron	Vitamin B ₁₂
1 cup or 200 gm.	gm.	mg.	mg.	mg.	mcg.
Milk	7.0	234	.34	0.2	1.2
Soy milk, commercial	6.0	60	.12	1.5	0.6
Broccoli	7.2	206	.46	2.2	0
Turnip greens	6.0	490	.48	3.6	0
Greens, average*	6.7	305	.39	3.0	0
Soybeans, green	19.6	120	.26	5.0	0

* Includes broccoli, Brussels sprouts, collards, dandelion greens, kale, mustard greens, spinach, and turnip greens.

Table II. Daily Dietary Model Recommended by Chinese Medical Association

	Gm.*/day	Protein /gm.	Calcium /mg.
Cereals - grains	500	43	470
Soybeans or soybean products	60	24	60
Sweet potatoes	400	6	128
Green leafy vegetables	500	6	500
		79	1,158

* 454 gm. = 1 lb.

BASIC FOOD GROUPS

DAILY PORTIONS

Vegetable-fruit group
four or more servings

Citrus fruits,
tomatoes, cabbage,
peppers, melons,
berries, dark-green
or deep-yellow
vegetables, potatoes,
and others

Bread-cereal group
four or more servings

Breads, cereals, and
other grain products
made from whole
(preferred), enriched,
or restored grains

Protein group
two or more servings

Dry beans, dry peas,
lentils, garbanzos,
nuts, peanuts,
peanut butter, eggs,
cottage cheese,
soy cheese,
vegetable proteins

Milk group
children-- 3 to 4 cups
adults-- 2 or more cups

Whole, evaporated,
or skim milk,
reconstituted dry
milk, buttermilk,
or soybean milk

Eat additional food as
needed for more calories



uncommonly consume up to 80 per cent of their total food intake as cereal. Included in this group are maize, wheat, barley, rye, millet, oats, and rice. To get their maximum value, use them unrefined, for B vitamins, iron, and other nutrients are almost entirely lost during the refining process, and "enrichment" restores only niacin, riboflavin, thiamin, and iron.

Protein foods come in wide variety. Since all living things have protein as part of their cells, it is present in varying amounts in all unrefined foods. Major plant sources are legumes, nuts, and seeds. Milk, milk products, and eggs also are well known for their high protein content.

People who consume little or no flesh foods can easily get adequate amounts of good quality protein by combining legumes and cereals. Popular combinations common to various cultures are lentils with rice, dried peas with rice, soybeans with rice or corn, and beans with tortillas.

In addition to providing protein, legumes, seeds, and nuts are valuable sources of niacin, iron, and vitamin B₆.

Among protein foods, milk and milk products easily ensure an adequate supply of calcium, riboflavin, and vitamin B₁₂. This last-mentioned vitamin is very important, but it is not known to be present in plant foods, except for trace amounts absorbed from the soil as a result of its high bacterial content.

Advantages of the Original Diet

The kind of diet that is so common today among the industrial nations involves large quantities of rich, highly refined foods. The diseases that apparently accompany the use of this kind of a diet, such as cardiovascular disease, diabetes, cancer, and obesity, to name only a few, dramatically point us back to the Creator's original provisions.

It isn't too late for us to do what we can to return, as much as possible, to the original diet. Immediate health advantages of a diet of plant foods, mostly unrefined, would be: (1) increased fiber; (2) lower fat content and better quality than that of animal products; (3) no cholesterol; and (4) presence of trace elements that are usually lost in refining.

Table II gives the recommendations of the Chinese Medical Association for an adequate diet for an average man. Their diet is about 76 per cent carbohydrate, 13 per cent protein, and 11 per cent fat, and provides adequate amounts

The diseases that accompany a diet of rich, highly refined foods dramatically call us back to the Creator's original pattern.

A 21" by 28" full color poster of the basic food chart is available through local Adventist Book Centers or conference health secretaries. Price, \$1.00.

of iron, phosphorus, and other essential nutrients.

Milk is not an absolute essential, as all the nutrients it contains can be obtained from plant sources, except for vitamin B₁₂. A number of foods, however, are fortified with this vitamin, and supplements are available. Planning an adequate diet is simple if some milk or its products are included. "Fruits, grains, and vegetables, prepared in a simple way, free from spice and grease of all kinds, make, with milk and cream, the most healthful diet. They impart nourishment to the body, and give a power of endurance and vigor of intellect that are not produced by a stimulating diet."²

Basic Principles to Be Kept in Mind

Some basic principles to keep in mind in planning an adequate lacto-vegetarian diet are:

1. Reduce substantially intake of "empty calories."

2. Eat enough fruits, vegetables, whole-grain breads, cereals, and protein foods to supply adequate calories.

3. Use plenty of legumes, nuts (especially peanuts, almonds, and cashews), and seeds. Commercially prepared plant-protein foods are also helpful.

4. Include a supplement of B₁₂ or foods with added B₁₂ if not using milk or its products. Use fortified soybean milk, plenty of green leafy vegetables, legumes (particularly soybeans), nuts (particularly almonds), and dried fruit to replace calcium and riboflavin.

A condensed statement of these principles is: Eat a wide *variety* of *unrefined* foods in sufficient quantity to maintain ideal weight. But remember that too great a variety at one meal tempts one to overeat.

Of great concern today is the question of how the increasing population in the world is to be fed. Dr. James Bonner, of the California Institute of Technology, recently stated that if present population trends continue, 16 billion people will be living on this earth by A.D. 2050, and all of them will be vegetarians.

If people today were to adopt simplicity in their habits, living in harmony with nature's laws, would there not be an abundant supply for the needs of the human family? **¶**

¹ L. J. Bogert, G. M. Briggs, and D. H. Calloway. *Nutrition and Physical Fitness*, 9th edition (Philadelphia: W. B. Saunders Company, 1973), p. 208.

² E. G. White, *Counsels on Health*, p. 115.

sermon spice shelf

What to Preach On?

Jesus preached on:

1. Repentance Matt. 4:17
2. The Gospel Matt. 4:23
3. The Kingdom of Heaven Matt. 10:7
4. Escape From Sin Luke 4:18
5. The Word of God Mark 2:2
6. His Father John 5:30-47

His disciples preached on:

1. Christ Acts 8:5;
1 Cor. 1:23
2. The Kingdom of God Acts 28:31
3. The Gospel Rom. 1:25;
1 Cor. 1:17
4. The Word of God Acts 8:4;
2 Tim. 4:2
5. Peace Acts 10:36
6. The Resurrection Acts 4:2
7. Repentance Mark 1:4
8. Forgiveness Mark 1:4

—JOHN OSBORN

Prayer

"Certain thoughts are prayers. There are moments when, whatever be the attitude of the body, the soul is on its knees."—VICTOR HUGO.

"You can do more than pray after you have prayed but you cannot do more than pray until you have prayed."—A. J. GORDON.

"Hem in your day with prayer and it will be less likely to ravel out before night."—*Selected.*

Quotes: "The problem is not that the churches are filled with empty pews, but that pews are filled with empty people."—Charlie Shedd. . . . "Cast your bread upon the waters and it comes back to you *battered.*" "The entrance into the riches of God is often through the bankruptcy of human sources."—Overheard. . . . "If you think education is expensive, try ignorance."—Bob Orben (*Quote*). . . . "The Lord is doing

something with an imperfect people, but the work will be finished by a perfect people."—L. L. DICKSON. "Hammers shatter glass but forge steel."—Folk proverb.

Civilization—Homes

"The foundations of civilization are no stronger and no more enduring than the corporate integrity of the homes on which they rest. If the home deteriorates, civilization will crumble and fall."—BILLY GRAHAM, *The Quotable Billy Graham.*

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TAKE four great stages of that experience in their invariable order.)

LEARN

FIND

1. We COME to Christ.
2. We TAKE or accept Christ's offer to us.
3. We LEARN—we must have a teachable mind, obedient will, and follow Christ's example.
4. We FIND—we shall find (note its certainty) rest unto our souls.

—PHYLLIS BAILEY

Woman to Pastor—"You sure rubbed my fur the wrong way in your sermon this morning."

Pastor—"Oh, I was rubbing the right way. The trouble was that you were standing the wrong way."—Submitted by W. H. Mattison.

No Day Off for the Devil

The indignant parishioner told the minister: "I phoned you yesterday, but I couldn't get you."

"Monday is my day off," said the minister.

"What, a day off? The devil never takes a day off," said the parishioner. "That's right," said the minister. "And if I didn't have a day off, I would be just like him."—*Religious News Service.*

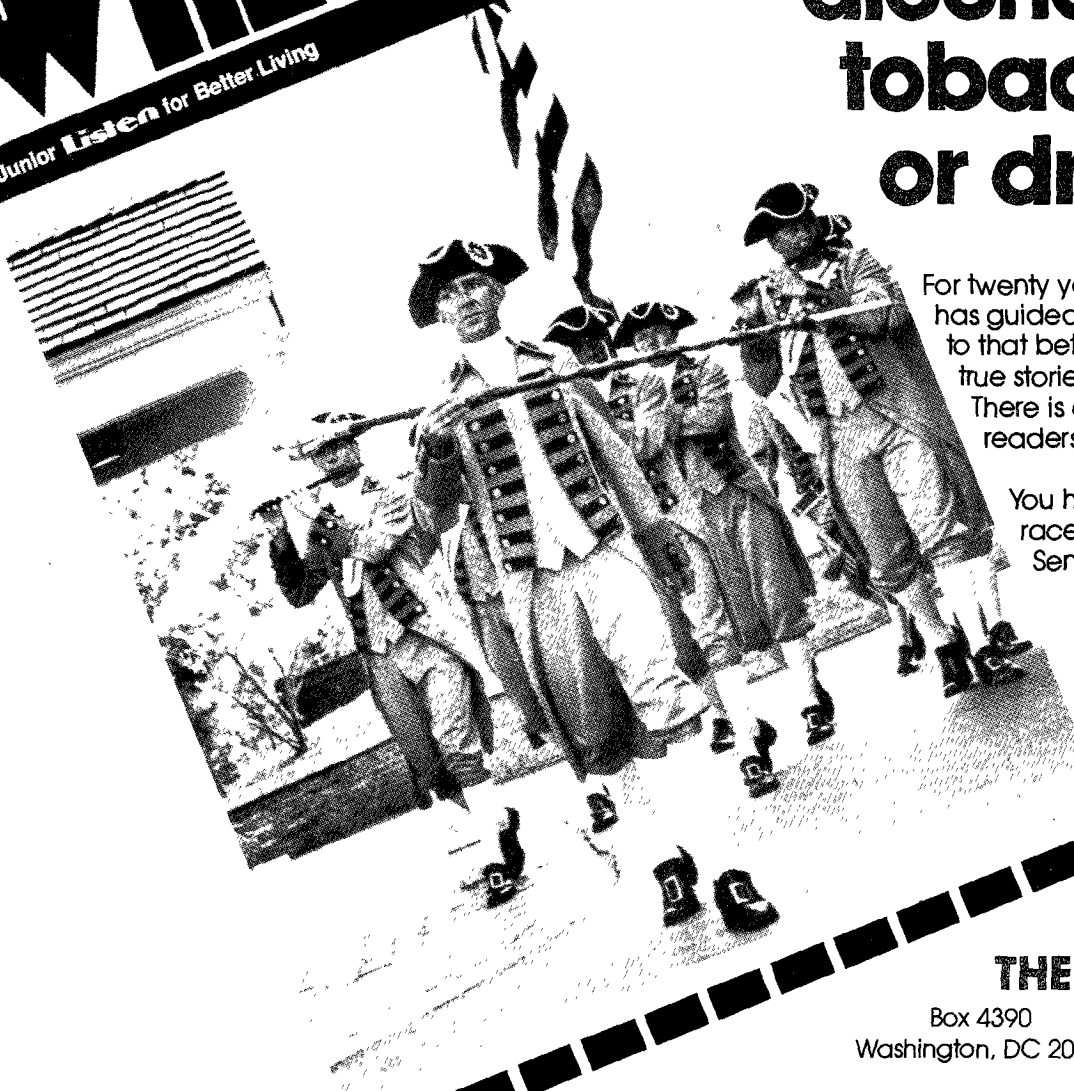
Samson . . .

"Could kill a lion, but was overcome by a kitten."

"Could spread fire among the Philistines, but couldn't deal with the fire of passion."—LEO RANZOLIN.

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September, 1976
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shop talk

Sponsored by John Rhodes, Ministerial secretary, Southeastern California Conference.

The Work of the Pastor

The pastor is not to be the only soul winner of the church. His work is to make church members souls winners, to train them for action.

The task of soul winning rests upon every member of the church. The task of preparing church members for this work rests on the pastor-teacher.

But this is an aspect of pastoral ministry that has been largely neglected. For one reason, it is a slow and tedious process. It takes a lot of time. Second, it is painful. The laymen seem to make so many mistakes and foolish blunders. Therefore, do it all yourself. You can do it so much quicker and you won't make so many mistakes.

We have a 3-year-old girl who has more toys than anyone. When it's time to clean up I know I can do a quicker and better job all by myself. What takes me two minutes takes her fifteen, and she has to be told every specific detail. "Pick this up and put it in here, . . . now that one in there. . . ." She will gladly let me do it all by myself. But when she's 16 will she have habits of neatness? I'll still be picking up.

We treat our members the same way. Wanting rather to do the work ourselves to save time and ease, we actually do our members, ourselves, and the work an injustice.

How many pastors are "teaching" laymen to be idle, to be slothful servants, by doing the work all by themselves? And why not? Isn't he a "worker" (such as when he attends "Workers' Meetings")? "In some respects the pastor occupies a position similar to that of the foreman of a gang of laboring men or the captain of a ship's crew. They are expected to see that the men (members) over whom they are set, do the work assigned to them correctly and promptly, and only in case of emergency are they to execute in detail."—*Gospel Workers*, p. 197. Perhaps we should call our meetings "Leaders' Meetings," but as long as we continue to execute in detail, they might as well be called "Workers' Meetings."

Ephesians 4:11 informs us that pastors are teachers. These are not two separate gifts, but one. A pastor is to be a teacher. "Christ intends that His ministers shall be educators of the church in gospel work. They are to teach the people how to seek and save the lost. But is this the work they are doing? Alas, how many are toiling to fan the spark of life in a church that is ready to die!"—*The Desire of Ages*, p. 825.

The church members need education. What kind of education? Classroom teach-



ing on a mass scale? Yes, to some extent. But it must not stop here. The members require individual instruction. "In laboring where there are already some in the faith, the minister should at first seek not so much to convert unbelievers, as to train the church members for acceptable co-operation. Let him labor for them individually, endeavoring to arouse them to seek for a deeper experience themselves, and to work for others."—*Gospel Workers*, p. 196.—HANS VARMER, from the Potomac Conference, "Venture."

Pre-evangelistic Commitment

This card is an adaptation for Adventist use of a card used by the Billy Graham Evangelistic Association as a pre-evangelistic campaign commitment. An ideal situation would be for the pastor to preach a sermon on Andrew. For a good sermon on Andrew you might study Clarence Macartney. Andrew was of the common herd, yet he was always bringing people to Christ. The Andrew story makes an ideal pre-effort campaign sermon, with the idea that all can have a part in the soul-winning procedure of the church, even though they may not be as talented as some more illustrious people.

Your Invitation to Join Operation ANDREW

"Andrew . . . first findeth his own brother Simon . . . and he brought him to Jesus." John 1:40-42.

The purpose of "OPERATION ANDREW" is to bring the unconverted and unchurched to the meetings by enlisting each Christian as an active "Andrew." No sermon or film can win the lost to Christ unless they are present to hear the message. Many who would not come to an ordinary church service will attend an evangelistic meeting or pastor's class, if invited. In "Operation Andrew" individuals, Sabbath School classes, men, women, youth, church organizations, covenant to attend the services, with each Christian bringing at least one other person who needs Christ.

5 Steps in Operation Andrew

1. Begin to pray for one to ten people you know who have a spiritual need.
2. Give them a brochure with a personal invitation.
3. Bring them to the meeting or pastor's class.
4. Encourage them to commit their lives to Christ.
5. Follow them up until they are linked with the church and become growing, witnessing Christians.

My Personal

"Operation Andrew" Covenant

"He that winneth souls is wise."—*Proverbs 11:30*

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

God helping me, I will pray daily for each of the above, cultivate their friendship, bring them to the meeting or pastor's class, encourage them to commit their lives to Christ, and help to follow up their decision.

DATE _____ SIGNED _____

Carry this card in your Bible or with your study materials as a daily prayer reminder.

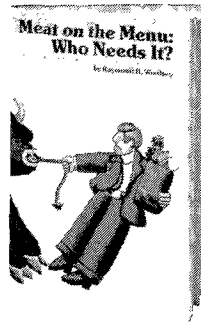
MEAT AND YOUR HEALTH

Authoritative, Up-to-Date Facts!

MEAT ON THE MENU: WHO NEEDS IT?

Raymond H. Woolsey

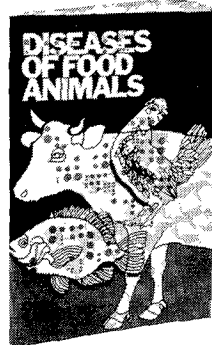
An interestingly written, factual evaluation of flesh foods as compared with nonflesh foods. The author has consulted scores of authorities in areas relative to his subject, and has spent many hours of research in the National Institutes of Health, Bethesda, Maryland. The material and arguments marshaled in this book will leave no doubt in the reader's mind as to which of the two foods is the more desirable. *Paper 60 cents*




DISEASES OF FOOD ANIMALS

Dr. Owen S. Parrett

Dr. Parrett early took a special interest in tracing diseases to their respective causes. From his many years of experience and research he has come to feel strongly that the eating of meat is a major cause of disease. Now Dr. Parrett has revised his earlier booklet in the light of modern medical knowledge and with recent statistics. You will enjoy his style of writing, as though your old-style family doctor were giving you personally the benefit of his wisdom and counsel. *Paper 60 cents*



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recommended reading

GETTING THROUGH TO THE WONDERFUL YOU, Charlie W. Shedd, Fleming H. Revell Company, Old Tappan, New Jersey, 128 pages, \$4.95.

Charlie Shedd, Presbyterian clergyman and popular writer for Christian families, calls his new book "a Christian alternative to transcendental meditation." He had been practicing what he calls "word focusing" on single Bible words for twenty years before TM started sweeping the country. "Word focusing is a meditational approach that concentrates on a single word." Dr. Shedd concludes, "I believe there is only one way to counteract evil—this is with something better, and the Christian says there is nothing better than the inner life with Christ developed to its maximum."

Titus A. Frazee

"EVOLUTION: POSSIBLE OR IMPOSSIBLE?" James F. Coppedge, The Zondervan Corp., Grand Rapids, Michigan, 1973, paperback edition, 276 pages, \$3.95.

Investigations in molecular biology have produced insights into the basic chemical nature of cell behavior that are becoming increasingly recognized to give Creation a clear *scientific* advantage over evolution in accounting for the origin of the various types of organisms. Dr. Coppedge has provided the most comprehensive and responsible treatment of this subject from a creationist viewpoint that has become available up to the present. Through an attractive style, clarification of technical concepts, and impressive illustrations he has succeeded in making the subject matter both understandable and interesting to an uninitiated reader.

The traveling amoeba is an example of the illustrations utilized in this book. An amoeba, presumed to move so slowly as to require fifteen billion years (the age of the universe according to

current evolutionary viewpoints) to cross one hydrogen atom (one hundred millionth of a centimeter), could transport two thousand million million million (2 by 10^{21}) complete universes, one atom at a time, across the diameter of the universe as presently understood (about thirty billion light years) in less than the time in which all the atoms of the universe combined into basic organic component groups interacting with each other at the rate of ten thousand million million (10¹⁶) combinations per second could be expected to produce by chance a *single* combination that would be a usable gene of average size for the smallest theoretical living thing.

Dr. Coppedge has given a service of extraordinary value in his fair and competent handling of the insight current knowledge of molecular biology gives concerning the origin of life and the possibility for development of organisms by random atomic and molecular activity.

In chapter twelve the author steps out of his molecular biology specialty and borrows from the extant creationist literature material that is related to other scientific disciplines. The reader should be cautioned regarding use of this material, for much of it was accepted without thorough evaluation.

Examples to which particular attention should be called are the following: Whereas the discovery of pine-type pollen in the lowest Grand Canyon formations has been reported, up to the present subsequent attempts to provide confirmation have been unsuccessful; human footprints that have been reported in Cambrian strata appear to be only chemical stains that have a wide variety of shapes and penetrate through several successive layers of rock without the evidences for compaction and plastic flow that would be associated with actual footprints; whereas there are unquestionable dinosaur footprints in strata exposed by the Paluxy River the supposed evidence for

associated human footprints is highly questionable; a mechanism is known for removal of helium from earth's atmosphere, and the low level of helium is consistent with the absence of hydrogen in the atmosphere; the discussion of radio-metric ages for material from the moon is not consistent with the reports in the research literature; many believers in a "6,000 year" age of the earth find fully adequate evidence for thrust faulting that probably occurred in connection with the breakup of earth's crust during the Flood.

Readers should obtain great benefit from the general material in chapter thirteen, "Examples of Phenomena Unexplainable by Evolution," and chapter fourteen, "Increasing Your Certainty."

R. H. Brown

A HISTORY OF RELIGIOUS EDUCATORS, Elmer L. Towns, Editor, Baker Book House, Grand Rapids, Michigan, 1975, 330 pages, \$12.95.

This is a compilation of resumes prepared by twenty-two authorities. The editor himself, Elmer L. Towns, was responsible for four of the chapters. The volume deals with twenty-six outstanding leaders in religion, philosophy, and education from the time of Christ until John Dewey. In each case a summary is given of the life of the individual under consideration. This is followed by a general exposition of his religious thought and philosophy. Special attention is given to the contributions of the individual in the field of education, with emphasis on its relationship to religion.

The book can be of great value to ministers and theologians as a source book for general information on the life and thought of the men depicted. For educators the book is almost a must because of its wealth of summarized information on religious education. The reader will discover that what is thought to be "new" in 1976 has already been thought of centuries before.

Walton J. Brown

