THE EGYPTIANS

1967-68

YEAR BOOK

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HISTORICAL SKETCH

The Egyptians, "a club for the discussion of scientific, religious, economic and other topics pertaining to the welfare, culture and happiness of the people," was organized at a meeting of fifteen men held in the home of the late A. S. Caldwell on June 21, 1913. These men had been meeting as an unorganized group since 1911. The fifteen founders were: Charles N. Burch, A. S. Caldwell, J. B. Cannon, Elias Gates, Charles J. Haase, E. M. Markham, C. P. J. Mooney, Sanford Morison, J. Craik Morris, A. B. Pittman, J. W. Rowlett, A. Y. Scott, Bolton Smith, B. F. Turner and J. C. Wilson.

Before the organization was completed, fifteen others were enrolled as charter members, namely: Albert W. Biggs, E. C. Ellett, W. H. Fineshriber, J. R. Flippin, Thomas F. Gailor, Marcus Haase, Herman Katz, James P. Kranz, Walter Malone, R. B. Maury, H. Dent Minor, A. E. Morgan, Israel Peres, Alfred H. Stone and Luke E. Wright.

The name chosen for the organization was proposed by W. H. Fineshriber. The fact that ancient Memphis was in Egypt suggested the name. The by-laws stated that the membership should "consist of not more than thirty-three men of recognized standing, ability and influence in Memphis and Shelby County, Tennessee." It was further stated that members were to present their contributions in the form of papers and that all papers were to be issued in printed form. This clause has resulted in the largest and most significant literary production of a general nature ever made by any group of Memphians.

From the beginning, The Egyptians were guarded against internal friction by a constitutional provision that "no resolution shall ever be passed committing the club as a body to any proposition." The club is unique in the unwritten law that its name is not to appear in the press in any connection.

CONSTITUTION AND BY-LAWS

As Amended to May 31, 1960

ARTICLE I.—Objects.

Section 1. The subscribers hereto associate themselves for the purpose of discussing, at stated times and in a social way, such topics as pertain to the welfare, culture and happiness of the people, particularly of our own locality, state or nation. No resolution shall ever be passed committing the club as a body to any proposition.

ARTICLE II.—Name and Membership.

Section 1. This organization shall be known as THE EGYPTIANS, and shall consist of not more than thirty-three regular contributing members, who shall be citizens or residents of Shelby County, Tennessee, of recognized standing, ability and influence in the community, with other associates as provided in Section 2.

Section 2. Honorary membership may be tendered only to non-resident persons distinguished in the walks of education, literature, science or art; and such associates having no votes, shall be exempt from payment of all dues and assessments.

Section 3. Any member may nominate an individual for membership, submitting a brief statement of the candidate's qualifications to the officers of the club. If by majority vote of the officers, the candidate is acceptable, the officers shall circularize these qualifications to the members of the club at least one week prior to the following meeting. A secret ballot shall be cast by mail, with the minimum number of affirmative votes for election equalling at least two-thirds of the total membership, and if not more than two adverse votes be cast by the members, it shall be the duty of the secretary to invite such person to become a member.

ARTICLE III—Officers.

Section 1. The Officers of the club shall be a President, Vice-President and Secretary-Treasurer, each to be chosen by ballot at the last meeting in May, to serve one year, or until a successor shall be elected.

Section 2. As a compensation for his services, the Secretary-Treasurer shall be exempt from the payment of all dues, charges and assessments.

ARTICLE IV.—Meetings.

Section 1. Regular meetings of the club shall be held at 6:30 p.m., the third Thursday in each month, between October 1st, and June 1st, beginning the third Thursday in October, except as provided in Section 2.

Section 2. The club may, at any session, charge the date of a succeeding meeting, or the President, with reason therefor, may change the date of the next meeting or call a special meeting as may be required.

Section 3. In the event of change or call for special meeting, as provided in Section 2, the President shall direct the Secretary to notify members thereof.

Section 4. Any member who shall fail to attend at least three meetings during a season without excuse shall be conclusively presumed to have resigned and such implied resignation shall become effective without action of the club. He shall, however, be sent the publications of the club for the full period for which he has paid dues.

Section 5. The time consumed by any paper shall not exceed thirty minutes and in the discussion which follows, no member shall speak more than once and not exceeding ten minutes, until all other members present shall have had the opportunity of speaking.

ARTICLE V.—Dues and Assessments.

Section 1. The annual dues shall be nine dollars and ninety cents, payable in advance, provided that a member admitted after February 1st shall be required to pay only one half the annual dues for the balance of the year

Section 2. A special assessment, if necessity arises, may be levied at any regular meeting by an affirmative vote of a majority of all the members of the club.

Section 3. Failure to pay dues or assessments within sixty days of notice shall be considered as forfeit of membership.

ARTICLE VI.—Quorum.

Section 1. Eight members shall constitute a quorum for the transaction of business.

ARTICLE VII.—Amendments.

Section 1. This Constitution and By-Laws may be amended at any regular meeting, provided the proposed change has been announced at the previous meeting and is adopted by an affirmative vote of a majority of those present; and provided, that not less than eight affirmative votes shall be necessary.

Section 2. Article II may be altered or amended only at the annual meeting (last meeting in May), previous notice of proposed change having been given.

ARTICLE VIII.—Papers.

Section 1. Any member of the club who shall fail to present a paper or deliver an address on the date assigned him, without an excuse that shall be satisfactory to the Officers, shall thereupon forfeit his membership. The Secretary shall give each member, to whom a paper or address is assigned, at least three months notice of the date assigned to such member. The subject of any paper or address shall be selected by the writer with the advice of the Officers and the Secretary shall announce topics for discussion not less than two months in advance.

Addendum.

On January 10, 1922, the following rule was, on motion, unanimously adopted and recorded: That out of town guests brought by members of the club be welcome; That members introducing guests who are residents of Memphis, be charged $2.25 (or such an amount as shall be determined from year to year) per meeting for each guest.

THE EGYPTIANS

OFFICERS AND MEMBERS
YEAR 1967-68

Officers

Clark Porteous ..... President
Otto H. Alderks ..... Vice President
Edward F. Thompson ..... Secretary-Treasurer

Honorary Member

Rabbi W. H. Fineshriber

Members

Otto H. Alderks
John David Alexander
Walter P. Armstrong, Jr.
S. J. Buckman
Lucius E. Burch, Jr.
W. J. Michael Cody
E. W. Cook
John E. Farrior
Frank Faux
Hubert Garrecht
Dr. Henry B. Gotten
A. Arthur Halle, Jr.
Francis G. Hickman
Dr. T. S. Hill
Ralph C. Hon
McDonald K. Horne
Ed Lipscomb
Arthur W. McCain
John F. Moloney
Clark Porteous
Downing Pryor
Peyton N. Rhodes
Rudi E. Scheidt
Elder L. Shearon, Jr.
Dr. Newton S. Stern
Dr. Thomas N. Stern
S. Shepherd Tate
Jack H. Taylor
Edward F. Thompson
John H. Todd
Thomas F. Turley
C. Lamar Wallis
C. B. Weiss

OUR TRANSLATED BIBLE—
THE BEGINNING OF MODERN COMMUNICATIONS

By David Alexander

Read at a Meeting of "The Egyptians," October 19, 1967

Exactly four hundred fifty years ago on October 31, 1517, Martin Luther nailed to the door of the castle church in Wittenberg his 95 points of disagreement with the Church of Rome. With startling speed and vehemence the German populace and, for that matter, clergy throughout central Europe began a debate on the Theses, and Luther, who had not really seen himself at first as a separatist, found himself in a swirling controversy. He was summoned to Rome by the Pope in 1518, and through the intervention of a German prince, the Elector Frederick, a convocation was held in Augsburg. Things went badly for the Pope's representative, and the Germans reflected their smoldering resentment at the "foreign" control of the Church and the Pope's unabating appetite for more and more funds. The debate grew in intensity so that by 1520 Luther had compounded his heresy and disobedience. Lines of opposition and reaction hardened to the extent that Luther was summoned to recant his views before the Imperial Diet at Worms in the now famous confrontation. Luther declared in German, itself an unusual action in a Latin-speaking court, "Here I stand. I cannot do otherwise."

Luther had already begun to tear himself away from the sanctioned use of the Latin version of the Bible which is called the Vulgate. He evidently felt that only by returning to the original scriptures in Hebrew for the Old Testament and in Greek for the New Testament could a sound interpretation of the Bible be accomplished. With the beginning of the separation of the German radicals from the Roman Church, this interest became a paramount concern, and Luther set about the systematic translation of the Bible into vernacular German. How spectacularly he succeeded in this effort can be judged from the fact that to this day the German translation is essentially Luther's translation. Moreover, the common estimate of scholars is that Luther's Bible was the foundation of modern German. A contemporary German scholar declares

that "Luther's Bible was a literary event of the first magnitude, for it is the first work of art in German prose."

Once the floodgates were opened by Luther and his German associates, the tide of Reformation poured across Europe. It need not detain us to outline the historical developments in the progress of the Reformation except to note that the separation from the Roman Catholic Church was accompanied by a great surge of concern for an accurate translation of the Bible, from the original languages and the best texts, into the several vernaculars of Europe. John Calvin and others engaged themselves in translations into French and Spanish, Italian, Slavic, and Scandinavian versions tumbled in great profusion from the presses throughout the sixteenth century. But this is not our story.

The history of the Bible in English goes back to the abortive efforts of John Wycliffe and his followers to give Englishmen a vernacular Bible in the last years of the 14th and the early years of the 15th centuries. Wycliffe had died in 1384, but his influence had grown to the extent that the authorities were moved in 1407 and again in 1409 to anathematize the theology and translations of the Wycliffites. So fierce was the reaction that at the Council of Constance in 1415 Wycliffe was condemned, his writings were ordered destroyed, and his bones were exhumed to be taken from consecrated ground. One gathers from the vantage point of the present that since Wycliffe's crimes were punished with ultimate penalties, ecclesiastical authorities regarded Biblical translation, as well as heresy, as ultimate subversion. This is a vital point for the student of Christianity to keep in mind, for the question of access to Scripture and the debates over its authority have always exercised churchmen—no less now than then.

The continental reformation of the 16th century had, as we have seen, almost immediately produced a demand for the Bible in vernacular language. William Tyndale, about the time of Luther's daring acts of disobedience, had already been gripped by the desire to study in the new spirit of freedom which the Renaissance had brought to Europe. The Dutch scholar Erasmus had a profound influence on Tyndale, who was led to the conviction that the Bible must be put in English. In fact, Tyndale's knowledge of Erasmus's commentaries on the New Testament impelled him to declare in a

theological debate with a worthy of the Church, "If God spare my life, ere many years I will cause a boy that driveth the plough shall know more scripture than thou dost." By 1523 he sought official approval from the Bishop of London to allow him to prepare a translation of the New Testament from the Greek; the Bishop, and no doubt the English Church with him, was not ready for such "Lutheran" tendencies, and William Tyndale fled to the continent where he expected a warmer reception for his work. Undaunted by circumstance, he published his New Testament in 1525, and continued his work of translation of the entire Bible. He worked valiantly, but tricked by a stratagem he was lured from his asylum in the Free City of Antwerp to his martyrdom on October 6, 1536, before he finished his work. His last words at the stake, according to John Foxe's *Book of Martyrs*, were "Lord, open the King of England's eyes."

Ironically, by the time of Tyndale's execution, England had opened her eyes. Miles Coverdale, using Tyndale's work and supplementing it with translations from Luther's German Bible, prepared the first whole Bible in English in 1535. Less than a year after Tyndale's death, still another version of the Bible was ready for publication, this time under the patronage of none other than the Archbishop of Canterbury, Thomas Cranmer. This Bible is called the "Matthew" Bible, and represents the work of John Rogers, who, using the alias Thomas Matthew, edited Coverdale and Tyndale for this version. Still another version appeared in the next few years under the name of Richard Taverner. Thus, by 1539, three years after the death of William Tyndale, three distinct versions of the Bible in English had already appeared.

The year 1539 is also notable for the first truly official version of scripture in England. This version, called the Great Bible from its enormous size, is still in use in the Episcopal Church, for the Psalms in the Prayer Book come from the Great Bible. Again, the work of Miles Coverdale and preeminently of William Tyndale can be discerned. I have called this the "first truly official version": justification for this assertion can be seen in the proclamation of Henry VIII of May 6, 1541:

> A proclamation, ordained by the King's majesty, with the advice of his honourable counsel for the Bible of the largest and greatest volume to be had in every church. . . . It was ordained and commanded amongst other things that in all and singular parish churches there should be provided by a certain day now expired, at the costs of the curates and parishioners, Bibles containing the Old and New Testament in the English tongue, to be fixed and set up openly in every of the said parish churches. The which godly commandment and injunction was to the only intent that every of the king's majesty's loving subjects, minding to read therein, might by occasion thereof, not only consider and perceive the great and ineffable omnipotent promise, justice, mercy and goodness of Almighty God, but also to learn thereby to observe God's commandments, and to obey their sovereign Lord and high powers, and to exercise Godly charity, and to use themselves according to their vocations: in a pure and sincere Christian life without murmur or grudgings. . . .

If there ever was a golden age of Bible publishing in England, it must surely have been this period, particularly the reign of Edward VI. No fewer than seventy-five Bibles and parts of Bibles appeared between 1525 and 1553, and during the short reign of Edward from 1547 to 1553 some forty of these were published. Edward VI was succeeded by the Catholic Mary, and her accession to the throne broke, at least temporarily, the force of the wave of reformation, and since Bible-translation and Bible-printing were riding the crest of that wave, they too were cast upon the breakwater of the Queen's Catholic policies. No Bible was printed in England during her reign. Moreover, her drastic alteration of policy eventuated in a persecution of the protestants. Many Englishmen found it prudent to leave their homeland soon after her coronation, and a vast procession of bishops and priests, noblemen, scholars, and tradesmen set out for the Continent. Those who remained behind, big fish and small fry, faced prison or the stake. John Rogers, the Biblical translator, was burned at Smithfield, and three Bishops, Ridley, Latimer, and Cranmer, were burned at Oxford. Latimer and Ridley were burned together, and Latimer cried out to his fellow martyr at the stake: "Be of good comfort, Master Ridley, we shall this day light such a candle by God's grace in England as, I trust, shall never be put out."

Perhaps the most radical of all English Protestants finally found their way in exile to Geneva. They had not started out

for that destination, for they had been part of a community of exiles in Frankfort, Germany. The redoubtable John Knox had been called to be preacher to the small congregation, and soon the little church found itself split into two bitterly divided factions. One is tempted to oversimplify and see here a conflict between Presbyterians and Anglicans, because, although it would be improper to apply such terms to the Englishmen at Frankfort, the fight engendered here was to occupy both the English and Scottish churches from then to the present day. The radicals with Knox left to repair to Geneva—a place they somewhat extravagantly called the "most perfect school of Christ since the Apostles."

Once the Frankfort dissidents had reached Geneva they laid aside their rancor for a brief time, and turned their efforts toward scholarship and Biblical translation. In 1557 the New Testament in English, in their new version, was published; to it belongs the distinction of being the first Bible in English to follow the new fashion of dividing the text into verses. A revision of the psalms appeared in 1557 also, and the final Genevan revision of the psalms was printed as a separate issue in 1559. Finally, in 1560 the Bible as a whole was published in Geneva, and it soon became the most popular version the English-speaking world had known. These Genevan versions were marked by the conscious efforts of the translators to produce the most accurate and the most useful version of which they were capable. They worked diligently with the other scholars in Geneva to establish the best text, and their versions can be called the first to take systematic note of variant readings. They added many features for the convenience of their readers, perhaps the most famous of which are the marginal notes or comments which explain or illustrate the meaning of difficult verses or words. Their versions were the first to use italic type to make clear to the reader that for plain English meaning words not in the Hebrew or Greek had to be inserted. This practice has been followed in many Bibles, and many people today do not know the reason for these italicized words. They are not, as children believe, words that require special emphasis! Illustrations, concordances or indexes, tables of names are all included so that the reader may have fuller insight into the mysteries of scripture. Curiously the table of names suggests that these names ought to be given

to the children of the pious, that these holy people "may have testimonies by their very names." I believe that the well-known puritan tendency to utilize names of piety, so current among the early settlers of America, stems from these admonitions in the Genevan Bible. A splendid illustration of the unconscious humor afforded us in the irreverence of the twentieth century is the heading to the passage about John the Baptist and his beheading: "The Inconvenience of Dancing." Another headline worth noting is one which has become a commonly-used saying: "Esau selleth his birthright for a mess of pottage." Perhaps one of the most extraordinary characteristics of the Genevan Bible of 1560 is that it was the first major book in English printed in roman letter rather than in the less readable black letter type which we generally call Gothic or Old English. I shall have more to say about typographical influences of the Genevan Bibles later. Finally, it should be remembered that the Genevan Bible, which became the Bible of English puritanism, is best known as the Breeches Bible for its rendering of Genesis 3.8: And they sewed fig tree leaves together and made themselves breeches.

The Genevan Bible did not sit well with the bishops, nor indeed did Queen Elizabeth think well of the radicals of Geneva. John Knox and Christopher Goodman had issued diatribes against women on the throne. To be fair, we should note that they objected to Mary, but equally to be fair, they couched their objections to Mary in Blasts of the Trumpet against the Monstrous Regiment of Women or in tracts on civil disobedience. Thus, the leaders of the English Church under Archbishop Parker set about producing a version that would be less closely identified with the presbyterians and puritans. In 1568 they published the version known as the Bishops' Bible; it did not, however, match Geneva's vigorous scholarship, leaning as it did so heavily on the Genevan version and the Great Bible. Perhaps its major claim to fame is that it attempted to follow the injunction "To make no bitter notes upon any text" in order to reduce the significance of the marginal notes which had become so notorious in the Genevan version. Even so, the Bishops' Bible contains many marginal notes borrowed from Geneva. One original note is worth quoting: as an explanation of the place-name Ophir in Psalm 45.9, there is the note, "Ophir is thought to be the Island in

the West Coast, of late found by Christopher Colombo: from whence at this day is brought most fine gold."

The effects of the Reformation in biblical scholarship and biblical translation were now felt among English Catholics. Under Elizabeth they had become the hunted rather than the hunters, and many of them fled to France and to Rome to escape persecution. In 1582 the English College at Rheims issued a New Testament. The Catholic exiles felt the need to be able to quote scripture against the protestants in English, and they did not fully trust the protestants to do their translating for them. In the Preface to the Rheims New Testament, they wrote, "We translate the old Vulgar Latin text, not the common Greek text." One of the qualities of the New Testament is a strongly latinate style, full of technical Catholic liturgical terms, such as pasche, Azymes (unleavened bread), sanctum sanctorum. A good illustration of this propensity, myself to use a Latin word, is Philippians 2.10: "every knee shall bow of celestials, terrestrials and infernals." It must be noted, however, that the principal translator, Gregory Martin, was an excellent scholar, and his translation, though of the Vulgate, mirrors the advances made in English since Tyndale and makes good use of the Greek text for elucidation of the Latin. The Old Testament did not appear until 1609-10, and was published at Douai. The exiles complained of insufficient funds to publish the whole Bible, as they wrote, the translation "has been lying by us for lack of good means to publish the whole." While the Rheims New Testament was noted by the committee working on the Authorized Version, the Douai Old Testament did not appear in time to influence this version.

The Bishops' Bible had been intended to replace the Genevan Versions in the popular use. It had failed. Consequently, the growing popularity of Geneva with its tendentious marginal notes was a rising offense to the established Church. In January 1604 King James called a conference at Hampton Court of the most learned English divines. Under the King's special interest and protection they were set up as a committee for the translation of the Bible. King James disliked the Genevan notes; he described them as "very partial, untrue, seditious, and savoring too much of dangerous and traitorous conceits." Fifty-four men were appointed to the committees, two of which were to meet at Oxford, two at Cambridge, and

two at Westminster. The rules for procedure required that the Bishops' version be the basis, but that Tyndale's, Matthew's, Coverdale's, the Great Bible, and the Genevan Bible versions be used "when they agree better with the text than the Bishops' Bible." The Hebrew and Greek were carefully studied, and Tyndalian and Genevan influences can be widely seen. In 1611 the Bible was ready, and the noble Authorized Version was born. J. Isaacs has called it a "miracle and a landmark," a judgment with which we can all agree. To this day for many persons it is and will remain the version above all others, and the Revised Standard Version admittedly is a revision of the Authorized textual tradition. The King James Version is even occasionally canonized by the unlearned as the St. James Version, not so much, I think, as an approbation of the King as of the version itself.

These same persons have been perhaps too zealous in their defense of the Authorized Version, for they fail to realize how greatly our language has changed since 1611. Dean Luther Weigle, Chairman of the Revised Standard Version committee, has collected comprehensive lists of words whose meanings have changed. Among the most obvious are "let" which means "hinder," "prevent" meaning "precede," or "conversation" meaning "conduct." There are more than 300 such words: "coast" meaning "border," "discover" for "uncover," "duke" for "chief," "leasing" for "lie," "meat" for "food," "naughty" for "worthless," "out of hand" for "at once," "reins" for "kidneys," "suffer" for "let," "tale" for "number," "wealth" for "welfare" or "prosperity." Furthermore, the Authorized Version itself was revised and improved from time to time, especially in Cambridge in 1762, in Oxford in 1769, and again in 1873, and these alterations go beyond the conventional and constant changes in spelling with which printers sought to keep their editions up to date. It is not true that the Authorized Version has been kept unchanged. A look at the original spellings in the Authorized Version will show how much internal change the Version has undergone throughout its history. Of course, knowledge has grown—knowledge of text and language, so that merely to keep the Authorized Version deprives one of the great advances in our understanding of the Bible since 1611. This is the paramount impulse behind the proliferation of new versions in recent days.

I have traced, however briefly, the history of the Bible translated into English up to the Authorized Version. Much has happened since 1611 to be sure, and recent developments in Biblical scholarship stress for us the need to have a constantly revised translation. Recent days have brought us a multitude of such new versions; perhaps the most hopeful signs of the times are the decisions of the Roman Catholic Church to accept common cause with protestants in the use of the Revised Standard Version. Furthermore, entirely fresh attempts are being made in various quarters: the New English Bible, the new Jerusalem Bible, the Jewish translation of the Old Testament now in progress all demonstrate both the concern for adequate English versions of the ancient texts and the desire to produce translations based upon the best scholarship and the best English style. It remains for me here to discuss my thesis that the transalated Bible has been an agency in the growth of modern communications.

It is not my purpose here to consider the theological impact of the translation of the Bible on the life of the several churches or even on society as a whole, great as this impact has been. It is clear to me that accessibility of Scripture to the ordinary man has decisively changed the theological climate of the English-speaking world, but let me here confine my remarks to the influence of the Bible on publishing and on the English language itself.

We have already seen that the Genevan Version of 1560 stands as a landmark in English book production. It was the first major work printed entirely in roman type. Up until 1560 and for that matter throughout most of the sixteenth century, books, especially Bibles, were printed in black letter. By the time of the Genevan exile, most Genevan books in French and Latin were printed in roman type. This type became the ordinary vehicle for printing French and Latin books, but German retained, and indeed has kept until after the Second World War, black letter for its printing. Anyone who has struggled to learn German knows well this Teutonic usage. It can be confidently asserted, however, for the English publishing industry that the Bibles of Geneva had a major influence in the gradual disuse of black letter. The first Genevan Bible published in England reverted to black letter, and the use of black letter prevailed for the large format Bibles of the Genevan, the Bishops,

and for the Authorized Versions. The popular editions, the octavo formats, however, generally used roman letter, and it was these smaller, popular, easily owned and used editions that swept black letter out of the printing shops. This typographical improvement was due in large measure to the brilliant scholarship of a French family, the Estiennes, or to use their Latin name, the Stephanus family. They had long insisted that good scholarship must be presented in books which typographically are neat and clear, and their Greek editions of 1546, 1549, 1550 and 1551 stand as milestones of typographical excellence. It is the Estienne family to whom we owe verse division. For many years and through different editions of Greek and Latin Bibles they had gradually established the now familiar practice of dividing the text into numbered verses, each of which is set out as a seperate entity. When Robert Estienne moved to Geneva from Paris he brought with him his definite ideas about the format of a page, verse division, and clarity of type design. Because he held such sway over Bible-printing in Geneva, the English exiles there followed these practices, and M. H. Black of the Cambridge University Press has recently written:

> It was the Genevan versions in Latin, French, English, Italian and even Spanish, which provided [the whole Bible in a handy size]. They were texts from a centre of acknowledged scholarship, and they were provided with editorial matter of a fairly uncompromising nature, with aids to comprehension and a full set of devotional and liturgical supplements at the back. There were in modern roman type: handy, not unattractive, economical, and uniform. And that, to put it very simply, is why the English-printed Bible looks as it does today.

In short, our Bibles are printed in columns with separated and numbered verses because of the practices of sixteenth century Geneva. It is interesting to see how modern versions, such as the Revised Standard, still cling to these practices, although the RSV has tried to place verses as sentences in paragraphs with the verse numbers treated as footnote indexes. There is also a new full-page format in some editions of the RSV, the Torah of the Jewish Publication Society, and certain other editions of the Bible in modern dress and language.

It is more obvious, I suppose, to remark upon the translated Bible as a medium for the expansion of publishing itself. The small editions of the Bible from the end of the sixteenth century to the present found a ready market with the twin consequences of the spread of books and the growth of the publishing houses themselves. When the Bible first was widely available in the sixteenth century few people could afford the luxury of book ownership; soon even the poorest families not only could afford Bibles, but also felt constrained to purchase them. No longer were Bibles vastly expensive and vastly cumbersome volumes left chained in the churches. What a remarkable change in the economy of publishing when one calculates that in the fifteenth century a printed Bible cost the equivalent of a town house or fourteen fatted oxen (these figures from M. H. Black) and that in the late nineteenth century, a Bible printed by the Oxford University Press for the British and Foreign Bible Society cost 4d. a copy.

The influence of the Bible on the English language has been its most dramatic contribution to the common life of Britain and America. Shakespeare, one who loved and used the language more completely than most men, regarded English as a hungry tongue whose appetite for words was insatiable. Moth, in Love's Labour's Lost (V, 1, 39) says of two pedantic characters that "they have been at a great feast of languages, and stolen the scraps." Anyone who has studied the richness of the English word-stock with its borrowings from almost every language of the world and its easy creation of new words to fit new situations is aware of the linguistic feast our forerunners have enjoyed. The main concern I have here, however, is to take a quick look at the role played by the Bible in the development of the modern language. It has been said that the Authorized Version has had a conservative influence on vocabulary. Someone has computed the total vocabulary of the Authorized Version at 9884 words, including inflected nouns, pronouns, and verbs: the total for individual words is 6568. Estimates of the magnitude of Shakespeare's vocabulary range from 15,000 to 24,000, as anyone who has to read his Shakespeare with one eye on the glossary knows. It is argued on the basis of these statistics that the Authorized Version effectively shrank the working vocabulary of modern English. I doubt this, for Shakespeare's deft pen and unerring ear gave him a richness of vocabulary perhaps unequalled by any other English writer. Jespersen in his *Growth and Structure of the English Language* quotes the thesis that Shakespeare's word-stock was the richest

ever employed by a single man. It is manifestly unfair to compare the Authorized Version with Shakespeare. Furthermore, the Authorized Version, or for that matter any version of the Bible, endeavors to convey meaning with as little hindrance to the reader as possible. Hence the Bible must use words which enjoy the broadest currency. We are familiar in our own day with efforts to rewrite the Bible in Basic English or in some other form of limited vocabulary. The monumental pertinacity of the Authorized Version in the hearts and minds of men of three centuries, though, has meant that its way of speaking has been preserved to a certain extent even in ordinary—or at least pompous—everyday speech. I hear clergymen use *vouchsafe,* an archaic word indeed, and I wonder if it is not kept alive because of the dependence of prayer language on the Authorized Version or the Prayer Book. Curiously enough, according to Jespersen, the declension of the verb in the Authorized Version preserved an ending which was about to die out, namely the -th ending in the 3rd person singular, as in *hath, loveth, seeth.* The evidence he marshals suggests that this ending was really revived by the Authorized Version in a time when it was gradually fading from usage. He also cites the fact that the expanded form *doeth* represents a nineteenth century misunderstanding of the old way of printing in which *doth* might or might not be spelled with an *e* depending upon the printer's need for the letter in justifying margins.

The most extraordinary influence of the Bible has been in the allusions to its words and phrases which we make everyday, and which we make frequently without knowing the source of the phrase. The *Oxford Dictionary of Quotations* lists twenty-nine pages in double columns of sayings from the Bible. It is fun at times to see how often Biblical phrases appear even in our secular day. Although the fat of the land makes us dreamers of dreams, man is born to trouble. These troubles which at first are no bigger than a man's hand make us take thought of the morrow, and dread to go out in the heat of the day, because the powers that be put the choice of God and mammon before us. This is my last gasp. Any more and I'll be crushed under the nether millstone.

It is my conviction that the translation of the Bible wrought changes in society far beyond the walls of the churches, and that the quality of life in European civilization was advanced by the availability of Scripture. It made literacy imperative, communication easy, and publishing possible. In the paraphrased words of the prolific Canadian pundit of our day, it has been the medium with the message.

ABSTRACT OF TALK GIVEN TO THE EGYPTIANS SOUTHWESTERN'S NEW SCIENCE CENTER

Dr. Jack H. Taylor

Read Before "The Egyptians," November 16, 1967

A lecture, accompanied with slides, was given on Southwestern's new science complex. This complex consists of new construction (about $2.8 million dollars) that will house the departments of Biology, Mathematics and Physics. The present Science Building will be renovated and will be occupied by the department of Chemistry and the new Computer Center. Upon completion of the new construction and the renovation, these facilities will constitute Southwestern's new Science Center. The Science Center will provide the following space:

Biology	25,425 ft.^{2}
Chemistry	33,000 ft.^{2}
Mathematics	4,630 ft.^{2}
Physics and the Laboratory of Atmospheric and Optical Physics	23,425 ft.^{2}
Computer Center	1,450 ft.^{2}

Slides were presented showing various phases of the new construction. The space allocated to Biology is located at ground level while Mathematics and Physics are each located in a tower. A unique feature of the Mathematics tower is the beautiful joint Biology-Mathematics library made possible by a generous gift from Dr. Stanley J. Buckman. Located on top of the Mathematics tower is the Biology greenhouse.

The Physics Tower has been uniquely designed to support the work of the Laboratory of Atmospheric and Optical Physics. Some of the facilities in the Physics Tower are the following:

(a) Coelostat system—located under two 3 ft. diameter domes on top of the tower and used to direct radiation from the Sun throughout the Tower.

(b) Stellarama—A 10″ diameter image of the sun is made available to the students in the display area of the Physics Tower.

(c) Prominence Telescope.

(d) Two 18 foot diameter domes housing telescopes.
(e) A dark tunnel 70 feet long.
(f) Sun telescope.
(g) A 6 foot diameter dome housing an optical tracker.
(h) A specially designed Radiometry Laboratory.
(i) Antenna system for use in studying whistlers and the sudden enchancement of atmospherics.

At the conclusion of the lecture a conducted tour of the new construction was given.

ECONOMISTS AND REVOLUTIONS

RALPH C. HON

Read Before "THE EGYPTIANS," December 14, 1967

The enthusiastic and stimulating discussion elicited by Dr. Rhodes' paper on *Scientists and Revolutions* at our meeting last May prompted me to consider the extent to which economists might qualify as revolutionists. You may recall that Dr. Rhodes stated that "When some rather large scale shift of thinking or accomplishment is brought about, we refer to it as a 'Revolution,' because there has been a turn-around in the way things or events or discoveries are regarded."

Just as Galileo, Newton, and Einstein greatly changed our concepts regarding physics, economists such as Smith, Marshall, Keynes and Heller have given us new points of view in this area. Since Keynes was easily the most important economist in the first half of the twentieth century with views that came closest to being revolutionary, attention will be largely centered on him. To borrow one of his familiar statements, "The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist." For example, the United States is the only great nation in history that grew up as a business society. Adam Smith's *Wealth of Nations* appeared the same year as our Declaration of Independence and Smith's philosophy is bred into Americans in a way that is matched in no other country.

To point up the importance of our subject, let me say that if the economic policy makers of the 1920's had possessed modern tools of analysis there is a good chance that the Great Depression, whose cost in loss of wealth and income was roughly comparable to the cost of World War II (excluding human casualties), could have been averted and, had there been no depression, Hitler would probably not have attained power. Certainly the history of the world would have been very different. Or, to take an illustration dealing more specifically

with the welfare of one country, England has never quite recovered from the setback it received when Winston Churchill, in 1925, as Chancellor of the Exchequer, put his country back on the gold standard at its pre-1914 parity over the protests of experts in the field such as Keynes.

John Maynard Keynes, a many-sided genius, was the son of eminently intellectual parents both of whom survived him. His father, John N. Keynes, was an outstanding logician and political economist and his mother was a justice of the peace, alderman, and mayor of Cambridge. Among Keynes' teachers at Cambridge were Marshall and Pigou, both of whom recognized his ability without, of course, anticipating the extent to which he would lead economic thinking away from traditional channels. In addition to becoming, at the age of twenty-eight, the editor of the world-famous *Economic Journal,* Keynes managed, with an unusual degree of success, the investments of its publisher, the Royal Economic Society, as well as those of King's College of Cambridge University. He was the principal representative of the British Treasury at the peace conference after World War I but resigned his official position in 1919 as a protest to the terms of the peace settlement that was forced on Germany. He rejoined the Treasury in 1940 to guide Britain through the difficulties of war finance and was its chief negotiator in organizing the International Monetary Fund and the International Bank for Reconstruction and Development. In his spare time, he accumulated a fortune of a half million pounds mainly through dealing in commodities and foreign currencies.

Keynes' greatest book, *The General Theory of Employment, Interest and Money,* published in 1936 and commonly referred to as *The General Theory,* was largely the result of economic desperation. Af first, as a monetary economist, Keynes had been inclined to think that when an economy was not functioning properly, the causes ond cures could be found in its monetary aspects. Also, following the English tradition, he had faith in the ability of the central bank to regulate economic activity through the exercise of control over the quantity of money in circulaton. But when the dreadful depression of the 1930's developed into the worst experienced by the Western World in modern times and many feared that the free enterprise system could not survive, Keynes concluded that a minor

tune-up in economic theory and policy would not do the job and that a major overhaul was essential. It was then that he wrote the *General Theory* which set forth his diagnosis of the ills and prescribed the general nature of the cures which could be attained with the least alteration of the system. It was the work of a scholar who was seeking liberation from classical teachings which he was convinced had become obsolete and, at the same time, wanted to help an ailing capitalistic world regain its health.

Traditionally, emphasis had been placed on what is now known as "microeconomics;" the analysis of individual desires and transactions as influenced by and also influencing value and price. Specific theories of wages, rent, and interest were treated as special problems in value analysis. The forces of supply and demand were expected automatically to result in equilibrium adjustments in all prices and values, full utilization of all factors of production and an equilibrium price of the use of each. Cyclical disturbances which brought deviations from these levels were regarded as temporary. The part that government should play bore strong laissez-faire overtones. Unemployment and oversaving were regarded as self-correcting phenomena. The cure for unemployment of men was lower wages and for that of money was lower rates of interest. The view that any man could get a job if he were willing to accept what he was worth took a bad beating during the depression as did Say's famous law that the aggregate supply of goods must create its own demand.

In the *General Theory,* Keynes turned to "macroeconomics," which deals with total national income as it is affected by total savings and spending. Macroeconomics preceded Keynes. The work of Mitchell and his associates at the National Bureau of Economic Research had been cast in the framework of aggregative economics but the growth of macroeconomics is Keynesian and assumes the proportion of a revolution. Keynes' emphasis upon levels of employment as affected by levels of income is different from that found in earlier studies.

Businessmen with optimistic and expansionist viewpoints, as well as economists who had been taught that Marshall's *Principles of Economics* was almost sacrosanct, found that much of *The General Theory* was hard to swallow even if true. It argued that orthodox economic policy would inevitably lead to more

frequent and more serious depressions; that the capitalistic system could not run itself automatically and maintain full employment. Thus it denied the most fundamental and cherished convictions of the influential group who had steadfast faith in free enterprise, free markets and competition as guarantors of full employment and a steadily rising standard of living.

Great as it is, *The General Theory* is not the last word in economics. For many years a violent controversy raged between the Keynesians, who advocated management of the economy by means of fiscal and monetary policy and businessmen and orthodox economists who argued that a free-market society is inherently stable and advocated that the government follow a policy of laissez-faire. As a matter of public policy the Keynesians, for better or for worse, appear to have carried the day and we now have a managed or mixed economy. Fortunately, the income analysis is itself neutral and can be used as well to attack as to defend government fiscal intervention. In this sense, Milton Friedman, the best known guardian of the laissez-faire tradition in the United States, has acknowledged that "We are all Keynesians now."

Effective demand is the starting point in Keynesian economics. The size of the national income is determined by the total volume of production and employment is determined by the amount of money that individuals, business firms and government spend for currently produced goods and services. The level of income is, therefore, uniquely related to the level of expenditures. In an exchange economy, where one man's spending is another man's income, it is spending rather than individual saving that is essential to production and prosperity.

Employment is a function of income. Determine the level of national income that will reduce unemployment to the desired rate and, through the use of monetary and fiscal policies, see that this level of national income is maintained. The record indicates that there is a fairly stable relationship between consumer income and expenditures. As consumer incomes rise, an increase in consumer expenditures can be expected to follow.

Investment expenditures, while not wholly divorced from the income level, are primarily determined by the factors which influence the outlook for profits. If a businessman thinks he can make a profit on capital investment sufficiently above the

rate of interest he has to pay to borrow money to justify the risk, he will be an active investor. Obviously, the rate of interest is a very important factor in the analysis because a high rate discourages, and a low rate encourages, investment.

A given level of income cannot be sustained unless the amount of saving at that level of income is offset by an equivalent volume of investment. In any economy at a given time there is a unique consumption plus investment schedule consistent with full employment equilibrium. Any attempt to spend an amount greater than that which can be produced at full employment will lead to inflation and the expenditure of less than the full employment amount will lead to deflation and unemployment.

The Keynesian thesis is that, as a result of underinvestment, the economy tends to operate at a lower than optimum rate. The level of employment is strategically dependent on the amount of investment. Thus, one key approach to attaining the desired level of income and employment is through a careful regulation of the factors affecting investment.

The ultimate weapons on which Keynesians rely are monetary and fiscal policy. The Federal Reserve System is expected to "lean against the wind" by using the familiar tools of open market operations, the discount rate and reserve requirements to provide easier money when prices are falling and unemployment is excessive and tighter money when employment is full and prices are rising. The modern theory of fiscal policy is that the government's taxing and spending should be designed to compensate for the fluctuations in the level of income and employment. Falling income in the private sector of the economy should be offset by a cut in taxes or increased government expenditures or a combination of the two, and inflationary pressures should be countered by converse measures. The objective of fiscal policy in the short-run is the mitigation of the business cycle; over the long-run it is to prevent either secular stagnation or inflation while at the same time providing a favorable environment for economic growth. One of the major areas of controversy centers around the question of what to do when these goals call for conflicting policies.

It was not until the 1960s that the United States adopted the Keynesian approach. By contrast, it is of some interest to

recall that in 1932, at the approximate low point of the depression, Congress made its contribution by pushing up tax rates virtually across the board but notably on the lower and middle-income groups. E. C. Brown, one of the leading analysts of the 1930s, found that as a result of the sharp increases in tax structures enacted at all three levels of government, the trend of the direct effects of fiscal policy on aggregate full-employment demand was definitely downward throughout the thirties.

As Frances Perkins recalled, "Roosevelt himself was unfamiliar with the economics of Keynes." When Keynes visited Washington in June, 1934, he had a brief talk with the President but it was not fruitful. Roosevelt reported to Miss Perkins: "I saw your friend Keynes. He left a whole rigamarole of figures. He must be a mathematician rather than a political economist." Keynes' report to her was that he had "supposed the President was more literate, economically speaking." Contrary to some widely held impressions, the direct influence of Keynes upon our economic policies during the 1930s was negligible.

The spectacular unleashing of the productive forces of this country during World War II aroused a strong desire for greater utilization of resources in peacetime. At the same time, the prevailing mood during the early postwar years, at least on the part of many economists and the economic policy makers in government, was colored by what now appears, with the benefit of hindsight, to have been an obsessive fear of the emergence of a postwar depression with accompanying unemployment such as we experienced during the 1930s. But this serious concern over the employment problem had some constructive repercussions. The Employment Act of 1946, the twentieth anniversary of which was justifiably celebrated last year, created the Council of Economic Advisers as an instrument for the development and focusing of policies designed to provide economic growth and stability.

For several years following the war, the over-riding problem of our economy was inflation and the unemployment rate remained under 4 per cent through 1948. The record of the 1950s provided evidence that substantial progress was being made in curtailing the amplitude of business cycles but little or no progress in lessening the frequency of recessions. On the

favorable side, the recessions beginning in 1948, 1953, 1957, and 1960 were not only short but also mild by historic standards. For example, taking one of the various measurements that might be cited, the average drop of the Index of Industrial Production during these four recessions, measured from peak to trough month, was 10 per cent, as contrasted with the 32 per cent decline in the 1937-38 recession. But there were also disturbing elements.

After a recession in 1949, which brought the unemployment rate up to 5.9 per cent for the year, recovery was stimulated by the Korean War from its outbreak on June 25, 1950, until its end on July 27, 1953. In retrospect, the recovery which began in November, 1949, and lasted until July, 1953, was the longest and strongest expansion period experienced during the 1950s. The unemployment rate during the year 1953 was 2.9 per cent. At the next cycle peak in March, 1957, unemployment was at 3.7 per cent. The following recession brought unemployment for the year 1958 back up to 6.8 per cent. The next peak, with an unemployment rate of 5.1 per cent, came in May, 1960, after an expansion period of only approximately two years. These figures record a simple and disturbing set of trends. Each successive expansion was shorter than its predecessor. Unemployment was higher at each peak of the cycle than at the previous peak and the average rate of unemployment was increasing from cycle to cycle. Many felt that the transcendant economic problem had shifted from inflation to lag in economic growth.

However, the Federal Reserve System and the Eisenhower Administration continued to look upon inflation and the gold drain as the major dangers and from 1955 on, permitted the money supply to grow only slowly. Labor unions and Democratic politicians attacked the Fed as a barrier to a healthy, growing economy. On the other hand, the Fed defended its view that only stable money could provide a firm foundation for a sound prosperity.

Politicians in both major political parties capitalized on the public dissatisfaction with the sluggish performance of the economy. Nelson Rockefeller campaigned for the Republican presidential nomination in 1960 on the promise to raise American growth rates. As an actual presidential candidate, John

F. Kennedy's insistence that we get moving again helped elect him and in his message to Congress on Economic Recovery and Growth, February 2, 1961, he stressed the theme in these words: "realistic aims for 1961 are to reverse the downtrend in our economy . . . For 1962 and 1963 our programs must aim at expanding American productive capacity at a rate that shows the world the vigor and vitality of a free economy."

Keynesian economics had the ready answer to this type of situation. Last month, the business expansion which started in March, 1961, was 81 months old and thereby became the longest in the history of the United States, topping the 80-month record set during the World War II period, June, 1938, to February, 1945. President Kennedy's economic advisers report that at first he appeared to be allergic to the New Economics and shocked them by stating at one of their first White House meetings that the anti-recession battle would have to be fought within the bounds of a balanced budget. They add, however, that both President Kennedy and President Johnson were remarkably receptive to new economic ideas, deeply committed to more rapid economic growth and eager to put modern economics to work to help achieve the nation's goals.

The Kennedy administration was quick to recognize that it could not attain its objectives without stepping up investment in plant and equipment. The obvious move, typically Keynesian but thoroughly un-Democratic in tradition, was to offer special tax incentives for such investment. The three billion dollar tax credit, recommended in April, 1961, and put into effect the following year was our first attempt to aim fiscal policy directly at boosting investment and was greeted with suspicion by the business community which apparently had difficulty in believing that a liberal Democratic administration could or would originate and sponsor a program helpful to business. Liberalized depreciation rates gave additional stimulus to investment.

At first the New Frontier was undecided between additional expenditures and reduced taxes as an added stimulus to the economy, but by the end of 1962 the President's Council of Economic Advisers had convinced him that a massive tax cut provided the best approach to the problem. Once the President accepted this conclusion, he set out to obtain a major tax reduction in the midst of a business cycle recovery at a time when traditional policy called for higher taxes and interest rates. He gave the idea a trial run in December, 1962, before a relatively conservative audience, The Economic Club of New York, and received a friendly enough response that he called Heller to say, "I gave them straight Keynes and Heller, and they loved it." Congress proved a bit more difficult and the tax cut did not become law until February, 1964, almost three months after the death of President Kennedy. Only a relatively small minority would question the contention that the tax cut added materially to the length and vigor of the long period of prosperity in the 1960s.

The extent to which the principle underlying the tax cut gained acceptance is evidenced by an editorial in the July 24, 1965, issue of *Business Week:* "The 1964 tax cut was not a one-shot achievement that forever solves the nation's growth problems. On the contrary, the lesson of 1964 is that fiscal policy needs to be used actively and steadily if balanced long-term growth is to be achieved." Recognition by business interests that prudent Keynesian fiscal policies promoted larger markets and higher productivity contributed to the cooling off of the antagonism between Democratic national administrations and the business community. This is true to such an extent that a recent issue of *Dun's Review* carried a leading article entitled, "Can the Republicans Win Back Business?" In this connection, the statement of Senator Charles H. Percy is of interest: "Let me say that the Democrats have no monopoly on the New Economics. After all, the New Economics was spelled out in the report of the Republican Committee on Program and Progress, which I chaired in 1958 . . . I think most businessmen realize that there is nothing wrong with the principles of the New Economics. The problem is that the Administration has failed to apply them."

As previously indicated, the Employment Act of 1946 commits the government to policies that will moderate cyclical instability and maintain employment at a high level. Many have suggested that it be amended to include as a goal the maintenance of a reasonably stable price level. Regardless of whether there is such a legislative proclamation, people who live in mixed economies universally expect their governments to pur-

to produce all the automobiles, houses, TV sets, etc., that we would like, and at the same time rebuild our cities and fulfill the responsibilities of a world power. It may well be that the Vietcong's most powerful weapon against us is our own unreadiness to make the hard decisions necessary to keep the great power of the American economy under control. In addition to a substantial tax increase, sizable cuts can and should be made in expenditures. Opinions differ, of course, with respect to where these cuts should be made. This points up the necessity of our developing a set of national goals and priorities.

History, as usual, will be the judge of the revolution in economic thinking with reference to the part that fiscal and monetary policies should play in influencing the level of economic activity. But, given the experience of the 1960s and the advances yet to come, we should be able to count on economic expansion a much higher proportion of the time in the future than in the past. The New Economics, of course, provides no money-back guarantee against occasional slow-downs or even recessions, but in the coming decade potential growth in real production should average around 4 to 4.5 per cent a year and with reasonably good management, actual growth should not fall much below growth in potential. Mastery of the modern analysis of income determination should enable us to moderate the excesses of boom and slump and look forward to healthy progressive growth. On the other hand, unless our policy makers give greater weight to the fact that stabilization involves both the maintenance of a high level of economic activity and relative price stability, the life of the New Economics is in jeopardy. In an inflationary period such as the present, we need to learn to act with the same sense of urgency that we have developed in dealing with the threat of recession.

ALONG THE APPALACHIAN TRAIL

EDWARD F. THOMPSON

Read Before "THE EGYPTIANS," January 19, 1968

The idea for the Appalachian Trail was suggested in October, 1921, when Mr. Benton MacKaye, a forester and philosopher from Shirley Center, Massachusetts, wrote and published an article in the Journal of the American Institute of Architects entitled, "The Appalachian Trail—An Experiment in Regional Planning." There were already in existence a few extended trails, but the big long one was his idea. It seemed to be the right time for its inauguration because the idea caught on with astonishing rapidity. The first mile was cut and marked in 1922 at Palisades Interstate Park, New York. The final sections were finished barely fifteen years later on August 15, 1937.

The project became a mammoth amateur recreational project—an example of the work of a few thousand people benefiting the lives of millions to come. The Trail stretches from Mount Katahdin in Maine some 2,021 miles over the mountains, the rivers, across the creeks, and down the valleys to Springer Mountain in Georgia. Many setbacks and delays were encountered and overcome before the trail was finally completed. The trail was started and is maintained today by more than 100 clubs of the Appalachian Trail Conference with its headquarters located in Washington, D. C.

How many people use the trail each year? That is almost impossible to estimate, but the figure over the entire trail runs well over a million a year. More than 100,000 hikers use the section through the Great Smoky Mountain Park. The Appalachian Mountain Club at Boston maintains the trails and lodges in the White Mountains. They operate eight huts during the summer season, equipped with firewood, food, and first aid equipment. Because of the remoteness of the huts, supplies are flown in and dropped by helicopters. Members of the clubs then collect the supplies and carry them to the huts. At the base of Mt. Washington a large club house offers adequate accommodations for travelers and cordial hospitality. A supervisor is stationed here to aid hikers, to dispense information and to meet emergencies.

The Appalachian Trail starts at its southern terminus on Springer Mountain in Georgia at an elevation of 3,782 feet and stays up high for most of its 2,000 miles. It starts in a wilderness, too, and winds along the crest of the ridges and mountains and dips into gaps, coves, and gorges. The forested basins slip off into the distance from the crest of the peaks, and the hiker remains on top of the world for most of his journey over the entire trail.

The section of the trail in Georgia is within the Chattahoochee National Forest. It enters the Nantahala National Forest when it crosses into North Carolina, and skirts along the crest of the mountain gaps between Tennessee and North Carolina over the top of the Great Smoky Mountains reaching 6,642 feet at Clingman's Dome, the second highest point in the nation east of the Rockies. The trail then traverses Pisgah National Forest and crosses into Tennessee on Roan Mountain. It enters Virginia just east of Bristol.

More than 460 miles of the trail is in Virginia. The Blue Ridge Parkway parallels the trail for many miles through Old Dominion, making it accessible to motorists as well as to hikers. It enters Maryland at Harper's Ferry and travels along the long and gently curving ridges over the Appalachians across Pennsylvania and north via New Jersey and into New York state among the Catskill Mountains. It crosses the Hudson River over the famous Bear Mountain Bridge and continues along the crests of the Berkshires through Connecticut and Massachusetts. It winds among the Green Mountains in Vermont and crosses into the White Mountains along the peaks of the Presidential Range in New Hampshire. It passes through the coniferous forests in the remote north woods until it reaches the end on Mount Katahdin in Maine.

The geology of this region is varied and interesting. The mountains date from many early periods, and the Great Smokies are among the oldest mountains on the face of the earth. "In the early stages, the mountains were lifted to heights three times as high as the existing summits, pushed up slowly and inexorably over millenniums of time. During the Paleozoic Era, which started 600 million years ago, there were plains, and plateaus and volcanoes, bordered or isolated by the sea. In the sea were deposited sediments, lavas, pebbles that would become the ingredients of the modern Appalachians. . . . In

widespread phases of mountain building most of these deposits were turned on edge and folded during Permian time, 270 million years ago."

In flying over these mountains, it is interesting to note that the Appalachian ranges run in great ridges fom the northeast to the southwest. The Great Smoky Mountains run in huge folds from the northwest to the southeast, while other ranges jut off in various angles from these directions. From a plane from Memphis to New York City, one can see very clearly the three geographic sections of the entire eastern seaboard region; namely, the coastal plain, the piedmont region, and finally, the Appalachian mountains rising in their majesty toward the skies.

Mr. Sutton states that "Throughout the length of The Appalachian Trail, the hiker is intimately witness to a grand geologic adventure. He walks on unfamiliar kinds of porphyry. He comes upon felsite boulders on the trail. He bruises his knee on a sharp outcrop of pegmatite. He lifts his weary, sweating body over steeply rising slopes of micaceous schist, slips and skids on terraces of slate, claws across slippery slopes of granite, and struggles—heart pounding, feet dragging—over crystals of quartz and quartzite, garnet, feldspar, olivine and other rocks and minerals."

Mr. Maurice Brooks, Professor of Wildlife Management at West Virginia University, says that every major forest type tree in eastern North America save only the tropical hardwoods of peninsular Florida can be found within the Appalachians and their variations in elevation. The people in eastern North America are dwelling in a forest formation which is comparatively rare on this earth. Most of our broad-leaved trees shed their foliage in the fall and are reclothed in new dress in the spring. Tropical trees do not follow this rhythmic succession: it is a product of the changing seasons in midlatitude regions. It occurs in areas that lie 30 to 60 degrees of latitude from the Equator, and the most extensive of the broad-leaved forests are in North America on the slopes and either side of the Appalachians.

It has been said that the entire continent of Europe has approximately 80 different kinds of trees, while there are more than 130 species found among these mountains. The conifer-

ous forests are more plentiful in the northern ranges and consist of pines, spruces, firs, cedars and larches. These forests have few spring flowers beneath their shade. After the early settlers conquered the land, wild animals, and Indians, they began to seek some of the graces of living. One result of this quest was the making of fine furniture from enduring wood. These American cabinet woods have been in a class by themselves—sugar maple, black cherry, and black walnut.

In the north, trees had to be hardy species, able to withstand arctic winters, driving winds, and late frosts. The birches, maples, and beech were able to meet these requirements and are found on the ranges of mountains in the north on good soil. Among other hardwood trees in the southern mountains are oak, chestnut, hickory, elm, sycamore, redbud, magnolias of several species, pin cherry, wild plum, hawthornes of many species, tulip poplar, buckeye, flowering dogwood, locust, crabapple, mountain ash, blackhaw, yellowwood, fringe-tree, silverbell, linden (two species), sourwood, and witch-hazel. On the border between trees and shrubs are rhododendron and mountain laurel. This profusion is tropical and they can be found growing lushly even on the higher slopes of the Great Smokies and blooming as late as July.

Fruits are also an important feature of the southern highlands, and offer their yield to man and birds. They include serviceberries, red mulberries, wild plums, wild cherries, sassafras, hawthornes, pawpaws, blackhaws, mountain ash, persimmon, holly (several species), and a large variety of nuts. It is no wonder that migrant birds in the fall stop over to feast on these offerings so freely available.

The autumnal foliage color is another delightful aspect of the eastern forests. It can occur only where there are deciduous trees. A visiting European botanist taking a trip through the October woodland reached a point where he saw the soft color produced by thirty or forty plant species, each with its own tinting and exclaimed: "We have heard about it; we have seen pictures of it; we never did believe it."

Fall coloring in the northern Appalachian forests differs from that found in southern Appalachia. The maples and birches are blazing with color around the early part of October. The trees and plants in the southern area start turning

around the end of October, depending upon the first killing frost, which may appear earlier among the high slopes of the mountains. One may follow the turning foliage down from New England, through the Berkshires, the Catskills, the Poconos, the Allegheny ridges, and the Blue Ridge Parkway through Virginia, North Carolina, and into Tennessee. It is a gift of the Appalachians that one may enjoy a long season of beauty.

The hiker or the motorist who follows the Appalachian Trail may both study and enjoy abundant varieties of flora and fauna. "Few places in the world boast a richer, more varied deciduous forest than that which clothes the southern Appalachians." The number of native trees in Great Smoky Mountains National Park alone is greater than of all Europe. Balds, heaths, muskegs, and shales afford luxuriant growth of rare and beautiful shrubs and flowers. Many of the animals and birds that once lived in this region have been destroyed by unwise hunters who considered the killing of "varmints" not only a sport but a necessity.

High up in the southern Appalachia are the balds, which represent one of the mysteries of this area. We wonder what causes brought about these grassy islands in a sea of forests and what forces preserve them even to this day. More than 80 of these grassy openings in the southern area extend from Virginia through North Carolina and Tennessee into Georgia. They are seldom less than 4,000 feet in elevation and are found up to 5,000 feet or more. Early settlers used the rich ground of the coves to provide them with their food, corn, and tobacco fields. Summer pasturage for horses, sheep, and cattle were found in the higher places among the balds.

Several guesses are offered as to their origin. Since many face to the east, it is suggested that Indians cleared these highlands as places of worship and preserved the openings by use of fire. Others have thought that lightning set fires on particular ridges thereby creating and keeping the openings. Early graziers have been credited with creating some of them. Periodic insect attacks on certain tree species and at certain altitudinal levels have been offered in explanation. There are also other theories and more variants on those listed above. Bald information is like bird migration in that no one theory will fit all the facts.

Among the most important balds are the ones on Roan Mountain in Tennessee, Andrews Bald in the Great Smoky Mountain Park, and those among the Nantahalas. Wild life abounds in the area adjoining the balds in spite of the fact that they usually prefer the seclusion of the forests. These treeless areas in New England are kept that way by climate. Woodlands are all but universal from the White Mountains to Virginia, but from there on into Georgia there are again treeless areas. Even though causes and circumstances are different, these open areas are curiously alike, even though they are a thousand miles apart.

Heaths, which Mr. Brooks calls true mountaineers because they are found in upland regions all over the world, abound from Newfoundland to Alabama and includes some of the showiest native plants. "From cove to bald they decorate the landscape in southern Appalachia, and where Appalachian foothills break down to the coastal plain they are still flourishing." Gray's *Manual of Botany* recognizes twenty-two genera of the heaths in the mountains of eastern North America and all but one are found in this area. Mr. Brooks in his book *The Appalachians* says "It is scarcely possible to visit any area —mountain summit or slope, forest or rocky headland, swamp or dry cliff face—without finding heaths."

Heaths present prize features of highland flora used in both wild and domestic cultivation. People come by the thousands each year from distant points to see the "pink beds" of North Carolina, the rhododendron displays on Craggy and Roan Mountains, and flame azaleas along the Blue Ridge Parkway. These displays begin in May on the lower elevations and continue to bloom on the higher slopes until July. Such displays are typical in the southern Appalachians.

In addition to the flame azaleas along the Blue Ridge Parkway, one may also see the Catawba rhododendron, mountain laurel, flowering dogwood, and black locust. Other rich azalea displays are found in the Nantahala Mountains, the Cowee Mountains, and the Snowbird Mountains. Mr. Art Stupka recommends Gregory Bald and Andrews Bald in the Smokies as his favorite places to view these spectacular displays of nature.

Mountain laurel grows in great profusion from New England to the south. In rich Appalachians woodlands these plants may reach 30 to 35 feet high and may have trunk diameters of a foot or more. They bloom from May to July and the opening time is determined by altitude. The profuse blossoms are white or pale pink at lower elevations and become a much deeper rosy pink at higher elevations. This is the state flower of Pennsylvania, and another variety, called sheep laurel, grows in the Pocono Mountains.

In many places along, or not far from the trail, dense growths of beds of rhododendron on exposed slopes and rocky crests are almost impenetrable, and are called "slicks" in local parlance. When they grow as an understudy to heavy woodlands, a trial to the hiker or hunter, they may be called "hells." Only someone who has tried to hike through them can appreciate them. In some areas the trail is cut as a tunnel through a rhododendron mass.

Other heaths growing in the area include sourwood tree, wintergreen or teaberry, bearberries, blueberries, and huckleberries. Most mountain heaths grow in acid soils, and they help to create a favorable environment for many ferns, orchids, lilies, and other woodland ornamentals. These are some of our most beautiful and decorative plants.

Muskegs, an Indian name meaning trembling earth, are bogs of moss and lichen covered growth and locally are called glades. "These bogs and the life within them are a gift of the Ice Age; they were stocked and planted when glaciers pushed southward. As ice retreated and warmth came again to the land, plants and animals better suited to a bland climate invaded and took over. But the bogs were natural refrigerators; they resisted, and they kept their remnants. The Pleistocene was only yesterday over much of our land. In Cranberry Glades it is still with us."

Steep, shaly ridges occur east of the Allegheny Backbone in Pennsylvania, Maryland, West Virginia, and Virginia. These are shale barrens and anything but barren if you ask plant students, since so many endemic species have been found on these steep wasteland slopes. Three types of plant life live on mid-Appalachian shales. The first consists of true endemic, plants that have not been found anywhere else in the world.

Second, a much smaller group of plants is noteworthy because its members are distinctly western. Third, a larger group of plants with much wider distribution in eastern North America. One of the most unusual plants is cactus usually of the prickly pear type. Wild flowers abound in this area and include creeping phlox, bird's foot violets, the nearest thing to wild pansies, wild pinks, and butterfly milkweed. Wood plants that grow in shale reflect the unfavorable conditions of soil and moisture; most are dwarfed. These include locusts, hackberries, red pine, white birch, and dwarf Canada dogwood.

A wide variety of summer orchids grow in the Appalachians. They are found principally in and around meadows. The purple fringless and the yellow fringed are among the finest. All Appalachian orchids are ground dwellers, most of them dependent upon green plants, a few of them without chlorophyll and therefore dependent upon other organic matter for their nourishment. Orchids grow best in tropical regions; they flourish in both hemispheres and they number about fifteen thousand species, making them among the largest of plant families. Their numbers drop off sharply away from equatorial lands, and midlatitude areas see no orchid wealth as is found in the tropics. West Virginia has twenty-two known species, and six of the northeastern orchids cross the Arctic Circle to find homes on the tundra.

Our proximity to the Smokies has made that part of the Appalachian Trail near Gatlinburg so well known to most of us that our first thought is of the bear when we hear wild life of this area mentioned. He is a formidable customer, demanding our respect, but he is only one of the many interesting creatures that may be seen as one progresses along the Trail. At one time the puma was prevalent in Appalachia, but unrestricted hunters killed off most of them so that starving and weak deer suffer because nature's balance has been upset by man.

The largest of the Appalachian big game animals is the caribou. It has recently been reintroduced into Maine. The moose, the largest American deer, has a much more extensive range, and they dwell in the wilderness area in the northern New England states. Eastern elk disappeared about one hundred years ago from the scene, unable to compete as farm and

grazing lands were cleared. Virginia now shelters several elk herds, and there is now an open hunting season on these animals on a limited basis. The American bison, or buffalo, once roamed over much of this area, but is now extinct except for private and public menageries.

The white-tailed deer is now restored as an abundant game animal throughout much of the East. The restoration of the forests and conservation measures result in the replenishment of the supply. Another large animal in the southern Appalachians is the domestic pig gone wild, or the larger and fiercer European wild boar. Razor-back hogs are a part of the pioneer tradition, particularly in the South. The timber wolf and panther have also largely disappeared in Appalachia. This leaves the black bear among eastern big game species. Bears have shown a remarkable ability to survive under adverse conditions—as they occur in all the Appalachian states.

The enthusiastic hunter today finds his sport provided by squirrels, grouse, and, in more open country, rabbits and quail. There is a winter trapping season for those so inclined, and for hunters who are also fishermen, there is an outdoor sport in the mountains throughout the year. Anyone who rides or walks along the bubbling mountain streams in the Smokies must have the urge to throw out a line into the water of a quiet or shady pool. The return of the beaver to Appalachian communities is a triumph of wildlife management.

Venomous snakes include the copperhead and the rattler. The former dwells exclusively in the South, while the latter is present from southern New England to Georgia (timber rattlers). Salamanders are among the most interesting of the amphibians. They are the lungless creatures with tails. As adults they have neither gills nor lungs, but must breathe through their skin and the lining of their mouth. To absorb oxygen their skin must be moist, thus they are restricted to damp places. A recent author recognizes 79 valid North American species, and 38 species or more occur in the Appalachians. New forms are constantly being discovered and described.

The birds along the Trail are another of nature's marvelous assemblies in the woods and valleys. This affords another sport taken seriously by many along the Trail—bird watching. It is

a very important occupation for many students of ornithology. The accessibility of the Appalachian Trail to large centers of population have made it easy for the so called city dweller to take up this sport. Many sections along the Blue Ridge Parkway and the highways both in West Virginia and Pennsylvania offer advantages for serious bird watching.

Migrating hawks, particularly in autumn, congregate at certain places and in certain flight lanes. Such flights begin in September and often extend into November. They may be observed over many Appalachian ridges. There is now a protective policy for all hawks which is now in legal force over much of eastern North America. Migrating wood warblers also start southward in September and fly over the ridge crests. As a general rule they follow the crests of the Alleghenies in their southbound journeys. At other times one may see flocks of Canadian geese flying in their V formation following the ridges as do the hawks. Falcons usually travel at tree top level, flying so fast as to be in sight for only a few moments. Peregrines fly at the same level and at terrific speed. Sooner or later every hawk watcher wants to see eagles. Some persons become so good at spotting eagles that they can tell at a distance whether it is a golden eagle or a bald eagle. Fire towers are vantage points for bird watching for you are above the direct line of flight. "The electrifying call "Eagle!" brings everyone in the party to the tower's highest platform. As the bird approaches, its contour—huge head, massive body, broad wings—is sharply outlined. Then it passed along the ridge just below you and you look down on the pure white in its plumage. A little while more and it is gone." Golden eagles are much rarer in migration than their white-headed relatives.

The wood warblers are at home throughout the Appalachians. There are many different varieties with varying plumage, but all possessing the unusual singing ability of this bird. These birds are found in the coastal region too.

Another of the more famous features of the Appalachians is the limestone caves found in the regions starting in Pennsylvania and continuing down through the Virginias, Kentucky, Tennessee, Alabama and Georgia. New England college students go hiking for the weekend, while Middle Atlantic and Southern college students go spelunking.

A wide variety of limestone caves are found in many sections of the Southern highlands. Some are commercial developments; others are on private property and not open to the public. Many of the caves are beautifully decorated by nature. The icicle-like deposits suspended from the ceiling are stalactites and those which build up from the floor are stalagmites. The mineral involved in the process is travertine. Spelunking is a sport that requires skills and supplies equal to mountain climbing and should not be attempted unless one is aware of the dangers involved.

The entire area from the Catskill Mountains in New York state to the end of the trail at Springer Mountain, Georgia is known as Appalachia. This area was first settled by Scotch-Irish immigrants in the early 1700's. They were an obstreperous breed, seeking free land and freedom from what they considered to be oppressive demands of organized society. Most entered the country through the Philadelphia gateway and followed the Great Philadelphia Wagon Road into central and western Pennsylvania, western Maryland, the valleys of Virginia and Tennessee and the Piedmont of the Carolinas. Later on they went still further into the interior, particularly through the Cumberland Gap where Virginia, Kentucky and Tennessee meet.

"Many of these early settlers, threatened by the colonial governments who did not want them to settle in or beyond the mountains because of Indian treaties, purposely sought out isolated farmsteads up the creeks and hollows of Appalachia where they stood a good chance of being molested neither by Indians or militia. In their sought for isolation they removed themselves from the mainstream of the country growing up around them." They became isolated from the flow and influence of commerce and their physical isolation finally led to cultural and later to economic isolation.

The areas in the Tennessee and North Carolina mountains became particularly isolated with the many coves, valleys, and high mountains. This area became known as "Elizabethan America" before the advent of the Great Smoky Mountain Park in 1940. These people in their isolation are another story with their arts, crafts, feuds, religion, hunting, and farming.

Mr. John Muir calls the Sierras a "range of light." If he had seen more of the Appalachians he might have called them a "range of life." Abundance shows up in the forests, the meadows, the balds, the heaths, and the wet lands. The mountains are like an ocean—full of life and action that may not be immediately evident but can be discovered and rediscovered perpetually because so much is changing and so much is new. It is difficult to describe the changing scene of the Appalachians, but it is certainly to be enjoyed no matter what the season.

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PITCHMEN FOR SMALL ESTATES

Elder L. Shearon, Jr.

Read Before "The Egyptians," February 15, 1968

Around seven o'clock any weekday evening, men of various shapes, ages and apparel, park their automobiles near street corners throughout Memphis and walk toward the opening encounter of their work day. These are the pitchmen.

Nightly, hundreds of these overt persuaders spend approximately two and one-half hours, the duration of their work day, making a pitch for encyclopedias, family Bibles, food plans, resort property, aluminum siding, and cemetery lots. Their annual earnings range from bare subsistence levels to respectable five figure amounts. They have in common one thing: a tightly organized, memorized, sales presentation—the pitch.

As pitchmen, on a given evening they will make it or forget it on their assigned blocks. When you sell with a canned pitch, there is no point in a return engagement. Nothing is left to be said.

The phrase "canned sales talk" has a definite negative connotation; and if you have been the target of such a presentation, you probably wondered how any business could market a product, relying on so unsophisticated a tool. Or you may have surmised that the salesman had been loosed on the public prematurely by his supervisor, thus accounting for his use of the memorized presentation. However, assuming that you were in the presence of a real one-shot, door-to-door, pitchman, his canned presentation was as the rifle to an infantryman; and, for as many years as he engaged in his area of combat, he would rely completely on the magic of this carefully structured tool.

Slightly over ten years ago, on a cold November afternoon, I sat in the sales office of a local cemetery and reviewed its sales program. Having just reached agreement with the company on a contract covering my employment as sales manager, I was informed already as to the sales results for previous years; and these results became more impressive with each page of the sales kit examined. I was convinced that, if salesmen using this unpolished, unsophisticated, canned sales presentation could

achieve the aforementioned results, properly trained salesmen, who didn't need to rely on this material, should elevate the sales curve close to the vertical.

Therefore, during the following month, while breaking in my replacement with the company I was leaving, all of my spare time was spent working out material for a series of training sessions in sales fundamentals. This training was to be the key for freeing the six man sales force from the shackles of their canned pitch.

Fortunately, attendance at a sales seminar of the National Cemetery Association, plus two weeks of door-to-door selling, provided sufficient evidence to convince me, without further delay, that I was wrong. In selling cemetery lots, the power is in the pitch; and a poor salesman, following a good script, will out perform a good salesman playing it by ear.

How does one sell a cemetery lot? As might be expected, this product calls for approaches quite different from those employed in selling automobiles, appliances or larger parcels of real estate. Granted, almost every member of the population is a live prospect; but hardly anyone voluntarily makes the purchase. Mr. Average Breadwinner just does not rush home with news of a raise and announce: "Guess what, Hazel, now we can buy that little two-space lot at Heavenly Gardens."

The cemetery as a commercial enterprise came into being in the United States during the late nineteenth century. Prior to that period, cemetery ownership and management rested with churches and municipalities. The early commercial cemeteries were quite similar to their non-profit predecessors until the late nineteen thirties. However, in the thirties it was discovered that cemetery lots could be marketed in volume, given the right set of gimmick-based techniques and that the rewards from such selling were very substantial. At that point, the commercial cemetery operation became totally unlike anything that had gone before. The highly descriptive phrase "Pre-Need" was coined, and the "Pre-Need" sales force was the first department staffed in a new cemetery. In fact, the usual practice was for this sales force to be hard at work months before cemetery construction began.

How are cemetery lots sold in quantity? Perhaps this best can be answered by taking you through the jumps as a

salesman (memorial counsellor will be the title on his business card) makes his call and presentation.

Our salesman's script is divided into three stages. The first is the door opener pitch. If he fails with this phase, obviously his chances of making a sale are nil.

We join him as he stands outside the door awaiting the first confrontation. Our system placed him at this door on the basis of information obtained earlier in the day by one of our women canvassers whose survey had verified the family's name, determined that they are Protestant (Catholics and Jews have cemeteries owned by the church and synagogue), and established the fact that the family does not own cemetery property.

Our pitch man is armed with these three pieces of information and with his sales kit when a Mrs. Graves opens the door in response to his ring. He greets her by name and immediately asks for Mr. Graves. Prior to identifying himself or his mission, he must make certain that both husband and wife are at home, for his presentation will not sell them singly. If either is away that evening, he will extricate himself as quickly as possible, trying to avoid an explanation of his purpose.

However, both are at home, and his next hurdle is gaining entry, using the door opener portion of his script. He introduces himself, states that he is a memorial counsellor for, or member of the public relations staff of, Heavenly Gardens and is there to explain a new program being made available to families on their street. Mr. Graves quickly answers that he is not interested, and our salesman replies just as quickly, but warmly, that this is certainly understandable, since cemetery property is a subject about which people do not have sufficient information to be interested. He continues by pointing out that, should Mr. Graves find it necessary to purchase a cemetery lot, probably he would have no idea how to proceed and certainly no information on which to base a judgment as to a fair price. He continues by describing his mission as educational. He's there to explain the program. Fifteen minutes now can save the family hundreds of dollars later; and, of course, there is no obligation.

Once inside the house, our man proceeds to take charge. Requesting their permission, but making his move simulta-

neously, he arranges the chairs and tells each where to sit. Presumably this is to arrive at a seating arrangement enabling both husband and wife to see the pages of his kit. In reality, it is based on someone's idea that psychologically this physical control puts the prospect in a more submissive frame of mind.

Now our pitchman enters phase two of his script. This phase, referred to as "the romancing," is strictly low key. In phrases he has memorized during hours spent with a tape recorder, he gives his commentary on beautiful color photographs of various sections of the cemetery, the financial statement of the perpetual care fund, aerial pictures showing the entire cemetery acreage, and pertinent historical material. So much for the romance.

Phase three of the pitch, the "hearts and tears," is entered by the pitchman gazing steadily at Mr. Graves and stating firmly, and somewhat accusingly: "Mr. Graves, you and Mrs. Graves do not own a family memorial estate. There is absolutely no question as to whether you will make such a purchase. It is simply a matter of when, and under what conditions, the purchase will be made." As the gravity of this statement sinks in, our pitchman turns to the most important page in his kit and moves the kit directly in front of the husband. He is silent for approximately thirty seconds, allowing the couple to receive the full impact of the photograph on the page. There are three figures in the picture. The setting is a cemetery on a gray, rainy, wintry day. There is a mother, sad of face, holding the hand of a small, thin, daughter. The third person is a man, obviously not a relative, but an employee of the cemetery. He is pointing toward some spot beyond the photograph. No imagination is required to fill in the details. The caption in black bold-face type is "The Wrong Way."

Our pitchman proceeds to read the copy beneath the caption:

"It is always a matter of necessity
It is never a matter of choice
Why should so many wives be compelled to perform a major business transaction when they are:
Alone and confused
Weary from loss of sleep
Burdened with unusual expenditures
Faced with new and strange responsibilities

Often in inclement weather
67 out of 100 husbands precede their wives in death, leaving them the burden of this obligation"

This copy has been read slowly with appropriate pauses. At the conclusion, the pitchman looks at Mr. Graves and earnestly asks: "Mr. Graves, do you agree that this is the wrong way?"

Mr. Graves' affirmative answer is almost completely predictable. Neighborhoods chosen for prospecting by the women canvassers are selected on a general economic appraisal. Therefore, Mr. Graves probably is a blue collar worker, more than likely fundamentalist in religious affiliation, and in general is conditioned to wilt quickly under this emotional attack. At this point, he should be the victim of guilt feelings.

The pitchman has the reprieve for Mr. Graves, and he flips the page of his sales kit to a family scene that fairly glows with the warmth of togetherness. Here is a picture of a devoted couple, beaming at each other as the handsome young husband returns a pen and paper to a dignified gray haired gentleman seated across the table. One might suspect that this trio would radiate cheerfulness even if placed in the earlier cemetery setting. The caption under this photograph is "The Right Way," and our pitchman reads the copy, a triumphant note in his voice:

"The Right Way to face this issue:
Together—with the ability to reason
In a normal physical and mental condition
In weather of your own choosing
While unburdened with unusual expense
With the advantage of small deferred payments."

To recapture the visual impact of the contrast in the two pictures, our salesman flips back to the bleak cemetery scene and asks Mr. Graves if there can be any possible doubt as to which is the right way.

Mr. Graves, our pitchman's target, in agreeing, has been painted into a corner. Any objections he may raise, unless presented with a skill not expected in these situations, can be equated with a lack of loving concern for his wife. Regardless, at this point he is far from capitulation. He is sorting his thoughts for the right words to explain why other monthly

financial commitments will delay his showing his loving concern until a later date.

While Mr. Graves is occupied composing his objections, our salesman is moving into phase four of his pitch, the "I tell you what I'm gonna do" section. There were many effective systems employed in this closing section but all that I encountered had a common basis. They all involved showing the prospect a very substantial saving available to him, but the saving was based upon a unique price comparison. It was unique in the fact that it dealt only with the pitchman's own price list. It was the "with and without platformate" approach. But, strangely enough, it worked.

So, our pitchman, using his employer's printed price schedule, points out to Mr. and Mrs. Graves the cost of lots at Heavenly Gardens that are sold for "Immediate Need." That phrase goes a long way to impart urgency and to picture the buyer's unenviable position in such a transaction. The price schedule, which incidentally is a true one, shows that lots in the developed sections of the cemetery range in price from $125 to $200 per space. There are four members of the Graves family, so our pitchman turns to his scratch pad and multiplies: $4 \times \$125 = \$500$. He points out that he is using the minimum figure and that the sum could be $800. In case the $500 figure is not sufficiently discouraging, the argument against "immediate need" shopping is made more formidable by explaining that the down payment required is the cost of one space, or $125. An immediate need calls for an immediate payment equal to the need.

Having bracketed his quarry on one side with the inevitability of the purchase and on the other with the high cost of doing business when forced into the market, the pitchman zeroes in with his close. He's ready to "tell 'em what he's gonna do".

Out comes a bright, neatly patterned, plat. This is the plan for a new garden section to be developed at Heavenly Hills. Beside the plat is placed a richly colored illustration of the "Fine Imported Italian Biblical Statuary" that will be the central feature of the garden. With an earnest and hushed statement regarding the air of peace and reverence added to nature's beauty by the sculpture, our pitchman unfolds his plan.

In advance of construction of the garden, since the purchasers' money will partially pay development costs, a special offer can be made. A four space memorial estate will be theirs, not for $500, but for only $360—a cool $140 saving. Having filled their cup to the brim with this good news, he overflows it with the details of the dandy deferred payment plan. With a down payment of only ten per cent (actually he's prepared to accept as little as ten dollars, if necessary) the balance can be paid in twenty-four monthly payments with not one penny of interest or carrying charges. For a clincher, there is the Family Protection clause. If Mr. Graves signs tonight, as soon as twenty-five per cent of the purchase price has been paid, he is fully protected on the unpaid balance, with the deed being issued in the event of his death without any further payments being made. On this cheerful note the pitch proper ends.

If Mr. Graves reacts as anticipated, he will express general agreement but indicate a definite need to think over the offer for a few days. Our salesman stands firm. The offer is valid only this one evening. He is not permitted to call back but must return the Graves card to his sales manager, either with a contract or with the notation that Mr. and Mrs. Graves declined this once-in-a-lifetime offer. Mr. Graves is reminded that he has all the facts, so that he would never be in a better position to make the right decision than he is now. He is told that when he confirms his lot selecton at the cemetery his money will be refunded if he is not entirely satisfied. Finally, he is again confronted with the photograph of the bereaved wife making the selection "The Wrong Way".

Assuming the pitchman has done an average job, and this means he has delivered his script in proper sequence and properly recalled his answers to the standard objections and has pressed for a close, his chances are two-to-one for a sale. This percentage of closes to presentations must be experienced to be believed. The canned sales talk does get results.

During the year that I spent in this unusual field of direct sales, varied experiments proved to my satisfaction that the memorized presentation was the only effective sales tool for the product involved. Using it, the time required for training a salesman was simply the time required for him to memorize the script plus two or three evenings of calls with me. A

salesman working regularly and aggressively would earn $20,000 plus annually.

College students, working part-time, were able to earn more than $12,000 a year. However, quite often salesmen experienced in other fields would earn far less, since they could not accommodate themselves to the use of the script and would try to ad lib. Even though the earnings were desirable, turnover was constant. Men whose earnings were greater than on any previous job burned out in six months and returned to a job with less income.

While I am certain that there is some singular trait common to career pitchmen, I was not able to identify it. It is high pressure selling, with substantial pressure also on the salesman, and many men, who can do an effective job in more conventional settings, cannot take the pressure.

My year in door-to-door sales was not without interest, but it would be unrealistic to say that the experience was valuable. Yet, in the world of selling, a background in door-to-door sales has been assigned a value comparable to that of the log cabin setting in the political field. In my own opinion, this is a fiction. Door-to-door experience has little or no relevance to any other field. Unless, of course, one wishes to be a sales consultant. In that case, it is great for the image to be introduced before an andience as one who received his baptism of fire fighting for entry into the front doors of America.

By way of a footnote, let me acknowledge the omission in this paper of any evaluation of the ethical implications of the sales techniques described. This omission was due to the limitation of time, not to a failure to recognize the importance of this aspect of the subject. However, what has been called the funeral industry does have its George Naders. Jessica Mitford's THE AMERICAN WAY OF DEATH and Ruth Harmer's THE HIGH COST OF DYING deal primarily with the more vulnerable target, the American mortician, but do have chapters blasting the commercial cemeteries of this country. You may not agree with their apparent willingness to view the commercial cemetery as a sort of public utility, but you will find both books interesting and informative.

CHINESE ART IN PROFILE

THERON S. HILL, M.D.

Read Before "THE EGYPTIANS", March 21, 1968

The origin of Chinese civilization has long been debated. The foreigner with a measure of arrogant pride often assumed that whatever was of real worth in the Chinese civilization had been imported from the West. Depending upon the myth and legend for the earliest chapters of their history, the Chinese were no more successful in disproving a western migratory source of her people than were the foreigners in proving it. Well, this was so until the discovery, some 40 miles from Peking, of a tooth in 1927 and later the first of several fossil skulls in 1929. These following the studies of the anatomist Davidson Black of the Peking Union Medical College and his successor, the anthropologist Professor Franz Weidenreich were estimated to be those of man living some 500,000 years ago. To the public he was known as Peking man, who lived in the old Stone Age, to the scientist as Sinanthropus Pekinensis. He was a representative of the early palaeolithic culture and in the opinion of Professor Weidenreich was not only a direct ancestor of recent man, but had certain skeletal features to indicate a relationship with the Mongolian group of mankind.

The significance of this as it pertains to Chinese culture has been emphasized by Herrlee Creel, Professor of Chinese Literature and Institutions at the University of Chicago. It aids in explaining the existence of certain cultural traditions and art forms which are peculiar to certain areas in China which would be difficult to account for if the Chinese at a late date had migrated from any great distance to their present site.

PREHISTORIC CERAMICS

During the late Stone Age or Neolithic period, there appeared two major Chinese cultures. The sites of the one known as the Yang-shao culture was discovered in 1921 by Dr. J. Gunnar Anderson, a Swedish geologist who served as a mining adviser to the Chinese Ministry of Agriculture and Commerce. The other called the Lung Shan culture was first located in Shangtung Province by Wu Gin-ting in 1928. Eventually traces of men of the late Stone Age were found

covering a wide belt from the borders of the Tibetan plateau to the eastern coast across the northern provinces extending southward to the plains along the Yellow River. The study of some twenty-eight cultural sites dispersed throughout the northern provinces of Kansu, Shensi, Shansi, Honan and Shangtung revealed that these people had a culture which was predominantly agrarian. It has been claimed that the painted funerary urns of the middle Yang-shao culture represent "the finest Neolithic pottery that the world has ever seen". They are of a high-fired polished red earthenware, hand painted with black and purplish-brown or dark red slip pigments of varying designs so that the decor of each urn is unique. Examples of these are now to be found in museums throughout the world.

Characteristic of the Lung-shan culture was a glossy black wheel-made pottery with a wall thickness at times being less than a millimeter.

In the earliest of many of the Neolithic sites, but sharply confined to the area of Honan and Shangtung, has been found a hollow legged tripod called the Li which is indigenous to China. In certain regions it is still in use today.

SHANG AND CHOU DYNASTY BRONZES

The prehistory of China ends with the appearance of the Shang Dynasty. Dates in Chinese history prior to 841 B. C may be in error a century or two. Traditional chronology assigns the dates of 1765-1123 B.C. to this dynasty. Many cultural similarities existed between the Lung-shan or black-pottery peoples and the Shangs. It was not until the archaeological excavations conducted by the Chinese National Research Institute in 1934 and 1935 that this dynasty was removed from the category of legendary history.

The Shang Dynasty through 28 rulers was then the leading power in China. At the point designated as the city of Anyang, the material remains of their culture were unearthed. From the remains of the city and the royal tombs and subterranean vaults, a vast amount of material was exhumed. Although from whence they came is not known, it was apparent that they brought with them an advanced culture. Careful sampling of the thousand or more skeletal remains indicated they were undoubtedly a mongoloid race.

Their style of architecture was essentially the same then as in modern China. However, earth pounded and molded into wooden frames took the place of brick; and thatch, not tile covered the roofs. Polychrome paintings adorned the walls and pigmented lacquers were in use. Their stone sculpture displayed a surprisingly high level of crafstmanship. But of all the artistic skills they possessed, their casting of bronze was the greatest; in fact it was superb.

The ore for these bronzes must have been transported from great distances, for so the geologists tell us. The composition of the metal has proved to be 83% copper and 17% tin. Articles of war, chariot decorations, ceremonial and memorial vessels, were the principal items cast, and of these, the vessels for the sacrifical rites were of the finest workmanship.

The decorative motifs, being symbolic, conventional and of classic line, represent a product of Chinese culture and no other. Authorities have held that the bronze work of the Shangs has never since been equalled at any place or time. Their finest pieces required no retouching, which cannot be said of the superlative work of Benvenuto Cellini. They have been said to be the finest productions in bronze of the human race.

With the dawn of the Shang culture it is clear that a written language already had reached a fairly high degree of development. It had left the stage of simple picture drawing and pictographs, and had begun to acquire the quality of ideographs. This writing has been preserved in inscriptions on bronze vessels, and on bone and tortoise shell. The latter having been used extensively for divination. Fracture lines formed as either was heated gave patterns which served this purpose of divination Then the advice and the prediction sought were later inscribed on the fragments and these were preserved to determine the accuracy of the prediction or the value of the advice. Thus were made the so called "oracle bones".

The Shangs were conquered by the Chous who came from an area near the Wei River west of Anyang. Although of a more primitive culture than the Shangs they absorbed much of the latter's culture. The casting of bronze during the Chou Dynasty which lasted until 249 B.C., showed, for a period, a

simplification of design and a pleasing strength and boldness. However, in a progressive degeneration of design, simplicity and strength eventually gave way to plainness and mere crudeness.

JADE

The importance alloted to jade pieces rose during the over 800 years life of the Chou Dynasty. Vessel forms which were first used in the Shang and Chou bronzes were replicated in jade as the techniques for carving and polishing jade progressed. It is of interest that "the earliest classical reference to a jade object is as a symbol of authority". (Ferguson). Jade throughout the centuries since then has retained great esteem among Chinese.

To survey its place in the history of Chinese Art, brief reference may well be made to its properties, its availability, mode of fabrication, and uses, for all of these influence its value and determine the limits of artistic expression it can provide.

Under the term "jade", which was first used in 1683, are included the three minerals nephrite, jadeite, and chloromelanite. All of these held essentially equal value for the Chinese. The differences between jadeite and nephrite depend upon the physical and chemical structure of each. Jadeite when polished has a distinctly greater vitreous lustre in comparison to polished nephrite which presents a more oily lustre. Actually both of these minerals in their purest natural form are white. The presence of certain metals in jade produces various colors. Thus, in general chromium accounts for the green color of jadeite. The average occidental has so often assumed that if the mineral is not green or white it must not be jade. However, as John Goette, author of Jade Lore would express it: "Jade in its bewitchment of man dons a variety of hues that no other precious stone dares assume." In fact in addition to black and white it may be almost any color of the spectrum. The expression "all the colors of the rainbow" is inadequate to delineate the color range.

China has for centuries depended upon Turkistan and Burma for her jade supply. The long transportation routes from these locations to the lapidaries in Peking and Shanghai served but to make this precious stone have even greater value.

The processes of carving, drilling, lathe grinding, shaping and polishing have not changed since centuries before the Christian era. Foot treadles not motors turn the lathes. Some of the exquisite creations in jade have taken years to complete. With an imperial subsidy such expenditure of labor was possible.

The use to which a jade piece may be put influences strongly the degree of artistry applied in its creation as well as its size, form, theme, and the complexity of its design.

Jade uses may be grouped into six major categories:

I. Simple utilitarian tools for work and utensils for dining.

II. Articles for war and hunting.

III. Items for use in religious, ritual ceremony, and sacrifice and ancestor worship.

IV. Jade pieces for personal adornment.

V. Implements for calligraphy.

VI. Decorative household and palace objects.

One of the most extensive uses made of jade in the past thirty centuries has been in religious ritual, ceremony, sacrifice and ancestor worship. In this category may be included some of the most elaborate, intricate and often exquisite of all jade carvings.

A. During the early period of its use in the Chou Dynasty, six jade images of the cosmic deities were used in rendering them homage.

Thus they paid:

(1) Homage to Heaven with a round perforated disc of bluish or green color (Pi).

(2) Homage to earth with a hollow tube of yellow jade with square sides (T'Sung).

(3) Homage to the East with a green tablet (Kuei).

(4) Homage to the South with a red tablet (Chang).

(5) Homage to the West with a white tablet bearing the shape of a tiger (Hu).

(6) Homage to the North with a semicircular black jade piece (Huang).

None of these images then was anthropomorphic and only that used in worship of the West had an animate form. Jade *itself* was not worshipped. The display of reverence and the acts of propitiation made by the Chinese to their deities was made with jade because to them this was the most sacred of materials. It served as but a bridge between the world of mortals and the realm beyond.

B. In the funerary rites of a deceased member in an imperial household the aforementioned jade objects were placed in the coffin. The grave was only a change of abode and man was considered a part of the cosmos and a product of its cosmic effects. Hence, the images served to indicate a continuation of a partnership in after life with the cosmic powers which had influenced him on earth.

C. Anthropomorphic images of their greater and lesser deities appeared in the later centuries.

CERAMICS – PORCELAIN

The word china which we apply as a general term to the finer grades of ceramic ware, acknowledges the debt owed that country for the discovery of porcelain. The word porcelain is derived from the Italian term, porcellana, meaning Venus shell or cowrie, which in view of its white translucent appearance resembled that of the high quality Chinese ware.

It has been assumed that the development of porcelain manufacture may have been accidental and gradual. No person has been credited with and no date designated for its discovery. The evolution of Chinese ceramic materials, techniques, and forms resulted in several periods which, since the Boxer Rebellion, have gained greater recognition by the occidental.

The earthenware culinary utensils, and ceremonial vessels, such as urns, jars, vases, and various types of sacrifical vessels of the Han Dynasty (206 B.C. to 220 A.D.) are interestingly proportioned and decorated. Whereas the majority of these pieces were unglazed, many possessed a green iridescent glaze.

Berthold Laufer has concluded this type of glaze "was introduced into China over the Central Asian land route from the West". It has also been proposed by him that a "so-called proto-porcelain" may in fact have originated during the Han Dynasty and been continued during the four hundred years of unstable government that followed prior to the beginning of the T'ang Dynasty (618-906).

By some the T'ang Dynasty has been referred to as the "Golden Age" of Chinese history. Others would declare it to have been "the greatest period of creative art in China" but then some would wish to qualify this and designate it "the most virile period of Chinese Art". It was T'ang pottery more than any other art media which contributed to the achievement that would warrant such eulogies. (Willett). The T'ang Dynasty was a period of expansion of empire, of reestablishment of trade routes with the West, and when Buddhism gained ascendancy in China. Commissions from Japan came to study and absorb her culture. This ultimately created a relationship in art, literature and architecture between China and Japan akin to that of Greece and Rome. Some of the best examples of Chinese painting, textiles and certainly architecture of this stage of Chinese culture are to be found today in the ancient city of Nara, Japan and not in China.

Most of the extant pottery from this period has been removed from tombs. It varies "from soft plaster-like earthenware to a hard stoneware or porcelain". (Hobson, R. L.). Some were unglazed and painted with unfired pigments including dark red and blue. A monochrome transparent soft lead silicate glaze of yellowish cast was often used on soft earthenware. Mottled combinations were produced by the application of dabs or washes of color on the body of the ware over which was laid the glaze into which the colors were absorbed. The colors included cobalt blue, violet or aubergine, pale green, leaf green, and amber yellow. Any one of which would be applied as a monochrome. The glazes used on the harder wares were feldspathic and much more refractory. In color they were true celadon, a watery green celadon, white, dark and chocolate brown. In the West examples of the unglazed and glazed T'ang horses, camels and human figurines are well known. Less well known may be the great number of forms and patterns of moulded decorations which give evidence in some

instances of the influence of contact with western cultures. So likewise has the occident less familiarity with the infinite variety of medalian themes used which were formed by deeply incising a pattern of "ditches" to separate the glazes applied. This was the technique which produced and effect similar to that of Cloisonné enamelling, which had been developed in the Byzantine Empire back in Roman times.

There were two wares which were valued above all others during the T'ang Dynasty, namely the green Yüeh and the white Hsing. The former was a porcelanous, hard grey, feldspathic body with a glaze which did not amalgamate with the body but forms a transparent cuticle with no transition layer. These pieces display a range of shades such as warm brown, olive-brown, grey-brown, and a celadon like sea-green. The shapes of Yüeh ware are limited, the majority being bowls. Those of the best quality are deep and frequently divided into five lobes. The foot rims are slightly splayed and deep, being conical in cross section.

Hsing ware is white, translucent, hard, resonant, often having an extra white slip added. The glaze is dead white and glossy. The shapes are even more limited than those of Yüeh ware with tea bowls being the predominant type.

The porcelain of the T'ang Dynasty served as a foundation for the further evolution of later Sung Dynasty (906-1279 A.D.) porcelains. These included among others the well known porcelanous ware with gray-green glaze generally called celadon (Lung Chuan Ware) as well as the dove grey crackled pieces of Kuan and Ko ware.

Among the most beautiful and highly prized works of the Sung pottery was the close-grained white bodied translucent (that is in its thinner parts) Ting porcelain with its warm ivory glaze. The better specimens bore designs either carved, etched, or pressed in by a mold.

The ceramic industry of the Yuan Dynasty (1279-1368) established by Kúblai Khan was but an extension of that of the Sungs and deserves no special comment.

When the Ming Dynasty (1368-1644) unseated the Mongols and at first ruled in Nanking the famous porcelain manufacturing center at Ching te chen in Kiangsi province gained

prominence when upon the order of Emperor Hung Wu some twenty private kilns were engaged to supply the imperial porcelains. It became and remained the chief ceramic center of China for over five hundred years It has been alleged that when pottery was first made here during the Chen Dynasty in the year 583 A.D. orders were received to make bases for the wooden pillars to be used in the palace in Nanking. Made only of the local clay they proved to have inadequate strength to carry the weight of the roof. Such a failure to fulfill an imperial requisition provided prompt and sufficient stimulus to search for some substance which when mixed with the clay would give it additional strength. This led to the discovery of petuntse in the mountains on the east. It's addition produced the clean white porcelain as we know it today.

The China clay of this area called Kaolin formed from the breakdown of felspar and composed of alumina, silica, and water in proportions 40, 46, 14 respectively, is a hydrated aluminum silicate. As it is an infusible substance it is called by the Chinese "the bones of the ware". On the other hand, petuntse, being a flexible substance is termed "flesh'. The mingling of the two made the body of the porcelain. The petuntse usually softened with a little lime was used as the glaze.

Five types of porcelain appearing during this dynasty are worthy of comment.

The white wares were ornamented by moulding in low relief, or painted in white slip, and sometimes carved or etched with needle point and then covered with glaze. Such rather unobtrusive decoration was called secret ornament.

The largest group and perhaps the most highly revered was the "blue and white" ware with the many designs painted in an underglaze blue derived from a cobaltiferous ore of manganese. The best and most costly of these Ming blues was imported probably from Persia and was known as Mohammedan blue. The local blue was more greyish and dull in tone. The proportions of the imported and local blue was varied depending upon the quality of the ware.

A second type of underglaze was a red formed from copper and was at time used with the blue. It was a difficult color to control. In addition to its use as underglaze it was incorporated in glazes to make a monochrome color.

The Ming porcelains which were more extensively decorated in color fell into two groups, the three color (San T'sai) the fine color (Wu T'sai). The former were "biscuited" and had designs outlined in threads of clay somewhat Cloisonné fashion or were carved, incised or pierced and then received washes in colored glazes and were then "medium-fired". Copper, antimony, iron, manganese and cobalt were used.

The five color polychrome porcelains used vitrifiable enamels tinted with colors. The most frequent mode of application was to paint the enamels over the glazed porcelain. At times the on-glaze enamels were combined with underglaze blue.

When the Manchus displaced the Mings they took the name Ch'ing (pure) from their dynasty which lasted from 1644-1912. It was not until the middle or latter part of the reign of the Emperor K'ang Hsi that the Manchu Emperors gave evidence of becoming "enlightened patrons of the arts".

The underglaze blue (K'ang Hsi blue) in the blue and white porcelain lacked the tinge of violet often seen in the Ming blues and due to its application in graded washes possessed deeper and more "vibrating depths".

Underglaze, overglaze enamels, and enamel on biscuit with ever growing elaborateness of design began to characterize the decorations of the K'ang Hsi, (1662-1722), the Yung Cheng (1723-1735) and the famous C'hien Lung (1736-1795) reigns. That of C'hien Lung being the last of the great periods of Chinese ceramics. In addition to the three color and five color polychromes of the Ming Dynasty and the monochromes, the following special wares were developed. Among the monochromes were the ox blood (sang de boeuf) vases with a crackled apple green glazed interior, the coral red, the powder blue, and the pale lavender (clair de lune), the mirror black, the snake skin green or the eel skin yellow. The K'ang Hsi porcelain which was decorated in transparent enamels on-biscuit and on glaze called famille verte, because of the preponderance of greens of various shades in the color scheme, contained with some differences the same enamels as those used in the Ming period. Examples of the best C'hing porcelains enamelled on the biscuit were those with figures or groups on a background of yellow, the famille jaune, or on black, the famille noire

PAINTING

Of all the arts the most characteristic of the Chinese is that of painting. It has a close affinity with Chinese calligraphy which has always been considered to be one form of Chinese art. The earliest known writing was incised as before stated on bone and tortoise shell during the Shang Dynasty and on bronze vessels. There is evidence however, that the brush was used also in this period. The history of development from pictograph to ideograph and the introduction of different styles of calligraphy is extensively recorded but needs no further comment here. It was the technique of the use of the brush that helped to give a special relationship to the parallel existence of these two arts.

Only a few words can be said in the remaining time about Chinese painting. Its beginnings as represented in the Han Dynasty paintings on brick or in the fourth century court scenes of Ku K'ai-chih's famous scroll have been called little more than genre painting not too far removed from art of the Roman-Asiatic world.

Following the introduction of Buddhism the most authenic of the T'ang works of the eighth and ninth centuries showed and accentuated anthropomorphism not dissimilar from that of Greece and India (Grousset, René).

The first of the landscapes have been attributed to the T'ang period. Between the end of the T'ang period and the beginning of the Sung it was as though nature and the universe was being interpreted through landscape painting with a new vision.

As René Grousset has indicated, be it in the rising of a moon or the fall of a torrent, these occurrences were as "forces animated by a mysterious divine life". Again as he states a "few indications of water and haze" or the "blurred tracing of some mountain range lost upon the horizon give a strange impression of distance and space".

He finds the origin of this "refined and powerful simplicity" in the fusion of Buddhist and Chinese Taoist philosophy. In the former it is the theory of the "evanescence of things and universal ebb and flow". In Taoism it relates the conception of universal essence considered as the sole force inherent

in things and beings alike, and in which beings and things merged and became one". In the minds of both the artists and the poets of the Sung period it was said that there was no opposition of the evanescent cosmos and ultimate void of Buddhism to the divine essence of Tao but rather a compatibility. Real presence for example could be found in space – in the infinity of its distances.

The types of Chinese art, herein, briefly presented, fail to cover that of ivory carving, lacquer, textiles, sculpture, enamel work, or architecture. Their omission is to be regretted but time for their introduction is insufficient.

A disturbing sadness is aroused when the creative periods of China's past are recalled and then contrasted with the hostile, defiant, suspicious, and restrictive attitude of her present government. It is as though a friend once loved, respected, and admired had been rendered unproductive, intellectually disorganized and emotionally distorted by a mental illness of psychotic proportions. It can only be hoped that the current stifling of truly creative Chinese art may be followed someday by a renaissance under a new leadership.

MAYAN CIVILIZATION

Dr. Thomas N. Stern

Read Before "The Egyptians" April 18, 1968

Although it is a science that is literally 'dry as dust', the study of archaeology provokes widespread interest. The Romantics are moved by the very presence of the antique ruins; most notable among these is Rose Macaulay in her volume *The Pleasures of Ruins*. The thought of buried treasure stirs the most blase, as is evidenced by the intense excitement that was generated at the time of the discovery of the Tomb of Tutankhamen. This popular interest in archaeology began to grow with the discovery and decipherment of the Rosetta Stone. It increased in pitch with the excavation of Troy and the later discovery of what was felt to be Agammemnon's Tomb. Discoveries, especially in Egypt, the Near East, Greece and Italy, came fast one upon the other.

C. W. Ceram's book, *Gods, Graves and Scholars,* was read by an extremely large and appreciative lay audience. Since its publication, hardly a month has gone past without the appearance of one book or another written about archaeology and for the non-professional. My own interests have been stimulated by this flood of books, and I would like to share with you this evening some of what I have learned.

A recent Sunday edition of the New York *Times* had on the cover of its travel section a full-page illustration of the Temple of the Inscriptions at Palenque, deep in the jungles of southern Mexico. The photograph of the sacred well at Chichen-Itza could be found on an interior page. Since it takes no longer to reach the area of these antiquities by air from Memphis than it takes the Sunday *Times* to fly from New York to our city, the civilization of the Mayas should be of some special degree of interest to us.

In many ways we are quite fortunate in our study of this, the most advanced of the Stone Age civilizations. The ruins are extensive and widespread. The civilization was still in existence at a time when more or less modern Europeans could observe it, even though it was somewhat in decline already.

Finally, the Mayan stock exists today and preserves many of the features and much of the culture of their ancestors.

As usual, the beginning is a good place to start. The peninsula of Yucatan and the mountains and jungles of southern Mexico, Guatemela and Honduras are known to have been inhabited for about twenty thousand years, with the Neolithic revolution occuring about 3000 B.C. Very little is known about the people during this time however. It is probable that they used the Mayan speech in a form that might still be intelligible to the Indian of today. At some point during this early period the Maya speaking groups were separated, so that there is a large enclave on the western shore of the Gulf of Mexico fairly widely separated from the main body. This group of people, which later became known as Huastecs, did not achieve the same advances as their more southerly brethren.

There are many theories concerning the early rise of Mayan, and indeed, of Mexican civilization. These theories change from decade to decade and even from year to year as well as from author to author. Currently, however, it is felt that a group of people living on the lower southern coast of the Gulf of Mexico, known as the Olmecs, may have originated the cultural explosion about twenty-five hundred years ago. Some of you will recall having seen a massive plaster cast of an Olmec carving of a head some six feet high at the time it was on exhibition in the doorway of the Brooks Art Gallery. Little is known about the Olmecs, but many of the characteristics which later flowered in Mayan and central Mexican civilization can be traced back to this people.

It would appear that the Olmec influence penetrated into Yucatan and into the jungle area in the first few hundred years of the current era. There was relatively rapid change from crude buildings and temples as exemplified in the Temple of the Dolls at Dzibulchaltun to the elaborate structures which appear with little in the way of preceding development at Tikal and at Uaxactun deep in the jungle in 292 A.D. and shortly thereafter. Over the next six hundred years there was an efflorescence of temples, pyramids, palaces, cities and roads throughout the Maya territory. It is estimated that perhaps three million people lived and flourished in an agricultural society over an area approximately the size of the state of New Mexico. Although the area was crowded with cities, all the

evidence points against any unification into states. Cultural changes spread very rapidly, however.

A major change in the life of the area took place in the years before and after 900. Whole cities, especially in the southern portion, suddenly appeared to be deserted. As far as archaeologists can tell, entire populations disappeared. The reasons for this change are unknown. Speculation suggests that the failings of the agricultural system, which will be described later, were responsible. Others think that increasing separation between the rulers and the common people resulted in the breakdown of city organization and the return to a more primitive stage of life. It was formerly felt that there was a massive migration of what was called the "Old Empire" in the South to the "New Empire" in the North. However, it is now known that the cities of the North were at least as old as those in the South and that older cities on the peninsula suffered a similar setback at about the same time.

Whatever the cause of the decline of the so-called Classic Period of Maya civilization, there was a revival in a somewhat altered form which began at about 1000 and had already been declining itself for over 100 years at the time of the conquest of Yucatan by the Spaniards in 1541. In order to understand the second phase of Mayan civilization it is necessary to go back to the history of central Mexico. It will be recalled that the influence of the Olmecs spread in this direction also. Particularly influenced were the people whom we call the Toltecs. They constructed one civilization characterized by the cultural center of Teotihuacan just outside of Mexico City. They apparently were ejected from this area and resettled at Tula not far to the northeast in 856. In 968 a monument was dedicated in Tula to a political leader named Ceatl Topiltzin, who took for himself the name Quetzalcoatl, literally 'plumed snake's head'. This apparently was the name of the cultural god. In 987 Quetzalcoatl was overthrown and was exiled. Shortly thereafter he, or another Toltec of the same name, along with his followers, joined a tribe of Mayas known as Itzas. This group had previously lived at Chichen-Itza, but had been away for many years. Together the two groups resettled Chichen-Itza, where Quetzalcoatl became known as Kukulkan, this being the translation of his name into Mayan.

From this point on Mayan culture was strongly influenced by Toltec ideas. The Toltec-Mayan culture spread rapidly. Kukulcan himself is said to have founded the city of Mayapan, relatively close to Chichen-Itza. About 80 miles away a splinter group founded the handsome city of Uxmal. These three cities then formed the League of Mayapan, which spread its influence and probably its rule over the entire Yucatecan peninsula. The alliance was not always a happy one, however. Battles were fought between the cities, and the influence of the League gradually decreased. In 1450 Mayapan itself fell.

Thereafter the Mayans seemed to decline. Once again the reasons are unknown. A trememdously destructive hurricane late in the 15th century undoubtedly played a part. There was illness of the home-grown variety, and the Spaniards brought with them smallpox, which conquered and decimated the area long before the Spanish soldiers could accomplish this feat. Even so, the Spanish found large cities functioning and even greater ones easily to be found along the roadbeds. It is from the descriptions of some of the Spanish priests and soldiers, as well as some of the Mayan writings which were then written in our script that much of our knowledge of this people stems.

These, then, are the bare bones of Mayan history. But what of the people themselves who created this civilization? We know that they were relatively small, with the men averaging about 5'2" and the women 4'10". They were related to our own American Indians and were of Mongoloid stock, as indicated by the relatively prominent folds at the inner aspect of their eyes and a bluish spot on the back. Even though small, they were quite strong and performed heavy feats of labor without any difficulty. They were able to do this on a diet which would send almost any modern American to the hospital. It consisted almost entirely of corn with small amounts of meat and fish protein supplements as they could be obtained.

It was this corn culture that at least in part was responsible for the rise of the civilization. If all of one's time is devoted to scratching out a bare living, little energy will be left for material progress. The lands of the Mayas were so rich, however, that a corn surplus developed. This surplus allowed the development of individuals whose time need not be spent

working in the fields. These became the priests, the nobles, and the artisans.

It is believed, however, that this same farming system which contributed to the rise of the Mayas contributed also to their downfall. Farming was done according to the so-called 'milpas' system. Trees were cut down in virgin land and the stumps were burned over. The next year the ground was planted, bringing forth a bountiful crop. This field could then be used, but with diminishing returns, over the next few years. However, the land soon became exhausted and had to be abandoned for a new field. It took many years for such a field to become productive again. As the numbers of the Mayas grew, the productive fields became farther and farther from the city centers, loosening somewhat the attachment thereto. Additionally, the numbers of settlements were such that the fields of one soon came up against the field of the next, leaving no further area for expansion. This temporary exhaustion of the agricultural resource at least contributed to the decline. Interestingly, the modern Mayan in many places still uses a milpas scheme, moving his lands from time to time.

The great majority of people obviously would be required to spend their time in the fields in such a culture, and this indeed was so. Except for a relatively tiny number most Mayans were peasant farmers. They led a fairly simple life, arising early for a light breakfast consisting primarily of corn water. They took corn cakes to work with them in the fields for lunch. They would return in the afternoon, and their wives were expected to have a hot bath awaiting them on arrival. This custom was so strong, incidentally, that after the Spanish occupation it was made into a Spanish law. The main meal of the evening would again consist of cooked corn meal in one form or another, but at this time whatever fish or game was available would be added. Turkeys were domesticated.

The peasants also labored in construction of the cities and formed the militia in time of war.

Women apparently had fairly equal rights but did not eat with the men. They served and then ate as a group later. Women were expected to stay sober enough at parties to carry the men home.

Each city or area had its own chief or king. As noted previously, in spite of the high degree of social organization, there was no overall political organization during the first several hundred years of Mayan existence. The situation has been likened with some degree of accuracy to that existing in Greece with the city-states. Actually most archaeologists feel that the Mayan city was not a city as we know it, but was simply a ceremonial and administrative center.

The ruler of each area was known as the halach unic, which is translated as "the true man". The office was hereditary, but incompetent sons could be put aside for others in the male lineage. The chieftain was the authority in matters both spiritual and temporal. Beneath him, however, were both administrative officials and priests.

The priests were extremely important since this was in many ways a god-ridden society. Agriculture was all-important, and as in many other cultures the influence of the priests rose from the fact that thy were able to signify the proper times for sowing and reaping. Since rainfall was so important in corn culture, the most important god was Chac, the Rain God. His face is found as a decoration almost everywhere. Indeed, there is one building at Kabah whose entire surface is covered with hundreds of Chacs. The corn god was obviously important. Also, beyond this, there were gods and goddesses for almost every conceivable function. Each day and each month had its own god who determined whether or not the day was to be propitious or bad. A bad day could not be made into a good day, but the priests could show how to make it into a better one than it ordinarily would have been. Of course the knowledge of the attributes of each day enabled them to plan important events for the more propitious days.

Much is made of the bloody sacrificial rites of the Mayas. It has long been the theory that the original Mayas were a calm, gentle people who were only corrupted later by the Mexicans. It has been well established now, however, that rite of human sacrifice was observed in the Classical Mayan period but it was neither as frequent nor as bloody as it later became. The example that is most widely known, of course, is that of flinging maidens into the Sacrificial Cenote or Well at Chichen-Itza. Indeed it may well be the presence

of this well that accounted for the growth of the major center at this site. Mayan history told of this form of sacrifice and some of the Spaniards were said to have observed it. Thompson, the U.S. Consul at Merida, performed an early feat of underwater archaeology by diving into this murky tank in the early parts of this century. He recovered enough in the way of bones, jewelry, pots and incense to establish the story on a firm foundation. Other expeditions have returned since, the most notable of which was a recent one by the National Geographic Society. Currently the Mexican government is engaged in what is hoped to be a definitive and perhaps final investigation of this site of sacrifice.

Somewhat more gory was the central Mexican practice as imported by the Toltecs. In this rite the sacrificial victim, painted blue from head to foot, was stretched over the back of a stone, two-headed jaguar and the living heart was cut out. The Aztec are known to have sacrificed as many as twenty to thirty thousand victims at a single occasion. The Mayans were pikers by comparison but it is certain that large numbers were sacrificed in this manner, particularly in the period 1000 to 1400.

Out of the profits of their surplus corn the Mayas proceeded to develop an art and an architecture so magnificent that the so-called civilized world could not believe that it had sprung *de novo* from a group of Indians. The lands of the Maya had never dropped entirely from the sight of the world. Scattered over a period of 200 years were reports of explorations, at first from Spain then from individuals from other European countries, but these were for the most part buried in archives. When John Lloyd Stephens and his artist companion Frederick Catherwood rediscovered Copan and published drawings of the intricately carved and magnificent stelae, scholars throughout the world proclaimed that they showed the influence of European or Asiatic civilizations; elaborate theories were constructed to explain the resemblances. Gradually, however, it was admitted that the Mayans on their own had developed an art equal to any the world had ever seen and buildings and monuments which rivaled those of both ancient and modern times for size and style.

As mentioned previously, the so-called cities were mainly ceremonial centers. The homes of the common people,

and perhaps indeed of the nobility, were of perishable material such as wood and reed. The huts of the inhabitants of Yucatan today are quite similar to those described by Bishop Landa in his travels through the newly conquered peninsula 400 years ago. The temples and palaces, on the other hand, were constructed from limestone. In many cases they were placed on built-up mounds, the mounds themselves representing many hundreds of man-hours of labor.

The central feature in Mayan construction was the use of the corbeled arch. This arch, which is made by placing successive stones closer and closer to the center, is not as an effective structure as the true arch, but the Mayans used it to the full extent of its capabilities. It dictated to some extent the type of structure, since this arch depends on weight above it in order to hold it in place. Some of the weight was made up simply of the masonry of the building itself, but in addition, ornamental structures resembling immense decorated coxcombs were set above the roofline.

The surface of the buildings were highly decorated; indeed, it would seem that the Mayan abhorred an empty space much as nature abhors a vacuum. In many instances the decorations were carved into the building material or were carved or painted onto stucco over the building. In yet other instances the carved stones were separate and were attached to the exterior of the building as a veneer.

While many of the structures were only one story high, a number have been excavated which reached several stories. The use of interior rooms were very rare, however. As a rule, when a multi-storied structure was erected, it was built on a hill or with a heap of rubble filling the space below the upper structures. Although more undoubtedly exist, I have found the description of only one interior staircase in my readings about the Mayans.

Their pyramids were similarly built on heaps of rubble. It was their practice to build a new pyramid on top of the old ones at 52-year cycles, this time representing a major calendar change. While this did not obtain in every instance, there are many such structures with several pyramids one beneath the other. It is unusual to find only a single layered pyramid. The old structures, incidentally, were covered en-

tirely and were not used in any way. An example of this is the great pyramid at Chichen-Itza, where inner rooms and major cult objects were hidden beneath the latest addition.

In general the colossal pyramids were erected apparently only for the purpose of a very small temple at the top. For a long time it was believed that there was no other function. A Mexican archaeologist, Alberto Ruz Lhuillier, shattered this idea one day while examining the floor of the Pyramid of Inscriptions at Palenque. He noted that one slab had two rows of holes in an edge. On removing this stone a passageway was discovered and after following it to its full length within the pyramid he found a tomb and a crypt which rivaled those found beneath the pyramids in Egypt. A reconstruction of this tomb and sarcophagus can be found in Mexico City without the necessity of going into the jungle. I highly recommend it to any of you who find yourselves there.

Another outstanding architectural construction found in most Maya cities, and indeed found in cities of the Aztecs and even up into Arizona, is the ball court. Most of you are familiar at least by repute with the ball game played on long rectangular courts between teams of Mayan from differing groups or cities. The ball, which was made of rubber, was supposed to be hit with the head, knees or elbows. In theory the hand was not to be used. The goal was a small ring inside a round stone shaped like a donut. This was placed vertically on the side of the court. In Chichen-Itza at least, this ring is set approximately 30 feet above the level of the ground. It is hard to see how anyone could ever get the ball through this small hole high in the air without the use of hands, but perhaps it is just as well that it is difficult, for the winner at this game was supposed to be able to claim as forfeit all the jewelry of the spectators. And at least in certain games the lives of the losers were forfeit.

Buildings of other sorts have been found and reconstructed. There were structures which seemed to be gatehouses. Others appeared to be platforms for play-acting. There are structures with astronomical significance and definite observatories. Other buildings exist with undetermined function.

The Mayans built highways between their cities. While not quite approaching the Inca Road of the Sun, yet these highways were straight and sound. They were constructed

well enough that many of them exist until this day. They usually were raised causeways built of crushed limestone which went straight from one point to another, turning only for a definite objective. The longest one that we know today is something over sixty miles. However, when Cortes went from Mexico to Guatemala on a punitive expedition against a rebellious captain, he is described as having made the trip quickly and easily through jungle, swamp, and mountain by virtue of a map detailing the *sacbe,* or highway system. There is no know instance of the Mayans using wheeled vehicles. The wheel was known, however, as it has been found in ancient toys. A huge cylinder found on one *sacbeot* may represent a roller.

The first structures discovered by Stephens and Catherwood were immense stone stelae. These were coverd with intricate carving front and back. They showed figures of men or gods and every available inch of space was filled with hieroglyphics. These stelae have been found in all of the major archaeologic sites and have provided an insight into Mayan life. Over and above this, however, they may be regarded simply as objects of great beauty.

Sixty per cent of the Mayan glyphs are undecipherable even today. The forty per cent that we do understand have to do in the main with dates and with gods. Even this understanding is not the result of patient decipherment but is rather due to the fact that the Spanish Bishop Landa, at the same time that he was burning Mayan texts as fast as he could as works of the Devil, was copying down the glyphs and their explanations in so far as he knew them. Those mostly have to do with the calendar and it was believed that they probably had only a religious and calendrical significance. Some stelae have been found, however, that apparently do commemorate individual chieftains and their families. Exactly what it is that is commemorable we do not know, but there is no question that individuals are concerned. It had been hoped that with the advent of modern cipher techniques and with the use of the computers a key to Mayan glyphs in general could be found. Indeed a Russian student announced that he had discovered such a key. Unfortunately, this does not seem to have held up in actual practice.

As noted the Mayas were a literate people. Great libraries were in most of the ceremonial centers. The books were printed for the most part on hammered bark of the fig tree with continuous pages folded accordion style. A few of the codices exist today in European museums but most were destroyed. There are however a number of Mayan texts which were written in Roman script during the 200 years after the conquest. These seem to be mostly the recording of oral tradition rather than a copying of actual glyphs. At any rate there are no bilingual texts on the order of the Rosetta Stone.

The Mayan priests were expert astronomers and made use of their astronomy in terms of astrology. Hundreds of years of careful observation must have been required to result in a calendar that is more perfect than the one we use today, as well as a highly developed knowledge of eclipses and the transits of the planet Venus.

The Mayans actually had two calendars. There was a religious one consisting of twenty months each thirteen days long and resulting in a year of 260 days. The exact significance of this figure and how it was arrived at is entirely unknown. In addition there was the ordinary daily calendar of 18 months, each 20 days long. These 18 months were followed by 5 unlucky or empty days. The two calendars meshed in such a way that the first day of the first month on one calendar would fall on the first day of the first month of the other calendar only once in every 18,890 days. This period of 52 years was known as the Year Round, and was a time of great significance. To the Mayans the world in effect started again every 52 years; this was the reason for rebuilding of temples and pyramids.

The Mayans counted with a base of 20. The number one was represented by a dot, two by two dots, and so on for three and four. Five was a horizontal bar, six a dot over a bar, ten two bars one over the other. Zero was represented by a turtle shell; twenty was a dot one line higher than the shell, and the number of twenties were represented on the second line. Four hundreds were counted on the third line up and eight thousands on the fourth. As a result they were able to handle numbers running into the millions with great facility.

They grouped the years or *tuns* into periods of twenty years, or *katuns*. Each katun was numbered and with the use of this system the Mayans figured time back to the equivalent of 31,111 B.C., which they apparently felt represented the beginning of the world. The largest part of what we can decipher on the stelae or on inscriptions on walls consists of just such calendrical notations.

There was of course art in addition to this formal manifestation. The buildings were apparently brightly painted and murals have been discovered in fair to poor repair in a number of these sites. These are most valuable because of the insights they give into the dress and the activities of the people. They show the type of instruments used for music. They show victory processions, games, fights, sacrifices. The portrayal of human sacrifice in the murals at Bonampak, for example, destroyed the idea that human sacrifice was only introduced to the Mayans by the Toltecs. The art was strictly representational and was almost as crowded as the sculpture. Important people and beings were made larger than unimportant ones. Faces were almost invariably in profile and feet were always portrayed pointing outward in pigeon-toed fashion. Important objects were brought to the front, whether or not they belonged there. Thus, belt buckles were always shown toward the viewer even if it meant bringing them out of place in the costume. In most instances there was no perspective, with distant objects simply placed above the closer objects.

As already noted, this magnificent culture was in the process of a downhill slide at the time the Spaniards arrived on the scene. The Spaniards only hastened the process. The unmistakable descendants of the Mayans are to be seen today inhabiting the lands of the forefathers. The modern Indians look as if they could have stepped from the carvings and the paintings of the past. Many of them lead the same life, living in huts, raising their corn, and hunting a little. While they attend school and are nominally Catholics, many of them observe the remnants of the Mayan religion. The deeper one goes into the brush and jungle, the more this is true. Oliver LaFarge, the noted poet who was also an anthropologist and archaeologist, became privy to many of the secrets of a

present-day practitioner of the native religion. Even in the more tourist-frequented sites, one may come across, as we did, evidence of candles recently burning before idols just off the beaten track. Weddings are carried out before the priest, but chickens are sacrificed before the wedding feast. The closer they go toward civilization, of course, the more they lose their native ways. In and around Bonanpak, however, the remnants of the Lacadone tribe make up a small group about 200 strong who represent the almost undefiled old stock. Sad to say, they have degenerated greatly in the intervening years and have almost gone the full circle, back to the starting point of the Mayan civilization.

REFLECTIONS OF A COTTON ECONOMIST

McDonald K. Horne, Jr.

Read Before "The Egyptians," May 16, 1968

In my first year after college, I worked here in Memphis for my uncle, who was a successful industrialist. It took only one year of this to convince me that my soul would never be content with the mixed feed business. So I went to my uncle and told him that I had decided to go into graduate work and to become an economist.

After listening patiently, he said he felt I ought to go on back to school and get this thing out of my system. But he said he hoped that in due time I would get myself straightened out and would come back with him in the business, because—as he put it quite simply, in words that will never leave me—"economists are not worth a damn."

Nevertheless I became an economist and never went back to the business. Now I am older than my uncle was when he spoke those words in 1931, and I am scheduled to retire next year after nearly four decades in this worthless profession. I have served in the halls of academia and in the catacombs of Washington and elsewhere, but my longest and deepest experience has been here with the National Cotton Council of America. Over most of my whole career, I have been wrestling in my mind with the economics of cotton.

Each of us sees life through his own personal window. No one lower than God has a view of the entire landscape. My own particular window has been fashioned and positioned pretty much by the insights which have come to me through the economics of cotton.

I suspect most thoughtful people would say that this particular window affords a very poor and limited view of the world today. The forward thrust of today's economic world is elsewhere. Although Memphis is the most important cotton center in the world, I do not know a single economist in our local university and colleges who appears to be especially intrigued by the subject of cotton today. I am sure that in our country today, and even in this very city of Memphis, most

thinking people really feel (privately at least) that cotton belongs mainly to the past.

Why not? It is heavily subsidized. It is submerged in politics. Its history calls up thoughts of slavery, civil war, rural poverty, and provincialism. It is losing, losing, losing markets to the synthetic fiber companies, which are assumed to be riding the wave of the future.

But I would argue that my special window to the economic world has been a good one—situated higher, with a better view, than most. The world of cotton does have many small valleys of the mind, and a man can live and die in one of them without ever seeing much beyond the nearby hills. But if he is lifted by chance to a place where the broader scene confronts him, he can see to some very far horizons.

In some ways cotton is the most important raw material in the world. Among the world's basic industries, cotton apparently stands first in the amount of employment it engages. As an important factor in the economies of nations, the industry which cotton serves is more widely dispersed throughout the world than any other. Our country—by virtue of the government's price and production control policies—actually sets the general price level of most of the world's cotton and absorbs within its own economy most of the shock created by short-term changes in the world demand and supply. Thus our country, through its cotton program, makes a vast contribution to economic stability in many of the world's weakest countries and to the stability of employment throughout the world.

It is ironic that people in the Deep South are often considered provincial in their viewpoints—and yet our traditional economy has always tended to pull our thinking toward the problems of the whole world.

Cotton is grown in about sixty foreign countries, embracing nearly three-fourths of the world's population. This fiber is produced only within a band of the earth, north and south of the equator, having a minimum number of warm and hot days in the growing season. Whatever, the reason may be, these are the regions where most of the really poor people live. In normal volume of cotton production the countries holding second and third rank, behind the United States, are the two great communist powers, Russia and China. Then come India, Mexico, Brazil, Pakistan, Egypt, Turkey. The roll of cotton producers extends across the Middle East, Africa, Central and South America. In general it embraces the have-not countries—the ones we least understand—those most exposed to communist agitation.

In all of Europe less than a million bales are grown, and those largely in two of the poorest countries, Spain and Greece. Japan grows none, Canada none. Neither Australia nor the Union of South Africa grows as much as Crittenden County, across the river. New Zealand grows none.

There is only one country in the so-called "developed" category which is endowed by nature with the ability to grow much cotton. And it is the richest of all, the U.S.A. We normally grow nearly a third of the world supply.

There is a unique sort of polarity in our relationship with the other cotton countries with which we compete in exports for the markets of Europe, Japan, Canada, and so on. I do not know of any other major commodity which is produced only by the world's richest country and by a mass of others ranging generally from poor to very poor.

This unique position should give us an extreme sensitivity to the meaning of technology in modern agriculture. There is a concept, nurtured by colonialism, that the production of raw materials should be the special province of backward countries with their cheap and abundant labor. If so, why in the world should we grow cotton here? But in recent decades a strong new wind has been blowing, which might turn that old concept upside down. The productivity of labor has been rising much faster in agriculture than in industry. A farm is a wonderland of scientific potentials. Modern agriculture is highly responsive to those things in which economically advanced countries have the advantage: capital, communications, transportation, engineering and managerial skills, the ready availability of specialized chemicals and machines and spare parts. Today there is nearly three times as much investment per worker in American agriculture as in American industry. Today it is far easier to move some kinds of factories to a poor country and operate them efficiently with the available labor and management, than it is to transfer the methods of modern agriculture to the same country.

In the case of cotton, the productivity per worker in this country has doubled in the last seven years on which we have good figures. It has quadrupled in the last 16 years. When I was a young man it took about 250 hours of labor to produce the average bale of cotton. Today the average requirement is about 32 hours, and headed much lower.

All this raises profound questions for the whole world about the economic development of the future—how it can proceed in the have-not nations and in the advanced nations—whether cotton, for example, has a sound place in the future of this country and what would be lost to the dynamics of the world if the one paramount leader in cotton technology should drop out of the race. I could not set out here to pursue these questions. I am merely documenting my claim that a cotton economist sits at a high window and looks to some broad horizons.

Sitting at this window and looking out along various points of the compass, an economist is confronted by quite a variety of long thoughts.

For another example, he must search long and deeply for the meaning of synthetic fiber competition. Today all agricultural products are threatened by the rising spectre of synthetic substitutes, but cotton is the scarred veteran of this encounter. More than half of the fiber market in this country and nearly half of it in the whole world now belongs to man-made substitutes.

I have never thought that the man-made fiber people had horns. In the main they are fine people, pushing right up the road of progress in what has been called "the American way." But look, for example, at du Pont, just because it is the biggest in the business. Du Pont now gets more than a billion dollars a year from synthetic fiber. It gets more revenue from fiber, even in a normal year, than all the farmers in the whole alluvial plain of the Mississippi River.

There is an old saying that if a man builds a better mouse trap, the world will beat a path to his door. This is in keeping with the old idea that our great free enterprise economy is ruled by its millions of consumers. But something has been turned around. So far as fibers are concerned, the consumer is not beating a path to du Pont's door. Du Pont is beating a

path to the consumer's door and is knocking the door down to get in.

For the average cotton article in a retail store, nine-tenths of the price represents manufacturing and merchandising values added after the farmer sells the raw fiber. After he sells it, he loses track of it entirely. But for the synthetic fiber producer, the essence of good merchandising is to follow its product through every step to the retail counter – demanding good workmanship, supplying technical guidance, cultivating the allegiance of personnel, and subsidizing sales promotion. The whole procedure from end to end is often tied together in a single "program" (or deal) under the unifying beneficence of the synthetic company. It is a study in the uses of concentrated economic power. It is a function, not of the fiber's intrinsic merit, but of the economic organization behind the fiber. The consumer often gets a good product, but he often has no chance to get a good cotton product. A great deal of cotton is just muscled out of the market. Freedom of choice is not so much served as manipulated—at least in so far as the choice of fibers is concerned. And this is precisely the concern of all fiber producers.

We could look along other points of the compass and see other great, emerging issues, in which the concepts of the past do not fit the realities of the present.

We could look (as a final example) at our textile import problem. This is a thorny one, in which our traditional ideas run head-on into new conditions. Our old ideas about international trade did not contemplate the sudden collapse of colonialism and the swift emergence of a new world order in which all the backward nations, almost at once, would become bent on industrialization. Our annual rate of textile imports has increased by a billion dollars over the past ten years. We already import more than a million bales of cotton annually in textile form. Our whole textile and fiber economy can be overwhelmed by the continuing onrush of imported textiles if we allow it to happen. But would this really be wise?

Throughout a career of struggling with subjects of this magnitude, I have looked back over my shoulder many times and thought of my smart old uncle, who warned me at the beginning that "economists are not worth a damn." I do not

agree with his appraisal, but I certainly concede that he had the typical business man's viewpoint on the subject.

I think it is a rather half-baked viewpoint, from which business men will back away quickly when they need the services of an economist. Most of our large and better-run corporations hire economists today and use them somewhere around the top levels of management. It is typical to hear a top executive say that economists are a weird lot but that his particular economist is an exception. Actually there are quite a few individuals at the very top of big business managements today who apparently have not been woefully handicapped by the fact that they hold Ph.D. degrees in economics.

Nearly all the jibes at economists are made from behind a protective shield of humor. A lot of them spring from intellects which, I suspect, are barely able to comprehend more than the fact that economists are favorite whipping boys.

Of course all professions are occasionally jibed at (and with some justification)—doctors, lawyers, professors, ministers, and so on. Still I am sure that in this respect it is the economists who enjoy the top billing. I am convinced that among people at many different levels of intelligence, and especially among those of the so-called "practical" stripe, economists do tend to be looked upon as some kind of educated "nuts"—"odd balls"—who are mainly occupied with making presumptuous forecasts of the future and with "explaining the obvious in an incomprehensible manner."

Most of my work has been with very practical-minded men —farmers, textile executives, merchants, politicians, lobbyists—men with a natural inclination to see economists pretty much as my uncle did. On the whole I have had a good rapport with them, and they have treated me well and worked the devil out of me. But my very closeness to them has kept me reminded of the reputation which my profession holds with them. I learned a long time ago that there is no better way to disarm an audience of cotton people than to join in the fun myself by observing that I may be an economist but that no man with good eyesight can call me a long-haired economist—or that my head is not a crystal ball but merely looks like one.

Why are economists regarded in this way? Being of a sensi-

tive nature, and working for so long with so many "practical" people, I have pondered the subject a great deal.

There is the temptation to sum it all up quickly by saying that just as theologians were burned at the stake in an earlier day when theology was sacred, economists are persecuted today because they expound on what is really sacred to modern man —his pocketbook. But I am not this cynical or this impressed with the importance of economics. A more serious analysis in my opinion involves two basic considerations and several related ones.

The nerve center of our economy is the kind of decision-making which business men (including farmers) must do. This is a creative function which warms the soul, but it is also a risky and agonizing function. The business man lives with it and often sleeps with it. He goes with it up to the mountain and down to the valley. He takes the losses and the disappointment along with the gratification and some of the gain.

The economist does not usually make business decisions, but he hovers over them like a kibitzer or a professional critic. I can see how the business man might regard him as a sort of loose-lipped interloper, uninhibited by responsibility—playing the game for fun while he plays it for keeps. The economist may seem to come talking his way into such subjects as prices, sales, costs and profits just as if he himself were the life and center of these subjects rather than the business man, who really is.

The economist deals with large, relatively cosmic aspects of society, while the business man is hung up on such finite matters as meeting payrolls and pacifying customers. The economist may seem to be playing God while the business man has a right to wonder whether he is even a competent human being.

I often think of a letter that I once received from a fine old gentleman, reading in part as follows:

> "I read what you said about getting the price of cotton down so that it can compete with synthetics. I had rather get more and raise less. I got about 1,030 bales this year on about 875 acres. I would like to see you grow it for less."

Of course, I couldn't begin to.

The other main consideration, it seems to me, is that the economist is so intimately involved with the growing power of government over our private lives. As our society becomes more complex and affluent, the demands for more governmental action seem inevitable—but this trend raises in every normal individual a great deal of resentment and of concern about the survival of personal liberty. The economist is a student of the very forces which underlie this situation, and he has clearly benefited from them, because they are the great source of new demands for his services. Economists are needed in the guidance of government programs, and in fact a great many of the most powerful positions in government are now held by economists. Likewise economists are needed in building the arguments against new governmental invasions and in helping private firms and citizens to live intelligently with the quasi-socialistic government that we have today. The economist, having traces of the objective scholar in his make-up, often stands right up and expresses an unpopular idea, such as that Keynes was a great analyst rather than a philosophical demon. These circumstances have tended to make economists the popular symbols of government planning and control.

And yet economists have very important jobs to do. The sophisticated and broad-gauged members of our society realize this more and more.

The making of an economist is that he must get certain basic training and must then attune his whole life to analysis of the supply and demand forces which are at work in the world. If a man does this much, he will be an economist; if in addition he is honest and well motivated and if he develops some broad judgment he will be a good one.

An economist has a different perspective from a business man, and I must say there are times when the economist's perspective is the more useful. Take a subject as vital as the price elasticity of demand for cotton or its products. A business man has to be the supreme authority on what effect a change in his selling price will have upon his volume of business. But this fact does not automatically make him any great authority on the effect which a change in the general price of cotton will have on the total volume of the fiber consumed. On this latter question, I have known quite a few men of great success and prestige to express judgments which were pretty

wild. Some of those particular judgments have recently been coming home to roost. On occasion I have had the very unwelcome task of differing with important business men on this subject. This may have been regarded as impertinence on my part, not to say irreverence. But the truth is that nothing in the experience of those fine men had ever required them to explore this particular subject, in all its complexity, as I have had to explore it.

There is indeed a great deal of scholarly work published by economists which seems to be little more than an invitation to ridicule. Economists are caught in a kind of schizophrenic tug-of-war between involvement in, and detachment from, the real world. I think it is impossible for a man to understand the heart-beat of our economy unless he spends a great deal of time with its decision-makers and cultivates a feel for their viewpoints. Obviously every one of them is biased, or he would be no good at his job. Yet I have found, again and again, that economic studies are ridiculous unless they are checked against the observations and judgment of practical men on the firing line. The practical man virtually always has important angles on a problem which theoretical studies will overlook. If the economist becomes too involved with a small number of business men, he may absorb too much bias. But if he tries diligently, and as systematically as possible, to probe the viewpoints of a wide variety of such men, he will get insights which are essential to real understanding. I would rather be involved, and know my subject, than wear the august mantle of objectivity while wandering in the mists of theory.

There is eternal appeal in the notion that social problems can be figured out from books and journals and statistics. These are priceless sources of knowledge and should be employed for all they are worth. The trouble is that they sometimes take us overboard. Especially it seems to me that as a young man goes through the trials of graduate work in economics, he is often pulled too far toward reliance on statistical revelation. The reasons are apparent. He is at an idealistic stage of life, and the main resources available to him are theoretical and statistical. Then there is the electronic computer which, since it cost so much, must certainly be used.

I have had many visits from graduate students doing doctoral theses in cotton economics. This is one level where cotton

is appealing to economists, because the supply of figures is inexhaustible. The London *Economist* is credited with the observation that "when the S.S. Cotton sinks, it will go down with full statistics flying." All these graduate students are hot on the trail of some formula that will tell us something of what the future holds. In time they tend to learn that the independent variables are too numerous and complex and, anyway, that since the technical and economic environment of cotton is constantly changing, relationships of the past are highly deceiving as guides to the future.

Some never learn this, however. I wish there were time to regale you with some of the mathematical equations which have been developed, and are sometimes taken quite seriously, for projecting the effect of a price change upon the demand for cotton. As some one has said, a coefficient of regression is like a bikini: What it reveals is interesting, but what it conceals is vital.

But this kind of sophomoric business should not be taken to reflect the typical attitude of economists toward forecasting. In general there is no one who appreciates the pitfalls of forecasting more than economists. Most business forecasting is loaded with probable error, and all good economists know it. The problem is that business men have to make commitments for the future, and they are forever prodding economists for forecasts. I get a continuing stream of phone calls and letters, asking for my forecast of the cotton price or the size of the cotton market next year, or ten years hence, or on in the future. I am sure of two things: first that I am not much good at such forecasts, and second, that nobody else is. The best I can do is to form a crude impression of what the odds are, and then to tell people what are the main factors to watch.

If you will call up God on the telephone and find out what the weather is going to be next season both in this country and all over the world, and if you will do the same thing about the textile cycle, politics, and world diplomacy, I will do a little forecasting for you about next season's cotton market. As for the next decade, you will have to ask Him also about fiber technology, the birth rate, and a few other items that don't show up too clearly on my crystal ball.

My job is not to blueprint the future, but to study the present in the light of the past, so that we may be able to do a

little more to make the future better than it otherwise would be.

Incidentally business men are not alone in demanding forecasts. Some of the most outlandish ones are required by law. In the fall of each year the Secretary of Agriculture is required to forecast the crop and the domestic and export markets for cotton in the season then current, and also the markets for the entire next season ahead. In my shop we have analyzed the results many times, and we have found that the *net* error has run as high as five million bales.

It seems to me that all bad forecasts are attributed, in retrospect, to what "economists said." But if you check the record you will find that many of them were made by big-name business executives or government officials or other types who are scarcely models of objectivity. As Disraeli said of Gladstone, his conscience was not so much a guide as an accomplice.

The game of economic forecasting can be played by anybody. No license is required. The clearest forecast of fiber consumption that I have seen recently was given by a du Pont official in a publication of the Food and Fiber Commission. He foresees that in 1980 this country will consume 33 billion pounds of man-made fiber and 19 billion pounds of natural fiber. Now du Pont has some very fine economists, but I have never known one of them to enlighten us in this manner. This forecast was made by a textile chemist. I have found that some scientists are especially good at piercing the veil of the economic future.

I sometimes hear the complaint that economics is "not a science but an argument." There is not much unanimity of opinion among economists. This should hardly be surprising to any one. The facts of economic life are infinitely complex. Any two people who explore them to any depth at all must arrive at some differences of impression as to how the most significant facts shape up.

There is a human craving for simplicity and a human resistance to re-examining old convictions. Therefore most of us (especially the laymen) can give brief and simple explanations of how things work in our economic world. All we must do is to make a well-biased selection of the facts to be considered.

The complexity of cotton economics can only be described as awesome. I have published a good bit on the many dimensions of this complexity—the end uses, the long route from the farm to the retail counter, the diversity of competing firms at every stage, the competing materials, the quality requirements, the conditions of production, the involvement with federal policy, with international diplomacy, with poverty, with modern technology—the eternally confusing interplay of short- and long-term factors upon the fluctuations of the market. I can develop none of this here, but can only say that I understand very well why so many fine and honest men can hold such opposing views on cotton policy.

There could be no perfect cotton policy, for if we understood everything about all these complexities, it would still be true that a national policy for cotton involves compromise among different values, all of which are good. Of course there are opposing interests within the cotton economy—the different areas, the different levels of efficiency, the different types and concepts of operation—all of which must be resolved in compromise. But beyond that we are compelled to weigh values which reach to the farthest corners of the human situation. How, for example, do we weigh the needs of 300,000 cotton producers against the requirements of our diplomatic relations with Mexico and Brazil and Pakistan? What scales do we have to weigh the value of our great stabilizing influence on the world of fiber against the need for more freedom and less government expenditure?

Cotton's overriding problem has been its failure to meet the challenge of man-made fiber competition. The need (in broadest terms) has always been for long-range, consistent, adequate programs in the fields of price, production, technology, and merchandising. Cotton has made some pieces of spectacular progress in one field or another, but I remember no time when the over-all effort was adequate. From the window where I sit, it seems possible to envision a sound over-all approach within a fair compromise of all the conflicting values; but thousands of other men sit, like me, at their own separate windows and have their own views of what should be done.

Because the programs as a whole have not been adequate, cotton has been sinking for some years now into deeper dependence on government subsidy. Today the level of a competitive price for the market is below the level which would cover the costs and the necessary profit for the great majority of farmers. As a man of conservative instincts, I find this very hard to take. I have had many hours of unhappy communion with my principles to decide whether I could advocate the kind of subsidies which are now necessary in order to keep our cotton economy alive and to hold open the hope for a better day in the future.

When I looked at the old tenets of classical economics, which are deep in my bones, my inclination has been to give up on cotton. But when I look at the real world of today and think of all the values that might go down with American cotton, I have come to feel that a realistic battle for its survival is worth while.

Some of these values are frequently mentioned: The employment and investment that depend on cotton, the base income from cotton which feeds into cities like Memphis, the foreign exchange earnings of cotton, the rich cotton lands which could create embarrassing surpluses of other crops. But there are even broader values which over the long run could mean even more.

All consumers have a stake in the survival of this fiber, not merely because it has some wonderful qualities, but also because of its potential for improvement through research and because of its significance in fiber competition. Before you cry too many tears over the taxes you pay to keep cotton alive, contemplate the fact that taxpayers and consumers are the same people. If all prices had behaved like fiber prices over the past decade, your dollar would buy a great deal more now than ten years ago. The average person could pay his part of the cotton subsidy out of the difference and still be far ahead. The synthetic fiber companies, which are quasi-monopolistic in their very nature, would never give you as much for your money if cotton, with its highly competitive nature, were out of the picture.

The basic strength of the synthetic fiber companies rests on the fact that nobody can enter the business at all except through a large corporate organization, which then automatically has great economic power. The weakness of cotton is that anybody can grow it if the law allows—even the smallest of farmers. Cotton's basic problem is not that it doesn't

respond to productive effort; the problem is the very munificence with which it does respond, thus undermining the chance for great economic power except in so far as thousands of independent people can work together despite conflicts of interest and understanding. This is the heart of the whole matter. It explains cotton's great lag in research, in advertising, and in integrated merchandising efforts. It also raises the persistent hope that cotton may yet get on top of its problems, with benefit to all mankind. I just cannot believe that an intelligent society should let this kind of commodity go under.

I have mentioned the unique role of American cotton as the price supporter and the wellspring of scientific progress for other cotton countries. This role has enormous meaning. I do not think we should yield it to Russia.

Finally there is the fact that scarcely more than 10 million of our 200 million Americans still live on farms. There is something of special value in the character of farm people. It has often been romanticized too much, but it still exists and is important. It stands in contrast to the cheapness of life and the sickness of spirit in our crowded cities. Where there is a choice between factory-made and farm-grown commodities, it is in the national interest to help production stay on the farm.

Or so it seems from my window.