Concern with biblical chronology is an indispensable and unavoidable task in the study of the Bible. Paul wrote to the Galatian Christians that God sent his Son "when the time had fully come." As we study the Bible, we soon become aware of the long sweep of time over which God has been working out his purpose. This study will concentrate on Old Testament chronology, first of all, because of its vast scope and, secondly, because problems related to chronology are more numerous for the Old Testament student than for the student of the New Testament. Since the chronological references in OT historical records are numerous, it will be helpful in our discussion to divide OT chronology into four periods:

I. from Creation to the Flood;
II. the time of the patriarchs;
III. the time of the Exodus and the conquest of Canaan;
IV. from the establishment of the monarchy to the Exile.

What are the materials which God has given us with which to construct a chronology of the OT? Basically, there are two kinds: biblical data and extra-biblical data. There is a wealth of chronological detail in the OT, and there are secular documents, resurrected from the sands of Egypt and the dust of Assyria, which have helped us to pinpoint certain OT dates.

Prominent among the biblical data are the genealogies. Historical books like Judges, Samuel, and Kings abound in references which measure the reign of a particular judge or king. The OT sometimes gives us "long dates" between important events in the history of Israel. (Exodus 12:40 tells us, e.g., that the Israelites stayed in Egypt 430 years. According to 1 Kings 6:1, the laying of the foundation for Solomon's temple, which occurred in the fourth year of Solomon's reign, took place 480 years after the Exodus). With all of the chronological data supplied on the pages of the OT, it would seem that constructing an OT chronology should not be all that difficult.

The materials we possess with which to determine the chronology of the period from Creation to the Flood are very limited, and they are very concise. They consist of two genealogies, one in Genesis 5:1-32, the other in Genesis 11:10-26. The first serves as the formal connecting link between earliest man and the Flood,
the second as the link between the Flood and Abram as the ancestor of the line
of promise.

To our knowledge, the earliest attempt at assembling the Bible's chronological
data into a single system was made by Julius Africanus, a Christian writer who
lived in Palestine in the second century A.D. Eusebius in his Church History
says that among Africanus' numerous writings were "five books of chronographies,
a monument of labor and accuracy" (Finegan, Handbook of Biblical Chronology, 140).
As his starting point Africanus took the creation of Adam and used the Septuagint
text (the dates of which don't always agree with the dates in the Hebrew text
of Genesis 5 and 11). Unfortunately we have only fragments and quotations from
Africanus' work. When he came to 776 B.C. Africanus correlated his Bible dates
with those from secular history by using the well established Greek system of
dating by Olympiads. According to Africanus, 4726 years elapsed before the
first Olympiad (776 B.C.). Accordingly, then, his date for year 1 of the
world's history is 5502 B.C.

The most widely known system of biblical chronology in modern times is that of
the Irish archbishop James Ussher (1581-1656). Ussher's chronology was published
in 1650 and since then has been inserted in the margins of most reference editions
of the KJV. Many unsuspecting readers of the Bible have simply assumed that the
Ussher chronology is correct. This study will attempt to analyze the two assump­
tions which the Irish archbishop used in compiling his chronology. As we do so,
the conclusion is inescapable that Ussher's calculations are suspect and may not
simply be accepted at face value.

Since Ussher's conclusions are well known to all of us, it will not be necessary
to repeat them in detail. His date for the creation of the world is approximately
4000 B.C., his date for the Flood ca 2350 B.C. But it is important for us to see
how he arrived at these figures.

Ussher used as raw materials for his OT chronological system the two Genesis
genealogies (chapters 5 and 11), and approached them with two assumptions:

1) that the genealogies are complete; they omit no names; and
2) that the periods of time listed are consecutive.
To evaluate Ussher's conclusions we shall have to question the premises on which he proceeded. As the chart on page 4 shows, Genesis 5:1-32 lists ten patriarchs from Adam to Noah; Genesis 11:10-26 lists ten patriarchs from Shem to Abram. But are these lists complete, as Ussher took for granted? When St. Luke (3:36) lists the genealogy of Jesus, he adds a name (Cainan) which is missing in Moses' genealogy. Moses' statement (Gn 11:12) that Arphaxad was the father of Shelah (KJV: "begat") is clarified by St. Luke. Arphaxad was Shelah's grandfather.

If we study the two Genesis genealogies by using the analogy of the two NT genealogies of our Lord, we will again have reason to question Ussher's assumption that the genealogies are complete. In Matthew 1:8 Joram is called the father of Uzziah (KJV: "Joram begat Uzziah"). But again we see that the Greek verb gennewo sometimes refers to ancestral relationships, and not only to the father-son relationship. According to the Second Book of Kings, Joram's son was Ahaziah (8:24); Ahaziah's son was Joash (11:1f.21); Joash's son was Amaziah (12:21); Amaziah's son was Azariah/Uzziah (15:1). The relationship which Matthew describes with the verb gennewo is not father-son, but great great grandfather - great great grandson. It is clear that Matthew's genealogy of Christ is selective, not continuous.

Permit one more instance of the wider use the original writers made of the verb "to bear, to beget." In Exodus 6:20 we read: "Amram married his father's sister Jochebed, who bore him Aaron and Moses." Anyone reading this statement for the first time would surely draw the conclusion that Aaron and Moses were the actual sons of Amram and Jochebed. To emphasize that a number of generations have been omitted here, Prof. Carl Lawrenz has pointed out: "In the genealogy of Joseph to Joshua (1 Chr 7:20-27) eleven links are mentioned, while the genealogy of Levi to Moses (Ex 6:16-20) covering approximately the same period, names only four links: Levi, Kohath, Amram, Moses. ... Kohath is not meant to be understood as having been Moses' grandfather, for in that case Moses at 81 would (according to Numbers 3:28) have had 8600 male first cousins." ("Biblical Chronology," p. 3). Like its Greek equivalent, the Hebrew verb yalad in Exodus 6:20 ("she bore") may indicate a relationship broader than simply that of mother-child. Ussher's first assumption, therefore, that the genealogical lists omit no names simply cannot stand.

Ussher's second assumption in setting up his OT chronological system was that the periods of time indicated in the genealogies (e.g., "Terah lived 70 years and begat Abram ... Abram lived 100 years and begat Isaac...") are consecutive. In the Genesis 5 genealogy, e.g., Ussher assumed that the ages of the patriarchs at
<table>
<thead>
<tr>
<th>Patriarch</th>
<th>Age at birth of next named</th>
<th>Age at death</th>
<th>Year of birth (from Creation)</th>
<th>Year of death</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adam</td>
<td>130</td>
<td>930</td>
<td>1</td>
<td>930</td>
</tr>
<tr>
<td>2. Seth</td>
<td>105</td>
<td>912</td>
<td>130</td>
<td>1042</td>
</tr>
<tr>
<td>3. Enosh</td>
<td>90</td>
<td>905</td>
<td></td>
<td>1140</td>
</tr>
<tr>
<td>4. Kenan</td>
<td>70</td>
<td>910</td>
<td></td>
<td>1235</td>
</tr>
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<td>5. Mahalalel</td>
<td>65</td>
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<td></td>
<td>1290</td>
</tr>
<tr>
<td>6. Jared</td>
<td>162</td>
<td>962</td>
<td></td>
<td>1422</td>
</tr>
<tr>
<td>7. Enoch</td>
<td>65</td>
<td>365</td>
<td></td>
<td>987</td>
</tr>
<tr>
<td>8. Methuselah</td>
<td>187</td>
<td>969</td>
<td></td>
<td>1656</td>
</tr>
<tr>
<td>9. Lamech</td>
<td>182</td>
<td>777</td>
<td>874</td>
<td>1651</td>
</tr>
<tr>
<td>10. Noah</td>
<td>500</td>
<td>950</td>
<td></td>
<td>2006</td>
</tr>
</tbody>
</table>

| to the Flood 100 | 1656 |

* * * * *

11. Shem | 600 | 2156 |
12. Arphaxad | 438 | 2094 |
(Cainan (Lk 3:36) | |
13. Shelah | 433 | 2124 |
14. Ever | 464 | 2185 |
15. Peleg | 239 | 1994 |
16. Reu | 239 | 2024 |
17. Serug | 230 | 2047 |
19. Terah | 205 | 2081 |
20. Abram | 175 | 1946 | 2121 |
the birth of the next named individual can be placed end to end to arrive at the total number of years that elapsed from the creation of Adam to the Flood. For Ussher that number is 1656.

We have, however, already noted that St. Matthew's genealogy of the Savior (1:8) omits five links in the Messianic line, representing a period of nearly a century. One analogous OT example will suffice to show that the periods of time mentioned in the genealogies are not always consecutive, as Ussher assumed them to be. Genesis 11:26 reads (in KJV): "Terah lived seventy years, and begat Abram, Nahor, and Haran." According to that passage, what happened in Terah's seventieth year? Did he become the father of triplets? At very least, it appears that Abram was born in his father's seventieth year and was the oldest of the three brothers.

When we compare the Scripture passages which bear on this subject (Gn 11:32; 12:4; Ac 7:4) we are surprised to learn that Abram was not the firstborn of Terah's sons, and that Terah was not 70 but 130 years old when Abram was born. "We may paraphrase Genesis 11:26 as follows: 'Terah lived seventy years and begat the first of his three sons, the most important of whom ... was Abram'" (Whitcomb and Morris, The Genesis Flood, 480). Ussher's second assumption, therefore, that the periods of time listed are consecutive, has not proved valid. In the single generation of Abram sixty years have been lost; Ussher's chronology does not account for them. We are able to detect this only because Abram is so prominent in the scriptural record. But are there other instances of this sort of reckoning which we're not able to detect?

Down through the last three centuries many Bible students have accepted Ussher's conclusions without question. A few examples will illustrate this. Rupprecht (Bible History References) gives 4004 B.C. as date for the Creation. Kretzmann's Popular Commentary follows Ussher in postulating a period of 1656 years between Creation and the Flood. Rupprecht claims the year of the flood was 2344 B.C. (1656 anno mundi). "Ussher's figures show that Lamech, Noah's father, was born in the year 874 after Creation, well within the life span of Adam. Lamech, Noah's father, was 56 years old when Adam died" (Bible History References, OT, 23). It has even been suggested that Lamech may very well have been able to share with Noah what he himself had heard from the lips of Adam. If Ussher is correct, then Noah, who we know was 600 years old when the Flood came, lived 60 years after the birth of Abraham eleven generations later. If Ussher is correct, then Shem outlived Abra-
ham (ten generations later) by 35 years. Kretzmann even goes so far as to say: "Abram was born 150 years before the death of Shem and surely profited by his instruction" (Popular Commentary, OT I,1).

But Ussher's conclusions do not square with what we know about Bible genealogies. A careful study makes it clear that these were intended not so much to provide a complete listing of all descendants as to list the more important members of the line. Archer says in A Survey of Old Testament Introduction: "The grouping into ten pre-Deluge and ten post-Deluge generations is suspiciously similar to the schematized 14, 14, 14 of Matthew 1, where demonstrably there are six or seven links missing" (187).

The question may then legitimately be asked: "If we decline to view the genealogies of Genesis 5 and 11 as teaching a strict chronology, haven't we thrown the door open to wild speculation about the age of the earth? Haven't we then allowed for the possibility of gaps totaling hundreds of thousands of years?" Hardly. After all, the gap between Amram and Moses was closer to 300 years than to 30,000. And the gap between Joram and Uzziah (Mt 1:8) was 50 years, and this in a segment of genealogy (from the reign of David to exile in Babylon) covering a span of about 400 years. It is altogether unreasonable to suppose that a hundred times as many generations are omitted in these tables as are included in them. Archer says: "We may postulate a span of at least five to eight thousand years between Adam and Abraham." Many of you will remember how reluctant Prof. John Meyer was to set a date for the creation of the world. When his seminary students used to ask him: "Is it possible that Creation may have occurred between five and ten thousand years B.C.?" he would smile and say: "Yes that may be possible."

In a series of articles that appeared in the Northwestern Lutheran fifteen years ago under the heading "Is Evolutionism the Answer?" Dr. Siegbert Becker wrote: "True Biblical scholarship ... will never make the Ussher chronology a test of orthodoxy. Where God has spoken, the issue is settled, but where God has not spoken, we must allow for a difference of opinion." The person who wants to uphold an age for the world of millions and even billions of years, however, has an axe to grind. Once the principle of evolution is surrendered, the need for astronomical figures disappears. Archeologists who estimate the age of human habitation on our planet seldom go back farther than 10,000 years.
As we seek to establish a chronology for the period from Creation to the Flood, we will want to say no less than the Bible says. But as Bible-believing Christians we will want to say no more than the Bible says. You can tell an untruth not only with a half-truth, but also with a truth-and-a-half.

II.

Once we reach the age of the patriarchs, we are on much safer ground, chronologically speaking. Using data which the Old Testament supplies, we can date the birth of Abraham almost to the very year.

To do this, we will use as our point of reference 931 B.C., the probable year of the split between the kingdoms of Israel. (The establishing of this date as reference point will itself be treated in the fourth part of this essay).

Figuring back from the date of the rupture of the United Kingdom to the fourth year of Solomon's reign takes us back 36 years, to 967 B.C. 1 Kings 6:1 tells us that it was in the fourth year of Solomon's reign that the foundation of the temple was laid. That same passage adds the information that this event took place 480 years after the exodus from Egypt, which must then be dated at 1447 B.C.

Exodus 12:40 tells us that prior to the Exodus the Israelite nation spent 430 years in Egypt. 1877 B.C. would then mark the beginning of their stay, at the time of Jacob's coming to Egypt. At that time he was 130 years old, as we learn from Genesis 47:9. Accordingly, Jacob was born in 2007 B.C.

Jacob's father Isaac was 60 years old at Jacob's birth (Gn 25:26); Isaac's birth year must have been 2067 B.C. Abraham, in turn, was 100 years old when Isaac was born; this establishes 2167 B.C. as the date for Abraham's birth, and 1992 as the year of his death.

Specific correlation of Abraham's life with the dates of secular chronology has not been established. Formerly it was customary, e.g., to identify the Amraphel of Genesis 14:1 with Hammurabi, the famous Babylonian lawgiver (cf Kretzmann, OT I, 31), but that identification is surely incorrect.
III.

Reference to a 1447 B.C. date for the Exodus has already been made. This would mean that, allowing for the years of wilderness wandering, the Israelite conquest of Canaan began around 1400 B.C. Further confirmation of this date is found in a statement of Jephthah, one of the Judges. The period of the Judges ended ca 1050 B.C. with the period of transition from Samuel to Saul. While Jephthah was judge, Israel was threatened by Ammonite invaders, who challenged Israel's right to territory east of the Jordan. Jephthah reminded the invaders: "For three hundred years Israel has held these lands. Why didn't you retake them during that time?" (Jdg 11:26). Here is additional biblical support for a 1400 B.C. date for Israel's conquest of Canaan. This early date for Exodus and conquest is supported also by the apostle Paul in an address in Pisidian Antioch (Ac 13:19). There Paul referred to a 450-year span between the sojourn in Egypt and possession of Canaan.

In spite of the consistent testimony of the Scriptures, however, preponderance of scholarly opinion today is in favor of an Exodus date almost two centuries later, in the 13th Century B.C. One major reason is that archeological survey in Transjordan has thus far failed to uncover evidence of the urban civilizations and fortifications necessary for an Edomite kingdom strong enough to have opposed Israel's advance along the east bank of the Dead Sea, as Numbers 20 reports.

It will satisfy our purposes here to affirm
1) that an argument from silence is not exactly a compelling one;
2) that what archeological evidence has been uncovered up to now is capable of various interpretations; and
3) that the use of archeology to contradict the Scripture's clear assertions is illegitimate.

Determining the chronology of the Book of Judges presents problems. We know that the period of Israel's settlement in Canaan (from the death of Joshua to the establishment of the Hebrew monarchy at the time of Samuel) totals about 350 years. The Book of Judges, however, lists the total number of years (of the various oppressions and judgeships) as 410. Nowhere are we told, however, that each of the judges exercised authority over all twelve tribes. The most
natural assumption is that many of the judges were contemporaries, and that the authority of individual judges may have extended over only a small section of the country.

IV.

At first glance, the task of establishing the chronology of the period of Israel's monarchy would seem to be relatively simple. The Old Testament contains dozens of references to dates at the time of the Divided Kingdom. 1 and 2 Kings, first of all, give us the length of the reign of each king of Israel and Judah. In addition, when a king ascended the throne in one nation, a synchronism is usually given with the year of the ruler of the other nation.

Putting these chronological notices together into a harmonious system, however, has proved to be anything but easy. As one examines these biblical numbers, they appear to be in almost constant contradiction to each other. For example, 1 Kings 16:23 tells us that Omri (the seventh king of Israel) began to reign in the 31st year of Asa (the third king of Judah), and that Omri reigned twelve years. But according to 1 Kings 16:29 Omri was succeeded by Ahab in Asa's 38th year, giving Omri a reign of only seven years. Another example. According to 2 Kings 1:17 Joram of Israel began to rule in the second year of Jehoram of Judah. But according to 2 Kings 8:16 Jehoram of Judah began to rule in the 5th year of Joram of Israel. The chronological problems of the Hebrew kings are so intricate and so perplexing that many Bible scholars have regarded them as beyond solution.

Edwin R. Thiele has done the most satisfactory job of reconstructing the original pattern which Jewish historians used in recording the reigns of kings. By a painstaking trial and error method Thiele has drawn the following conclusions:

1) Israel's historians calculated the years of their kings' reign from the month of Nisan in the spring. Judah's historians calculated them from Tishri in the fall. A regnal year in Israel, therefore, overlaps parts of two regnal years in Judah, and vice versa.

2) The two kingdoms used different methods for figuring the first year of the king's reign. Thiele discovered that at the time of the schism
Judah calculated the years of reign according to the so-called "accession year" system. According to this system, the king reckoned the interval between his accession and the next New Year's day not as his first year in office but only as his "accession year" (in effect, attributing that year to his predecessor), and began his first regnal year with New Year's day.

Israel's historians, on the other hand, used a "non-accession year" system, under which the fraction of the year during which a man became king was counted as his first year of reign. The year beginning with the following New Year's day was then counted as his second regnal year.

Thus, if two kings were exactly contemporary but used different systems, their regnal years would always show a difference of one at any given time.

Another fact that Thiele uncovered is that the record of a king's reign may on occasion include his earlier years as an enthroned crown prince, even prior to his father's death. We know of nine such instances of overlapping reigns. Unless this sort of thing is recognized, the total number of years of reign will seem to be too large, and synchronism with the rule of another king will seem to be off.

With these discoveries Thiele had solved the problem of seeming discrepancies in the record of 1 and 2 Kings.

A second problem remained. How was this data to be related to our Christian calendar? Here the science of archeology gave a valuable assist. When the city of Asshur was excavated by a German archaeological expedition prior to World War I, an unusual discovery was made in a space between the outer and inner walls of the city's defenses. Two rows of inscribed stones arranged in parallel fashion were discovered. The inscriptions on one of the rows commemorated the Assyrian kings from ca 1300 B.C. on. The corresponding row of inscriptions honored leading government officials, whose names were used to designate the activities of each successive year. "The Assyrians fixed dates by the name of an official known as the limmu, who normally held that posi-
tion for only one year. ... Incomplete limmu lists go back prior to 1200 B.C., but a complete collection has been assembled from cuneiform records dating from 892-648 B.C." (Expositor's Bible Commentary I,360). These are the so-called eponym lists.

Here is an example: "For the year when Bur-Sagale, governor of Guzana, was eponym, the record shows there was a revolt in the city of Asshur. In the month of Simanu an eclipse of the sun took place. Astronomical computation has fixed this date as June 15, 763 B.C." (Thiele, The Mysterious Numbers of the Hebrew Kings, 29). You see the significance of the Assyrian eponym list. Here we have a year-for-year listing of eponymies stretching over several centuries, and salted occasionally with verifiable astronomical data. If we can establish 763 B.C. as the date for one of them, the year of every other name on the complete list can then also be fixed.

As a result, we have fairly reliable dates for Assyrian history at precisely the time of the Israelite monarchy, enabling us to establish dates for the Hebrew kings. The Assyrian documents tell us, e.g., that in the eponymy of Daian-Assur, 853 B.C. Shalmaneser III fought -- and won -- the battle of Qarqar against a coalition of twelve western kings, including Ahab. They tell us also that 701 B.C. was the 14th year of Judah's King Hezekiah. Working forward and backward from such established dates, we can set 931 B.C. as the year of the division of the kingdom, 722 B.C. as the date for the fall of Samaria, and 586 B.C. as the date for the fall of Jerusalem to the Babylonians. Persia's conquest of the Babylonians half a century later, and Cyrus' decree authorizing the exiles to return home will be dated at 539 B.C., and the dedication of the Second Temple at 515 B.C.

John C. Jeske
3/16/80

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