

Time Will Tell

An Analysis of Biblical Time

by Frank Houtz

Part one: No Man Knoweth The Day nor the Hour

One thing seems very constant to every American--*time*. Time is a standardized measurement. It must have been standardized forever. We know of nothing else but 24-hour days, 60-minute hours and 60-second minutes, but why do we have such? Would not ten hours be more logical with 100 minutes to an hour? How long is a second and why did we chose these seemingly arbitrary numbers as our standard for measurement? And, has it always been this way?

Our culture is very dependent upon time. It is very difficult to believe that in some cultures, time is of little or no importance. An Anglophone's language is based on time. We have a past, present and future tense, each tense being related to time. Greek has more tenses enabling Greek speakers to be even more specific about time. Yet, Hebrew speakers barely consider time in their language. The language has only a perfect tense, and an imperfect tense both relating to the completion of work rather than the passing of time. The perfect tense is used when a task has been completed, imperfect is used if a task is in process or is planned to be done. Time isn't even considered in the structure of that language.

Often when we read the Bible, we try to impose our concept of time on the text. We think time is exact. Some modern watches are connected by radio signal to the atomic clock, which automatically adjusts them to the exact second when they vary from the "correct time." We think the Bible is set to this degree of accuracy. It is unfathomable to many that the changing of day, month or year could occur over a period of time rather than the exact second that is accurately measured on the atomic clock. The absence of such perfection from the Hebrew language does not invalidate anything in Scripture, does it?

Our view of time introduces much confusion into the text. We may not be confused concerning the text, but someone following the story line might find great inconsistencies within the Bible. Someone may even distrust its content because we don't properly present the Scripture within its proper context concerning time. For example, let's suppose we present the gospel to a new person. He is not familiar with Yehoshua's (Jesus') life and we wish to share the story from the Scriptures. While doing so, we read the following verse to tell about the resurrection.

(NKJV Matthew 12:40) "For as Jonah was three days and three nights in the belly of the great fish, so will the Son of Man be three days and three nights in the heart of the earth.

Our friend may be unfamiliar with the Scripture, but he is somewhat familiar with Christian practice. Since *Good Friday*, and *Easter Sunday* are well known in non-Christian American homes, even one who has never read the Bible may see a conflict in his verse when he hears it for the first time. A death on Friday evening with a resurrection on Sunday morning invalidates this prediction by

Yehoshua. How do you get three days and three nights out of this? Is this really a conflict in Scripture or is this seeming conflict brought about by our modern understanding of time? In order to help you find an answer to this question, I wish to introduce the Biblical understanding of time and then graph the possibilities to show the conflict is not within the text, rather in the minds of those reading .

The Day

The Day is the measurement of time it takes for the earth to rotate one full turn on its axis. This *may* or *may not* have been known in biblical times. It is implied by many modern scholars that people were ignorant and did not know that the earth was rotating. They insist that the ancients believed the Sun revolved around the earth. They used terms like “the sun rising in the east” to substantiate their understanding. This could be a misunderstanding of the language. We use the same expressions today yet recognize that the earth truly rotates. It is idiomatic today, and it may have been then. If it were an idiom, it was totally misunderstood by many in the church in the first millennium of Christianity. This does not prove a continuing ignorance throughout history. It could reveal that information had been lost, or it was confused by the addition of several new languages.

First we must review the biblical concept of the day. It varies from the modern understanding of the day significantly. The Biblical day began at Sunset, not at midnight or Sunrise. Every Bible reader has read these verses many times, but since we were not looking for a variation from the modern usage, we may have missed it entirely.

(KJV Genesis 1:5) And God called the light Day, and the darkness he called Night. And the evening and the morning were the first day.

Notice this verse lists the evening first when discussing day one. Genesis continues to use this order throughout the remainder of the chapter mentioning the evening first six times in all. Some may argue that this carries things too far by concluding a conceptual difference from this Scripture. They may conclude that this verse wasn't meant to determine the beginning of the day. Others may just deny that it is relevant. Yet, Scripture clarifies this order in another passage.

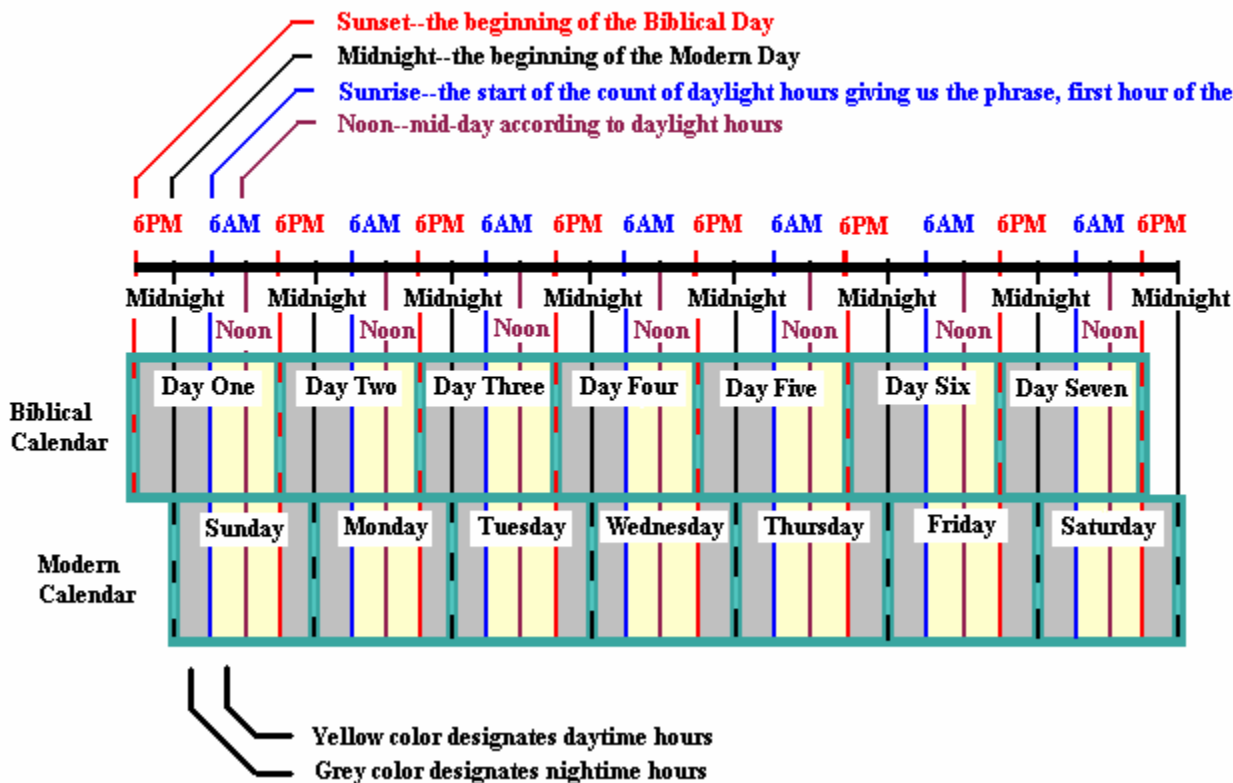
(NKJV Leviticus 23:32) "It shall be to you a sabbath of *solemn* rest, and you shall afflict your souls; on the ninth *day* of the month at evening, from evening to evening, you shall celebrate your sabbath."

If His usage in Genesis and Leviticus is not convincing enough, we can review Jewish history and practice. Judaism has counted the day in such a fashion as long as it has been recorded. In like manner, Christianity also has counted the beginning of the day in this fashion, but we no longer recognize its practice because of the prevailing culture. Certain phrases have taken on new meaning making this understanding obscure to most Christians.

Christmas Eve will make a good example of change in definition. Christmas Eve is understood in modern days as the day before Christmas. The date for Christmas Eve is December 24th, while Christmas is December 25th.

Originally, Christmas Eve, meant the evening of Christmas. The night of the 24th, after the sun had set was the beginning of Christmas. The exact day of Christmas lasted from the evening of the 24th to the evening of the 25th. Our modern thinking now considers them two different days, one being the day before while the other being the day of Christmas. Few understand that this was originally a correction of the Gregorian calendar that varied from Christian and Biblical tradition. The difference between our modern thinking and the Biblical understanding of time is illustrated in the graph below .

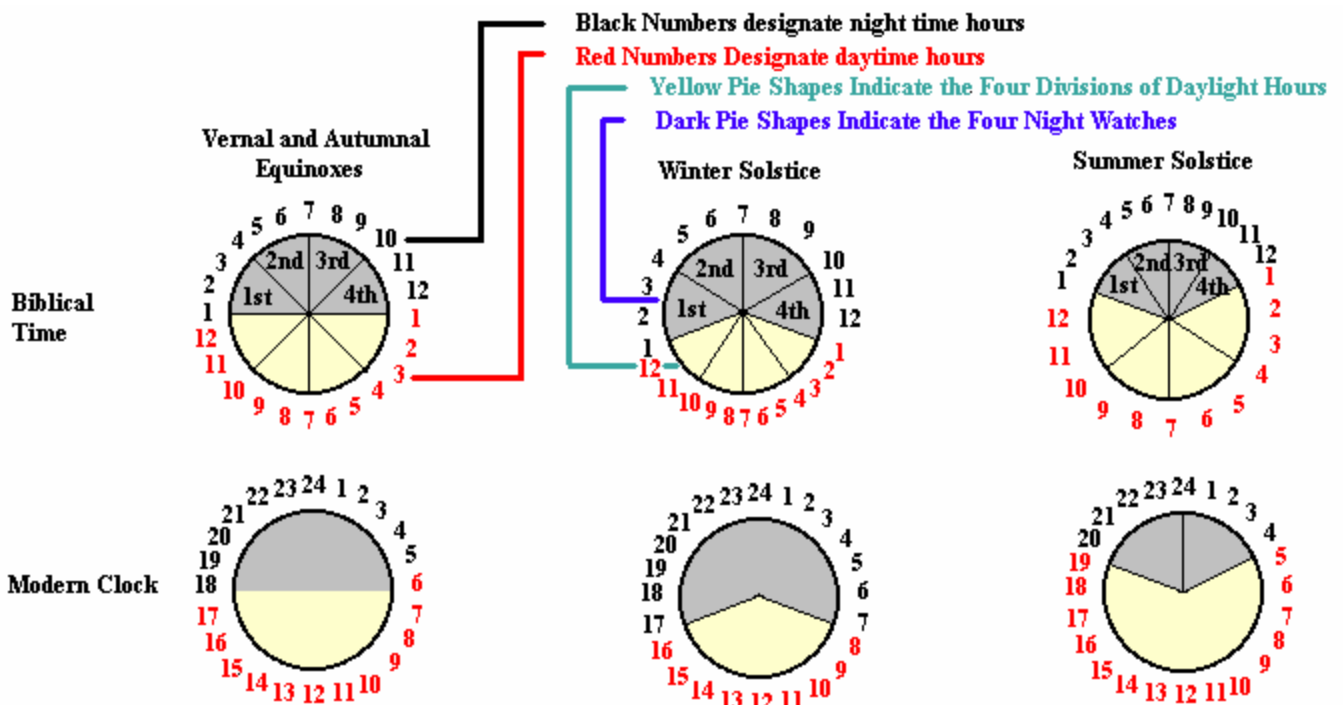
A Biblical Analysis of Time



For the ease of communication, this graph used some modern standardization which is not exactly representing the Biblical model. I have inserted six AM and six PM on the graph as if the day always ends at 6:00PM and the sun always rises at 6:00AM. This is not the case and changes with relation to the latitude on which we live. At the equator, this is a good representation of reality, but in Israel, this is a simplification of the facts. However, with this inadequacy being clearly stated, I believe the graph will help you gain a proper understanding.

The Hour

The preceding explanation does not fully explain the difference of our modern understanding versus the biblical understanding concerning time. To approach the second variation we need another graph, which will make the discussion that follows clear.



The spheres represent a 24-hour day. The grey area in each sphere represents the nighttime and the yellow area represents the daylight. The black numbers are the hours of the night while the red numbers are hours of the day. The first difference between the modern clock versus the biblical clock is the point of reference. The biblical clock changed the day at sunset, so sunset and sunrise became the primary reference points. The modern clock changes the day at midnight, so midnight and midday (noon) become the primary points of reference.

Noon became important as our desire for accuracy increased. It became the constant because it was the easiest measurable point of reference. Noon originally was defined by the sun being directly overhead. This means that anyone could put a stick in the ground, determine the direction of the earth's closest pole, and when the shadow pointed in that direction, it was noon. This could be done fairly easily anywhere on the temperate regions of the earth's surface with exception of the equator. There the shadow would disappear. This gave us an exact reference point.

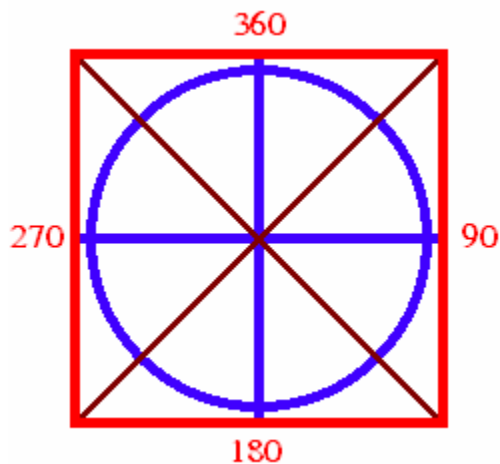
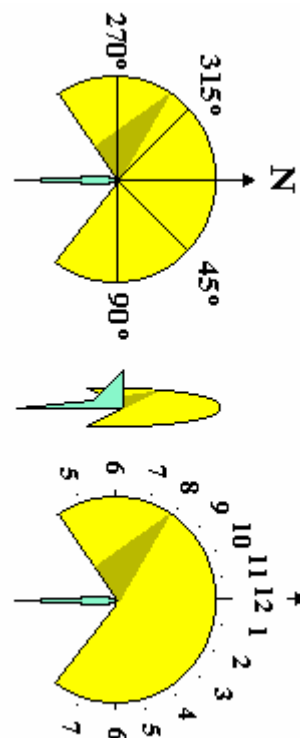
Sunrise and sunset were less specific. When is the sun really risen or set? Is the sun set once the fiery orb drops behind the horizon, or is it when we are engulfed in darkness? In like manner is dawn at the first lightening of the sky, the first glimpse of the fire or the full view of the sun's sphere? The moon at certain times increases the difficulty. One may wonder if the glow is from the moon or the sun. Then there is the uneven horizon. If the determination of the day change is determined by the fiery orb leaving our sight, the day would change at different times depending on where you stand in relation to the horizon. It might vary as much as an hour on hilly acreage.

A sundial is a disk with a pointer in the center to cast a shadow. If the sundial is properly pointing north, the shadow will indicate the passing of hours. Originally noon was marked, but the appearing of daylight was not constant so it could not be definitively located on the sundial. By using degrees of a circle, one could divide the daylight hours into equal divisions. Upon the rising of the sun the sunset could also be determined by marking the same opposing degree of the circle. Then a division into quarters could be made and the four day-watches or quarters were known. These divisions calculated by degrees of the circle, then subdivided into smaller units. Each quarter was divided into three equal hours, but this standardized the hours for that day, not for every day. Since the daylight grew longer and shorter according the seasons, the hours also grew longer and shorter. Hence the daylight was divided into 12 equal hours and in like manner the night was divided into four watches consisting of 3 hours each. The night hours were not the same length as the daylight hours except on the equator or during the equinoxes.

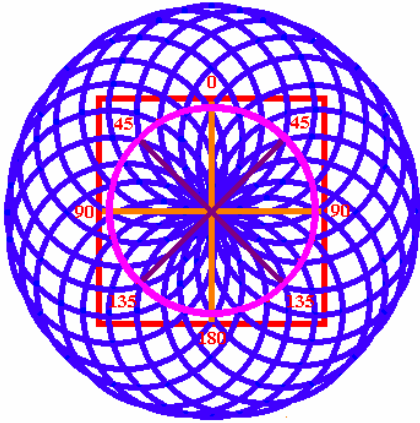
NKJV Isaiah 38:8 "Behold, I will bring the shadow on the sundial, which has gone down with the sun on the sundial of Ahaz, ten degrees backward." So the sun returned ten degrees on the dial by which it had gone down.

The sundial to the right containing equal divisions for hours was a progression to our modern thought concerning time. Ultimately rather than using degrees of the circle, each day was divided into 24 equal hours standardizing the length of the hour. Yet this standardization came long after biblical times so should not be considered when reading biblical texts.

Now we know why the sundial became a great necessity. It was not merely a time piece to determine time, it was a point of reference. Since calculating time according to when the sun set could change dramatically in a very short distance, sundials standardized the point of reference. They were big and permanently located. Their location determined the proper time for a predetermined boundary.



This brings us to the question, why is our circle divided into 360 degrees? This was brought about by the necessity to divide the daylight into equal divisions. The graph on the left shows a circle with a square surrounding it. This is a way that the circle can be divided into fourths and then again into eighths. This allows the circle to be sliced into divisions of two in any way one would like. If one desired to slice this same circle into thirds, this could easily be facilitated by going to a point where the circle was intersected by the straight line and by using a compass use the intersection for the center point of another circle of equal size to the first. If you draw six circles around the center circle having the center of each outer circle at the intersection of the previous outer circle and the inner circle, you



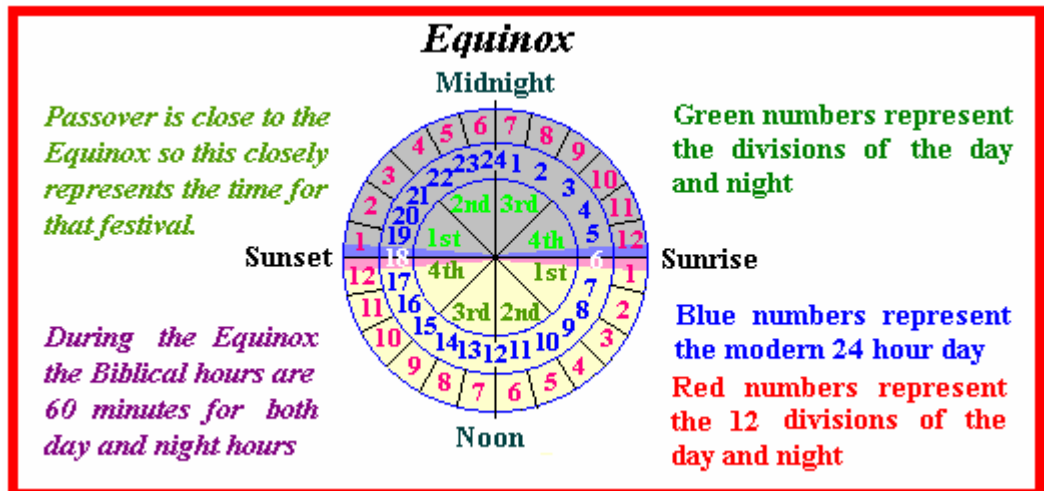
will get a division of the inner circle into six equal parts. With six surrounding circles around the center circle, we can repeat the process with each intersection from the square giving us eight places to begin a series of six circles. This equally divides the circle into fourths and thirds and all the multiples of fourths and thirds. This could be done accurately with the equipment of that day. All of these varying numbers could be expressed in whole numbers quite easily with a circle consisting of 360 degrees. No other number will factor so many of the divisions of thirds and fourths as well. Hence, we have 360 degrees in a circle and this facilitated 12 hours to a day, as well as 60 minutes to an hour. Where ever the sun came up on the dial, a 360-degree circle enabled the day and the night to easily be divided into both fourths and thirds.

The necessity for standardization and accuracy has changed over the last century. In biblical times it was important to standardize what was to be considered the ending of the day. It was not determined by a standardized equal division of each day rather by an amount of light. It was finally agreed that the proper determining factor for the change of the day was when the second or third star appeared in the sky. This enabled one to determine when they should cease from their labors for the Sabbath.

Standardization continued to affect life in Biblical times. By the New Testament era, the time for the sacrifices had been standardized. A document written in the later part of the first century, which is contemporary with some of the New Testament books, will be a great alternate source for understanding New Testament Chronography.

(Jewish Wars 6:423) So these high priests, upon the coming of that feast which is called the Pass over, when they slay their sacrifices, from the ninth hour till the eleventh, but so that a company not less than ten {c} belong to every sacrifice, (for it is not lawful for them to feast singly by them selves,) and many of us are twenty in a company, **(424)** found the number of sacrifices was two hundred and fifty-six thousand five hundred;

Considering our modern understanding one might think that the 9th hour to the 11th hour means 9 AM to 11 AM. However, this means the 9th hour of the day, 2:00 PM - 2:59 PM which is an entire hour, not a specific minute beginning that hour.



The sacrifices continued through the 11th hour which again is an entire hour from 4PM to 4:59PM. The modern exactness implied by using hours and minutes is misleading, but is the best that can be done to distinguish the differences in today's language. This is a general span of time consisting of 1/4 of the daylight, not 3 hours consisting of 60 standardized minutes or 2 hours like we would state 9:00 to 11:00. By this example alone one can see how a biblical text could be misunderstood.

The chart to the right shows how the hours lengthen and shrink in comparison to the modern hour, which remains constant. This is more apparent by using the solstices as an example. The outer ring of red numbers adjust to the span of daylight and darkness, yet, the inner ring of blue numbers is an equal 24-hour division of the day.

The previous chart reviewed the day as it was during the Passover period since Passover is very close to the Spring Equinox. The later chart shows the variation created by the expanding of the daylight and night time hours. This begins to reveal how we can misunderstand Bible verses that indicate hours.

We will continue this subject in Part II where we will review the Biblical week, month and year. After grasping how misconceptions can emerge, we will look at the Scriptures themselves and see how these misunderstandings can affect theology.

It Is As Different As Night and Day

Winter Solstice

Midnight

Noon

Summer Solstice

Midnight

Noon

The **gray** indicates nighttime hours
The **yellow** indicates daytime hours
Centerline at the top is midnight
Centerline at the bottom is noon

The inner circle with **green** numbers designate the four biblical watches of the day and night.

The center circle with **blue** numbers designate the modern 24 hour military time.

The outer circle with **red** numbers designate the biblical understanding of an hour.

Winter Solstice daylight hours approximately 40 minutes long.
Winter Solstice nighttime hours approximately 80 minutes long.
Summer Solstice daylight hours approximately 80 minutes long.
Summer Solstice nighttime hours approximately 40 minutes long.