15 The Senet Game Board and the Solar-Lunar Calendar

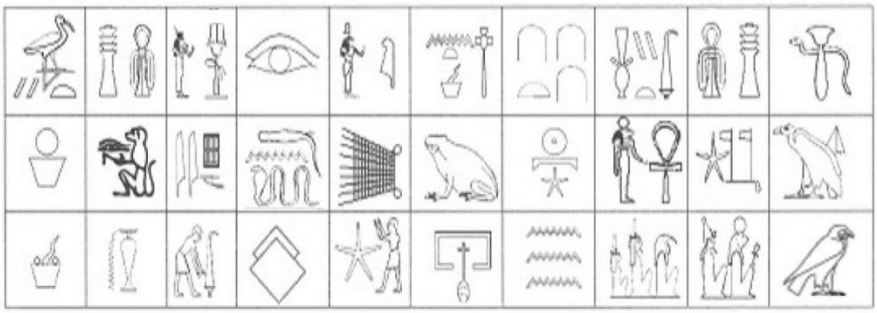
(Excerpted from my digital book, The Cosmic Game)

This article has lots of numbers, so the numerically challenged may choose just to read for the stories and the ideas but skip the numbers.

Aerial Photo of Stonehenge in Its Present Condition

Most people do not know that an ordinary deck of poker cards is also a calendar. There are 52 cards in the deck and 52 weeks in a year, giving 7 cycles through the deck or one week for each card. The two jokers cover the last day of the year and the leap year intercalary day every four years. A Tarot deck is also a calendar, but with 14 cards for each suit (with a knight added). Thirteen Tarot months of 28 days give 364 days, plus the Fool for the last day, plus the Magician for the Intercalary day.

It is fairly easy to recognize that the Senet Game Board was designed to be a perpetual calendar. The Egyptian Solar Year consisted of 12 months of 30 days each plus 5 Epagomenal Days for a total of 365 days. The Egyptian month was then divided into three dekans of ten days each. The Senet Game Board clearly is meant to be a calendar designed as a grid with thirty days divided into three dekan weeks of ten days.



Symbols on a Senet Game Board
(Reconstructed from surviving examples and the **Senet Game Text**)

The **Senet Game Text** clearly encodes a sequence that goes from the upper left corner to the right across the top row, then to the left across the middle row, and finally to the right across the bottom row. Square #1 belongs to Thoth who begins the New Year and the New Moon at the start of each lunar month. His curved beak represents the appearance of the first thin crescent of a new moon. The sun (symbolized by a solar disk) and the moon (symbolized by a net) appear respectively at squares 14 and 16 in the sequence. Square 15 has a large frog or toad and represents the time of the full moon when the sun and the moon appear on opposite horizons at dawn and dusk. On the bottom row the moon goes through a symbolic death sequence that culminates in square #27. Squares 28 through 30 represent the dark moon that is preparing for rebirth. Senet Game Boards frequently leave most of the squares blank but often retain the glyphs for the last five squares in the sequence. They represent the Five Epagomenal Days that complete the Solar Year.

The Symbols on the Senet Game Board

Square	Deity	Totem	Tarot Card
1.	Jehuty (Thoth)	Ibis	High Priest
2.	Asar (Osiris)	Pillar	Magician
3.	Net (Newet)	Altar	Star
4	Maa Eye (vision)	Eye	Lord of Firesticks (fire)
5.	Ma'at	Ostrich plume	Justice
6.	Nej net B*a*?	Counsel (ear)	Lord of Feathers (air)
7.	Ma'bet	Council of 30	Judgment
8.	Senyt Ta?	Smell, Taste (tusk)	Lord of Lotuses (water)
9.	Thet (Aset)	Knot of Isis	High Priestess
10.	Waj (Khenty-Khard)	Papyrus	Hanged Man (child in womb)
11.	Mut (Mother Hathor)	Vulture	Empress

12.	Sah (Saa?)	Touch (finger)	Lord of Towns (earth)
13.	Sekhemet	Lioness Sphinx	Strength
14.	Ra’	Sun in Sky	Sun
15.	Heqet (Resurrection)	Frog	Wheel of Fortune
16.	Aah	Net (fishing by tides)	Moon
17.	Mehen	Serpent	Devil
18.	Pa Mery	Digging Stick	Lovers
19.	Qeftenew (Baba)	Baboon	Fool
20.	T*a*	Bowl of Bread	World
21.	B*a*	Incense	Temperance
22.	Qebhu (Qebhusenu-f)	Cooling Libation	King of Feathers (Air)
23.	Mes-ta	Start Fire	King of Firesticks (fire)
24.	Hep?	Happy	King of Lotuses (water)
25.	Dewa (Dewamut-f)?	Worship of Morning Star	King of Coins (earth)
26.	Per Nefer	Embalming House	Hermit
27.	Mu	Waters	Death
28.	Shewe (Shu)	God with Plume	Emperor
29.	Tem and Ra	Tall White Crown	Tower
30.	Heru	Hawk	Chariot (Warrior)

Note: Some of the assignments may seem strange, but they are based on a reasonable though still tentative reconstruction. For example, the Council of 30 is the group of judges that consider the judgment of the heart. The vulture is the symbol for Mut-Hathor, because the word "Mut" for vulture in Egyptian sounds like "mother". The Frog represents a goddess of resurrection and rebirth and was a symbol of time. The net represents the moon’s control of the tides. The word for bread is a homophone for World. "Per Nefer" (the beautiful house) was the place of mummification where they removed the heart of the deceased and then prepared the body for burial. The waters represent a lake of oblivion over which jackals towed the barge with the soul of the deceased. The primitive farmer's digging stick was a homophone (and metaphor) for "mer" (to desire, to love).

Egyptians called each square on the Senet Game Board a "Het" [House, Mansion, Temple]. Each House represented a day on the calendar. A cycle through the 30 squares on the board represented one month, and there was a deity for each day rather like the saints’ days on religious calendars. (They apparently used variant sequences in different localities and times.) The Senet Game Board thus encodes travel through time and manages to be both a perpetual solar and a perpetual lunar calendar. To see how the

Egyptians accomplished this we must turn to a myth preserved for us by the Greek author, Plutarch.

According to Plutarch the Egyptians developed a myth to explain how their calendar worked. Plutarch explicitly mentions the game of Senet, and once we realize that the game board is a calendar we know we must apply the math of the myth to the board. According to the myth the problem with the calendar arose when the sun god Ra in his transformation as Shu (Shewe; the Breath of Life) discovered that his children Nut (Newet, Cosmic Space) and Geb (Earth) both of whom he had sired with Tefnut/Sekhmet/Hathor/Mut (goddess of Love, Light, Undefined Awareness) were having a secret affair. Shu then stood between them and separated them – forming the earth's atmosphere. He then disallowed Nut from giving birth to children in any month or year. Plutarch tells us that in those ancient times the solar month and lunar month were both 30 days and the year was 360 days long. If Geb and Nut could not give birth, then life and civilization could not arise on the planet, for the nature deities necessary to facilitate organic life could not be born. In Egyptian art we often find Ra in his avatar as Shu depicted in the act of pushing Nut up and away from a reclining ithyphallic Geb. The ironic aspect of this myth is that Shu (the atmosphere) is what connects earth and cosmic space, making life on the planet possible by virtue of its insulating buffer from the cold vacuum of outer space.

Thoth (the personification of Cosmic Intelligence) had the clever ability to engineer the evolution of life and civilization on planets with the assistance of his wives Ma'at (Truth in Balance) and Sesh*a*t (Evolution). To provide the essential Egyptian deities that would be needed to get Egyptian civilization going (plants as a food source, sunlight as an energy source, fertile soil to anchor plants, stone for construction, and irrigation to nourish the plants), Thoth (probably in his disguise as Baba, the playful baboon,) made a bet with the moon that he could beat her at the game of Senet. The stake was 1/72nd part of the light of the moon (Plutarch in his telling of the tale rounded it off to 1/70th part, which actually comes closer to the precise fraction needed). A 1/72 part of 360 comes to exactly the needed five days.

The numbers are important for understanding the story. The story is not myth, but math. The game of Senet was played on a rectangular chessboard

with 30 squares arranged in three rows of 10 squares each. Each square represented a day, and each row was an Egyptian solar week, called by the Egyptians a **met** and called by the Greeks a **dekan**.

The full set of three rows of ten squares made up a solar month of 30 days. The twelve months of a year came to 360 days. The point of the myth is to show how Thoth managed to get a year of 365 days and a month of 29.53 days from a calendar board with 30 squares.

Thoth being the most intelligent of all the gods obviously won the game and the moon was forced to give up 1/72nd of her light to add some extra days to the calendar year so that the five Egyptian national nature deities that made life possible could be born. If we divide 360 by 72, the answer is 5. The last five squares on the right side of the bottom row of the Senet board became five special squares that represented the Epagomenal Days of the short 5-day 13th month at the end of each solar year.

The 5 Epagomal Days are in the 5 squares specially illustrated on the bottom row of the game board example shown above. The symbol in the middle of the board means Life Renewed and represents the full moon on the 15th day of the month. The sun in the 30th square represents Horus as the new solar pharaoh.

If we divide 30 by 72, we get 0.416666.... We subtract that from the idealized 30-day lunar month and get 29.583333... days, which is very close to the actual lunar month of 29.53059 days. If we divide the actual solar year of 365.2425 days by the actual 5.2425 super-added days needed, then we get 69.6695278969. When we divide 30 by 69.6695278969 (which is very close to 70), we get .43060432452 (almost 1/70th part of the light of the moon in a lunar month). Subtracting this amount from 30 days gives us 29.5693956755... days, which is even closer to the ‘‘exact’’ lunar month of 29.53059 days than 29.583333.... days.

By this clever trick Thoth tweaked the Senet Game Board’s idealized calendar of 30 days into both a perpetual solar calendar and a perpetual lunar calendar. The Egyptians alternated long and short lunar months of 29 or 30 days, depending on when the crescent of the new moon started to

appear, just as, for example, the Chinese and Muslims do today in their lunar calendars.

Egyptian festivals and holidays were generally celebrated according to the lunar calendar. The solar calendar was 365 days long and slipped a day every four years, which means that the solar calendar had to be adjusted by inserting an intercalary 30-day solar month every 120 years. During the later dynasties they finally decided to add the extra quarter of a day to stop the slippage.

Astronomy with Ropes and Pegs

If the Senet Board is a calendar, then perhaps we can find some information about astronomy and celestial mechanics in the board design. We will start our exploration by introducing the Pythagorean Integer Triangle, something that Pythagoras must have learned about when he studied in Egypt. The best-known Pythagorean Integer Triangle (PIT) has sides of 3, 4, and 5 units. According to the Pythagorean relation:

$3^2 + 4^2 = 5^2$,

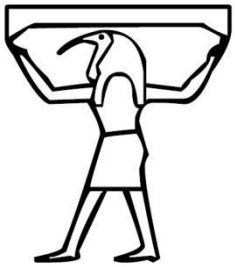
9 + 16 = 25.

The ancients had another PIT which comes fairly close to the Senet Oracle Board dimensions. The sides of this PIT are 5, 12, and 13. The station stone rectangle at Stonehenge is an example of such a PIT. (See Robin Heath and John Michell, **The Lost Science of Measuring the Earth: Discovering the Sacred Geometry of the Ancients**, p. 60 et al.) The ratio 13/12 = 1.08333 gets fairly close to the Senet ratio value of 1.054, but the ratio of 13 / 5 = 2.6 is quite a bit too low for approximating the square root of 10. So the 5, 12, 13 triangle seems way off from the Senet geometry until we add up the sides and find that they equal 30, which is the number of squares on the Senet Board.

After the careful measurements of the Stonehenge megalithic site by Petrie and Thom, and then through the analysis by Heath, Michell and their compatriots, with some vital assistance from astronomer Fred Hoyle, these gentlemen have cracked the secrets of megalithic mathematics and astronomy wide open and have enabled us to discover the subtle mathematical relation between the Senet Board and Stonehenge.

Megalithic astronomically based mathematics starts with ancient men observing the motions of the sun and the moon, tracking time intervals, and extracting spatial displacements so they could understand the seasons for purposes of hunting, gathering, fishing, and planting. From these observations ancient men evolved an entire metrology. Once the ancients had worked out the system, they embodied it in various ways with stable, decay-resistant megalithic monuments and other objects. The Senet Oracle Game Board turns out to be an alternative way of presenting the same data that is recorded in the megalithic structures, but in a handy portable medium that is a game board and a sacred temple at the same time. Over time only a few of the megalithic structures have survived the ravages of mindless natural and human recycling. Fortunately in Egypt we not only have surviving megalithic structures, we also have enough surviving Senet Boards that we can reconstruct the similar megalithic principles embodied in a small portable object. The Senet Board is also a mathematically precise abstract form.

One of the most important Egyptian ritual gestures was called "stretching the cord". The Egyptians used cords of certain standard lengths to lay out plots of land and to mark the foundations for temples and other important buildings. Thoth, the progenitor of science and engineering, is often depicted in a pose where he stretches the cord to measure Heaven. Egyptians often simply showed him stretching out his hands to measure the glyph of Heaven, sometimes also represented by a strip of cloth held in his outstretched hands.



Let's follow Thoth's example and do some ancient Egyptian rope geometry. Take a length of string and mark off 30 equal units on it. Count off 5 units and peg that point on the string to the ground. Then draw out 12 more units of the string and peg the string at that point. Now you have 12 units of string pegged into a straight line and two loose ends, one of 5 units and one

of 13 units. Stretch the 5-unit and 13-unit ends until they meet. Tie and peg them there. This gives you a 5, 12, 13 PIT. The sides of 5 and 12 units automatically will form a right angle.

So far so good, but not very amazing. The next step gets exciting. Release the 13 unit segment from its peg where it meets the 5 unit segment and slide its loose end down 2 units along the 5 unit line until it is 3 units above the 12 unit line. The 13 unit line will shorten to 12.368 units when you do this. Note that the short side of the triangle is now 3 units, which is the width of the Senet Board. However, the Board is 10 units long, not 12. Nevertheless, the length of the shortened hypotenuse gives you the number of lunations in a solar year. With a simple manipulation of a string and some pegs we have done a calculation of an important time interval in astronomical observations.

Next fold the leftover end of the former 13-unit segment of string (.632 units) back on itself, and its end defines the eclipse year of 346.6 days at the right place in the solar year. You can now use this rope triangle as a standard to make 3 ropes. The first is marked off with the 12.368 units to show the lunations per solar year. The second rope is of equal length, but you divide it into the 365.2425 days of a solar year. The third rope is shorter by .632 units and shows the 346.6 days of the eclipse year. Mark the half-way point on that rope to indicate each eclipse season. You can use these three strings like an "engineer's slide rule" to calculate new and full moons, as well as lunar and solar eclipses.

As you perhaps can see by now, the string divided into 30 equal segments is a one dimensional equivalent to a Senet Game Board with its 30 squares. The pawns move on a zigzag path through the 30 squares, which is the same as moving past the knots or marks on a rope. Through their study of ancient astronomy in megalithic England Heath and Michell, without realizing it, have uncovered a deeper level of geometry and mathematics hiding in the Senet Oracle Game Board of ancient Egypt.

Until I read the presentation by Heath of the Stonehenge calendar system as a simple portable rope-and-peg calendar I had never thought of taking the path of the Senet Game Board as a flexible measuring cord. Nevertheless there in the art of ancient Egypt we find Thoth holding aloft a

measuring cord and stretching it taut against the sky as if to remind us that the secrets of the heavens can be captured in a piece of string. Doing the calculations this way the measurements are much more precise than Plutarch's rough calculations -- which he did not even understand were to be applied directly to the Senet Board in spite of the obvious clue about the wager over a game of Senet.

It's amazingly simple, but it immediately also gets strange, because this information is based on Earthbound humans measuring the motions and size of the Moon (and thereby knowing the size of the Earth, etc.) The weirdness arises when we ask the question why the moon is where it is and has the size it has. Is this a freak coincidence (which I highly doubt), a cosmological law of nature, or was the Moon deliberately engineered by some beings millions or billions of years ago to the size, distance, and orbital characteristics that it has? And why do we only see one side of the Moon? These are questions that have nagged at me for a long time, and they go deep into the question of what is going on in our local solar system -- especially when I see NASA photos of what looks like a huge Mother Ship lying on the back side of the Moon and many other lunar anomalies. Naaa! No way!

My derivation of the Egyptian origin of the name Tarot (first presented in my book, **The Senet Tarot of Ancient Egypt**) was based on expressions in the **Litany of Ra**. The most widely used name of the game in Europe is Tarok. I believe the Egyptian origin of that name is "Da Rekh" -- That Which Bestows Knowledge. As we explore the Senet Board, we will discover that it is crammed with fascinating scientific knowledge.

Thoth stretching his sacred cord not only is the way ancient Egyptians laid out temples, it is the key to finding the two-dimensional Senet Board encoded as a one-dimensional sacred cord in the Station Stone Rectangle (SSR) and the Sacred Soli-Lunation Triangle (5, 12, 13 SSLT) as it is embodied at Stonehenge. The cords are long gone, but the stones and the pits at Stonehenge silently preserve the information. By holding the cord over his head Thoth signifies that the cord transfers celestial knowledge to earthly artifacts.

Once I had found a connection between rope geometry and the Senet Board, I discovered a simple way to convert the SSR/SSLT into what I call the TER (Triple Ennead Rectangle), and then with a subtle tweak, the Senet Oracle Board magically appears in two dimensions from the one-dimensional cord.

The Egyptian week was a 10-day dekan, and 36½ such dekans made a year. Each dekan had a star associated with it, so the dekans were called "Neteru Khabsu" (Divine Stars) or "Sebaiu Shepsu" (Honorable Star Teachers). Begin at the right angle on the SSLT and count upward and then clockwise by 10s. Starting with the 5-unit side we count 5 plus 5 along the 13 side, then 8 of the 13 side plus 2 of the 12 side, and finally the last 10 of the 12 side. Thus one trip around the SSLT clock at a day per unit is one Egyptian month of 30 days. Repeat the cycle 12 times (12 "hours" of the year) and you get a rough year of 360 days. Then count up the short side to get 5 more days (the Epagomenal Days added by Thoth) for a total of 365 days. This gives you the 365-day Senet Solar Calendar count on a rope calendar.

Next slide the 13-unit long side down by two units so that you have the 3, 12, 12.368 triangle. Then go to the other end of the 12 unit side (at the sharpest angle) and count in by 3 units, thereby reducing the 12-unit side from 12 to 9 units. Also count in 3 units from the acute apex on the 12.268 side. Press that string down and peg that point to the 9 unit point on the former 12 unit side, allowing the string to adjust into a new taut hypotenuse of what is now a Triple Ennead Triangle (TET: 3, 9, 9.486833 or square root of 90). This adjustment will pull a bit of the .632 unit hangover segment into the new hypotenuse, because you shortened 12.368 to 9.368 and the new hypotenuse is 9.486833. An extra .513167 has been pulled from the .632 hangover of the shortened 13 units. You now also have an extra loop of string that is 6 units long stretched out into two lengths of 3 units each. Swing that up into a perpendicular that is 3 units high. You now have a 3 by 9 TER with a diagonal of 9.486833, which is 3 times the square root of 10 (i.e. 3×3.16227766 = 9.4868333) that forms a TET. The extra length of 3 units in that perpendicular segment represents the 10th column on the Senet Oracle Board. One trip around the TET is 27.486833 days. Add on the 2 day units from the original 5-unit side of the SSLT and you have 29.486833, which is very close to a lunar month of 29.53059 days. If you

swap the remaining hangover of .513167 for the .486833, you get 29.513167, which is about .017423 of a day or about 25 minutes off from an accurate lunar month. You can see how this nicely matches the old story told by Plutarch about Thoth's gamble with the Moon over a game of Senet in order to get the 5-day Epagomenal Month.

When we use the SSLT to calculate our solar year and lunar month, the number of lunations in the 12.3693168768 hypotenuse gets really close to the right length (12.3682662283) for the lunar month (29.53059) relative to the accurate solar year (365.242199). However, the month is still too long by almost 45 minutes and the year comes out long by a little over 393 minutes. So Plutarch's report on the Senet calculation is actually more precise than the Stonehenge SSLT calculation. You can get very close, but it never comes out as a perfectly accurate integration of the two calendars. Nevertheless, the Senet Board and the story of Thoth and the Moon give us an excellent approximation.

We can use the extra 2 units left over from the 5-unit side of the SSLT to extend the extra 3-unit loop in the Tower out to form the 10th column on the Senet Oracle Board. Then we can restretch the sacred cord. Start in the upper left corner and drop down 3 units, then turn right and proceed by 10 units. Go up 3 units, and then left 1 unit. Drop down 3 units, and finally return to the starting point with a hangover of .513167 unit. There are several ways to run the cord and you can simply adjust the cord by pulling the 2 leftover units from the original SSLT down to the peg where you originally marked the 12.368 diagonal and then using the slack to pull the 3-unit loop on the far side of the Tower out by one unit above and below to form a 1 by 3 unit rectangle.

The Hoagland Angle and the Dynamics of Rotating Celestial Spheres

After finding a way to uncover the Senet Board hiding in the SSLT, I thought to check the acute angle on the TET of the Senet Board. Using a protractor for a rough estimate, the angle looked very close to 19°. With a trig calculator it came out to 18.434948823°, which is just about 1° less than Richard Hoagland's famous 19.47°. It turns out that a triangle that is 3, square root of 72, and 9 gives the famous 19.47 degrees that has the sine value of .33333 = 1/3 = 3/9. Of course 72 is the key to pentagonal geometry

since it divides 360 nicely into 5 parts as we already saw from the Plutarch story. It is also a nice **Book of Changes** number because it is the sum of the 64 hexagrams and the 8 trigrams. We add the 4 elements and 2 contrasts to get the 78 archetypes of the Tarot. This particular relationship combines powers of 2, powers of 3, tetrahedral geometry, and pentagonal geometry.

Hoagland discovered that if you place a regular tetrahedron inside a planet with the apex at a pole, the other three vertexes touch the planetary surface at 19.47° past the equator from the apex pole. When he surveyed the planets in our solar system, he found that solid planets had or still have strong volcanic activity at that latitude, and gaseous planets have large cyclonic disturbances at those latitudes. Earth has both numerous cyclonic storms and volcanoes at those latitudes. The disturbances cover an area that extends more than a degree north and south of the 19.47° latitude, so the 18.44° latitude still falls in that area.

However, if we create the Senet Spiral (see the chapter in **The Cosmic Game** on the Senet Spiral), and let the diagonal be tangent to the Spiral's highest point and leftmost curl, the iteration of smaller TERs extends the small rectangle on the right of the Tower upward beyond the Senet Board Rectangle (SBR) with a smaller version that goes 1/3 of a unit beyond the tip of the Tower. This gives a triangle that is 10/3, 9, 9.5974534, which gives sine = .347314, which comes to an angle of about 20.325 degrees, which is nearly a degree over Hoagland's magical degree. As the spiral continues, it first increases the angle slightly as the next smaller TER is added, and then drops down toward the 18.44 degree angle at the tip of the Tower.

The result is that we end up with a spiral that the diagonal from the lower left corner can be tangent to at angles ranging from 20.325 degrees down to 18.44, a range of almost 2 degrees with 19.47 degrees almost right in the middle (about 19.3825 degrees).

The Senet Board and the Stonehenge Sarsen Ring

At this point we seem to have discovered how the Senet Board reveals the vortex geometry of rotating planets and a solar-lunar calendar that stays synchronized and can predict solar and lunar eclipses.

From the geometry of the Sacred Soli-Lunation Triangle (SSLT) discussed above we can also derive standard units for spatial measurement such as the foot, the royal cubit, and the Astronomical Megalithic Yard (AMY). The Sarsen Ring is a circle of 30 megalithic stones (a circular Senet Board?) that originally formed an essential part of the Stonehenge site. Seventeen of them still stand, a few with lintels still joining them. Others lie toppled and shattered, and a few are completely missing.

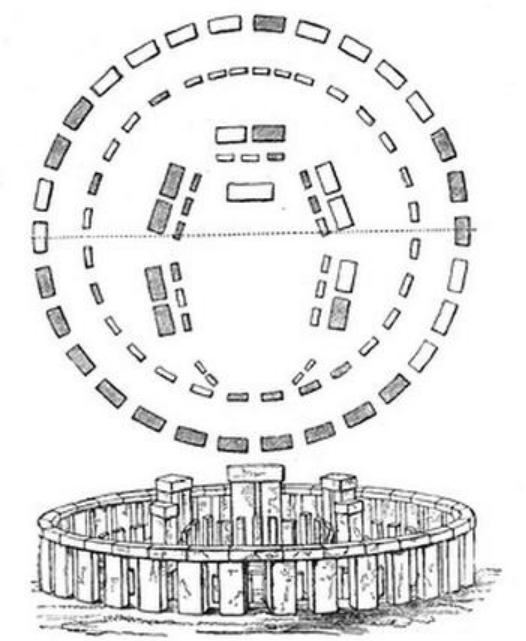
The megalithic solar-lunar clock is a board with 56 (twice 28) holes arranged in a circle. These 56 holes can still be seen at Stonehenge forming a larger circle outside the Sarsen Ring. You use 1 peg for the Sun, one peg for the Moon plus two pegs for the eclipse season. You can put a peg for the Earth in the center. The Sun and Moon pegs move counterclockwise. The solar peg moves 1 hole every 13 days. The lunar peg moves 2 holes every day. The 2 eclipse season pegs are put at opposite nodes and each move clockwise 3 holes per year (once every 4 months). That is how the Stonehenge clock works. (See Richard Heath's "Proposed Itinerary for Megalithic Astronomical Development", 2009, and John Wood's **Sun, Moon, and Standing Stones**, OUP, 1978.

The original idea was worked out by astronomer Fred Hoyle, **On Stonehenge**. Robin Heath further developed these ideas in **Sun, Moon, and Stonehenge**, Bluestones, 1998 and **The Lost Science of Measuring the Earth**, aka **The Measure of Albion**, 2006).

Stonehenge has another feature that links it nicely to the Senet Board. The sarsen lintel ring is made of huge megalithic stones. The ratio of the outer diameter of the ring to the inner diameter of the ring is 15/14. If we double that, we get 30/28. The outer diameter encodes the number of days in a tri-decan Egyptian month, what they called the "Ma'byt", or Hall of the Thirty, which is of course the number of squares on the Senet Oracle Board.

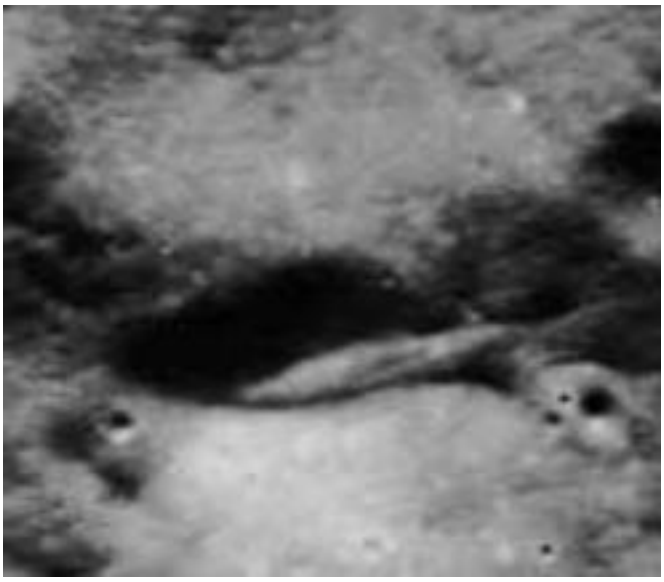
The inner diameter of the sarsen ring encodes the minimum number of holes needed for the solar-lunar clock in order to keep track of solar and lunar time. If knowledge of eclipses is desired, a second set of holes is needed, one between each pair of the 28 holes, because the pegs for eclipses must be moved every 4 months. Note that 4 months (1/3 of a year)

was the length of an Egyptian season. Alternatively I suppose one could stay with only 28 holes and move the eclipse pegs once every 8 months. However, that would result in some loss of precision.



Stonehenge Plan and Drawing
A Megalithic circular Senet Board

From the above drawings and photograph it is evident that the great sarsen circle with lintels consisted of 30 megalithic stone tablets topped by lintels to form a solid ring. This is a circular rendition of the Senet Oracle Board. We see that it truly is a scientific "oracle" because it can predict future events both on earth and in the heavens.



NASA photo of a highly anomalous huge “rock” balanced at the edge of a crater
on the back side of the Moon.
Is it a gigantic lost-in-space submarine or an abandoned Mother Ship?

15 Study Questions

* Explain how poker decks and Tarot decks can be used as calendars.
* How did the Egyptian Solar Calendar work?
* How did the Solar Calendar fit on the Senet Game Board?
* Explain how the Senet Game Board is also a lunar calendar.
* Why is Plutarch’s myth about the Moon related to the Senet Game?
* What are the 5 Epagomenal Days, and how do they appear on the Senet Game Board?
* How do we create a one-dimensional Senet Game Board?
* What was the ritual of “stretching the cord” all about?
* How did the Egyptians use strings to do mathematical calculations like an engineer with a slide rule?
* Can you explain how an Egyptian could use strings and the geometry of the Senet board to calculate annual lunations and eclipses?
* Can you describe how the site at Stonehenge is like a circular Senet Board with a similar ability to do astronomical calculations?
* What is the Hoagland angle?