

Sun, Stars, Stone Alignment and Religion

The hidden meaning of stone alignments in Negev Desert

Yehuda Rotblum
Negev Rock Art, Israel
www.israelrockart.com

Strange scenery awaits you when you tour the Negev Desert. You will see everywhere standing stones. They look as silent guardians of empty fields that once were the dwelling and holy sites for the desert nomads. These stone slabs were selected carefully; they are the best and biggest around. In Hebrew they are called *Masseboth*. The earliest *Masseboth* dated to the 10th millennia B.C.E and (U. Avner 1990) were common from the sixth to the third millennia B.C.E. and continued to be erected all through the Biblical period. They remind in their shape a *Stella* a freestanding stone slab which was erected, by different cultures, for memorial or commemorative purposes. We know now that *Masseboth* are abstract representation of gods, directly associated with anionic belief, prevalent in the desert, which prohibits the portrayal of gods in human or animal form. What is interesting about the *Masseboth* is that they were aligned in a specific direction, which is the Sunrise and Sunset. What is the meaning and the purpose of this alignment?

Keywords: masseboth, Negev desert, alignment, sun, masseboth, belief, rockart, tumuli, open sanctuary, petroglyphs, bible, sunrise, sunset, constellation, zodiac, star-lore.

Introduction

The ancients envisioned the world as 3 worlds which were: heaven, earth and underground. Each had unique characteristics and as such the heaven was reserved for the gods, the earth was for the people and the underground was for the dead. Curiosity made people to devise an imaginary theory and this way Astronomy and Religion together created imaginary world but for the ancients it was real.

Astronomy is the oldest science in the world. It began, far as the prehistory exist, as star watching or as what we define today Astrology. It's a science that all its purpose was to follow star movements to tie them to earthy phenomena's.

Religion is an abstract concept of a belief in a supreme power that governs nature. It's a man made model of the world with the blind assumption that all events are governed by an entity some call GOD. The acceptance of supreme power solved the riddle of the unknown and allowed elegantly to explain the world behavior without relying on facts.

This was the cultural boundary where man imagination and nature behavior met and the result was an imaginary view of our world behavior. When imagination is met with imagination the fusing can be only imaginary. In this model stars became gods and

nature behavior was their vagaries. In this model Earth was the lower world or the people world. The powers above controlled all people at will and the role of a man was to obey them blindly.

Astrology was an attempt to understand and predict the movements of stars. It was an attempt of the ancients to follow the secret intentions of their gods. The masters of the universe which held a plan that man try to understand. Each culture made observation of the skies and above all were the cultures of Sumer and Egypt. They followed religiously the movement and changes of the Sun, Moon and Stars throughout the seasons. These observations were accurate to form the ancient clock. The yearly and daily calendar derived from the predictable changes, Moon the Stars and the Sun, were used to mark time for agriculture, holidays and rituals.

The early astronomers were not simple people they were educated priests. They were in charge of recording the daily star map. In Sumer they were called *Tofsar Enuma Anu Enlil* which translates to the one that knew the secret of Enlil, the main god in Sumer. In Egypt they were called the *hour keeper* or the *wise in the holy writing*. In Greece the priest was called *Horoscopy* and their responsibility was to determine the mythological and ritual calendar. These wise men advised their king in important decisions that were made in coordination with the heavenly signs. Already 5,000 years ago the ancient could recognize 5 planets and main stars or constellations especially those of the zodiac. The prolific historian Strabo wrote about them that they are *knowledgeable deeply in heavenly occurrences*.

1.1. The stars are heavenly script

The ancient didn't know that changes in star locations are result of a natural cycle. For them the sky seems to be eternally fixed by the actions of their gods. The stars followed a godly pattern in their travel in the sky. Legends and myths flourished about them glorifying this godly miracle. They believed that the apparent motion of the stars was scribed for them by gods who sent this way messages to people on earth. The temples in Sumer were described *as beautiful as the stars*. Sanheriv the Sumerian king, 700 BC, declared that his capital Nineveh was charted and *designed by heavenly script*.

The changing moon never disappointed and the year was divided by this predictable behavior, into 12 month. Each month was marked by its constellation that constitutes together the 12 signs of the zodiac. The behavior of the sun although trickier was also predictable. Its rising and sunset time was recorded religiously and they marked the equinox and solstice days. This happens 4 times a year which marks the seasons and they became a holy days in every culture. The circumpolar stars, those stars in vicinity of the North Star, were called *the stars that never sleep* since they never set. They rotate around the North Star in a nightly dance. This nightly ritual brought to man a sense of assurance and stability. These stars form a giant circle around the North Star that was rotated perpetually by the giant in heaven. This motion and the star constant glitter was a sign of stability and hope in this ever changing world. According to Egyptian belief the stars in heaven centre were formed from the dead souls that travelled to heaven on the milky way, the river of heaven, and there they came to eternal rest and became the shiny points above.

The stars were personalized as gods some were benevolent and others villains. Myths about them flourished throughout the generations as far as man imagination

could envision it. The seasonal return or disappearance of particular stars, asterisms or constellations was either anticipated or dreaded by the priests, depending on the blessings or curses they carried. Special attention was given to the sun its rising and sunset time was recorded and the daily travel of the Sun in the sky was followed. Temples, tombs and holy places were aligned to the holy stars and the sun. In time their orientation became holy direction that even today many people facing them in prayer. Here are few examples of the ancient inner thoughts manifestations:

- The temples and tombs were aligned with stars especially the sun
- The calendars were based on the periodic changes in the Moon
- The holidays were determined around the solstices and equinox days

2.Nobody likes the changes in Nature

To the ancients the stars were holy script and they contained sacred messages from their gods. Star locations were considered predictable and were a silent promise from their gods to the maintenance of the cosmic order. One can imagine the priest's shock and reaction when important stars that part of their heavenly picture suddenly disappeared or their location changed. It was a sign of war declaration between their gods and a disaster era for the people. The ancient logic associated changes in heaven with changes on earth. Natural disasters were associated with the dissatisfaction of their gods. In Canaan the winter world ruler was the rain and thunder gods. The summer god that brought drought and unbearable heat was associated with death god. They were called Baal and Mot that and according to the myth they were in constant battle over the control of the world. The belief was that seasons changed when the battle between them settled. But being gods they were immortal and they came back to life periodically and fought again for the control of their realm.

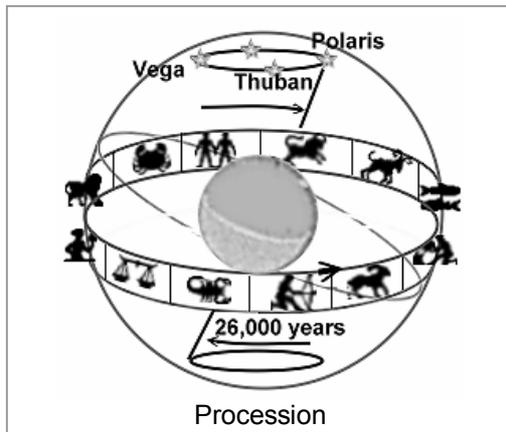
2.1. Why nature is playing with us?

The seasonal return or disappearance of stars, asterisms or constellations was anticipated by the priests; change was never a good omen. The stars became familiar figures, personalized as heroes or villains. They were displayed in early sky drawings as supreme creatures and their stories propagated through the generations and became the legends and the ultimate holy wisdom.

Today we know that nature has its own cycle and every element in life follows. It is not an interpretation of man. Four natural phenomena are responsible for the changes on earth, they are.

1. The spinning of earth on its axis which creates the night and day.
2. The degree of inclination of 23.5 degree of the earth is creating the seasons.
3. The travels around the sun changes the stars we see above
4. The procession of globe shifts stars location at solstice days.

2.2. Precession, the wobbly hidden evil of earth

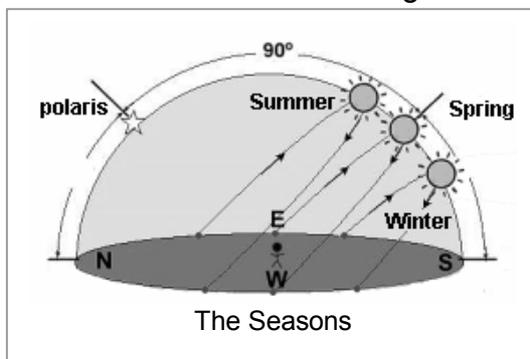


The precession of earth can be described as a wobbling movement of the globe along an imaginary axis that completes a full turn every 26,000 years. This unseen motion changes the pointer of the imaginary earth axis. This motion is westwards at a rate of 1° for every 72 years are virtually not notable in one lifetime. Because of the precession every 2160 years the zodiac star pattern is changing at solstice days. This prompted a horror in the minds of the ancient astronomers. It's was a cosmic twist, for these ancient astronomers, without eligible explanation. The predictability that they

needed to reassure their kings became uncertain. Everything they learned from the old star tracking records changed. How can you explain this change to your ruler? It negated their logic and understanding of the world behaviour and it was a sign for havoc. This precession changed also the position of North Star. These are gradual and cumulative changes that cause climate change that further enhanced the feeling of catastrophe among people.

2.3. Who sets our Seasons

The earth rotates around the sun in about 365 days. It is tilted on an angle of 23.5 Degrees. The earth angle in relationship to sun changes the amount of energy that fluxes the earth and changes the earth temperature. In the summer the energy amount is high and in the winter it's much lower. These are our seasons which are marked by the solstices and equinox days. In Israel the spring and fall are relatively short and the year is divided in two seasons' summer, from March to Sept, and winter from Oct to March. The dominant constellations of the winter are Orion and Taurus. Aldebaran is a bright red star in Taurus dominates the winter sky. The dominant constellation



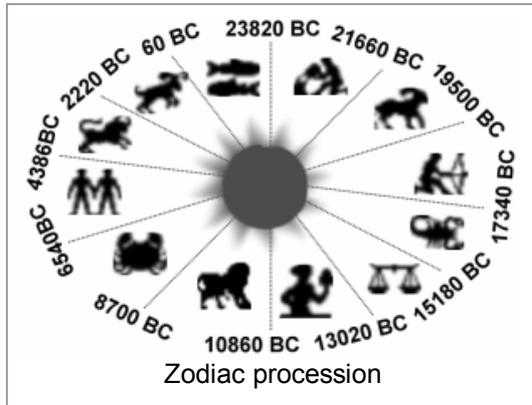
summer constellation is Scorpio with its red star, Antares. They never seen together in the sky when Antares is rising in the east Aldebaran is disappearing in the west. Aldebaran and Antares marked precisely the location of the spring and autumn equinoxes in about 3000BC. The spring solstice always marked the beginning of a year.

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2.4 The Zodiac is changing too! The priests cried....

As the earth rotates around the sun every month new group of stars appears at sunrise diffusing in space as the morning light washes it. This group of stars were connected, in early times, together with imaginary lines and was given a form of a person , an animal, or an object. This is the we call now the monthly lucky sign or the sign of the zodiac. These way 12 groups of constellation passes through the sun, a cycle of full year, they form our zodiac a circle of animals. People watch them and marked by them their yearly life events. The most important day was the New Year in

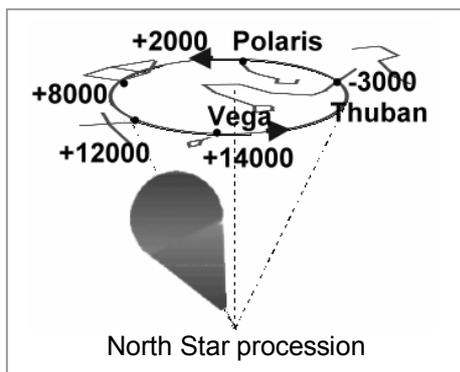
spring time and it was determined by the appearance of spring constellation. The spring time is a renewal time that one could see hear and smell. It's a time for new life that nature displayed proudly. It was a proof of renewal from the universe masters above to the people below.



The spring solstice is considered the most important time in astrology. In many cultures it also marked the beginning of a new year. In year 4380BC was marked by the Twins constellation. It seems to early astronomers that it was there since the beginning. You can imagine the fear it caused when instead of the familiar 2 stars of the Twins constellation a new group of stars, the constellation Taurus appeared in spring time. The procession works all the time and again the shift in the zodiac occurred from Taurus to Aries in the

year 1865BC. This shift is more relevant, to rockart and it prompted the fear of losing the sun a recurring theme in the Negev Rockart (Rotblum 2011). In the year 60 BC Aries was displaced by Fish in the year 60BC . This change became the symbol of early Christians and Jesus death was associated with the sacrificial lamb (Aries).

2.4 The North Star, the symbol of stability, is moving too



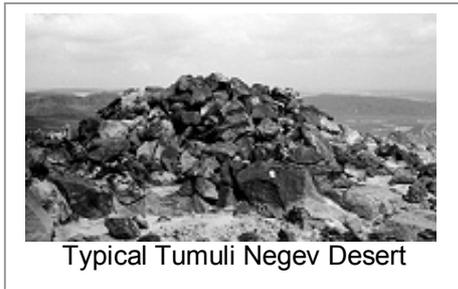
The procession affects all star location relative to earth including the North Star. This star although dim is one constant source of stability in our ever changing world. Its location was the centre of heaven and a source and assurance of world order. But how disappointing it was, for the ancients, to discover that even this star, a sign of hope, seems to drift symbolizing the tumble of the world. During the Early Bronze Age the polar star was not Polaris in Ursa Minor, but Thuban in Draco. The change was indeed gradual but it

prompted the general sense of instability.

3. Signs of belief from Archaeological Alignments

Any sign that alter the behaviour of our earth is always considered bad omen. The symbolic implications of the changes in star appearance were such and they carry catastrophe. Changes in star locations were equated with disaster and were a sign from the gods that cosmic order was in turbulent times and order was exchanged with chaos. To preempt such a disaster the ancient followed the stars religiously trying to notice this minute changes to prepare for them. Star orientation and the sun travel path were followed constantly and were recorded daily. The prehistory by definition didn't leave written records of ancient thoughts and beliefs. We can only deduce their hidden thoughts from what's left in form of archaeological remains. This includes burial site, sanctuaries, masseboth and rockart.

3.1. Tumuli's Alignments



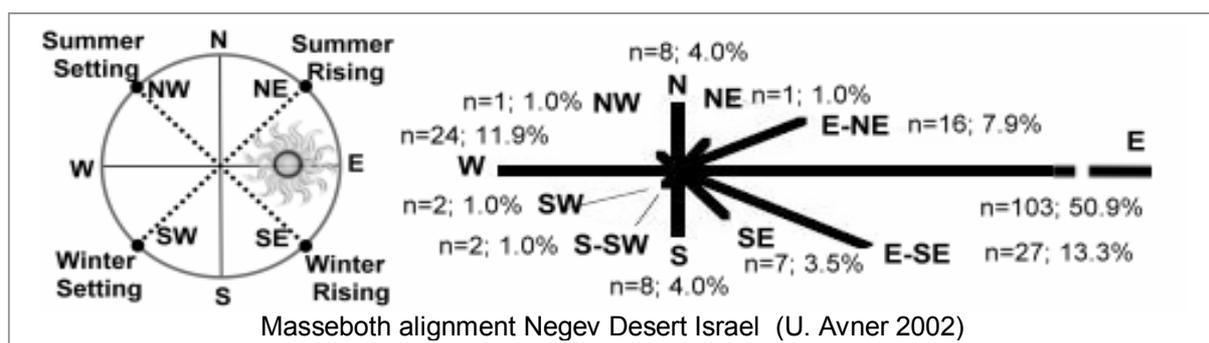
Tumulus is large stone heaps that mark a grave. They can be seen on many ridges in the Negev Desert. It's a desert individual burial site, which was used also as secondary burial, which is oriented to the general direction of east to west.. The diseased is often buried in a foetal position, and some tumulus have kind of stone tail (Haimann 2000) which is a stone wall or small mounds of stones that extends from it/ It is aligned

with the path followed by the sun. The east west orientation may be interpreted as the reflection of the symbolism ascribed to rise and decay. This axis defines the cycle of birth and death, parallels the concept of life cycle.

3.2 Masseboth Alignments

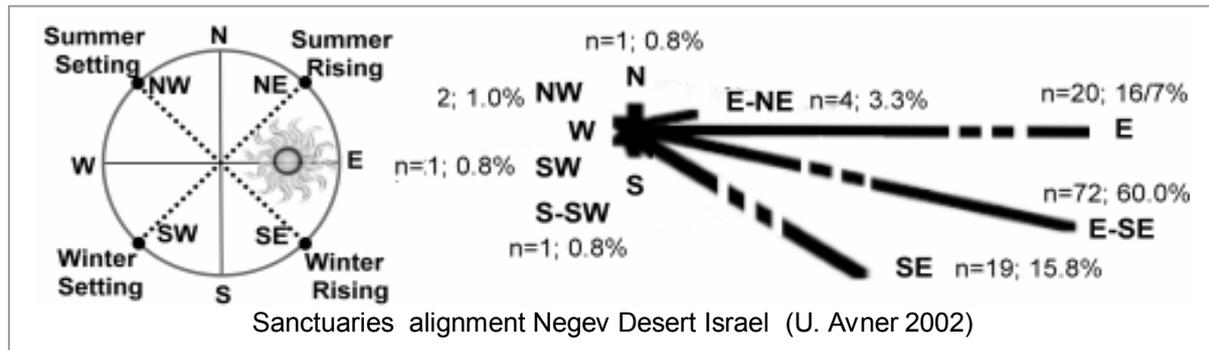
The Masseboth became quite common from the sixth to the third millennia B.C.E. and continued to be erected through the Biblical period and later. They were holy symbols reflecting an abstract idea of gods. They were in use in rituals in private dwelling and the community worship areas. They stand alone or in groups, pairs or triads being the most common combinations, but groups of five, seven and nine also occur. Masseboth are considered to house the spirit of God called betyls; in Hebrew it means: *house of God*. They were witnesses to oaths, contracts, signed in the presence of God. A research, by (U. Avner 2002), of Masseboth and Sanctuaries orientation in the Negev Desert reveals some interesting insights which we will analyze after this introduction.

From a total of 199 Masseboth about 76% are oriented toward east. 51% of them are facing the rising sun in spring solstice. 17% are align to summer rising and 3.5% toward sun rising in the winter, 14% are aligned to the west in spring solstice.



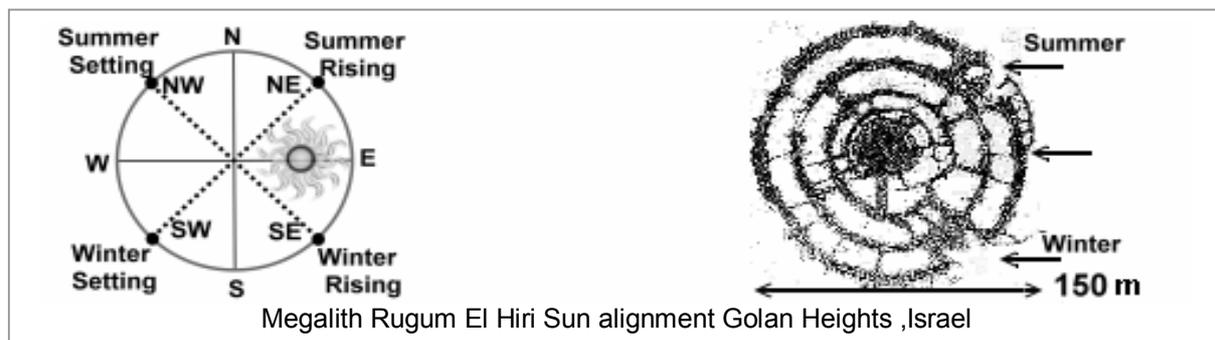
3.3 Sanctuaries Alignments in the desert

Open sanctuaries served the tribe as a communal worship area. Usually you find in them a fenced area, masseboth, central stage, offering benches, altars of different types. The data was compiled from 120 sanctuaries. The majority 76% of sanctuaries alignment is to east. Of these about 16% are facing sunrise on spring solstice and 60% is facing sunrise on winter equinox. Very few sanctuaries are facing west.



3.4 Rujum el Hiri Megalith Sun Alignment

An impressive example of sun alignment structure found in Israel is the site of Rujum el Hiri in the Golan Heights (Aveni 1998). The site, dated to 5000BC, contains burial sites and a monumental sacred circle that is built from 5 concentric circles. There are openings, in the outer circle, built as gates which are aligned to the sunrise at summer, spring and winter. The same idea and abstraction utilized here as the thought behind the alignment of the Masseboth and Sanctuaries to the sun in the Negev Desert.



4. Sun Alignment analysis the hidden thought behind it

The desert nomads followed solstices and equinoxes these were important times for them since they marked the transition between seasons. They became their pilgrimage times, to their holy places in the desert, a custom still celebrated in Israel during the 3 main holidays, Passover, Shavuot and Succoth. The nomads walked the desert to their holy places from a radius of 3 day walking as it written in the bible. They assembled together praying facing the sun, which symbolized for them life order, anticipating its revival on solstice and equinox days.

The sun travel path east-west was a sacred direction. The alignment was consistent throughout the generation from prehistoric times until today. They captured this divine sign by aligning their Masseboth and Sanctuaries to the sun. The east direction at spring sunrise was the most important. In later times this abstraction, of the alignment thought, appears in the Negev Desert Rockart as a story of the missing sun. Some Masseboth facing west but it was not a preferred direction for sanctuaries. We know that west direction was toward the sunset and was used to commemorate ancestor death. This was their concept of an after-world which is related to renewal and transformation.

The preferred direction in all cases as we see from the diagrams corresponds to solstice and equinox days. The solstice days, literally in Greek means - when the sun stood, were the most important time. The ancient were worried about the fate of the sun and its revival since they believed that changes in the sun caused a havoc on earth. The spring solstice which marks the beginning of a new year was by far the most important season. The winter season was crucial and when the sun rose and shined its golden light on the Masseboth and the sanctuaries it was a sign from heaven of victory. The sun won the battle over the deep cold and returned to earth. Sunrise always was envisioned as a moment of creation and I'm sure that the ancients felt it the same way.

5. Conclusion

The holy places were witnesses to oaths, contracts, and alliances between people and God. They were the holy sites in which they signed their covenant with him. The consistent alignments of Masseboth and Sanctuaries to sunrise tell us about the main worries and beliefs of the Negev dwellers. They prayed their gods for the sun return on its crucial days, equinox and solstice, and watched it anxiously in the morning at first light. They built huge fires to help the sun to rise at its weakest moments (Anati 2001) the winter time. Their biggest fear was probably that the Sun will vanish forever.

Beliefs change slowly and the disappearing sun myth lives solidly in later times up to this day. An investigation, by the author, of Rockart in Negev Desert, Israel confirmed that this fear is the subject of many rockart in Israel and the world. In the book **Heavenly Art** (Rotblum 2011) this idea was explored further and the connection of the missing sun myth with rockart was established. Rockart is directionless and it's not aligned to the sun but it tells us the same story as the silent stones of the Negev Desert, the story of the missing sun.

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