ORIGINAL RESEARCH PAPER

Geophysics

IS THE TILT OF EARTH'S AXIS ABSOLUTE OR DO THE EARTH SHIFT? HOW TRUTHFUL IS OBLIQUITY OF THE EARTH AXIS TILTED TO 23.50 AND FIXED, AND EARTH ORBITING SUN IS FIXED AT HORIZONTAL.

KEY WORDS: Earth Obliquity, Sun dial. Lines of Cancer, Capricorn, Equator

Dr. Balkrishna Matapurkar M.B.B.S., MS. F I A A MS, MNYAS(USA).

ABSTRACT

The Earth axis is tilted and fixed in one direction and rotates around the Sun in horizontally fixed orbit. One observes that the Sun sojourns up and down twice in one year. The Sun being big, powerful electromagnetically, gravitationally than earth, why sojourns up and down. To prove or disprove the modern concept, a simple experiment was attempted using Sundial. Shadows on sundial recorded on longest day and shortest day of the year, on fixed time. The angle measured. at different places on earth. Angle was 60° (+ and - 5). The day and nights caused by rotation of earth on its axis. Year is due to rotation of earth around the Sun. Why then Sun sojourns north south. If the axis is tilted or straight the angle measurement likely to be different. If earth moves upwards to 30° north and 30° south in relation to sun's horizon, the angle will remain constant. The sunshine will be for six months over the region of north pole and south poles of the earth, as in case of tilted axis. The earth's orbit is not horizontally fixed but gradually shifts towards line of Cancer and Capricorn. Earth moves down towards south of solar equator and vice versa, and seasons change. In conclusion the earth and its axis are not fixed. Earth moves up and down accordingly the orbit of earth gradually changes due to the influence of electromagnetic, gravitational forces of Sun and constellations in space.

Introduction:

Science is always exploring new truths over established norms. The current knowledge about earth axis is tilted to 23.5°. and orbit is horizontally fixed. Seasons change on earth due to tilt axis. **This is questionable**

Earth is a free pendulum in space[1, 2]. The sun is big, electromagnetically and gravitationally. Why it sojourns?

The tilt and rotation of earth as well as the solar solstices of sun were there during ice age also then why tilt is affecting seasons?

Is it possible to verify all these doubts by Sun – dial or prove the existing knowledge?

Vedic space knowledge mention six Ritu's in a year. The Nakshatras influence earth when it passes through twenty-seven-star constellations which influence seasons on earth[3]. North pole star's forces affect earth axis.

The Sun shines over earth poles, for 6 months during on North and south sojourns. Can this happen by some other alternative possibility?

the Sun rotates between Line of Cancer and Capricorn on the earth. An angle on sundial is formed between the two shadows of the staff, due to sun movement. Can this prove or disprove the obliquity?

Earth rotation and its orbiting around Sun is not simple. Vedic Rishis have researched to understand the space[4]. End of Summer solstice and end of winter solstice seasons alter with Sun's solstices.

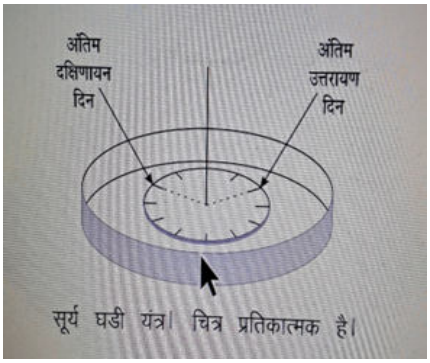


Figure 1. Sundial

MATERIAL AND METHODS.

Experiment attempted on Sun – dial (Fig 1). The central staff of the sundial casts shadow due to Sunrays. The shadows on longest day, and the shortest day of the year marked. The angle between two shadows measured with "D" of School compass box. Angle measured at various locations on a fixed local time were as under:

1. **Northern Hemisphere**, At Morar, Gwalior, MP. Latitude 26.23N, Longitude 78.13E
2. Lashkar, Gwalior, MP. Longitude and Latitude same as above.
3. Delhi, India. Latitude 28.6 N , Longitude 77.2 E
4. Car Nicobar, Andaman and Nicobar Islands, India. Latitude 9.15 N Longitude 92.8E.
5. Port Blair, Andaman and Nicobar Islands. Latitude 11.6N, Longitude 92.7E
6. Al Marj, Libya, Latitude 32.29N, Longitude 20°E).
7. Hibbing, Minnesota, USA. 47.25N Longitude 92.56W
8. Hopkins, Minnesota, USA. Latitude 44.5N. Longitude93.24W.
9. **Southern Hemisphere**, The Ponds, Australia, Latitude-33.86 S, Longitude-151.20 E

This was carried out at fixed time of the day.

RESULTS AND OBSERVATIONS:

The available knowledge about The lines of Cancer and Capricorn are the limits of the Sun solstices.

The following observations noted.

1. The angle on Sun Dial at the centre, showed 60° (+, -, 2.5°) at all different Places.
2. If Earth axis is tilted and fixed, then the angle will be different at various places on earth.
3. The Axis if not tilted and is at 90° with horizontal, the angle will not be constant. the angle at equator will be 0° and at various places it will be different.
4. The constancy of 60° angle is only possible if Earth moves 30° north and 30° south in relation to line of SUN'S equator. The Sun would shine at poles, for 6 months.

1. The experiments conducted to establish the truth. The angle on Sun Dial showed everywhere 60° (+, -, 2.5°).
2. If Earth axis is tilted at 23.5° obliquity and fixed, then the angle will be different at various places on earth. On the contrary if Axis is not tilted and is at 90° with horizontal plane, even then the angle will not be constant. Then under what circumstances the angle will be constant and measure 60° at various places on earth. What will be the angle in following

conditions:

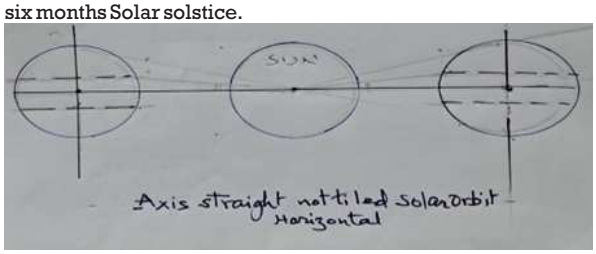
DISCUSSION:

The current fundamental knowledge and concepts are that the tilt of Earth Axis is responsible for seasons on Earth[5,6]. The following situations were studied:

Condition A.

Earth Axis is straight and fixed, and solar orbit of earth around the Sun is steady in horizontal plane.

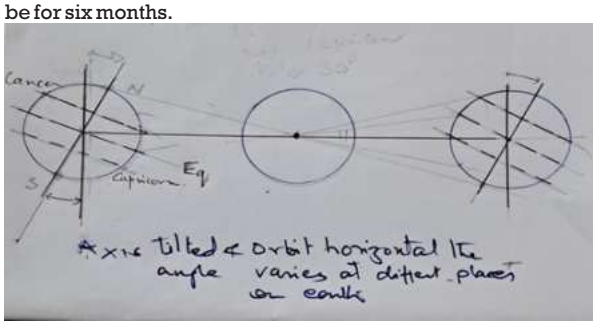
The angles on sun dial, at different places on earth will vary and not constant. Earth poles will be deprived of sun light for six months Solar solstice.



Condition B.

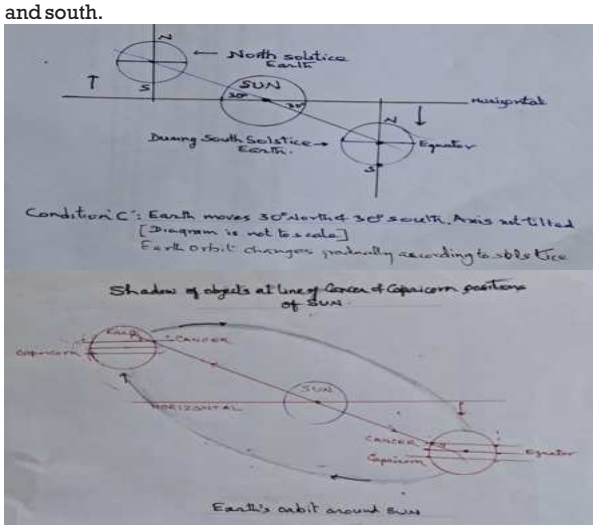
Earth axis is tilted, and solar orbiting of earth is steady fixed in horizontal plane.

The angles on Sun dial, will vary. Sun shine on earth poles will be for six months.



Condition C.

Earth moves 30°up north and 30° down south. The angle on sun dial, measures 60°. At the same time sunshine for six months. The orbit of earth is not steady but gradually moves to north and south.



It is known that there is another movement of axis of earth, and that depends upon the electromagnetic and gravitational force of North Star. This disturbs the steady obliquity of earth axis. How then the statement that axis is only in one direction all the time?

The modern view is self-explanatory in figure 2, below with comments:-

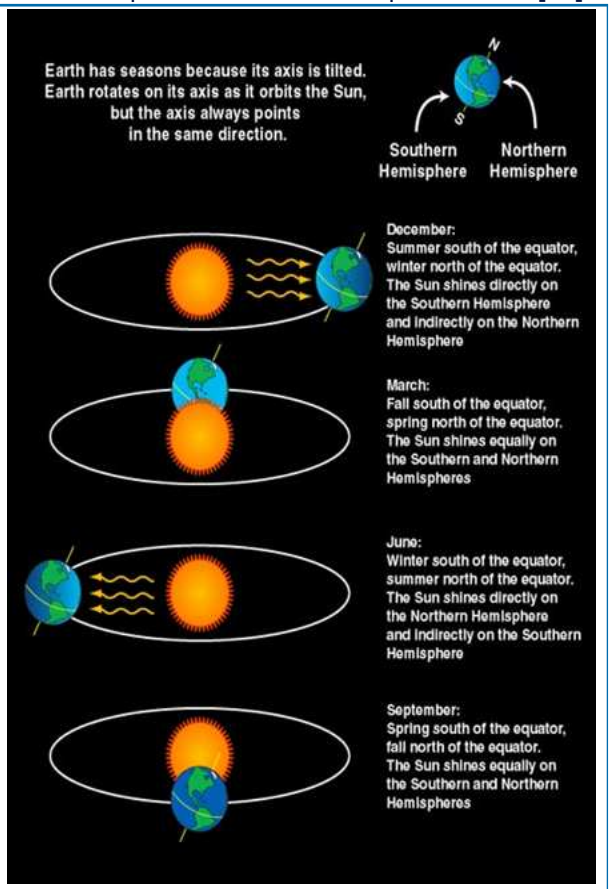


Fig 2. The concept taught in Schools.

General observation is in summer Sun is on north hemisphere. Sun moves south after its maximum northern sojourn. Till it reaches line of Capricorn. It again travels towards north till the line of Cancer.

Two equinoxes are when earth is at sun's horizontal

If Sun moves up and down apparently as seen on earth, then it is likely that, earth moves up and down considering the events like day and night on earth.

Change Of Seasons:

There are six seasons in one year. The change of seasons is with months of the year. The months and Nakshatras in space are tabled below:

Table 1.

No.	Month	Ritu	Nakshtra
1.	ChaitraVaishakh	Vasant Ritu	Chitra Vishakha
2.	Jeshtha Aashadha	Summer season	Jyestha Aashadha
3.	Shravan Bhadrapada	Rainy season	Bhadrapada Shravan
4.	Ashvin Kartik	Winter season	Ashvin Kartik
5.	Margsheersh Paush	Hemant Ritu	Mrigshirsha Pushya
6.	Maagh, Phalgun	Shishir Ritu	Magha And Phalguni

Following considerations need be pondered:

1. All around Earth pendulum a sphere of electromagnetic and gravitational forces exists. Powerful North Star and South star Influence earth rotation. Earth orbit or Axis is fixed. It stimulates doubt when Earth is like a free pendulum in space. How it is possible?
2. When earth passes under an influence of powerful star or

constellation the Axis will not be influenced by it or remain in one direction only? Needs verification.

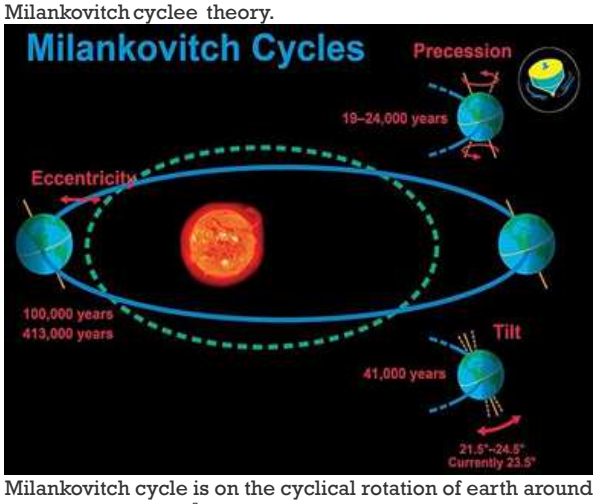
3. Modern science understands that Axis of earth changes due to the influence of North star, and it rotates at steady tilted axis of earth. How is it possible?

4. As compared to the Sun earth is a weaker planet. The Sun is extremely powerful star even then the earth is rotating around in a steady tilted axis and in an orbit which is not disturbed by Sun's power?

5. The powerful gravitational force of North star and the south Star has no influence on Axis of earth. axis.

6. A powerful magnet when comes near another smaller magnet then it influences the smaller magnet and even turns it 180^0 its poles so that North pole attracts south pole or vice a versa. Then how Earth maintains its steady axis and the uniformly steady orbit. How it is possible?

Some solutions are possible from Milankovitchfrom Milankovitch cyclee theory.



Milankovitch cycle is on the cyclical rotation of earth around Sun in a fixed orbit[7]. It deals with the obliquity theory. Earth ratatesrotates on its axis causing Day and Night on earth. It deals with power of North Star responsible for rotation of poles of earth and NOT steady. Do this rotatory movements of poles of earth influence heat pattern on earth? This polar movement change tilt of earth axis. Then obliquity of earth and orbit around the sun in a steady fixed manner, becomes questionable.

The constancy of angle cast by staff of sundial i.e. 60^0 indicate that the earth axis not tilted and orbit around Sun moves accordingly. When earth moves north the sunshine is on south pole up to six months and when earth moves down towards south the sun illuminates north pole for six months. The season change is not due to the tilted axis of earth but due to sunshine and heat of Sun as well as the influence of constellations and Signs of Zodiacs and electromagnetic and gravitational influences on earth.

CONCLUSION:

It can possibly be concluded that the Sun's position is fixed. Instead, earth moves 30^0up towards north and 30^0down to south of the Solar equator. This is responsible for the constant measurement $60^0$of the angle on sundial. The seasons change due to the movement of earth around the Sun in an orbit which also changes as per the upward north to equator and south of equator. Summer and winter are effective due to the sun's influence on earth. Six months sunshine on north pole and south pole of earth depends on the direct sun rays on poles North or south respectively, during up and down movements of earth pendulum in space.

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