

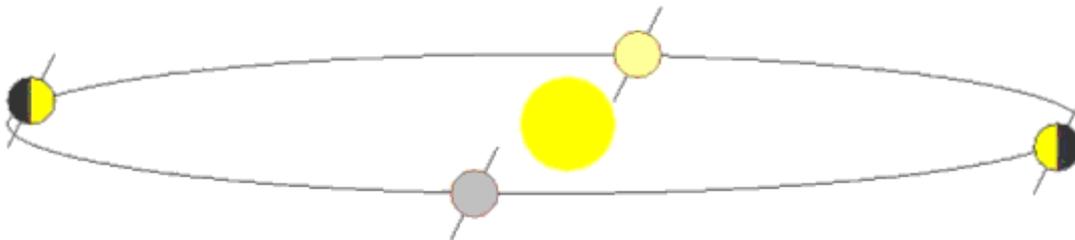
True North Vs. Magnetic North

"In measuring directions in Feng Shui studies, should the true north or the magnetic north be taken as reference?"

This interesting question has been around for over 1000 years. Those who favor the use of true north think that Feng Shui consists of Astronomy and Geography as the name Kan Yue implies. Therefore, true direction must be used. Those who favor the use of magnetic north think that since the luopan is used, the magnetic north shows the direction of Zi-Wu on the luopan. Therefore, magnetic direction should be used. Let us analyse this from various aspects.

What is true north?

Since the earth is rotating about an axis that cuts the globe at two points, we shall call these two points the true north pole and true south pole. This axis of rotation is tilted at $66^{\circ} 33'$ to the plane of the elliptic path of the earth around the sun. When this axis is extended, it should meet on the surface of a fictitious "Heaven Globe". Since the Polaris appears to be fixed in the sky and all other stars revolve around it, the true north is well defined.

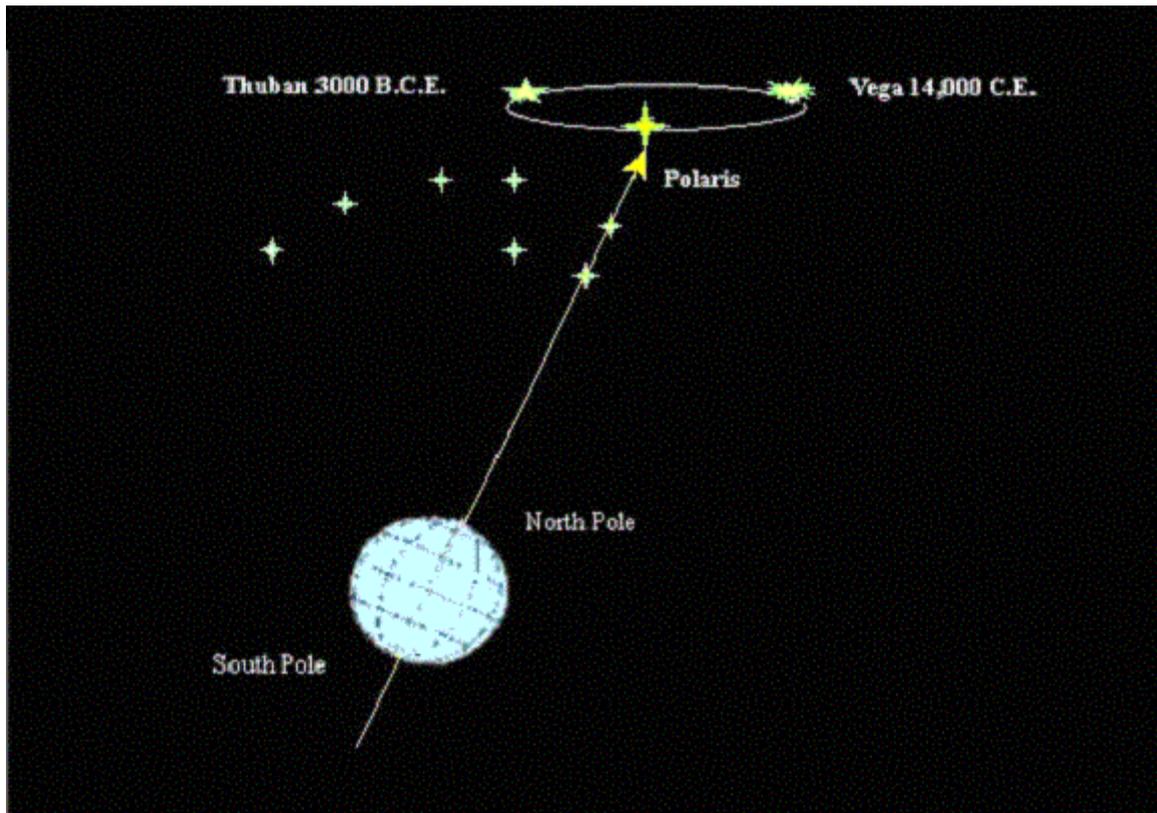


True north pole and south pole are referred to the points where the axis cuts the earth. However, this axis of rotation is not fixed in direction. It undergoes a precession with a period of 25,800 years.

The axis of rotation of the earth points to the Polaris today. In 3,000 B.C.E., it pointed to Thuban. In 14,000 C.E., it will point to Vega. In 22,800 C.E., it will point again to Thuban.

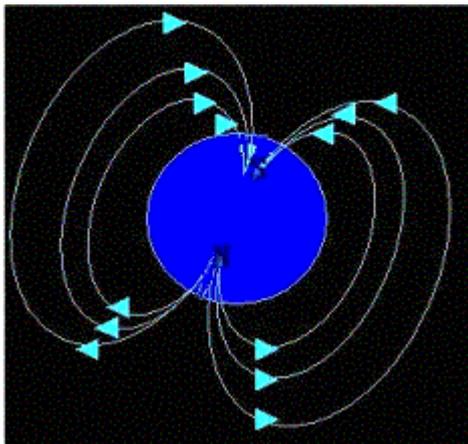
From this we can see that there is actually no such thing as the true north. It varies with time. For this reason, we shall call this the "astronomical north" instead of true north.

The question is rephrased now to read, "In measuring directions in Feng Shui studies, should the astronomical north or the magnetic north be taken as reference?" We must also remember that the astronomical north is not fixed but changing with time with a 25,800 year cycle. In maps, we conveniently use what is known as the "grid north". The difference between the astronomical north and the grid north is about half a degree but this is changing slowly with time. For surveying purposes, the grid north is used.



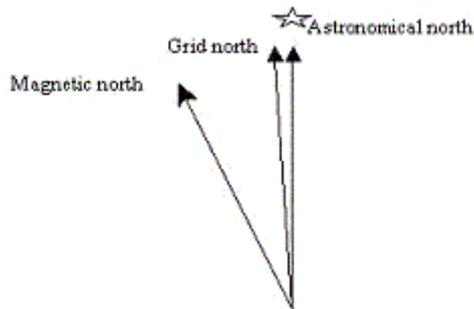
What is magnetic north?

The model of a magnet is a dipole where magnetic force radiates from the magnetic north pole to the magnetic south pole. The earth as a huge magnet has its magnetic north pole near the geographic south pole.



The earth's magnetism is caused by the flow of electrons in its fluid metallic core. The fluid core is perpetually in motion. This explains why the earth's magnetism varies with time. The move is quite gradual. Thus, the earth may be visualized as a huge magnet with its magnetic poles moving. The change in the location of the magnetic north is known to as **secular variation**.

It is interesting to note that the change of the location of the north magnetic pole is affected also by astronomical factors. Solar storms affect the magnetic compass reading. In general, the relationship between the astronomical north, the grid north, and the magnetic north is given by the diagram below.



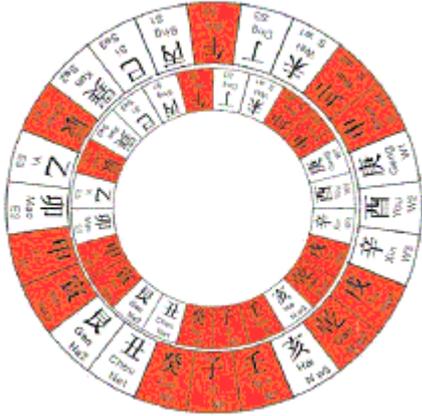
Documented Evidence

The earliest document about the choice of reference is found in [Guan Shi Di Li Zhi Meng] written by Guan Lu in the Wei Kingdom (220 - 265 C.E.) of the Three Kingdom Period. In Section 68 in the Eighth Roll of this book we find the following sentence:

"The needle points Kan-Li determining the starting and ending locations of yin and yang."

This indicates that the magnetic north was referred to in determining the eight trigrams of the Hou Tian Ba Gua. Kan is the trigram in the north and Li is the trigram in the south.

In the Tang Dynasty, the Feng Jin (Slit Needle) was invented to read 7.5° before the magnetic reading. This probably was the approximate value of the declination in China about 1000 years ago. Feng Jin is commonly translated as the seam needle. This is one of the meanings of the character "feng" from dictionaries. The needle in this context has nothing to do with knitting but we can understand how the misunderstanding came. One meaning of the character "feng" is a slit. In fact, when the compass needle points at the midpoint of Zi (North 0°), people imagined that a fictitious needle would point at the boundary between Zi and Ren. In other words, it falls into the slit between Zi and Ren.



San He Luo Pan: The outer ring is the Tian Pan while the inner ring is the Di Pan. The midpoint of Zi in the Tian Pan falls on the slit between Zi and Qui in the Di Pan.

The invention of this ring on the luopan was to read the direction on an astronomical compass. This ring is called the Heaven Plate (Tian Pan). The magnetic needle is now called the Proper Needle (Zheng Jin). The ring is called the Earth Plate (Di Pan). Thus,

Heaven plate reads heaven qi and earth plate reads earth qi.

Later, people find that the fixed 7.50 does not agree with the changing declination and used the sun's shadow at noon to read the astronomical direction. Instead of using the Tian Pan, a sundial is used in addition to the Luopan.

What do we study in Feng Shui?

To find out whether we should refer to the magnetic north or the astronomical north in applying feng shui formulas, we must first of all know what we are studying.

[1] Luan Tou (Forms)

Qing Nang Jing says, "There are the five planets* in Heaven, (and correspondingly) there are five elements on earth. In Heaven, there are stars and galaxies. On Earth, there are mountains and rivers. Qi moves on Earth and its (corresponding) shape displays in Heaven." This idea comes from Xici Zuan of the Yijing, "In Heaven, the image is formed. On Earth, it becomes shape. The transformation is seen."

This, when literally taken, leads to mapping everything in Heaven to everything on Earth. The situation becomes ridiculous. In fact, what the Yijing says means that the trigrams were built according to the images in Heaven and the shapes on Earth to understand the transforming of yin and yang lines leading to the transformation of the abstract and the concrete.

On the other hand, we do not have to know exactly what is happening in Heaven. All we need to know is how the Earth is affected due to these happenings in the Universe that includes Heaven and Earth. The abstract idea of Heaven now becomes the concept of Time. Heaven is in perpetual motion meaning that time is propagating with no beginning, no end, and no stopping.

When ancient people studied forms, they were interested in protection and production. A site is auspicious if it is protected by mountains with water running and collected at the front. To describe this scenario more vividly, Feng Shui masters in the past borrowed the terms of the four celestial animals from ancient astronomy. They are not related at all. So are the five elements and the five planets. The ancient scholars always wanted to link Heaven, Earth and Man together. Some modern scholars fall into this trap and their vision becomes like that of the frog in the well.

[2] Li Qi (Rationale of Qi)

The existence of qi itself is axiomatic. People who do not understand science but pretend to be scientific-minded say that qi cannot be proved to exist by scientific instruments. The fact is that our existence depends on the existence of qi. Without qi, our body is just some assembly of chemical constituents incapable of living. Our planet provides us with an environment suitable for our survival because it can generate living qi and protect us from killing qi. Both living qi and killing qi come from the universe. It includes our earth, the solar system, and all the galaxies.

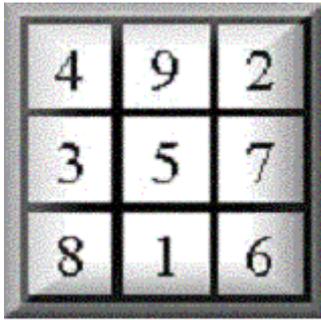
In the study of feng shui, we do not bother about the birth and death of stars, solar storms, the waxing and waning of the moon and the happenings in other planets. We are interested in the total effect of the happenings in the universe. These are described by what we call star charts. We have the star chart of the earth without considering the influence of celestial bodies. This is the Luo Shu, which is also known as the Earth Chart (Di Pan). We have the star charts of the earth at various times. This is known as the Heaven Chart (Tian Pan). When a house is constructed, we have a star chart of the house. This is subdivided into the Facing Chart (Xiang Pan) and Mountain Chart (Shan Pan).

Earth Chart: The most important energies of the earth are (1) Gravity and (2) Magnetism.

Gravity is directed towards the center of the earth. This property is the most important characteristic of the element "earth". It is therefore situated at the center. It is designated as the number 5 in the Luo Shu.

Magnetism radiates from near the geographic south pole of the earth. Radiation is the most important characteristic of the element "fire". It is therefore situated on the top part of the Luo Shu to indicate the south. It is designated as the number 9.

Note that the masters in the past used the four seasons to explain the Ba Gua. It is a good way to make things easy to understand. We have to remember that this was done in China with four seasons. In the tropics the teaching will be ineffective as people cannot link heat with the south. Heat comes from all directions. It will cause more problem if it is taught in the southern hemisphere as their experience is just opposite. It must be noted that the teaching uses analogy only. It is a way to help people understand. Unfortunately people take it as the reasons behind the Ba Gua. This leads to great misunderstanding. What is wrong is the way of teaching, not the Ba Gua itself. The Ba Gua and the Luo Shu are still universal.



| | | |
|---|---|---|
| 4 | 9 | 2 |
| 3 | 5 | 7 |
| 8 | 1 | 6 |

The Luo Shu: The teaching using the four seasons in temperate northern hemisphere should be abolished to avoid misunderstanding.

The greatest disappointment Albert Einstein had was his inability to successfully create the Unified Field Theory. Ancient Chinese, instead of trying to unify the different energy fields (or qi fields rather), tried to diversify, mingle and superimpose various qi fields. To study the Earth Chart, we definitely have to refer to the magnetic north as the reference. In other words, we are studying the effect of gravity and magnetism to see how they generate qi in the eight directions relative to a point. Care must be taken that we are referring to the changing earth's energy. It does not matter where you are, when the luopan shows Zi-Wu, it means Zi-Wu. There is no need to adjust for declination to convert the chart to the astronomical north. The same place may have a different energy chart 20 years later. This is reasonable. We do not expect our earth to be unchanging. **What is unchanging is the method, not the result.** If we use astronomical north, then we are assuming the change is so slow that it is negligible unless we are talking about 1000 years. This is unreasonable. If the earth's magnetic field is changing, why must the Earth Chart be unchanging? So, don't be surprised to find that the facing direction measured today is different from one measured 30 years ago.

Heaven Chart: The Heaven Chart is a result of the changing qi coming from the universe at different times. It may be due to the different alignment of the planets and stars. However, we are not trying to study the cause. We just want to study the effect. The effect superimposes on the Earth Chart. Ancient Chinese developed a formula (or rather, an algorithm), to derive the Heaven Chart from the Luo Shu. Since the measurement is to be taken on earth, and since the formula is from the Earth Chart, it is also reasonable to refer to the magnetic north and not the astronomical north. If we actually study the stars, then it is more reasonable to use the astronomical north.

It should be noted that the luopan is an instrument on which the twenty four mountains and other formulas are embedded. In Xuan Kong Feng Shui, the Zheng Jin (with reference to magnetic north) is used. In San He Feng Shui, the Feng Jin (supposedly with reference to astronomical north) is used for locating water. It is because water is moving and Heaven is moving. In measuring mountains and facing, the San He School also uses the Zheng Jin.

Conclusion

All directions are relative. There is no such thing as absolute north (or true north). The astronomical north refers to a moving axis of rotation of the earth. The grid north refers to a standard way of making maps. The magnetic north refers to a moving dipole in the earth. The study of feng shui builds its analysis on superimposing qi fields of which gravity and magnetism

are major players. Although feng shui is not a science, it cannot be detached entirely from science. Magnetic field being one of the two most important fields on earth, feng shui has to be based on the magnetic directions. Magnetic north, and not astronomical north, is therefore to be used in measuring directions.

* The five planets are Mercury (water), Venus (metal), Mars (fire), Jupiter (wood) and Saturn (earth).



This article was published in Master Joseph's Yu website:

<https://www.astro-fengshui.com>

Check other articles and find valuable knowledge in the courses and seminars in our Feng Shui Research Center! Welcome and enjoy!

Joseph Yu B.Sc. 余若愚 was born during the second world war in a small village in South China. He spent his childhood as a country boy and did not receive any formal education until he came to Hong Kong at the age of eleven. A lot of people suggest to him that he should create a story of learning Astrology and Feng Shui in early childhood from a monk as do many a famous Feng Shui Master. He prefers to tell the truth.

Yu studied Mathematics and Physics in the University of Hong Kong in the early 1960's. He abhorred all kinds of superstition and vowed to destroy such absurd beliefs of ignorant people. He then frequented libraries, trying to find fault with Astrology and Feng Shui from ancient books. The deeper he went into the subject, the more excited he became about the rich legacy of ancient Chinese culture.

Whether or not to become a professional astrologer and geomancer or continue in the fields of mathematics and physics, became a constant dilemma. Astrology and Feng Shui have been viewed as superstition by their skeptics. Astrologers and Feng Shui masters have been linked with fraud for centuries.

Someone wrote in his book, "If more knowledgeable men provide true Astrology and Feng Shui services, the ignorant and fake 'professionals' will vanish." Sharing the same view, Yu decided to provide useful services and correspondence courses at an affordable price.

While Joseph Yu was a mathematics teacher after his graduation, he was lucky to have as his neighbor one old Feng Shui master. This old master was very kind to disclose a lot of secrets of the five arts to him even though he was not one of the old master's apprentices.

In one Chinese New Year party at the old master's home, the master said to his disciples, "This young man, though not officially under my care, has learned more than most of you because he has a logical mind and dares to argue with me on various issues."

The old master passed away a few months later. Joseph Yu did not feel comfortable in the company of the disciples of this good master. He is grateful, but circumstances make it impossible to express his gratitude towards the master who passed on to him a lot of invaluable knowledge.