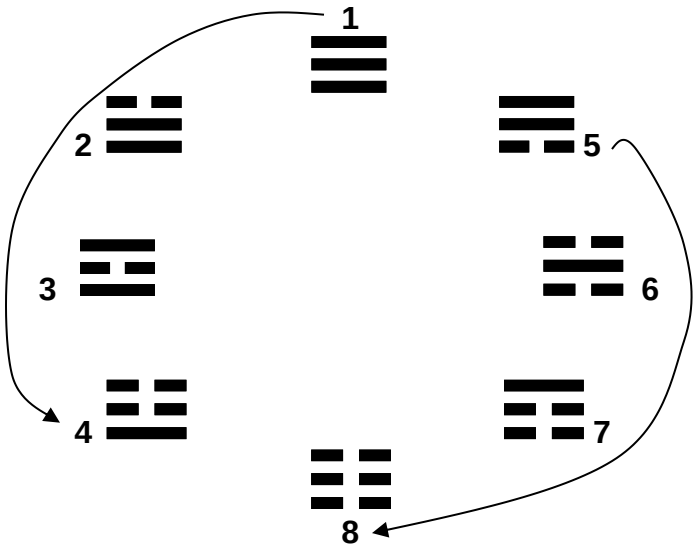
Plum Blossom Divination

A Mathematical Analysis

Yi Without Words

Plum Blossom Divination (Mei Hua Yi Shu 梅花易數) was invented by Shao Yong 邵雍 (1011 – 1077 C.E.). In this article, I am going to analyze the mathematical formula used to obtain a hexagram with one moving line.

A hexagram consists of an upper trigram and a lower trigram. The eight trigrams are represented by the numbers 1 – 8 in the Xian Tian sequence:



Trigram	Qian 乾	Dui 兌	Li 離	Zhen 震	Xun 巽	Kan 坎	Gen 艮	Kun 坤
Number	1	2	3	4	5	6	7	8

Fig 1 Xian Tian Ba Gua

The Universe is all the time sending us messages about the future. Sometimes we receive warning from the Universe when something strange appears before our eyes. One way to interpret the message is to make use of the 64 hexagrams of the Yijing.

Since time existed long before the Zhou Yi 周易 was written, using the time element to get a hexagram is known as Xian Tian Yi 先天易. To interpret a hexagram obtained this way, we do not use the text of the Yijing. We simply compare the natural forces represented by the eight trigrams to form an image. This way of interpreting a message from the Universe is known as Yi without words, meaning interpretation without using the text of Zhou Yi.

Forming a Hexagram Using Time

Here I will talk about the original formula used by Shao Yong and analyze the formula mathematically.

An event can occur in a certain year, month, day and hour. We will assign numbers for year, month, day and hour.

A year is described by a stem and a branch. It is the branch that is used. A number between 1 and 12 is assigned to a branch.

Zi 子	Chou 丑	Yin 寅	Mao 卯	Chen 辰	Si 巳	Wu 午	Wei 未	Shen 申	You 酉	Xu 戌	Hai 亥
1	2	3	4	5	6	7	8	9	10	11	12

Fig 2 Branch Numbers

The lunar month was used. Since there are 12 months in a year, it is also assigned a number between 1 and 12. An additional month (Run Yue 閏月) is assigned the same number as the ordinary month.

There are either 29 or 30 days in a lunar month. The day number is simply the number assigned to the day of the month.

The twelve hours (Shi Chen 時辰) in a day are assigned numbers using Fig 2.

Upper Trigram

The upper trigram is given by the sum of the year, month and day numbers. When the number is larger than 8, the number is divided by 8 and the remainder taken. When the number is divisible by 8, the number of the trigram is 8.

Lower Trigram

The lower trigram is given the by sum of the year, month, day and hour numbers. When the number is larger than 8, the number is divided by 8 and the remainder taken. When the number is divisible by 8, the number of the trigram is 8.

Moving Line

Divide the sum of the year, month, day and hour numbers by 6. The remainder is the moving line. If it is divisible, then the moving line is the 6th line.

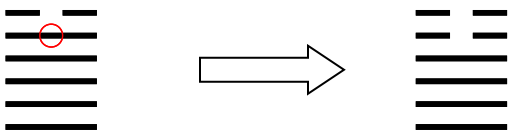
For example, something strange happened in the Chen year, 4th month, 25 day at the Wu hour.

Year = 5
Month = 4
Day = 25
Hour = 7

Upper Trigram: 5 + 4 + 25 = 34
34 ÷ 8 leaves a remainder 2.
The upper trigram is Dui ☱.

Lower Trigram: 34 + 7 = 41
41 ÷ 8 leaves a remainder 1.
The lower trigram is ☰.

Moving Line: 41 ÷ 6 leaves a remainder 5.
Line 5 is moving.



A Mathematical Scrutiny of the Method

If everything is random, then we expect the formula to generate an even distribution of the 64 hexagrams with one moving line. Since there are 64 hexagrams and each hexagram has 6 lines, then there should be 384 possibilities. Let us see what we get in Shao Yong's formula.

If the upper trigram comes from a random formula, then there are 8 cases. If the lower trigram comes from another independent random formula, then there are also 8 cases. Since the two formulas are independent, then there are $8 \times 8 = 64$ ways to obtain a hexagram. If another independent random formula is used for finding the moving line, then there will be $64 \times 6 = 384$ possibilities.

In Shao Yong's formula, the upper trigram is given by the year number + month number + day number. This is a random formula as the incident can take place any time. There are 8 cases.

The lower trigram is given by the year number + month number + day number + hour number which is also random. There are 8 cases. Since the hour is independent of the year, month and day, this formula is independent of that for the upper trigram. We can have 64 different cases.

When the sum of the year, month, day and hour numbers is divided by 6 to yield a number for the moving line, the result is not independent of the formula for the lower trigram because the same number is used. Two situations arise.

First Case – the number for the lower trigram is an odd number. Then when this number is divided by 6, the remainder will also be an odd number.

Second Case – the number for the lower trigram is an even number. Then when this number is divided by 6, the remainder will also be an even number.

In other words, if the lower trigram is Qian (1), Li (3), Xun (5), Gen (7), only Line 1, Line 3 or Line 5 can be moving. If the lower trigram is Dui (2), Zhen (4), Kan (6), Kun (8), only Line 2, Line 4 or Line 6 can be moving.

This will cover only half of the entire possibilities. You will never have an odd numbered lower trigram with an even numbered moving line. You will also never have an even numbered lower trigram with an odd numbered moving line.

This is obviously not satisfactory from a physical point of view. From a metaphysical point of view, it is acceptable but you may feel uncomfortable using it. Therefore, I venture to modify the formula a bit to see whether it is more satisfactory.

Modification suggested by Joseph Yu

Upper Trigram

The upper trigram is given by the sum of the year, month and day numbers. When the number is larger than 8, the number is divided by 8 and the remainder taken. When the number is divisible by 8, the number of the trigram is 8.

Lower Trigram

The lower trigram is given the by sum of the month, day and hour numbers. When the number is larger than 8, the number is divided by 8 and the remainder taken. When the number is divisible by 8, the number of the trigram is 8.

Moving Line

Divide the sum of the year, month, day and hour numbers by 6. The remainder is the moving line. If it is divisible, then the moving line is the 6^{th} line.

The three formulas are related in certain ways so that they are not totally independent of each other. Let us see whether all 384 situations are covered by this set of formulae.

We have four cases:

Case 1: Upper Trigram odd, Lower Trigram odd (abbreviation + +)
Case 2: Upper Trigram odd, Lower Trigram even (abbreviation + –)
Case 3: Upper Trigram even, Lower Trigram odd (abbreviation – +)
Case 4: Upper Trigram even, Lower Trigram even (abbreviation – –)

In the case of Upper Trigram odd, Lower Trigram odd, we have this table:

Upper Trigram	Year	+	–	–
	Month	–	+	–
	Day	–	–	+
Lower Trigram	Month	–	+	–
	Day	–	–	+
	Hour	+	–	–
Moving Line	Year	+	–	–
	Month	–	+	–
	Day	–	–	+
	Hour	+	–	–
		2, 4, 6	1, 3, 5	1, 3, 5

+ indicates an odd number,
- indicates an even number

Fig 3

In the case of Upper Trigram odd, Lower Trigram even, we have this table:

Upper Trigram	Year	+	–	–
	Month	–	+	–
	Day	–	–	+
Lower Trigram	Month	–	+	–
	Day	–	–	+
	Hour	–	+	+
Moving Line	Year	+	–	–
	Month	–	+	–
	Day	–	–	+
	Hour	–	+	+
		1, 3, 5	2, 4, 6	2, 4, 6

Fig 4

In the case of Upper Trigram even, Lower Trigram odd, we have this table:

Upper Trigram	Year	+	+	–
	Month	+	–	+
	Day	–	+	+
Lower Trigram	Month	+	–	+
	Day	–	+	+
	Hour	–	–	+
Moving Line	Year	+	+	–
	Month	+	–	+
	Day	–	+	+
	Hour	–	–	+
		2, 4, 6	2, 4, 6	1, 3, 5

Fig 5

In the case of Upper Trigram even, Lower Trigram even, we have this table:

Upper Trigram	Year	+	+	–
	Month	+	–	+
	Day	–	+	+
Lower Trigram	Month	+	–	+
	Day	–	+	+
	Hour	+	+	–
Moving Line	Year	+	+	–
	Month	+	–	+
	Day	–	+	+
	Hour	+	+	–
		1, 3, 5	1, 3, 5	2, 4, 6

Fig 6

Using this modified formula, the same example will yield different results:

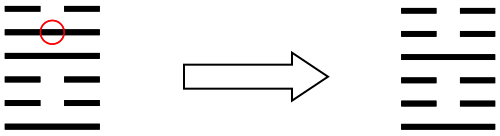
Something strange happened in the Chen year, 4th month, 25 day at the Wu hour.

Year = 5
Month = 4
Day = 25
Hour = 7

Upper Trigram: 5 + 4 + 25 = 34
34 ÷ 8 leaves a remainder 2.
The upper trigram is Dui ☱.

Lower Trigram: 4 + 25 + 7 = 36
36 ÷ 8 leaves a remainder 4.
The lower trigram is ☳.

Moving Line: 5 + 4 + 25 + 7 = 41
41 ÷ 6 leaves a remainder 5.
Line 5 is moving.



Further Modification

Since divination is based on the concept of synchronicity, it is too much to ask people living in the modern world to synchronize with time coordinates using stems and branches and the lunar calendar as did the ancient Chinese. It is necessary to use time coordinates given by the western calendar that is used worldwide. Even adjustment for daylight savings time is unnecessary, not to say adjustment to real local time. Our mind synchronizes with the clock. We just need to use the time coordinate according to the clock. The formula becomes:

Year number: We just take the last two digits of the year number for our calculation. For the year 2006, for example, the year number is 6.

Month number: We assign 1 to January, 2 to February, etc.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2	3	4	5	6	7	8	9	10	11	12

Day number: The range of numbers will be 1 – 31.

Hour number: Most people are familiar with the hours from 1 – 12. We just have to truncate the minutes. 5 something will simply be 5 as the number 5 is the first to enter our mind. It does not matter whether that something is 59 minutes. It is still 5 something. However, if when you look at the watch and the image to you is almost 6, then let it be 6. I would not use a rigid rule like more than half an hour to round up to the next hour. This will not be natural to the mind. However, it is your personal conception of the mind that counts. This is the beauty of metaphysics.

Upper Trigram

The upper trigram is given by the sum of the year, month and day numbers. When the number is larger than 8, the number is divided by 8 and the remainder taken. When the number is divisible by 8, the number of the trigram is 8.

Lower Trigram

The lower trigram is given the by sum of the month, day and hour numbers. When the number is larger than 8, the number is divided by 8 and the remainder taken. When the number is divisible by 8, the number of the trigram is 8.

Moving Line

Divide the sum of the year, month, day and hour numbers by 6. The remainder is the moving line. If it is divisible, then the moving line is the 6^{th} line.

Example: Something unusual happened on 20 September, 2006 at 3:40 pm. To obtain the hexagram for a divination, we use:

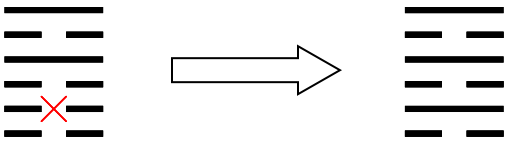
Year: 6

Month: 9
Day: 20
Hour: 3

Upper Trigram: 6 + 9 + 20 = 35
35 ÷ 8 leaves a remainder 3.
Upper trigram is Li ☲.

Lower Trigram: 9 + 20 + 3 = 32
32 ÷ 8 leaves no remainder.
Lower trigram is Kun ☷.

Moving Line: 6 + 9 + 20 + 3 = 38
38 ÷ 6 leaves a remainder 2.
The second line moves.



Conclusion

Although Shao Yong's method covers only 192 of the 384 cases, we cannot say that it is an invalid system. This is because divination is based on synchronicity. The Universe is able to respond to your mind using only 192 instead of 384 cases. Of course it does not mean that we cannot improve the system. Whatever is created by Man can be modified by Man. On the one hand, we cannot say that something invented by an authority cannot be modified. On the other hand, unfounded allegation that a good system invented by a great man in the past is invalid is plain arrogance.

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.