# Index

# Celestial Arithmatic

*Future Point is starting a series of lessons on mathematics of astrology. These lessons will give you insight about the calculations and will be useful to beginners as well as the learned. To the beginners it will teach the computations in an easy way and to the learned it will be a good review excercise while adding certain techniques of computations to their knowledge bank. We are listing below some of the lessons which will form part of the series. Further list shall be announced as it proceeds.*

*1.  Celestial Arithmatic*
*2.  Understanding Date & Time of birth in various calenders & clocks.*
*3.  Place of birth & its co-ordinates.*
*4.  Calculation of Sidereal Time.*
*5.  Calculation of Ascendant & 10th house.*
*6.  Calculation of Planet degrees.*

*The first lesson on Celestial Arithmatic as given below will make you familiar with the basic operations on degrees or hours and their corelation.*

## 1. Notation:

Time is measured in days, hours, minutes and seconds and is represented as $1^d$, $1^h$, $1^m$ or $1^s$ respectively.

Angle is measured in signs degrees, minutes and seconds and is represented as $1^s$, $1^0$, $1'$ or $1''$ respectively.

There stands a confusion in words minute and second, each representing time as well as angle.

Both have been well distinguished in their notation, but to be explicit in speech, it is suggested to use the word minute for angle. Similarly second should be used for second of time and arc second for second of angle. Thus

$1^s$  =  1 sign
$1^0$  =  1 degree
$1'$  =  1 arc minute
$1''$  =  1 arc second
and,

$1^d$  =  1 day
$1^h$  =  1 hour
$1^m$  =  1 minute
$1^s$  =  1 second

***Note:-*** Do not use the symbols ' and " for minutes and seconds of time; they are used for minutes and seconds of a degree (or arc minutes and arc seconds, repectively). For minutes and seconds of time use the symbols m and s respectively.

## 2. Conversion Scale:

We know it very well that

$1^m$ = 1 minute of time  = $60^s$ = 60 seconds
$1^h$ = 1 hour of time  = $60^m$ = 60 minutes of time
$1^d$ = 1 day  = $24^h$ = 24 hours

Similarly,

$1'$ = 1 minute of arc  = $60''$ = 60 seconds of arc
$1^0$ = 1 deg. of arc  = $60'$ = 60 minutes of arc
$1^S$ = 1 sign  = $30^0$ = 30 degrees
$1^C$ = 1 circle  = $360^0$ = 12 signs

Note that minute, second and arc minute & arc second all are to a scale of 60 and not 100. Hence do not use "." to distinguish between degree, arc minute & arc second or hour, minute & second. For example 1.50 hour is not 1hour 50 minutes but 1 hour 50 hundredth of an hour, or 1 hour and 30 minutes. Similarly 25 degrees 35 arc minutes should never be written as $25.35^0$ but $25^0$ 35'

## 3. Coordinate System:

The world is normally on a map with GMT in the centre.

| | 180°W | 0° E/W | 180°E | |
|---|---|---|---|---|
| 90°N | | | | |
| | Longitude - Latitude + | | Longitude + Latitude + | |
| 0° N/S | | | | Equator |
| | Longitude - Latitude - | | Longitude + Latitude - | |
| 90°S | | | | |
| | | GMT | | |

If we place the origin of the coordinate system at $0^0$ longitude & $0^0$ latitude then it's longitude becomes +ve in East and -ve in West whereas latitude becomes +ve in North & -ve in south. We shall be following the above notation of + and - for all computations later in the book.

## 4. Arithmatic:

### (i) Addition:

To add hours, minutes and seconds or degrees, arc minutes and arc seconds, add the seconds to seconds, minutes to minutes and hours to hours respectively. If seconds are 60 or more subtract multiples of 60 & carry to the minutes. Similarly extract multiples of 60 from minutes & carry to hour or degree. e.g.

|  | | | |
|---|---|---|---|
| | $70^0$ | 55' | 38' |
| Add | $120^0$ | 45' | 40" |
| | $190^0$ | 100' | 78" |

| | | | |
|---|---|---|---|
| or | $191^0$ | 41' | 18" |

| Similarly, | $10^h$ | $35^m$ | $48^s$ |
|---|---|---|---|
| | $13^h$ | $40^m$ | $30^s$ |
| | $23^h$ | $75^m$ | $78^s$ |
| or | $1^d$  $0^h$ | $16^m$ | $18^s$ |

### (ii) Subtraction :

To subtract two values in hours or degrees, first substract seconds fom seconds. If seconds to subtract are more than the value to subtract from take carry from minute and add 60 to seconds. Next subtract minutes from minutes, take a carry of 60 minutes from hours, if required. For example:

| $62^0$ | 35' | 48' |
|---|---|---|
| $53^0$ | 40' | 52" |
| $8^0$ | 54' | 56" |

| $21^h$ | $25^m$ | $30^s$ |
|---|---|---|
| $9^h$ | $30^m$ | $25^s$ |
| $11^h$ | $55^m$ | $5^s$ |

### (iii) Multiplication :

To multiply a figure in degrees or hours by a constant, multiply seconds, minutes and degrees by the constant respectively. Extract multiples of 60 seconds to add to minutes & extract multiples of 60 minutes to add to degrees. If degrees are more than $360^0$, discard multiples of $360^0$. For example

| $41^0$ | 25' | 30" | |
|---|---|---|---|
| | | X 10 | |
| $410^0$ | 250' | 300" | |
| $= 54^0$ | 15' | 0" | (Discarding $360^0$) |

In case of hours, discard mutiples of 24hours or retain as days, if required :-

$$\begin{array}{rrrr} 10^h & 25^m & 38^s \\ & & \times 10 \end{array}$$

$$= \quad 4^d \quad 8^h \quad 16^m \quad 20^s$$

## (iv) Division:

To divide a value in degree by a constant extract multiples of divisor from degrees to get degree part of quotient, convert remainder degrees into minutes and add minute value of dividend to it; extract multiples of divisor from minutes to get minute value of quotient, convert remainder minutes into seconds and add second value of dividend; extract multiples of divisor again from seconds to get second value of quotient.

For example

$$16)120^0\ 38'\ 47''(7^0$$
$$\underline{112}$$
$$8 \times 60 = 480$$
$$\underline{+38}$$
$$16)518(32'$$
$$\underline{512}$$
$$6 \times 60 = 360$$
$$\underline{+47}$$
$$16)\ 407(25''$$
$$\underline{400}$$
$$7$$

Similarly hour value is divided by a constant

$$7)6^h\ 25^m\ 30^s(o^h$$
$$\underline{6 \times 24}$$
$$144$$
$$\underline{+25}$$
$$7)169(24^m$$
$$\underline{168}$$
$$1 \times 60 = 60$$
$$\underline{+30}$$
$$7)\ 90(12^s$$
$$\underline{84}$$
$$\underline{6}$$

Since the remainder is $6^s$ which is more than 50% of

divisor 7, 1 can be added to $12^s$ to round off the result as $0^h\ 24^m\ 13^s$.

## 5. Angle - Hour Relationship:

The earth moves around its axis to complete a circle in 24 hours. That is, it rotates by 360 degrees in 24 hours. This gives us a relationship between angle and time as follows:

|  | | | |
|---|---|---|---|
|  | $360^0$ | $=$ | 24 hours |
| or | $15^0$ | $=$ | $1^h$ |
| or | $15'$ | $=$ | $1^m$ |
| or | $15''$ | $=$ | $1^s$ |
|  | | | |
| or | 24 hours | $=$ | $360^0$ |
| or | $2^h$ | $=$ | $30^0$ |
| $=1^s$ | | | |
| or | $4^m$ | $=$ | $1^0$ |
| or | $4^s$ | $=$ | $1'$ |

## 6. Conversion:

Time zone of a country or longitude of a city can be converted into time by the simple rule

$$1^0 = 4^m$$
or
$$1\ = 4^s$$

that is multiply longitude by 4 to get the value in time. East should be taken as "+" and West as "-". For example, for India time zone is $82^0\ 30'$.

Multiplying by 4

$$\begin{array}{r} 82^0\ 30' \\ \times\ 4 \\ \hline 32^m\ 120^s \end{array}$$

$$= \quad 5^h\ 30^m\ 0^s$$

For Delhi longitude is     $77^0\ 13'$

multiplying by 4            $77^0\ 13'$

$$\begin{array}{r} \times\ 4 \\ \hline 308^m\ 52^s \end{array}$$

# Date of Birth and Calenders

*After Celestial Arithmatic in the January 1998 issue we now present understanding of date and time of birth in various calenders and clocks.*

*A*ll measurements of time have historically depended on astronomical observations - the day is measured from the rotation earth on its axis, the week approximates the changing phases of the Moon, the month is measured from the revolution of the Moon around earth and the year is measured from the revolution of earth around the Sun.

Unfortunately earth or moon do not complete their cycle in full no of days. Moon's cycle is 29.53059 days and earth's orbit around sun takes 365.242196 days. So 12 months are short of a year, and 13 months are longer. In this lesson we describe here the history and detailing of the commonly used Gregorian Calendar along with the different lunar calendars used in India.

**1. Gregorian Calendar :** The Gregorian Calender was first introduced by Julian Calendar. It was based on 365.25 days. The year was divided in twelve months, of which eleven contained 30 or 31 days and the 12th had 28 days only. The first month was March and the last month was February. July is named after Julius Caesar and August after Augustus Caesar, both months being allocated the full 31 days, as belittled a Caesar. The seventh month was September, the eight October, the ninth November the tenth December, after the Latin Septem, Octo, Novem and Decem for seven, eight, nine & ten respectively.

To account for quarter day, every fourth year the last month February was a leap year. February contained 29 days. However this colander was fast by over 11 Minutes every year and by 1500 the error amounted to approximately 11 days. To correct the calendar, Pope Gregory ordered that October 15,1582 should follow October 4. The new Calender also moved the beginning of the year from March 25 to January 1. February now did not have a leap year in centuries unless perfectly divisible by 400. Thus came the present Gregorian Calendar into existence.

According to the present Gregorian Calender average year is 365.2425 days which is more than the actual by .000304 days, that is, 26 seconds. This can be ac

counted for, if we again have February of 28 days after 3200 years. However, this is not yet accounted in the Gregorian calendar.

**Indian National Calander:** This is based on Sun - Starts when Sayan Sun enters into Aries. It was recommended by the Calendar Reform Committee and introduced by the Govt. of India from 22nd March 1957, corresponding to the 1st of Chaitra, 1879 Saka Era. In this Calender the no. of days assigned to each month and its starting is as follows :

| Month of Indian Calender | | Gregorian Date for 1st of the month |
|---|---|---|
| Chaitra (30 days 31 days in a leap year) | | March 22 (March 21 in a leap year) |
| Vaisakha | 31 days | April 21 |
| Jyaistha | 31 days | May 22 |
| Asadha | 31 days | June 22 |
| Sravana | 31 days | July 23 |
| Bhadra | 31 days | Aug 23 |
| Asvina | 30 days | Sep 23 |
| Kartika | 30 days | Oct 23 |
| Agrahayana | 30 days | Nov 22 |
| Pausa | 30 days | Dec 22 |
| Magha | 30 days | Jan 21 |
| Phalgun | 30 days | Feb 20 |

**Lunar Calender :** This is the most commonly used calender in India. This is based on the timing of new Moon. Depending upon Moon's transit over Sun takes place in which sign, the month is named. When new moon is in Aries, the month is Vaishakh, in Taurus it is Jyestha etc.

Lunar calender is of two kinds normally :

(i) Closing at full Moon i.e. Purnimanta

(ii) Closing at New Moon i.e. Amanta.

In Purnimanta the month starts 15 days before the new Moon & ends on full Moon called Puranmasi meaning "month is complete." In Amanta month starts after new moon. The months are named same as in Indian National Calender and they start within 15 days before or after, of starting of months in Indian National Calender.

Since the speed of Moon is variable and it can cross over Sun at any degree. New moon may sometimes occur twice in the same Rasi or may not occur at all in some rasi. This gives formation of Adhik & Kshay Mah respectively. In case of Adhik month; the two months are named as first and the other as second. Shukla Paksh of the first and Krishna Paksh of the second are called the adhik month, which is normally avoided in most muhurthas. In case of kshay month, one month is divided into two Pakshas and each month is assigned one Paksh. The first month having Krishna Paksh is called Kshay Mah and the other is termed normal Mah.

On the average year as 29.53 x 12 = 354.36 days, which is less by 11 days compared to earth's cycle. Thus in every three years there is an Adhik Mah to cover the gap of these 11 days.

Kshay Mah occuse rarely. After or before Kshay Mah Adhik Mah occurs invariably.

The start of month or day is taken from Sun rise. Because of variable Moon. speed two tithis may fall between two sunrises and sometimes it may not fall even once.

This gives rise to formation of Adhik and Kshay tithis.

**Solar Calender :** Like Lunar Calender Solar Calender is based on the movement of Sun. Sun's entry into Aries starts the month Vaisakh and also the new year. The months are named same as in Indian National Calender.

Though the moment of Sun's entry into a sign is the same all over India, yet the commencement of the corresponding month for civil purposes is not necessarily the same all over India, yet the commencement of the corresponding month for civil purposes is not necessarily the same all over India. In Punjab & Orisa the solar month starts on the day of transit

into next sign. Here day means one sunrise to next-sunrise. In bengal and Assam, if transit happens before midnight (45 Ghatis), the solar month begins next day & when the transit occurs after 45 Ghatis, the month begins a day after. In Tamil, when the fraction of the day at which transit occurs does not exceed 30 Ghatis (Sunset), the solar month begins on the same day else next day. Since the sun takes different times to transit a sign the month varies from 28 days to 31 days.

The lunar & solar calenders are associated with vrious eras. Some of the most commanly used are :

1. **Vikram Era :** 57 more than the A.D. year and extensively used in Gujarat & all over northern India except Bengal. In Northern India year starts from Chaitra Purima. It is also popularly known as "Malava Era" or simply "Samvat".

In Gujarat Amanta month is taken and year starts from next day of Kartika New Moon i.e. day of Diwali.

2. **Saka Era :** This is 78 less than A.D. year. This is also used extensively in North India. Indian National Calender uses this Saka. It is used both with amanta & Purnimanta months as well as with solar calender.

To summarise year 1999 will have various Calendars beginning on the following date:

1. **Gregorian Calender :** 1st Jan 99.

Different eras have following values :

i. Gregorian        1999 A.D.
ii. Samvat          2056
iii. Saka           1921
iv. Kaliyuga Era.   5100
v. Fusli San        1407
vi. Kollam Era      1175
vii. Bengali San    1406
viii. Hejira        1420

2. **National Calender :** 22 March 99

3. **Lunar Calendars :**

Chaitradi : 18/3/99
Kartikadi : 10/10/99

4. **Solar Calendars :**

Bengal & Assam - 15/04/99
Punjab & Orissa - 14/04/99
South - 14/04/99

5. **Kollam Era :** A.D. year minus 824 is the Kollam Era. It is used in Malabar, Cochin & Travancore. It starts with solar Virgo in North Malabar and with Solar Leo in South Malabar.

6. **Bengali San :** Current A.D. year minus 593 gives Bangali San. It starts with Sun entry into Aries.

7. **Hejira (Muslim Calender) :** It is calculated by subtracting 579 from the current A.D. year. The monthly are based on Moon

and are named as Muharram, Safer, Ravi-Ul-Avval, Ravi Ussani, Jamadi-Ul-avval, Jamadi Ussani, Rajjab, Sawan, Ramjan, Savval, Jilked and Jilhej. Muharram the first months coincides with or starts from shukla Paksh of Vaisakh. The month start normally from 2nd in Shukla Paksh when Moon is visible in the sky after sun set. The day is counted from sunset to sunset. The only problem in Muslim Calender is that it can not be defined in advance since it is based on visibility of Moon. If Moon is not visible on the day month has to start, it will be started from the next day only when moon becomes clearly visible.

# Understanding Place of Birth, Time Zone and Time Correction

*In astrology place of birth is equally important as date and time of birth. This lesson tells you how the place of birth affects the calculations and how much precise we should be in specifying the place of birth - whether a street, a colony, a city or a country. Some important formulas to compute distance are described when longitudes and latitudes are known. The lesson also explains importance of time zone and time correction.*
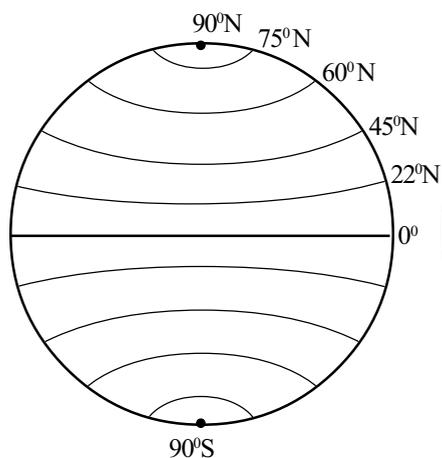
In astrology place of birth plays an important role. If it is day in India, it is night in America. So the effect of Sun is reversed. Similarly effect of other planets also change.

This change in effect is more prominent longitudinally and is comparitively much less latitudinally e.g. it remains day if we move South to North - Sri Lanka to Russia. But there is still a difference in sunrise mariginally from one Latitude to other even if longitude remains the same.

Let us understand what is longitude or latitude; how we measure it and how much distance has how much effect in calculation of horoscopes.

**Latitude:** These are imaginary lines, paral



*Parallels of Latitude*



*Meridians of Longitude*



*Grid of Parallel of Latitude and Longitude*

lel to equator. The equator represents zero degree latitude.

North pole is $90^0$N and South Pole is $90^0$S.

**Longitude :** These are imaginary vertical lines parallel to the prime meridian, which pass through Greenwich where the British Royal Observatory is located. The prime meridian is at $0^0$ longitude and we count $180^0$E in East, to $180^0$W in West. $180^0$E and $180^0$W coincide and represent the same vertical line just opposite to prime meridian.

Unlike parallel of latitude, all meridians are of equal length. Any place on earth can be uniquely assigned a longitude and latitude and any such coordinates define a single point on earth. Delhi has a longitude of $77^0$13'E and latitude of $28^0$39'N.

Since earth is spherical, every degree of longitude does not represent equal distances.

**Span of 1' of Longitude or Latitude :**

Let us determine the distance represented by 1' of the longitude or latitude; that is, how much distance changes the coordinates by 1'.

Earth's mean radius "a" = 6371 km.

Considering the earth as sphere

$1^0$ of longitude at latitude f = $\frac{p \cdot a \cos f}{180}$ km.

.........1

At Delhi (f = $28^0$ 39' N)
$1^0$ of longitude = 97.6 Km.
Thus 1' of longitude at Delhi

=1.626Km.

and    $1^0$ of latitude = $\frac{p}{180}$ x a Km.  » 1 mile

.........2

For all longitudes
$1^0$ of latitude = 111.2 Km.
or 1' of latitude= 1.853 Km.  » 1.16 mile

For all practical purposes, in India we can consider 1 mile, making a difference of 1' in longitude or latitude or combined difference of both.

From formula 1 and 2 it is obvious that the distance in North or South makes a variation in latitude, which is constant for all places on earth. However the longitude at least changes as much as latitude and the variation becomes more and more prominent as latitude increases. This is obvious because of the fact that equator the circumference of earth is maximum, where as it reduces as latitude increases and rate of change of circumference also increases with the increase in latitude.

A table can be drawn for distance covered by 1' of longitude at different latitudes.

| Distance covered by 1' of Longitude | |
|---|---|
| Latitude | Distance in E-W direction (Km.) |
| $0^0$ | 1.853 |
| $10^0$ | 1.825 |
| $20^0$ | 1.741 |
| $30^0$ | 1.605 |
| $40^0$ | 1.419 |
| $50^0$ | 1.191 |
| $60^0$ | 0.926 |
| $70^0$ | 0.634 |
| $80^0$ | 0.321 |
| $90^0$ | 0.000 |
| **Distance covered by 1' of Latitude** | |
| For all Longitudes 1.853 Km. in N-S direction | |

**Variation of Longitude and Latitude in a City**

For latitudes like in India a city, which has span of 40 Kms. or a distance of 25 miles, can make a difference of 25' in longitude and latitude. This is particularly so in case of Delhi and Mumbai, where the city stretches to over 40 kms. diagonally. In Delhi, where the accepted coordinates $28^0$ 39' N & $77^0$ 13' E are

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for New Delhi Railway Station, easily makes a difference of over 25' in longitude and latitude from one end to the other.

For example Nangal in South-West of Delhi has coordinates $28^0 33'N$ and $77^0 06'E$, whereas Vikas Kunj in North-East coordinates of $28^0 45'N$ and $77^0 18'E$, thus reflecting a difference of 12' in longitude and 12' in latitude, with a total difference of 24'. Similarly in Bombay Dahisar in North has coordinates $19^0 16'N$ and $72^0 51'E$, whereas Colaba in South has coordinates $18^0 54'N$ and $72^0 49'E$, making a difference of 22' in latitude and 2' in longitude, again making a total difference of 24'.

However small cities are normally only half or even less than half the size of Delhi or Bombay. Towns are only a few kms. in length or breadth, thus making a total difference of few minutes in all. If a centre point is chosen then the difference does not exceed more than 1' or 2' in latitude and longitude combined. For this reason for most of the towns and places, 1' accuracy in longitude or latitude is just sufficient, whereas in metropolitan cities a further breakup into small area is advisable.

To understand the total difference caused by longitude and latitude, let us convert the maximum combined difference in Delhi or Bombay (~25') into time. We find it is equivalent to $100^s$ of time. And from a centre point it is only $\pm 50^s$. i.e. less than a minute! Thus when time of birth is accurate only to a minute level, taking the centre point of even the metros for longitude or latitude is not going to add much to the inaccuracy in results.

## Computation of Distance:

We have seen above that there is a direct relationship between distance and the longitude or latitude. We can easily compute the areial distance between the two points on earth if we know their coordinates accurately.

**For rough computations of distance, we may simply add up the difference of longitude and latitude and equate that to miles.**

**Example :** *Calculate the distance between Delhi and Mumbai approximately.*

Coordinates of Delhi     $28^0 39' N\ 77^0 13'E$
Coordinates of Mumbai               $18^0 58' N\ 72^0 50'E$

Difference                                   $9^0 41'$ and $04^0 23'$
or                                          581' and 263'

adding the two, distance between Delhi and Mumbai is

844'     »     844 miles

Taking 1 mile = 1.6 Km. difference between Delhi and Mumbai is 1350 Km. approximately.

Distance between two points on the earth's surface having longitude and latitude L1, f1 and L2, f2 respectively can be computed accurately by first computing the angular distance between the following points by the following formula :

$$Cos\ d = Sinf_1.Sinf_2 + Cosf_1.Cosf_2.Cos\ (L1-L2)$$

then computing the required linear distance by the following formula

$$S = 6371p\ d/180\ kms.$$
where d is expressed in degrees.

(Note: The formula does not work well for very small values of d)

**Example :** *Calculate the distance between Delhi and Mumbai, taking the following coordinates.*

Delhi :  L1 = $77^0$13' E    $f_1$ = $28^0$39' N

Mumbai:  L2 = $72^0$50' E    $f_2$ = $18^0$58' N

Cosd = Sin$28^0$39'.Sin$18^0$58'+Cos$28^0$39'.
    Cos$18^0$58'.Cos($77^0$13'-$72^0$50')

on solving,  Cosd  = 0.983324945

    or d  = $10.47795695^0$

so,    s  $= \dfrac{6371*p*10.47795695}{180}$

or    s  =  1165 kms.

**Note : -**    The result is accurate up to a few Kms. The inaccuracy is mainly due to flattening of the earth, which has been ignored in the present formula.

## Longitude and Time

Sun is the best time-keeper throughout the world. It Sun regularly rises and sets every day. Local time can be measured by the shadow cast by the sun. All the places on a meridian have midday at the same moment. If the earth rotates from West to East, places East of Greenwich are ahead of Greenwich time and those in the West behind it. Since the earth rotates $360^0$ in 24 hours, every $15^0$ there is a difference of 1 hour.

## Standard Time

Local time of places which are on different meridians differ. In India there will be a time difference of about 1 hour and 45 minutes in the local time of Dwarka in Gujarat and Dibrugarh in Assam. It will be difficult to prepare a time-table of trains which move from one corner to another. It is therefore necessary to adopt the local time of some central meridian of a country as the standard time for the country. In India 82°30'E is treated as the standard meridian. The local time at this meridian is taken as the standard time for the whole country.

Some countries have a great longitudinal extent and so they adopt more than one standard time. For example USA has as many as 5 standard times. The earth has been divided into 24 time zones of one hour each. A few countries like India adopt a time zone in between the two, like 5½ hour zone.

## Time Correction

In countries with high latitudes, day duration changes drastically from say 6 hours in winters to 18 hours in summers. At poles this difference becomes so large that there is day for six months and night for six months.

In Northern latitude May, June are longer, whereas in Southern latitude December January are longer and they have summer at this time. In summer the sun rises very early. To take the advantage of sun light, the clocks are advanced by one hour during summer for about six months and it is set back to original position during winter. This advanced time is called "summer time" or "day light saving time". At some places the correction is done for 2 hours and it is called as "double summer time". Similarly sometimes it is only half an hour correction. Since this adjustment is only to save light, it is substracted before we do any astronomical calculation.

## Summary

For astrological purposes we need date, time and place of birth. City of birth is normally sufficient as place of birth. Alongwith this one should know the standard time zone and the

day light saving time correction to know exactly and correct the time of birth.

With the knowledge of coordinates we can even determine the distance between two points. Longitudinal distance play vital role in time gap compa red to latitude.

# Calculation of Sidereal Time and Ascendant

> *In this lesson we are describing sidereal time and are listing the formulas to derive 10th house and ascendant degree accurately using sidereal time. Oral computation of ascendant is also described. Attention is drawn towards the common error committed by most of the fellow astrologers in the computation of ascendant or planet degrees.*

One Solar day is the time between two successive passages of the sun across the meridian as observed at a particular place. In astrology, we are interested in motion of stars. We want to know the time period of earth when any star is observed to return to the same position. Such a clock is called a sidereal clock and its time, being regulated by stars is called sidereal time.

There are 365.2422 days in the year. During this period, the earth makes one revolution around the Sun. If we look from remote stars, we see that the earth has made 366.2422 circles about its axis in 365.2422 days. Each sidereal day is thus :

*Duration of one sidereal day*

$$= \frac{\text{Duration of sidereal year}}{\text{No. of sidereal days}}$$

$$= \frac{365.2422}{366.2422}$$

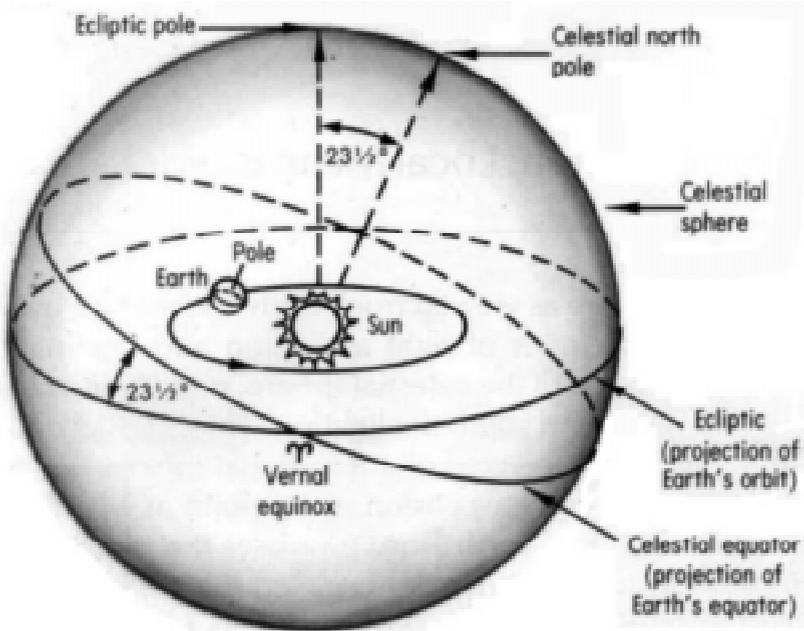$$= \quad 23 \text{ hr. } 56 \text{ m } 4.09 \text{ s}$$

(shorter by 3 min 55.91 seconds than the mean solar day of 24 hours.)

GMT and Greenwich sidereal time coincide at one instant every year at the autumnal equinex (around September 22). Thereafter, the difference increases until half a year later it is 12 hours (around March 23). After one year, the times again coincide.

To compute sidereal time manually, please refer to "Tables of Ascendants" by N.C. Lahiri.

**The 10th House or Mid-Heaven :** The point of intersection of the ecliptic of the given time with the meridian of the place is the tenth house for that moment. If A is the sidereal time expressed in degrees and B is the tenth house, then tenth house can be computed as :

*tan B = tan A Sec w*

where w is the inclination of earth's equatorial plane to the ecliptic.

**Ascendant :** The ascendant is the point of intersection of the ecliptic with the eastern horizon of the place.

if A is the sidereal time in degrees + $90^0$

then

$\tan B = \tan A \cos w$ ....(1)

From A & B, we can evaluate D the declination & q =90 - angle between meridian & ecliptic, as:

$\sin D = \sin A \sin w$ ....(2)
$\sin q = \sin w \cos b$ ....(3)

From D & q, we compute the ascendant as :

$\tan E = \sin D \tan(j + q)$ ..(4)

where j is the latitude of the place.

Ascendant = B + E ....(5)

The value of the ascendant as calculated above is the sayan value. Subtracting ayanamsa we get nirayana ascendant. The above formulae gives accurate values of ascendant. In absence of scientifc calculators, the ascendant & the tenth house can be computed using tables of ascendant by N.C. Lahiri. However, calculation of ascendant using tables gives rise to errors because of tables not available for the given place or for the given sidereal time. This error some times goes upto many minutes of arc.

**Approximate computation of Ascendant :** The ascendant can also be computed approximately orally from date of time of birth. It does not vary much because of latitude or longitude, if local time is taken. So take the standard time & roughly estimate the local time. Take the date of birth and estimate the Sun degree, using the fact that it is $0^0$ on 14th April and it advances by $1^0$ everyday or 1 sign every month.

| Month | Sun's entry |
|---|---|
| April | Aries |
| May | Taurus |
| June | Gemini |
| July | Cancer |
| August | Leo |
| September | Virgo |
| October | Libra |
| November | Scorpio |
| December | Sagittarius |
| January | Capricorn |
| February | Aquarius |
| March | Pisces |

If the date of birth is December 13th, then as per table given Sun enters into Sagittarius on 15th Dec. Hence it is approximately on $28^0$ scorpio on 13th December in any year.

Since at Sun rise, Sun is at the eastern horizon, so the Sun degree matches with the

ascendant degree. Hence at Sun rise on 13th December any year, the ascendant is approximately $28^0$ Scorpio. After that it increases by the sign every 2 hours or $1^0$ every 4 minutes. More accurately, it crosses six signs from Sun rise to Sun set and next six signs from Sun set to Sun rise. So if time of birth is 1 PM and since sunrise is approximately at 7.15 AM in Delhi at that time and day duration is only about 10 hours the ascendant after 5hrs. 45 minutes of sunrise shall be 3 signs and few degrees away than the Sun, that is, it will be just crossing Aquarious and reaching Pisces.

Actual calculations show that ascendant on 13.12.56 at 1 PM at Delhi is $9^07'$ Pisces.

Traditionally, we calculate ascendant from Ishta Ghati using Palabha, Lankodaya, Udaymaan and Sun degrees for different signs. However because of better trignometric methods described above we are not putting it down here.

To make the task easy, Panchangs give ending time of ascending signs on daily basis for a given place. These tables can be directly used to get fairly correct ascendant sign. An interpolation of time between the two signs also gives us ascendant accurate to a degree normally sufficient for most of the astrological predictions.

**Ascendant calculation for foreign births :** To utmost surprise, at least 50% astrologers commit mistake in calculating the ascendant for foreign births. This is mainly because they convert the time of birth to Indian Standard time. This way if a birth has taken place in the morning in New York, it

> *50% astrologers commit mistake in calculating the ascendant for foreign births. This is mainly because they convert the time of birth to Indian Standard Time.*

becomes evening in India. Then when we calculate the horoscope, we find sun placed in the 7th house, whereas it should be in the ascendant by virtue of the definition of ascendant itself.

The trignometric method above holds good for any date, time and place of birth. You do not have to change anything anywhere. However, if you want to compute ascendant orally, then also go for the method prescribed above. It will give approximately correct value of ascendant for any longitude or latitude (south latitude also).

To make the task further easy, take any Panchang which gives ending moment of signs for given local time of birth. Compute the local time by making oral correction for longitude to time zone and look into the table to get ascendant accurate to few degrees. This works because of the basic fact that ascendent varies only by a few degrees due to latitude.

Further note that to calculate planet positions using ephemeris or Panchangs, it is necessary to convert time from other time zone to IST since the Panchangs are giving values at IST only.

This is the common mistake done by most of the astrologers that they convert time to IST for calculation of ascendant and take the time as it is for calculation of planet degrees. So, remember : **Do no convert time to IST for ascendant calculation of foreign births but convert the time to IST for planet degree calculations.**

# Cast Your Horoscope

*The chart is pictorial representation of earth. The planets that revolve around earth are placed in the chart indicating their respective position. This lesson describes the method of calculation of planetry positions. Different system of presentation of charts is described so that one may cast his horoscope in the desired fashion.*

In the last issue we explained how to compute your ascendant. Now we need to place the planets in the chart. To compute the planet degrees, we recommend the readers to follow Ephemeris by N.C. Lahiri. You can get these ephemeris from 1900 till date. You can also get advanced ephemeris by other authors for up to 2050 or 2100. However, if you want to compute horoscope for a date before 1900 or after 2100 then you can get it through a computer which are normally available from year 1 to year 9999. However for dates even beyond this, extra efforts are required & even computer horoscopes need be verified before accepting them as such.

The ephemeris or Panchang is a collection of daily or weekly position of planet positions in a tabular form. The position for a given date and time can be obtained simply by taking average. Averages are normally sufficient for Astrological purposes, but we can not take it as accurate positions of the planet for that date & time. For more accuracy one can go to interpolaxtion techniques using more data available in the ephemeris.

The deviations occur be-cause planets do not move with a regular speed. The speed increase or decreases with time. If the speed of the planet is more in the beginning and less towards the end, the values obtained are slightly more than the actual longitudes because, in actual the planet moves a little more than what it moves on average.

The problem of speed of planet occurs mainly for Moon only because Moon plays the maximum Role in astrological computations.

Example : Compute planet degrees for Native born on 15.1.1970 at 11.30 AM at Delhi :

Please refer "Condensed Ephemeris 1961-71" by NC Lahiri. We get the following degrees listed in the ephemeris.

|            | Sun         | Mar.           | Ven          | Jup.        | Sat         |
|------------|-------------|----------------|--------------|-------------|-------------|
| 17.1.1970  | $9^s\ 3^0\ 01'$ | $11^s\ 0^0\ 43'$ | $9^s\ 1^0\ 09'$ | $6^s10^047'$ | $0^s8^047'$ |
| 15.1.1970  | $9^s\ 0^0\ 59'$ | $10^s\ 29^0\ 13'$ | $8^s28^038'$ | $6^s10^035'$ | $0^s8^044'$ |
| at 5.30 AM. | $2^0\ 2'$ | $1^0\ 30'$ | $2^031'$ | $12'$ | $3'$ |

|            | Mer         | Mon          |          | Rahu          | Ura         | Nep.       | Plu         |
|------------|-------------|--------------|----------|---------------|-------------|------------|-------------|
| 16.1.1970  | $8^s\ 25^0\ 58'$ | $0^s19^015'$ | 1.2.70 | $10^s18^039'$ | $5^s15^011'$ | $7^s7^012'$ | $5^s3^040'$ |
| 15.1.1970  | $8^s\ 27^0\ 13'$ | $0^s6^0\ 23'$ | 1.1.70 | $10^s20^033'$ | $5^s15^017'$ | $7^s6^027'$ | $5^s3^057'$ |
|            | $(-)\ 1^0\ 15$ | $12^052'$ | | $-\ (-)\ 1^0\text{-}54'$ | $(-)\ 6'$ | $45'$ | $-17'$ |

Note that (-) Sign in the calculation indicates the backward or retrograde motion of the planet. The planet degrees are given for 5hr 30min in the morning and time of birth is 11h 30 m. i.e.. 6 hrs Later. So on average we find the planets movement as under.

**Mon**

$$\frac{12^0\ 52^1 \times 6\ hr}{24\ hr.} = 3^0\ 13^1$$

**Mer.**

Similarly : $\dfrac{-1^015'}{4} = (-)19'$

**Sun**  $\dfrac{2^0 2' \times 6\ hr}{48\ hr} = 15'$

**Mars** $\dfrac{1^030'}{8} = 11'$

**Ven** $\dfrac{2^0\ 31'}{8} = 17'$

**Jup** $\dfrac{12'}{8} = 1'$

**Sat** $\dfrac{3'}{8} = 0'$

**Rah.** $\dfrac{(-)1^054' \times 14.25}{31\ days} = (-)\ 52'$

**Ura** $\dfrac{(-)6' \times 14.25}{31} = (-)\ 3'$

**Nep.** $\dfrac{45' \times 14.25}{31} = 21'$

**Plu.** $\dfrac{-17' \times 14.25}{31} = (-)\ 8'$

With this the Planet degrees at the time of birth becomes as under :

| Mon          | Mer          | Sun         | Mar           | Ven          |
|--------------|--------------|-------------|---------------|--------------|
| $0^s6^023'$  | $8^s27^013'$ | $9^s0^059'$ | $10^s29^013'$ | $8^s28^038'$ |
| $3^013'$     | $(-)\ 19'$   | $15'$       | $11'$         | $17'$        |
| $0^s9^036'$  | $8^s26^054'$ | $9^s1^014'$ | $10^s29^024'$ | $8^s28^055'$ |

| Jup          | Sat         | Rah           | Ura          | Nep         | Plu         |
|--------------|-------------|---------------|--------------|-------------|-------------|
| $6^s10^035'$ | $0^s8^044'$ | $10^s20^033'$ | $5^s15^017'$ | $7^s6^027'$ | $5^s3^057'$ |
| $1'$         | $0'$        | $-52'$        | $-3'$        | $+21'$      | $-8'$       |
| $6^s10^036'$ | $0^s8^044'$ | $10^s19^041'$ | $5^s15^014'$ | $7^s6^048'$ | $5^s3^049'$ |

Ketu always being 6 signs away from Rahu comes to $4^s19^0$ 41'.

The above example shows the planet degree computation for places in India using Lahiri Ephemeris which are made for IST. There is no time rectification required for places in India. The tables are to be used as such without correcting time to local time.

If the place of birth is out of India, e.g. New York which is 10 hrs 30 min behind India - Then the time has to be converted to IST before applying these tables i.e.

15.1.1970 11.30 A.M. New York is equivalent to

15.1.1970 22.00 hrs. Delhi.

for calculations of planet degrees.

Similarly if we are using tables made for GMT or any other time zone, we must convert time in IST to that time zone and then use such tables.

This is one of the common mistake made by most astrologers. Since this mistake does not make much difference in planet degrees, it gets overlooked. However, this does change the Moon's position by few degrees and thus related computations, specially Dasa gets changed.
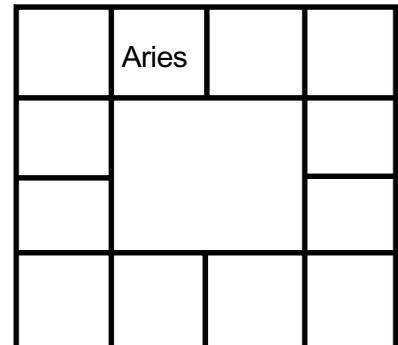
**Casting Horoscope :**

Knowing the ascendant and the planet degrees, we can cast the horoscope. The chart that we draw is representation of earth. The planets revolve around earth. For the pictorial representation of planets position around earth, we place them in the twelve divisions around earth.

The pictorial representation of planets around earth is different at different places. Mainly it is represented in four ways.
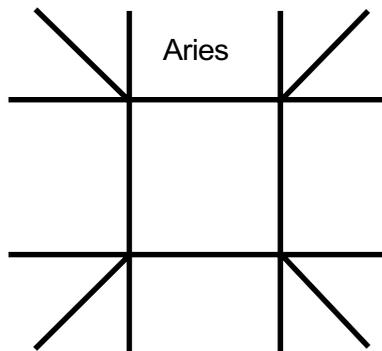
In the North Indian style ascendant is always fixed at the top and the zodiac moves anticlock wise. In the South Indian style, Zodiac is fixed in the clock wise direction; ascendant & planets move along the zodiac as the time changes. In Bengali style zodiac is again fixed but anticlock wise, ascendant & planets move along the zodiac like South Indian System .In western style the ascendant is fixed and placed on the left hand side whereas
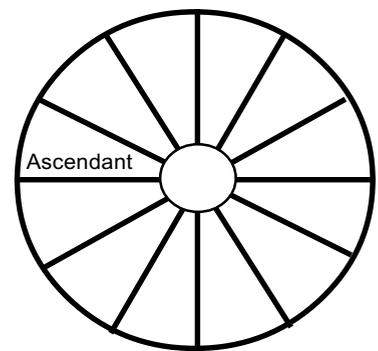


**North Indian**


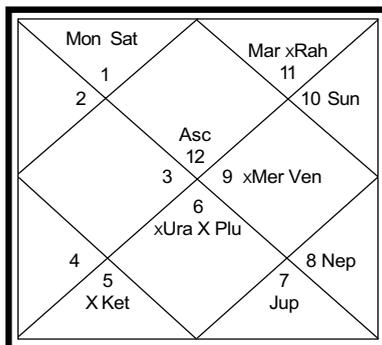
**South Indian**



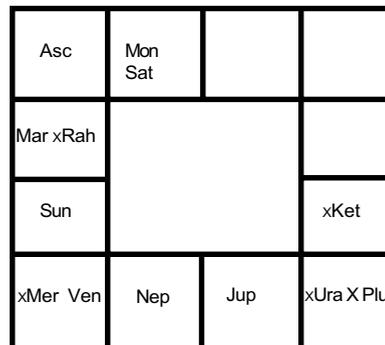**Bengali**



**Western**

Zodiac moves in the anticlock wise direction:

Again working on the example horoscope we place the ascendant & the planets in the four styles as follows . :

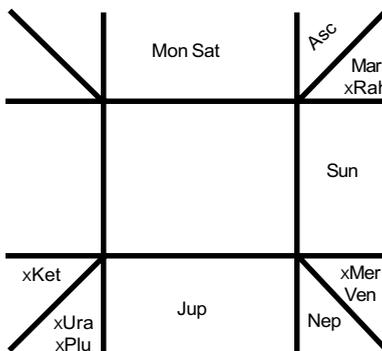| Planet | Sign | Degree |
|--------|------|--------|
| Asc | Pis | $22^05'$ |
| Sun | Cap | $1^014'$ |
| Mon | Ari | $9^036'$ |
| Mar | Aqu | $29^024'$ |
| Mer-R | Sag | $26^054'$ |
| Jup | Lib | $10^036'$ |
| Ven | Sag | $25^0155'$ |
| Sat | Ari | $8^044'$ |
| Rah-R | Aqu | $19^041'$ |
| Ket -R | Leo | $19^041'$ |
| Ura-R | Vir | $15^014'$ |
| Nep | Sco | $6^048'$ |
| Plu-R | Vir | $3^049'$ |

A cross sign has been marked with planets those are retrograde similarly other marks like combustion or shifting of house in chalit can also be placed depending upon the
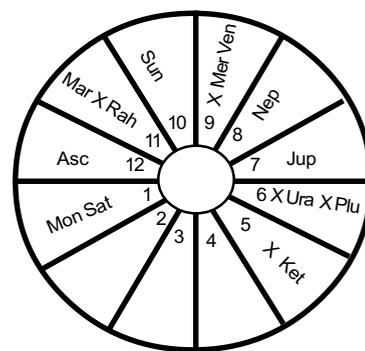


**North Indian**



**South Indian**



**Bengali**



**Western**

requirement. All the charts represent the same horoscope.

However, with practice, an astrologer gets accustomed to one kind of chart and we suggest every user to stick to the style he finds himself more comfortable.
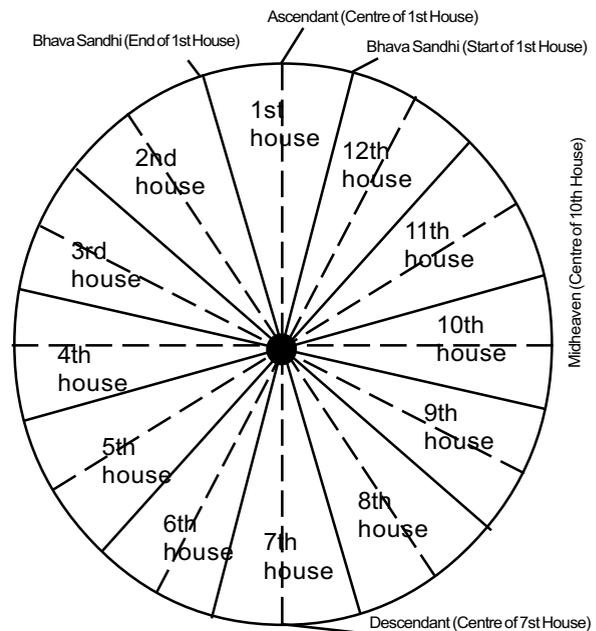
# Calculation of House of a Planet

*It is very important to consider the house division for correct predictions. The planets show their behaviour according to the house they occupy. This lesson describes the method to calculate the dimensions of the house and thus determine in which house the planet lies. It also describes the Western or K P Method of house division.*

By now we have learnt how to calculate ascendant, tenth house and planets' position. Using this data, we shall now determine the span of a house and in which house a planet is posited.

## What is a House?

The circle of the zodiac is divided into 12 divisions called houses. Each house does not necessarily extend to $30^0$ - it is either less or more. According to the Vedic astrology, ascendant is the mid point of the first house and mid heaven is the mid point of the tenth house. A house starts approximately $15^0$ before the mid point and extends about $15^0$ beyond the mid point. The point at which the first house ends and next house starts is called "Bhava Sandhi" and the house extends from first Sandhi to the next. However, the whole sign does not fall in one house. A house normally extends over two signs. Each
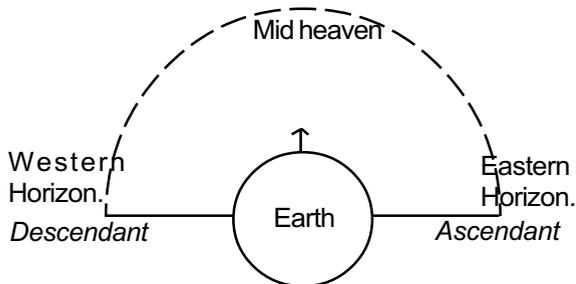


*Indian system of House Division*

planet, depending upon its degree, falls in one sign and one house. The house as visible in the Lagna chart is not the planet's actual house position.

## House division

For any date, time and place, there are some stars rising in the eastern origin and some stars setting in the western horizon. This is because of the earth's rotation around its axis. The eastern horizon is called the first house, whereas the western horizon is the



7th house. The point above the head of the person is called the mid heaven or the 10th house. In Indian system of house division the rising point, the setting point and the mid heaven point are considered the centre of the 1st house, 7th house and 10th house respectively, whereas in the western system these are considered the starting points of the houses.

## Why do we calculate house

In astrology, we describe the planet's results in a particular house. The planets are known to give results according to the house in which they live. The Lagna chart only tells us in which sign a planet is posited. It also tells us about the aspects of a planet on the other planets. However, it does not confirm the house in which a planet is situated. So we make another chart called Chalit, which gives us the information about the house in which a planet is posited.

To draw the Chalit chart, determine the starting point of the twelve houses as described and if the planet degree lies in the extent of the house, then place the planet in that house. Normally the house position derived in such a manner and the house occupied by the planet in the Lagna chart are same. But they

tend to differ if the ascendant degree is high and planet degree is low or vice versa. To represent this situation, sometimes we place the planet in Bhava Sandhi. We draw a chart with twelve houses and twelve Bhava Sandhis. The planet which is in the same house in Lagna or as per house degrees, it is placed in the house; else it is placed in the Bhava Sandhi.

In the South Indian style where each box represents a sign (not a house) we mark the houses with degrees and place the planets and houses in the order of the degree they own. If a planet is beyond the limit of the house we take it in the next house.

Different methods are in vogue to determine the extent of the house. However, only two systems of house division are common.

**1. Indian system of house division :** In this system ascendant and the mid heaven are calculated and the difference between them is divided into six equal parts. The mid heaven is the centre of 10th house. Adding the sixth part gives the ending of 10th house or starting of 11th house. Adding of sixth part again and again gives 11th house middle, 12th house beginning, 12th house middle, 1st house beginning and 1st house middle. In a similar way adding to the ascendant successively the sixth part of the difference between 4th house and the ascendant, longitudes of the 2nd and 3rd houses are obtained. The remaining houses can be calculated by adding 6 signs to each of the opposite house.

**Example :** Compute house degrees for native born on 15.01.1970 at 11.30 AM at Delhi.

From the previous lessons we have :
Ascendant : Pisces $22^0 51'$
Tenth house : Sagittarius $17^0 7'$
Subtracting 10th house degree from ascendant

We get $\qquad 352^0 51'$
$\qquad 257^0 07'$
$\qquad \underline{\quad 95^0 44'}$

Dividing by 6 we get $\quad 15^0 57' 20''$

Adding this to 10th house degree we get

| | | |
|---|---|---|
| 10th house | Sag. | 17°71 |
| 11th house beginning | Cap. | 3°4' |
| 11th house middle | Cap. | 19°2' |
| 12th house beginning | Aqu. | 4°59' |
| 12th house middle | Aqu. | 20°56' |
| 1st house beginning | Pisc. | 6°54' |
| 1st house middle | Pisc. | 22°51' |

Similarly computing other house degrees we get :

| House | House Start | House Middle |
|---|---|---|
| 1 | Pis. 6°54' | Pis. 22°51' |
| 2 | Ari. 6°54' | Ari. 20°56' |
| 3 | Tau. 4°59' | Tau 19°2' |
| 4 | Gem. 3°4' | Gem 17°7' |
| 5 | Can. 3°4' | Can 19°2' |
| 6 | Leo. 4°59' | Leo 20°56' |
| 7 | Vir. 6°54' | Vir 22°51' |
| 8 | Lib. 6°54' | Lib. 20°56' |
| 9 | Sco. 4°59' | Sco. 19°2' |
| 10 | Sag. 3°4' | Sag. 17°7' |
| 11 | Cap. 3°4' | Cap. 19°2' |
| 12 | Aqu. 4°59 | Aqu. 20°56' |

**2. Western system or placidus system of house division :** In this system, the star rising in the eastern horizon is on the ascendant. It then passes over the 12th house, the 11th house, the 10th house etc. in equal intervals of time, until it sets when it reaches the descendant. The ascendant and mid heaven are taken as start of the respective house and not the centre. The exact method of calculation of house degrees is difficult and tables are available to compute it on the basis of the sidereal time or the 10th house.

Krishnamurthy System uses the above system of house division only.

The values calculated for the model horoscope for the twelve cusps, as per placidus system, are :
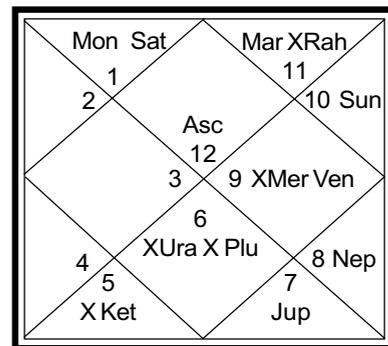
| Cusp | Sign | Cusp degree |
|---|---|---|
| 1 | Pis. | 22°51' |
| 2 | Ari. | 27°17' |
| 3 | Tau. | 23°36' |
| 4 | Gem. | 17°7' |
| 5 | Can. | 12°6' |
| 6 | Leo. | 12°55' |
| 7 | Vir. | 22°51' |
| 8 | Lib. | 27°17' |
| 9 | Sco. | 23°36' |
| 10 | Sag. | 17°7' |
| 11 | Cap. | 12°6' |
| 12 | Aqu. | 12°55' |

The model horoscope planet degrees are as follows :

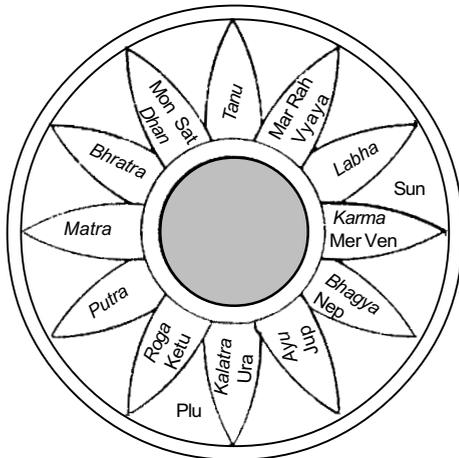| Planet | Sign | Degree |
|---|---|---|
| Sun | Cap | 1°14' |
| Mon | Ari | 9°36' |
| Mar | Aqu | 29°24' |
| Mer-R | Sag | 26°54' |
| Jup | Lib | 10°36' |
| Ven | Sag | 25°15' |
| Sat | Ari | 8°44' |
| Rah-R | Aqu | 19°41' |
| Ket -R | Leo | 19°41' |
| Ura-R | Vir | 15°14' |
| Nep | Sco | 6°48' |
| Plu-R | Vir | 3°49' |

The Lagna chart is as below :



The planets Sun and Pluto to move to previous house as per Indian system of house division, because Sun is at Cap 1°14' and the 11th house starts from Cap 3°5', hence leaving Sun in the 10th house. Similarly Pluto is at Virgo 3°49', 7th house starts from Virgo

6⁰54' thus leaving Pluto in the 6th house. Hence Chalit chart is as shown.



| | Mon Sat *Dhan* | | Mar Rah *Vyaya* | |
| *Bhratra* | | *Tanu* | | *Labha* |
| | *Matra* | | Sun *Karma* Mer Ven | |
| *Putra* | | *Kalatra* Ura | | *Bhagya* Nep |
| | *Roga* Ketu Plu | | *Ayu* Jup | |

**Chalit Chart**

It is also represented as.



**Chalit Chakra**

In the Chalit Chakra, it is clear from the placement that Sun and Pluto to have moved out from their house to the previous house.

The cusp chart as per the western system is shown as follows :



| I 22⁰51' | Sat 8⁰44' Mon 9⁰36' II 27⁰17' | III 23⁰36' | IV 17⁰7' |
| XII 12⁰55' Mar 29⁰24' Rah 19⁰41' | | | V 12⁰6' |
| XI 12⁰6' Sun 1⁰14' | **Cusp Chart** | | VI 12⁰55' Ket 19⁰41' |
| Mer 26⁰54' Ven 25⁰15' X 17⁰7' | IX 23⁰36' Nep 6⁰48' | VIII 27⁰17' Jup 10⁰36' | Plu 3⁰49' Ura 15⁰14' VII 22⁰51' |

Here Sat and Mon move to the 1st Cusp, Plu and Uranus in 6th cusp Jupiter in 7th, Neptune in 8th and Sun in 10th, rest in the same cusp as in Lagna.

If we do a comparative study we find the house of the planets in the given horoscope in Lagna, Chalit and cuspal charts as follows:

| Planet | Lagna | Chalit (Ind.Sys.) | Cusp (Wes. Sys.) |
|---|---|---|---|
| Sun | 11 | 10 | 10 |
| Mon | 2 | 2 | 1 |
| Mar | 12 | 12 | 12 |
| Mer | 10 | 10 | 10 |
| Jup | 8 | 8 | 7 |
| Ven | 10 | 10 | 10 |
| Sat | 2 | 2 | 1 |
| Rah | 12 | 12 | 12 |
| Ket | 6 | 6 | 6 |
| Ura | 7 | 7 | 6 |
| Nep | 9 | 9 | 8 |
| Plu | 7 | 6 | 6 |

From the table we notice that many planets change their cuspal position compared to Lagna chart whereas only a few change in the Chalit chart. This is because in the cuspal chart ascendant degree is taken as the start of the house and not the middle. So the probability of change of house is increased. Secondly, in cusp more planets move to the previous house, again because the start of house in cusp is higher than in chalit.

## Important

It is very important to consider the house division for correct predictions. The planets show their behaviour according to the house they occupy. The behaviour is enhanced depending upon its strength, which is determined depending upon the sign or Nakshatra it occupies. Hence use Lagna chart only to know the sign in which a planet is posited and use Chalit chart to confirm the house position of the planet. Do not take the aspects as per the house or Lagna chart. Look at the degrees to determine if there is any aspect between two planets.

# Know Your Dasha

*In Astrology it is understood that at any point of time nature is governed by a planet and the position of that planet in the horoscope determines how the native will feel or behave. This chapter details the calculation of the planet acting at any point of time and the period for which the planet rules.*

To predict the past present and future, saints evolved the system of "Dasha" or period. Any planet influences someone more than others at some point of time, than the other planet takes over and so on.

Many Dasha systems have been described as many as 42. But the most common and popular Dasha system is "Vimshottari". As the name suggests, the complete cycle of Dasha is of 120 years. All the nine planets take part in this system. The periods and the constellation assigned to them is as follows:

### Table -1

| Planet | Constellation | Year |
|--------|---------------|------|
| Sun | Krittika, U. Phalguni, Uttar Ashada | 6 |
| Moon | Rohini, Hasta, Shravana | 10 |
| Mars | Mrigshira, Chitra, Dhanistha | 7 |
| Rahu | Ardra, Swati, Satbhisha | 18 |
| Jupiter | Punarvasu, Vishakha, P. Bhadrapada | 16 |
| Saturn | Pushya, Anuradha, U. Bhadrapada | 19 |
| Mercury | Ashlesha, Jyestha, Revati | 17 |
| Ketu | Magha, Mool, Ashwini | 7 |
| Venus | P. Phalguni, Purva Ashada, Bharani | 20 |

At the time of birth of the native, the constellation occupied by the Moon determines which planet will rule at that time. The fraction of the constellation balance at that time determines the "balance of Dasha", that is the time period for which the planet will rule after birth. After the end of the ruling period of that planet, other planets rule one by one in the cyclic order as listed in table 1.

Let us understand it by an example. In the model horoscope in the previous issue, we have date of birth 15-1-1970, time 4.30 A.M. and place of birth Delhi. On this date and time Moon's degree is Aries $9^0 36^1$, that is, it is in Ashwini Nakshatra. Ashwini starts at $0^0$ Aries and extends upto $13^0 20^1$ Of Aries. This way Moon has crossed $9^0 36^1$ of Aries and has $13^0 20^1 - 9^0 36^1 = 3^0 44^1$ still to go. From table-I we find Ashwini is represented by Ketu having a period of 7 years. Hence the native was born when ketu was ruling and it had a balance of

$3^0 44^1$ x 7 years   = 1.96 years

$13^0 20^1$       = 1 year 16 months 16 days

Adding this period to date of birth, we get

| | | | |
|---|---|---|---|
| 15 | - 1 | - | 1970 |
| 16 | - 11 | - | 1 |
| 1 | - 1 | - | 1972 |

ie. the native experienced influence of Ketu for 1 year 16 months 16 days from birth till 1 Jan. 1972. Thereafter, according to table 1, was under the influence of Venus for 20 years upto 1-1-1992; followed by Sun for 6 years upto 1-1-1998, then by Moon for 10 years 1-1-2008 and so on.

Note that the period of 1 year 11 months 16 days is called the balance of 7 years of Ketu 20 years of Venus etc. are called Dasha periods.

Thus we compute the Dasha periods for nature as follows :

Balance of Dasha : 1 year 11 months 16 days, of Ketu.

| | | | | |
|---|---|---|---|---|
| D.O.B. | 15 | - 1 | - | 1970 |
| Balance of Ketu | 16 | - 11 | - | 1 |
| Venus | 1 | - 1 | - 1972 |
| | | | | 20 |
| Sun | 1 | - 1 | - 1992 |
| | | | | 6 |
| Moon | 1 | - 1 | - 1998 |
| | | | | 10 |
| Mars | 1 | - 1 | - 2008 |
| | | | | 7 |

| | | | | |
|---|---|---|---|---|
| Rahu | 1 | - 1 | - | 2015 |
| | | | | 18 |
| Jupiter | 1 | - 1 | - | 2033 |
| | | | | 16 |
| Saturn | 1 | - 1 | - | 2049 |
| | | | | 19 |
| Memory | 1 | - 1 | - | 2068 |
| | | | | 17 |
| | 1 | - 1 | - | 2085 |

No one will be satisfied if we tell him how he will go through his next 10 or 20 years in nut shell. He would want to know the effects of events in detail. So the above Dashas are further subdivided into sub periods or Antar Dashas. During the planet's Dasha, Antar Dasha starts from planet itself, followed by the same sequence as given in table I. The period is also subdivided into the same fractions as assigned in table No. 1. In brief Sun rules for 6 years. Sun will have its own sub period first for 6x6/120 = 36/120 years

$$= \frac{36 \times 12}{120} \text{ months}$$

= 3 months 18 days

After this will come Moon's sub period. Moon represents 10 years out of total span of 120 years of Vimshottari dasa. So it will rule for 1/12th part of the total period of 6 years of Sun .

Thus Moon will have sub period of

6 x 10/120 = ½ = 6 months

In a similar manner we can compute sub periods of all the planets while major influence of other planet is there.

# Table 2 : Vimshottari Sub Periods

## Sub Periods of Sun Dasha

| Planet | Sun | Moon | Mars | Rahu | Jupiter | Saturn | Mer | Ketu | Ven |
|--------|-----|------|------|------|---------|--------|-----|------|-----|
| Year | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Month | 3 | 6 | 4 | 10 | 9 | 11 | 10 | 4 | 0 |
| Day | 18 | 0 | 6 | 24 | 18 | 12 | 6 | 6 | 0 |

## Sub Periods of Moon Dasha

| Planet | Moon | Mars | Rahu | Jupiter | Saturn | Mer | Ketu | Ven | Sun |
|--------|------|------|------|---------|--------|-----|------|-----|-----|
| Year | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| Month | 10 | 7 | 6 | 4 | 7 | 5 | 7 | 8 | 6 |
| Day | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

## Sub Periods of Mars Dasha

| Planet | Mars | Rahu | Jupiter | Saturn | Mer | Ketu | Ven | Sun | Moon |
|--------|------|------|---------|--------|-----|------|-----|-----|------|
| Year | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Month | 4 | 0 | 11 | 1 | 11 | 4 | 2 | 4 | 7 |
| Day | 27 | 18 | 6 | 9 | 27 | 27 | 0 | 6 | 0 |

## Sub Periods of Rahu Dasha

| Planet | Rahu | Jupiter | Saturn | Mer | Ketu | Ven | Sun | Moon | Mars |
|--------|------|---------|--------|-----|------|-----|-----|------|------|
| Year | 2 | 2 | 2 | 2 | 1 | 3 | 0 | 1 | 1 |
| Month | 8 | 4 | 10 | 6 | 0 | 0 | 10 | 6 | 0 |
| Day | 12 | 24 | 6 | 18 | 18 | 0 | 24 | 0 | 18 |

## Sub Periods of Jupiter Dasha

| Planet | Jupiter | Saturn | Mer | Ketu | Ven | Sun | Moon | Mars | Rahu |
|--------|---------|--------|-----|------|-----|-----|------|------|------|
| Year | 2 | 2 | 2 | 0 | 2 | 0 | 1 | 0 | 2 |
| Month | 1 | 6 | 3 | 11 | 8 | 9 | 4 | 11 | 4 |
| Day | 18 | 12 | 6 | 6 | 0 | 18 | 0 | 6 | 24 |

## Sub Periods of Saturn Dasha

| Planet | Saturn | Mer | Ketu | Ven | Sun | Moon | Mars | Rahu | Jupiter |
|--------|--------|-----|------|-----|-----|------|------|------|---------|
| Year | 3 | 2 | 1 | 3 | 0 | 1 | 1 | 2 | 2 |
| Month | 0 | 8 | 1 | 2 | 11 | 7 | 1 | 10 | 6 |
| Day | 3 | 9 | 9 | 0 | 12 | 0 | 9 | 6 | 12 |

## Sub Periods of Mercury Dasha

| Planet | Mer | Ketu | Ven | Sun | Moon | Mars | Rahu | Jupiter | Saturn |
|--------|-----|------|-----|-----|------|------|------|---------|--------|
| Year | 2 | 0 | 2 | 0 | 1 | 0 | 2 | 2 | 2 |
| Month | 4 | 11 | 10 | 10 | 5 | 11 | 6 | 3 | 8 |
| Day | 27 | 27 | 0 | 6 | 0 | 27 | 18 | 6 | 9 |

## Sub Periods of Ketu Dasha

| Planet | Ketu | Ven | Sun | Moon | Mars | Rahu | Jupiter | Saturn | Mer |
|--------|------|-----|-----|------|------|------|---------|--------|-----|
| Year   | 0    | 1   | 0   | 0    | 0    | 1    | 0       | 1      | 0   |
| Month  | 4    | 2   | 4   | 7    | 4    | 0    | 11      | 1      | 11  |
| Day    | 27   | 0   | 6   | 0    | 27   | 18   | 6       | 9      | 27  |

## Sub Periods of Venus Dasha

| Planet | Ven | Sun | Moon | Mars | Rahu | Jupiter | Saturn | Mer | Ketu |
|--------|-----|-----|------|------|------|---------|--------|-----|------|
| Year   | 3   | 1   | 1    | 1    | 3    | 2       | 3      | 2   | 1    |
| Month  | 4   | 0   | 8    | 2    | 0    | 8       | 2      | 10  | 2    |
| Day    | 0   | 0   | 0    | 0    | 0    | 0       | 0      | 0   | 0    |

To compute the table 2, the basic formula is :

Sub period of a planet = (period of major planet x period of sub planet/120 years.)

Since 1 year contains 12 months, the above formula reduces to

Sub period = (period of major planet x period of sub planet/10) in months.

We multiply the two periods and put a decimal after one digit from the right. The whole number so obtained gives in the months for the Antar Dasha and the traditional part multiplied by 3 gives the number of days for of the sub period.

Sun's sub period in Maha Dasha of Sun will be 6 x 6 = 36

putting decimal It is 3.6 months.

By multiplying decimal part by 3 we get

3.6 x 3 = 3 months 18 days

**Sub-Sub Periods :** For further refining the results, we can divide the sub periods into sub-sub periods (Pratyantar Dasha) and sub-sub periods (Sookshma Dasha) or even further adopting the same procedure as for sub period. The formula for sub-sub period will be :

Sub-sub period (Pratyantar Dasha) = (Period of major planet x period of sub planet x period of sub-sub planet) / (120x120) years

= (Period of major planet x period of sub planet x period of sub-sub planet) / 1200 months

Sub-sub-sub period (Sookshma Dasha) = (Period of major planet x period of sub planet x period of sub-sub planet x period of sub-sub-sub planet)/ (120x120x120) years.

= (Period of major planet x period of sub planet x period of sub-sub planet x period of sub-sub-sub planet)/

(1 2 0 0 x 1 2 0) months.

= (Period of major planet x period of sub planet x period of sub-sub planet x period of sub-sub-sub planet)/ 40 days

The smallest sub-sub-sub period is of Sun-Sun-Sun -Sun, which is

$$= \frac{6 \times 6 \times 6 \times 6}{400} = \frac{1296}{400} \quad 3.24 \text{ days}$$

If we go one step deep we get Prana Dasha of

Sun-Sun-Sun-Sun-Sun $= \dfrac{3.24 \times 6}{120}$ days

= .162 days

= 4 hours. only

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*Note : While computing Dasha dates we add days to days, months to months and years to years. If days are more than 30, we take a carry over of 1 to months and similarly if months are more than 12 we take a carry over of 1 to year. Here we do not take into account the actual number. of days in a month.*

*It seems that we are taking a year as 360 days only - 12 months x 30 days per month. However, this is a wrong understanding. Actually, we are dividing the year into months by multiplying by 12 and further converting into days by multiplying of 30. We add up in the same manner. So it is not correct to add by taking actual days of months into consideration. This simplicity of calculation takes the year as 365.25 days. The actual dates computed by rigorous calculations by taking actual days of the months and by this simple method differ only by a few days; accurate practically for all astrological purposes.*

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Though mathematically it seems to be viable to go even further down the step, however these, calculation is highly susceptible to errors because of inherent errors in time of birth and we do not suggest at all to go beyond 5 levels. Even 5th level is normally inaccurate enough to make it absurd. 1 minute of time causes 30" = 1/2 of error in Moon. This shifts the Dasha of Sun by

$$\frac{6 \text{ years} \times 365 \text{ days} \times 24 \text{ hours}}{13^0 \, 20^1 \times 60} \quad \frac{1}{2}$$

= 33 hours

Whereas the entire Pran Dasha of Sun is only x 4 hours, the difference of 33 hours further gets amplified to 110 hours, that is 5 days if the Moon is in the constellation of Venus at the time of birth.

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*For a thought : There are many inherent problems with Dasha calculation. Dasha changes very fast with the absolute value of Moon's position. It does not depend upon any other value and doubt in the value of Ayanamsa makes it almost useless. Secondly, there are so many Dasha systems and it is not known which Dasha should be applied when. Thirdly, the periods assigned to different planets seem to be quite adhoc and no reasoning is available anywhere. This makes the Dasha system very doubtful and the transit of planets seems to give a much better method of timing an event. Yet, it is difficult to deny the system of Dasha. Often it seems to be giving results with undoubted accuracy.*

# The Art of Prediction

> *By now we have learnt how to cast horoscope. Even the best casting is useless if we can not use it for prediction. In this lesson we describe how to start predicting a horoscope.*

There are three basic parameters in a horoscope : 1. planet 2. house and 3. Rashi (sign). Twelve Rashis are spread over twelve houses; on an average one Rashi occupies one house. However, Rashi is exactly $30^0$, whereas a house may vary in size and the starting of house may fall at any Rashi at any point. It is equivalent to placing one circle over the other, both having same dimensions, but any one point on circumference of one circle can be made to align with any point on circumference of the other circle. The rest of the circle gets automatically placed. Similarly in a horoscope we determine the Lagna (first house position) and place the Rashi circle over the rest of the twelve houses.

After fixing the signs over houses we place the planets in the various houses. Since there are only nine planets and some planets combine together in a house, some houses are left empty. The planets possess some intrinsic properties and when mixed with the colour of sign and house they occupy, they change their colour, leading to different behaviour, at different time of births. Study of this change in behaviour of the planets is basic astrology.

There are three basic reasons why planets behave differently, like

1.  the house in which it is placed.

2   sign in which it is placed

3.  other planets associated with aspecting it.

Once the planet's behaviour is ascertained because of its placement, the results are changed with time, depending upon Dasha operating at that time. Dasha tells us which planet is effective to give results at what time.

To understand what the horoscope has in store for a native, let us study how the planets have co-relation with life. We give below the basic nature of planets and houses and also what they signify.

## Signification of Planets

**Sun :** Sun is the king, soul, father, will power, life, glory, health, sovereignty and clothes. Its colour is pink or red. It has anger but momentary. Its element is gold and gem ruby. East is represented by Sun.

**Moon :** It is a cold, calm and quiet planet and represents mind, mother, motherland, money, eyes, lungs, liquids and nurses. Its colour is white, direction north-east, element is silver and gem pearl.

**Mars :** Mars is a soldier and represents land, boldness,

younger brothers and sisters, chemists, fire, anger, surgery. It has anger which stays for a long time. Its element is copper and gem coral. Its colour is red and direction south.

**Mercury :** Mercury is talkative and tactful, but not harmful. It is a good trader, mathematician, editor and publisher. It has excellent argumentative and analytical power. It represents memory, throat, arms, maternal uncles and short journeys. Its element is bronze and gem is emerald. Colour is green and direction north.

**Jupiter :** It is the heaviest and the most benefic planet and represents Guru. It is very politie and religious and represents education, school, temples, oils, fats, sugar, long journeys, judges, priests and scientists. It's colour is yellow, metal platinum, gem yellow saphire and direction north - east.

**Venus :** Venus is a planet of sex, love and beauty. It is a poet, dancer, singer, wife, actor or driver. It represents luxury, vehicles, kidney, silver, diamond, south-east direction and white colour.

**Saturn :** It is the most malefic planet and very selfish and cunning. It represents death, politics, gas, aeroplanes poverty, servants, electronics and legs. Its colour is blue, element iron, gem blue saphire and direction is west.

**Rahu :** Rahu is an expansionist planet and represents smoke, mental disturbance, loss, theft, death of a family member. It also represents sudden gain through lottery, gambling or speculation. Its colour is black, element mixed metal and gem gomed.

**Ketu :** It has tail but no head and represents broken relationships, changing events, accidents. It represents electronics, brown colour. Gem is cat's eye.

## Signification of House

**1st house :** 1st house or so called Lagna is the most important of all the houses and determines the longevity, health, character and nature of the native. It specifically signifies the head.

**2nd house :** This house is also called 'Dhan' house and deals with money matters, one's deposits, income tax, customs, computers. It represents one's family and face, speech, food habits and left eye.

**3rd house :** Called 'Bhratra' house, this is the house of brothers and sisters, signifies courage, boldness, short journeys and throat. One is made singer by this house only.

**4th house :** 4th house represents mother, motherland, house, mental peace, vehicles and education. It is also called 'Matra Bhava'. It represents chest, particularly lungs.

**5th house :** This house is also called as 'Putra Bhava' and represents children, intelligence, speculation and love affairs. It indicates stomach and gives professions of teacher, principal and gynaecologist.

**6th house :** This house is called 'Ripu Bhava', that is house of enemies. It governs digestive system, quarrels court and jobs done by hand, like typing.

**7th house :** Also called 'Kalatra Bhava', it represents wife, business partner, marriage, business or employment in a private firm. It governs sexual organs and diseases thereof.

**8th house:** Called 'Ayusthan' it represents death, reasons of death, underground wealth, historical things and monuments. It represents accidents, parental property, life insurance, mining and anus.

**9th house :** Called house of luck and religion, it represents pilgrimage, higher studies like doctorate, long journeys, languages like Sanskrit, Roman and Hebrew. It also indicates grand parents and mental aptitude towards Yoga and Sadhana. It represents hips.

**10th house :** This house is called 'Karma Sthana' and represents the acts one does. It signifies father, government, politics, management. It governs knees and defines the profession of a person.

| Planet | Ownership | Exaltation | Debilitation | Aspects | Nature | Sex |
|---|---|---|---|---|---|---|
| Sun | Leo | Aries | Libra | 7 | Malefic | Male |
| Moon | Cancer | Taurus | Scorpio | 7 | Benefic | Female |
| Mars | Aries/Scorpio | Capricorn | Cancer | 4,7,10 | Malefic | Male |
| Mercury | Gemini/Virgo | Virgo | Pisces | 7 | Benefic | Female |
| Jupiter | Sagi/Pisces | Cancer | Capricorn | 5,7,9 | Benefic | Male |
| Venus | Taurus/Libra | Pisces | Virgo | 7 | Benefic | Female |
| Satrun | Capri/Aqua. | Libra. | Aries | 3,7,10 | Malefic | Impotant |
| Rahu | - | Taurus | Scorpio | - | Malefic | - |
| Ketu | - | Scorpio | Taurus | - | Malefic | - |

### 11th house :

11th house is house of gains or 'Labha' and represents sources of income, elder brothers and sisters, friend's circle and legs.

**12 th house :** The house of loss and expenses is called 'Vyaya Sthana' and covers bad habits, hospital, jail, long journeys and quests. It also indicates export and import, also feet.

## Strength of Planets

The planets gain strength at certain points and behave differently in different signs and houses. They show different relationships with different planets.

Planets own certain signs. Sun and Moon own one sign and other planets own two signs each. Rahu - Ketu, being pseudo planets, do not own any sign. Planets get exalted or become powerful at certain points and get debilitated exactly $180^0$ away. Moon, Mercury, Jupiter and Venus are benefic by nature and others are malefic as shown in the table below .

For any ascendant, some planets become Yogakaraka or Maraka, depending upon the house they own. This is one of the most important factor in prediction. A Yogakaraka planet shows good results in its Dasha or Antar Dasha. Stones are suggested only for a Yogakaraka planet. If a planet is benefic only then it is good to make it strong ; else it will harm the native. Planets which are Yogakaraka for each ascendant is given in the table below.

***Benefics -*** Lords of 1,5,9
***Yogakaraka*** and lords of 4, 7, 10, if natural malefic.

***Malefics -*** Lords of 3,6,
***Maraka*** 11and lords of 4,7,10, if natural benefic

***Neutral -*** Lord of 2,8, 12.

In the next lesson we shall study how to use these data for predictions.

| Ascendant | Yogakaraka (Benefics) | Maraka (Malefics) | Neutral |
|---|---|---|---|
| Aries | Sun, Mar, Jup | Mer, Mon, Ven,Sat | |
| Taurus | Sun, Mar, Mer, Sat | Mon Jup. | Ven |
| Gemini | Ven | Mar, Sun, Sat, Jup | Mon, Mer |
| Cancer | Mon, Mar, Jup | Mer, Ven | Sun, Sat |
| Leo | Sun, Mar | Mer, Ven | Jup. Mon, Sat |
| Virgo | Ven | Jup, Moon, Mar | Sat, Sun, Mer |
| Libra | Mar, Mer, Ven Sat | Mon Jup, Sun | - |
| Scorpio | Sun, Mon, Jup | Mer Ven | Sat, Mar |
| Sagittarious | Sun, Mar | Mer, Ven, Sat | Jup, Moon |
| Capricorn | Mer, Sat, Ven | Mer Mon, Jup | Sun |
| Aquarious | Ven, Sun Sat, Mar | Jup, Moon | Mer |
| Pisces | Mon, Mar | Sun Mer, Sat, Ven | Jup. |

# Art of Prediction -2

> ***To predict horoscope, consider the houses one by one and see the planets placed in the house, the planets aspecting it, the placement of its lord and the planets aspecting it, or associated with the lord. Amalgamation of the effects of these units give, us the complete prediction about the horoscope.***

To explain the method of prediction, I start with the example of my own horoscope :

DOB : 13/12/1956
TOB : 23:10
POB : Delhi

Lagna is Leo. So the native can be identified by a lion. The lion is bold by nature and has confidence to win over anyone. It is normally passive and becomes active only when required. It does not harm until disturbed. It normally has a robust health. It is aspected by Saturn from 4th house, which makes the native hard working. The lord Sun is placed in 4th house in Scorpio, a friend's house, but with Saturn and Rahu, which are its enemies. It gives native health problems, like blood pressure.

Now consider 2nd house. Dhanasthan or house of wealth contains Jupiter, the Karaka for this house. It indicates native will acquire wealth by own earnings. Jupiter in 2nd house also gives soft and impressive voice. But there is aspect of Mars on 2nd house. So sometimes words are lost while speaking. This aspect also gives a tendency that people misunderstand or misinterpret his words. The lord Mercury is placed in 5th house, so the native is a professional, who earns by his knowledge. Look at 3rd house. Venus is there in 3rd house - its own house. Mars is having 8th aspect on 3rd house. Also Moon has 7th aspect on this house. A benefic planet in 3rd house gives younger sister and good relationship with co-borns. Mars' aspect disturbs writing power and Moon's aspect gives good throat and voice. It also gives lot of short journeys in life.

4th house, the house of comforts, has three malefic planets - Rahu, Saturn and Sun, making the native restless at home. This situation is further aggravated by the presence of 4th lord Mars in 8th house. So many planets in 4th house ensures comforts at home, but the malefics indicate one does not pay attention to home. It also indicates bad health of mother. Saturn and Rahu indicate good education for the native.

5th house contains Mercury in the house owned by Jupiter. It is also in exchange Yoga with Jupiter from 2nd house. This gives very good calculation power. It also ensures son to the native. This also gives knowledge of astrology and computers to the native.

6th house is owned by Saturn and aspected by Jupiter from 2nd house and Saturn from 4th

house. 3rd aspect of Saturn gives success over enemies and Jupiter ensures native has to do some work by hand, like typing on computer.

7th house is not aspected by any planet and its lord Saturn is placed in 4th house, which is 10th from 7th house. This gives native a working wife. Saturn gives a wife with fair complexion belonging to an orthodox family. It also indicates business partnerships that will not be smooth.

8th house, the house of longevity, contains Mars in the house of Jupiter, aspected by Jupiter itself. Presence of Mars indicates many accidents in one's life, but Jupiter saves from all such accidents. He will also be benefitted from insurance. He will get property from his parents. Mars in 8th gives medium longevity, but Jupiter stretches it.

9th house contains Moon, aspected by Venus, indicating good luck for the native. The benefic planets in the house of religion also make the native religious. He also undertakes long travel because of these two planets.

The Karmasthana 10th house is occupied by Ketu and has aspect of Jupiter from 2nd house and Sun and Saturn from 4th house. Jupiter's aspect makes the native a businessman, Ketu brings him into computers, Saturn associates him with industry and Sun ensures that he is at the top of affairs in his business environment. 10th lord Venus in 3rd house, the house of courage, further ensures business and indicates courageous steps in his line of action.

11th house, the house of gains, has aspect of Mercury and Mars. Since the house is ruled by Mercury and its lord is in 5th house aspecting it, the native earns by intellect, but aspect of Mars from 8th house reduces profits into losses too. So the over all success is not at par with the work done by the native.

12th house is owned by Moon and since its lord is placed in 9th house, it indicates that the native gains from far off land. Export and import will give him gains. It also ensures many foreign tours for the native.

This way we see that to analyse the horoscope we interpret the house one by one, or interpret the house whose subject matter we want to know. First we see what are the planets posited in that house. Then see the aspects over these planets, or this house and then see w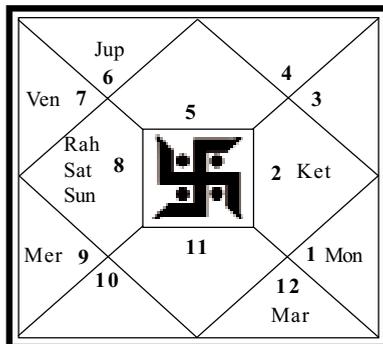here the lord of the concerned house is placed and which are the planets aspecting it. Proper amalgamation of the properties and a little practice of linking things together gives you the best of prediction.

The special effects in the horoscope can be seen by looking at the various Yogas formed in the horoscope. The powerful Yogas take away the attention from other aspects and they become more effective in life. For example, in this horoscope Jupiter and Mercury are in exchange Yoga, that is, Jupiter is in the house of Mercury and Mercury in the house of Jupiter. This exchange gives the native a strong liking for calculation and astrology, since the exchange is between 2nd and 5th houses. It increases the intelligence level and gives him a professional career. Similarly Moon is pressed between Mars and Ketu from both the sides, forming Durdhura Yoga, which gives native wealth, fame and power.

Absence of any strong Dhana Yoga makes him a man of normal means.

Individually the Yogas sometimes reverse the effects of the planets completely. More and more knowledge of Yogas makes a man better and better astrologer.

In the next lesson we shall see how to time the events in ones life by using Dasha and transits.

# Art of Prediction-3

*To time the events in ones life, we use Dasha and transits. Dasha tells which planet is affecting the native at a particular time, whereas transit tells us which natal planet is vibrating because of the transiting planet. A combined result of Dasha and transit gives us the behaviour of the native at a particular time.*
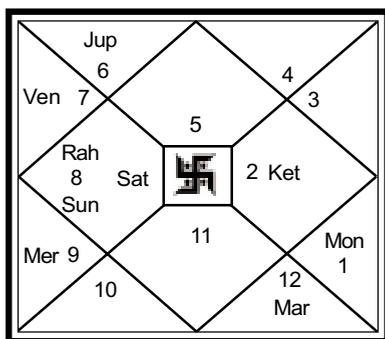
We continue with the example cited in the last article : Date of Birth 13 :12: 1956, Time of Birth 23 :10 at Delhi. Lagna Kundli is as given .

The native has the following Dashas :

Balance of Dasha : Ketu 3 years 11 months 2 days

|        |                |     **Age** |
|--------|----------------|-------------|
| Ketu   | upto 15:11:1960 | 4 yrs. |
| Venus  | upto 15:11:1980 | 24 " |
| Sun    | upto 15:11:1986 | 30 " |
| Moon   | upto 15 :11:1996 | 40 " |
| Mars   | upto 15:11:2003 | 47 " |
| Rahu   | upto 15:11:2018 | 65 " |
| Jup.   | upto 15:11:2034 | 81 " |

Dasha in the very childhood basically affects health of the native and parents. During teenage it affects education, in youth it affects mind, job and family and in old age it again affects health and the children or the caretaker.

As we see the native went through Dasha of Ketu upto age of 4. Ketu is in the house of Venus in Kendra in the house representing father. Hence it gave good health to native and progress to father.

After the age of 4 upto age of 24 native went through Dasha of Venus. This was the age when studies were important. Venus is in its own house in the house of writing. It also represents artistic nature. The house of education, that is 4th house, has Sun, Saturn and Rahu placed there. Rahu and Saturn have the nature of making the native introvert and thoughtful. Saturn gives interest in science.

Mercury in 5th makes native calculative. So the period of Venus gave good education while making the interest of the native in science and mathematics.

From the age of 24 to the age of 30 native underwent Dasha of Sun for 6 years. Sun in this horoscope is Lagnesh in 4th house. This gave him start of his own business and gave a lot of name and fame at the young age of 24 to 30. Moon which is lord of 12th is sitting in the house of luck. It brought forward a great luck. He became quite successful in

his business and started an industry.

Moon is followed by Mars from the age of 40 to 47. Though Mars is Yogakaraka but is placed in 8th house. It gave a big set back and the industry was closed down.

Rahu, which is in debilitation but in Kendra in 4th house is expected to give good results; somewhat similar to the period of Sun. Rahu can give health problem.

Jupiter being 5th lord in 2nd house its Dasha will start only at the age of 62, but it may be best period of the life of the native. He may lead a serene life in this Dasha.

**Transit :** To study the transit, let us consider only Saturn, Jupiter and Rahu. Other planets move fast. Sun, Mercury and Venus rotate once every year. Mars takes two years to complete one cycle and Moon takes only a month. Ketu is always opposite to Rahu. So for a full life description of the transit, only three planets are sufficient. Saturn takes 30 years to complete one cycle, Rahu 18 years and Jupiter 12 years.

Similarly we consider the effect of these slow moving planets over these planets only. Transit gives significant results with respect to Moon. When Saturn crosses over Moon, we call it Sade Sati. Sade Sati normally gives lots of tension invariably. It gives progress or loss,

| Age | Transit of | Over | House |
|-----|-----------|------|-------|
| 2 | Jup | Rah/Sat | 4th- change of house |
| 12 | Jup/Sat | Jup/Moon | 2nd- good education |
| 14 | Jup | Rah/Sat | 4th- education, change of house |
| 18 | Rah | Rah/Sat | 4th- education (excellent result) |
| 24 | Jup | Jup | 2nd- scholarship |
| 26 | Jup | Rah/Sat | over 4th lord- marriage and change of house |
| 30 | Sat | Sat/Rah | over 7th lord- break in partnership |
| 36 | Jup | Jup | 2nd & 4th steep increase in income |
|  | Rah | Rah/Sat | and recognition in field of astrology |
| 38 | Jup | Rah/Sat | 4th- setting up industry |
| 42 | Sat | Mon | 9th-industry closed |
| 48 | Jup | Jup | 2nd-good for income |
| 50 | Jup | Rah/Sat | 4th-change of house |
| 54 | Rah | Rah/Sat | 4th-fame |
| 60 | Sat | Sat/Rah | 4th- ⎤ excellent for professional |
| 60 | Jup | Jup | 2nd- ⎟ success and a big break in |
| 62 | Jup | Rahu/Sat | 4th- ⎦ business association |

depending upon the sign in which Moon is. Similarly Saturn crossing over 8th house from Moon also gives tension and losses.

In this case Jupiter crossed over Rahu/Saturn at the age of 2, 14, 26, 38, 50, 62 etc. Saturn crossed over Jupiter at 12, 24, 36, 48, 60 and over Rahu/Saturn at the age of 30 and 60. Rahu crossed over Rahu/Sat at the age of 18, 36, 54, So if we put this agewise it is as per the table.

If we look at the transits we invariably find Jupiter transiting over 4th house over Rahu and Saturn, has given a change of residence or has given a new property. Since Saturn is 7th lord, transit of Jupiter over 7th house gave marriage and Saturn over Rahu or Saturn gave break in business partnership.
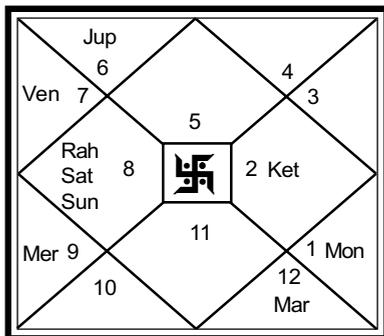
Native went through Sade Sati of Saturn in 1968 and then in 1996. During the first one it gave a drop in academic results and in 2nd it gave loss in business. Saturn crossed over 8th house from Moon at the age of 30 in 1985-1988, when it gave break in partnership twice and brought the income to the rock bottom level. It also gave bad health to mother and loss of life of one of the close relatives.

In a nut shell transits seem to be showing their results very effectively; even more than Dasha. Major transits bring major changes in the life of the native. Transit of Saturn from Moon is very important. Jupiter and Rahu give equal results from Lagna, as well as Moon. If we superimpose the result of Dasha over that of the transit we can predict better.

# Art of Prediction-4

*We have seen how Dasha and transit determine the period of the happening. In this lesson, we shall see how different Yogas affect the life of the native.*

We continue with the example cited in the last article : Date of Birth 13 :12: 1956, Time of Birth 23 :10 at Delhi. Lagna Kundli is given as :

```
        Jup
         6                    4
Ven   7                          3
              5
   Rah
   Sat    8         卐      2 Ket
   Sun
              11
Mer 9                        1 Mon
         10              12
                        Mar
```

There are thousands of Yogas mentioned in the text and it is not possible for an individual to learn and apply all the Yogas manually on a horoscope. Therefore we give few important Yogas, which one can check on a horoscope easily and can decide effectively.

**Exchange Yoga :** This Yoga is formed when two planets exchange their respective houses i.e. planet A is in house of B and planet B is in house of A. Exchange Yoga is good if it occurs between Kendras and Trikonas. The exchange makes the affected planets strong, either good or bad, depending upon the house it represents.
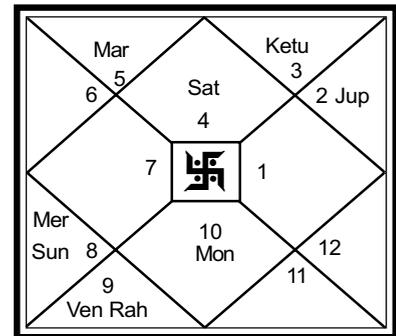
In the given horoscope also, there is a exchange between Mercury and Jupiter from 2nd to 5th house, making the native good in calculations and astrology. This also gives the native income from mental work.

There can be maximum three exchange Yogas in a horoscope involving six planets . In the horoscope of Mrs. Indira Gandhi there were three exchanges.

There is an exchange between Moon and Saturn from Lagna to 7th house, exchange between Sun and Mars from 2nd and 5th house and Jupiter and Venus from 6th and 11th house.These three ex-

**Smt. Indira Gandhi**
**19/11/1917**

```
    Mar              Ketu
     5                 3
  6          Sat          2 Jup
              4
        7           1
   Mer
   Sun  8         卐
              10          12
   Ven Rah  9  Mon      11
```

change made her a very strong lady. However, she was killed in the Dasha of Saturn- Moon, because Saturn and Moon, both gave result of 7th house and became Maraka for her.

**Gaj Kesari Yoga :** This Yoga is formed when Jupiter is in Kendra from Moon . It gives wealth and power to the native.

**Chandra Mangal Yoga :** When Moon and Mars are together, or there is nutural aspect between them, this Yoga is formed. Because of this Yoga man is passionate.

**Sunapha Yoga :** When there are planets in 2nd house to Moon this Yoga is formed. In this Yoga native will have good wealth.

**Anapha Yoga :** When there are planets in 12th house to Moon this yoga is formed. If natural benefic planet is there, it gives name, fame, wealth and success, while natural malefic gives trouble.

**Durudhara Yoga :** When there are planets both in the 2nd and 12th houses to Moon, benefics give good result and malefic cause trouble. Benefic and malefic combined give neutral results.

**Kemadrum Yoga :** This Yoga is formed when there are no planets on both sides of Moon . Native is very poor in this case.

**Vesi Yoga :** When there are planet in 2nd house from Sun this Yoga is formed. Natural benefic planet give good result and malefic cause trouble.

**Vasi Yoga :** When there are planets in 12th from Sun this Yoga is formed. Natural benefic planets give good result and malefic cause trouble.

**Ubhayachari Yoga :** When there are planets both in the 2nd and 12th house to Sun

benefics give good result and malefic cause trouble. Benefic and malefic combined give neutral results.

**Pancha Maha Purusha Yogas :** Following are the five Yogas formed by five planets- Mars, Jupiter, Mercury, Venus and Saturn :

**(a) Ruchaka Yoga :** When Mars is in exaltation or own sign and is in Kendra to Lagna or Moon, this Yoga is formed . In this Yoga native will have good health, wealth and get higher position in defence or police.

**(b) Hansa Yoga :** When Jupiter is in exaltation sign or own sign and is in Kendra to Lagna or Moon, this Yoga is formed . In this Yoga native will have good personality and good moral character.

**(c) Bhadra Yoga :** This Yoga is formed when Mercury is in its exaltation sign, own sign and is in Kendra to Moon and Lagna. With this Yoga person will have good proportional limbs and strong body, with wealth and comforts.

**(d) Malavya Yoga :** When Venus is in its exaltation sign, own sign or is in Kendra to Lagna and Moon, native will be wealthy, handsome, well built body and will be happy with his family. He will have good comforts in life.

**(e) Sasa Yoga :** When Saturn is in its exaltation or own sign and is in Kendra to

Lagna or Moon, native will have many servants and also have good wealth and health.

**Raj Yogas and Dhan Yoga:**

• When more than three planets are in exaltation sign or own sign and placed in Kendra, this yoga is formed.

• When Lord of 2nd, 9th, 5th, 11th or one of these occupies Kendra from Lagna or Moon, this Yoga is formed.

• Three or four planets having Digbala.

• When Kendra lord and Trikona lord make relationship between them, this Yoga is formed like :

(i)   9th lord is in Ist, 4th, 7th and 10th.

(ii)  5th lord in is Ist, 4th 7th and 10th

(iii) 1st lord is in 9th or 5th

(iv) 4th lord is in 9th and 5th

(v)  7th lord is in 9th and 5th

(vi) 10th lord is in 9th and 5th

(vii) Exchange of house between Kendra and Trikona.

All Raj Yoga and Dhan Yoga give name, fame, wealth, all kind of comforts and authority to the native.

Above Yogas are few of the important Yogas, which, when applied to the horoscope, give a fair judgement of the strength of the horoscope.

# Secrets of Astrology Unveiled

*On the conclusion of the series "Learn Astrology' we hereby give answers to many frequently asked questions on astrology, ranging from relevance of astrology and remedies suggested therein, to the deep rooted questions on calculations and predictions.*

**Ques.** What kind of remedy should be adopted in what situation? Do all kinds of remedies like Mantra, Yantra etc. be performed equally for any problem, any time?

**Ans.** Remedy is normally required for a planet which is active by virtue of Dasha or transit, but is benefic and weak, or is malefic and strong. That is, it is not either able to give good results to its full capacity, or is giving bad results, which have to be checked. If that planet is sitting in a earthy sign in the natal horoscope, stone should be suggested, if in firy sign, Yajna should be performed, if in airy sign, Mantras are useful and if in watery sign, alms or throwing things in water helps. Nor-mally, stone wearing enhances power of a planet and throwing items in water reduces power of a planet – whether the planet is good or bad. So if a planet is malefic but strong, then stone should be avoided and if a planet is benefic but weak then stone should be worn and its items should not be thrown or given in alms. Mantras and Yajna increase the benefic power of the planet only, without creating any loss. So whenever a planet is active, its Mantra Jap and Yajna should be performed for better results.

**Ques.** Do different systems on astrology or predictive sciences give same results?

**Ans.** There are various systems of prediction like palm-istry, numerology, astrology. In astrology too, there are various systems, like Jaimini Parashar, Neel Kanthi etc. Every system has its own benefits and shortcomings. Some systems are better than the others. If the fact of life is represented by a straight line then the various systems can be denoted by various graphs like A,B,C, which touch the reality of life only at few points. At some points they are far off. However, when one system is at a distance from the truth, other system touches the reality. This is the reason why we believe in so many systems. However, taking average may not always give us better results, e.g. if system A is at + 10% level of accuracy and system B at +20%

level then the average is +15%, which means averaging has spoilt the results of system A. Averaging may be good if one system is at negative level of accuracy and other at positive level. But we never know where we stand in our prediction for any future event, whereas for past we can always take average, or apply different systems to know why that event happened.

So it is suggested that one should adopt one system and practice more and more to bring it close to the line of reality.

**Ques.** Why does astrology sometimes fails?

**Ans.** Unlike Physics and Chemistry and like any behavioural science, astrology is an empirical science; that is the rules are based on statistics. They are not correct for any horoscope any time. This is true not only for astrology but for any predictive science. Further, the rules that we are using have not been checked for accuracy and relevance in modern times. We are using them as we found in old texts, even when many correlating factors have been lost during the last 2000 years or more. The rules when tested on large

data in future will definitely give rise to better framed rules and accuracy in astrology will be more.

**Ques.** Which is the best predictive science – astrology, palmistry, numerology or any other and why?

**Ans.** Compared to all other predictive sciences, Indian system of astrology is known for its accuracy, reliability and indepth analysis. Other systems are used either in the absence of reliable birth data, or in the absence of its interpretation. Astrology is the only system where predictions can be made precisely with time.

**Ques.** Should Ayanamsa be used? Which Ayanamsa should be used?

**Ans.** The planets move as per their Nirayana value in the sky. This can be easily checked by matching Moon's movement through various zodiac signs. Chaitrapaksha Ayanamsa, popularly known as Lahiri Ayanamsa, only has the scientific approval of the international astronomers and this should only be used, irrespective of what results you get astrologically. You should modify your astrological rules to suit the astronomical com-

putations, but not vice versa.

**Ques.** Should we rely on Dasha or Gochar? If Dasha is good and Gochar is bad then what will be the result?

**Ans.** Dasha and Gochar, both are equally important in determining the event in a horoscope. However Gochar can be accurately known, but Dasha is very sensitive to time of birth and cannot be accurately fixed. Secondly, there are too many kinds of known Dasha systems and we do not know for sure which Dasha should be applied, when doubts on Ayanamsa also takes away its authenticity. Further Dasha is normally dependent upon Moon degrees only and it ignores rest of the planets. All these shortcomings are not there in the transit system. Hence basing the predictions on transits normally give better results, unless it has been checked that the Dasha system is working properly on the given horoscope.

While we are studying both Dasha and Gochar, we can take Dasha to specify the event of transit to specify its strength. If both are favourable or unfavourable then the event occurs with full force. If Dasha is good and

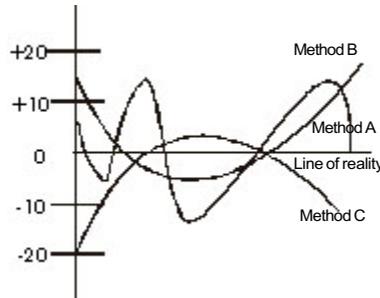transit bad or vice versa, then the results are not clear.

**Ques.** Many exalted planets have been seen in the horoscope of a poor man and debilitated planets in a rich man's horoscope. How does this happen?

**Ans.** Normally many debilitated planets in a horoscope make "Neech Bhang Raja Yoga" and similarly many exalted planets give "Uccha Bhang Daridra Yoga". Moreover, the native with many exalted planets is a man of principles and unfit for worldy success. One or two debilitated planets help the native to aquire wealth by improper means in this Kali Yuga.

**Ques.** It is said that Lagna calculation is dependent on place, whereas planet degree calculation is independent of it. But when we compute Lagna by converting time to IST and compute planet degrees without conversion, we get wrong values. Why ? What is the correct method?

**Ans.** It is rightly said that Lagna is dependent on place of birth, whereas planet degrees are independent of it, because they are computed for the centre of the earth.

Ephemeris shows planet de-



grees for a given time zone like IST. So the time of birth must be converted to IST to use such tables. But Lagna must be computed for the place of birth only, because changing the place, say from London to Delhi, will create an error of 5 ½ hours later in U.K. Similarly other signs also rise 5½ hours later there.

Accuracy of the results computed can be verified by checking that Sun has to be in 10th house at noon, in 1st house in the morning, in 7th house in the evening and in 4th house at midnight. This is irrespective of the place of birth.

**Ques.** How much importance can be imparted to Shodashvarga ?

**Ans.** Shodashvarga system was propounded by our sages in such a manner that exact position of the planets could be ascertained without assigning any degree value to it. Secondly, these Vargas have not been made like we

make today. Then we only assigned lordship and lordship signified the results of that planet. These Vargas should not be taken at par with Lagna chart and should not be used in predictions like supplement to Lagna chart, unless some Yoga specifies the results of a planet in a particular Varga.

In practice, these Vargas confuse a general astrologer. He starts taking the planet's exaltation or debilitation. He also starts taking aspects and placement of other planets with the planet, thus deviating from the basic results.

**Ques.** In predictions what is more important – planet, house or sign?

**Ans.** In Indian system planet is most important and house is next to the planet in importance. This is probably to make things easier. In the system of Lal Kitab sign has been dropped totally, after confirming the house in which a planet is sitting. Planet in a house makes significance in prediction, whereas planet in sign only gives knowledge about its strength. This strength further gets modified due to presence/aspect of other planets.

**Ques.** Does one get affected by some one else's

horoscope? If yes, then what is the sanctity of the horoscope?

**Ans.** Like one is affected by planets, he is affected by any other item in his vicinity. Every body has a gravitational pull – small or large. Effect of planets is visible because of their large mass. Stars of much higher mass do not have that much of effect because of their large distance. Secondly, our power of computation is limited. Just the nine planets and twelve signs make so many combinations that it is difficult to correlate them with life.

Horoscope having just nine planets is not the complete representation of what we are. But it is able to take care of maximum of our future with minimum of complexity. That is why we study a horoscope. Deviations to it due to others – living or non living – can be adjusted by studying the past and fitting that to the planet's effects. In brief, presence of others does not destroy the importance of the horoscope.

**Ques.** If in one accident many lives are taken, does that indicate similarity in everyones horoscope?

**Ans.** The horoscope of the place or a vehicle in which passengers are travelling, supersedes the horoscopes of the natives. Hence, in a calamity everyone's horoscope does not necessarily indicate death. However, this point needs further research and views from the readers.

**Ques.** We take Muhurtha for something. Does it change the fate of the person?

**Ans.** Muhurtha gives us an idea about the future of the task that we do; for example, oath ceremony of ministry gives idea about the government; starting moment of business gives us knowledge about how the business will go etc. To have a good future we select a good Muhurtha. Knowledge is strength and knowing the future of deeds in advance can definitely guide our future better. However, we can not totally reverse the direction of the fate. So many times we find things do not happen at the time of best Muhurtha, or after the event we come to know that the computations were wrong. This clearly indicates we cannot change the destiny. Still nature has provided us with hands to do something and mind to think. We should use it optimally, but without having keen desire for the best ; it will occur only if it is in fate.

**Ques.** Can we remove the ill effect of 7th house by doing a proper matching?

**Ans.** Answer to this question lies in the previous answer. We can aspire for a better married life by having a better matching, but fate cannot be overruled.

**Ques.** Contradictory Yogas are formed in ones horoscope. What is correct in such a situation?

**Ans.** Contradiction is part of any behavioural science. Take the results either by strength or by the number of times it occurs.

**Ques.** What is the importance of Chalit chart and how should it be used?

**Ans.** House is next to planets in importance for its role in astrology. Lagna chart shows house only approximately. Actual house position is governed only by Bhava chart or Chalit chart. Hence Chalit chart cannot be ignored in astrology. But use it cautiously, because it should not be used for determining the aspects, or knowing the sign in which a planet is posited. If a Sun moves from Lagna to 12th house while it was in Aries in Lagna chart, then it does not mean that Sun has shifted to Pisces. It remains in Aries, but is placed in 12th house.

# What is Correct -
# Nirayan or Sayan? Indian or Western?

**There has been a lot of confusion to the fact whether Sayan system is right or Nirayan. Though being a major difference, yet it has not been well understood. Here, in this article, we try to clarify that the planets in the sky are moving according to Nirayan system, and hence only the nirayan system should be followed in astrology. Sayan system is merely meant for knowing the earth's position with respect to Sun and thus determining the seasons but it is not meant for knowing which planet is passing through which sign.**

As per the western system sun enters into Aries on 22nd March every year whereas in Indian system Sun goes to Aries on 13/14th of April every year. What is correct? Both can not be correct at one time & definitely this means a lot in astrology. A difference of 23-24 days can not be ignored when we are talking of few minutes or seconds accuracy in giving predictions.

The followers of Sayan system strongly recommend the usage of 22nd March as entry of Sun into Aries. We at "Future Point" have tried to go into the root of this problem by looking at the stars physically in the sky and arrived at a conclusion that in the sky, all planets move according to the nirayan system only. To understand it fully let us divide the study into two parts.

1. What is the situation of various planets as computed presently versus the stars.

2. What was the situation 2000 years ago & what will be the situation after 2000 years.

Second condition amplifies the difference of Ayanamsa to give a more clear view about the Sayan & Nirayan systems. Now we will discuss both the points in detail.

### Table -I
Position of Moon during 1-15 May '98 at 10 PM at Delhi

|  | Nirayan | | Sayan | |
|---|---|---|---|---|
| 1st May | Gem | 26:46 | Can | 20:36 |
| 2nd | Can | 9:43 | Leo | 3:33 |
| 3rd | Can | 22:16 | Leo | 16:6 |
| 4th | Leo | 4:30 | Leo | 28:20 |
| 5th | Leo | 16:31 | Vir | 10:21 |
| 6th | Leo | 28:23 | Vir | 22:13 |
| 7th | Vir | 10:11 | Lib | 4:1 |
| 8th | Vir | 21:59 | Lib | 15:49 |
| 9th | Lib | 3:50 | Lib | 27:40 |
| 10th | Lib | 15:48 | Sco | 9:38 |
| 11th | Lib | 27:52 | Sco | 21:42 |
| 12th | Sco | 10:06 | Sag | 3:56 |
| 13th | Sco | 22:29 | Sag | 16:19 |
| 14th | Sag | 5:02 | Sag | 28:52 |
| 15th | Sag | 17:46 | Cap | 11:36 |

### Table -II
Transit of Moon during 1-15 May '98 at Delhi

| Sign Transited | Nirayan | | Sayan | |
|---|---|---|---|---|
|  | Date | Time | Date | Time |
| Can | 2/5/98 | 3:53 | 30/4/98 | 9:26 |
| Leo | 4/5/98 | 13:5 | 2/5/98 | 15:19 |
| Vir | 7/5/98 | 1:16 | 5/5/98 | 1:16 |
| Lib | 9/5/98 | 14:13 | 7/5/98 | 13:48 |
| Sco | 12/5/98 | 2:10 | 10/5/98 | 2:40 |
| Sag | 14/5/98 | 12:24 | 12/5/98 | 14:18 |
| Cap | 16/5/98 | 20:42 | 15/5/98 | 0:08 |

# 1. Present Star Position

It is difficult to watch the stars while Sun is in the sky. During month of May no planet shall be visible in the sky at night. So we are giving the position of Moon every day when it is visible at night during the month of May 98.

As per Sayan & Nirayan system the longitudes of Moon during first half of May '98 given in table I.

Moon's transit into different signs from May 1-15th 1998 are given in table-II.

If we look into the figures of table I, we find that Moon attains, after 2 days appox. the same degree in Nirayan system as in Sayan system e.g. It is at Leo 16⁰ on 3rd May as per Sayan system and on 5th May as per nirayan system.

The fig. A show the position of Moon during the first half of May 98, at 10 pm. in Delhi. If we look into the position of Moon & compare with its degrees as per Sayan and Nirayan system, it is very obvious that Moon's actual movement is very close to the Nirayan system & it does not tally with Sayan system at all. For example on 5th May 98 it is at Leo-16⁰ as per nirayan system. In the sky also, (fig A) moon is in mid of Leo sign, whereas Sayan

system gives a value of Virgo-10⁰. The moon is visible in Virgo not before 7th May 98. This situation can be studied daily between 1-15 May as per table I and sky map A to find the actual movement of moon in the sky. Hence we can say that we should follow only the Nirayan system for all astrological computations.

# 2. Past & Future Star Positions

To look into the past & future, we shall take help of sky maps as computed by scientific programmes which are known to be accurate by todays scientists of the world.

Let us look at the position of Sun as per Sayan & Nirayan system at a gap of 1000 years from 15 May 0001 to 15th May 5001 at 12 Noon at Delhi. The position of Sun are given in table III.

Fig. B shows clearly that Sun is in Pisces on 15th May in year 5001 whereas as per the Sayan

system it should be in Taurus. This is far away from the truth.

Secondly we can clearly see the movement of Sun with respect to stars. It is moving behind by appox. 14⁰ every 1000 years. This is exactly what the ayanamsa is.

Fig B shows clearly that Sun enters into Taurus on 15 May 1998. It is not towards end of Taurus as suggested by Sayan system.

The above explanation clearly & undoubtedly prove that **Nirayan system as followed in vedic astrology is correct and is in accordance to the star position in the sky.**

Does it mean that western system which is quite accurate as per the modern science is wrong ? The answer is **No**.

## *Table-III*

Position of Sun on 15th May at 12 hrs. at Delhi during year 1-5001

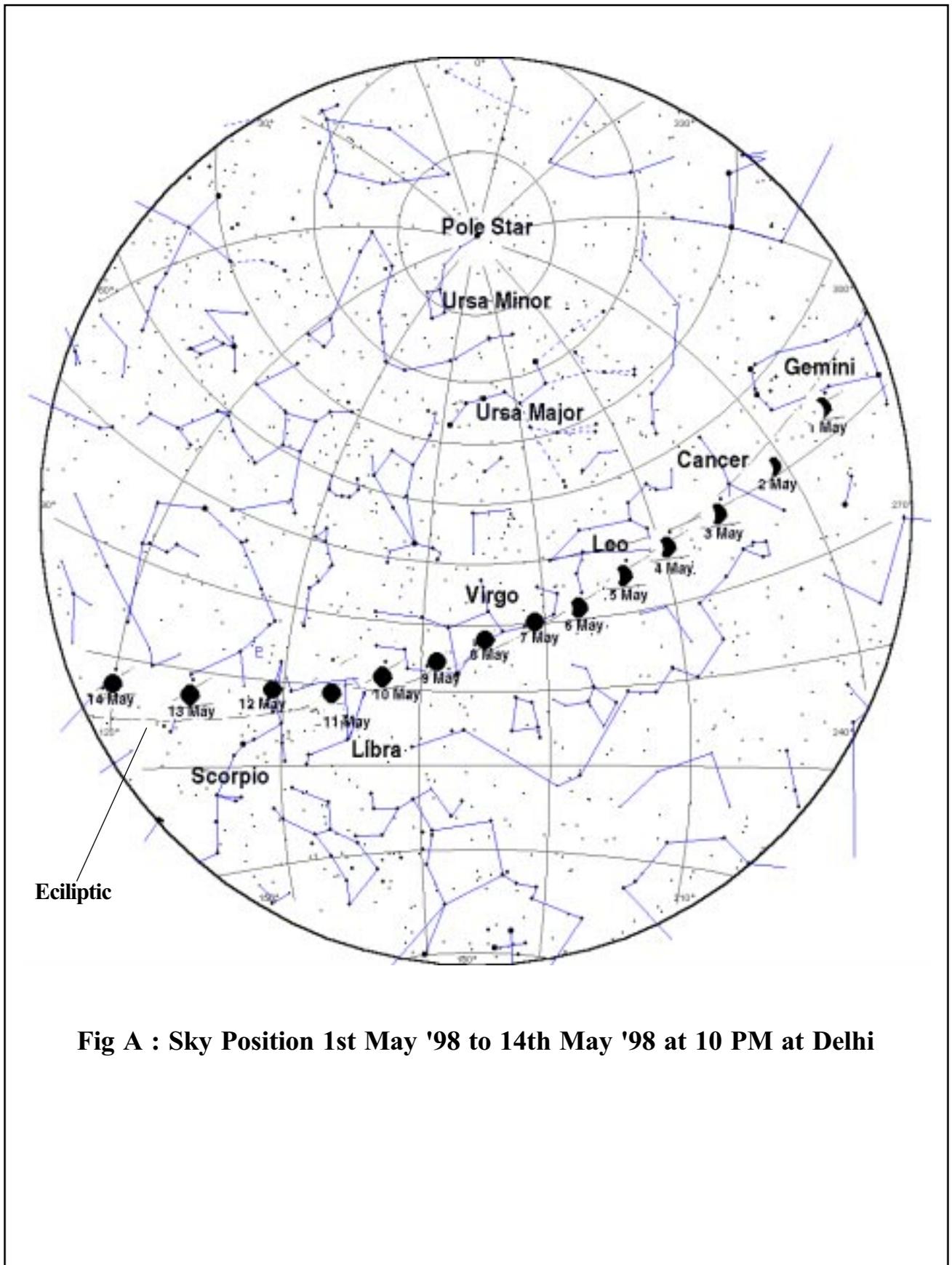| Year | Niryana | | Sayan | | Ayanamsa |
| --- | --- | --- | --- | --- | --- |
| 1 | Tau | 27:3 | Tau | 23:0 | -4: 2: 25 |
| 1001 | Tau | 13:25 | Tau | 23:20 | 9: 54: 54 |
| 2001 | Tau | 0:37 | Tau | 24:30 | 23:52:14 |
| 3001 | Ari | 16:43 | Tau | 24:34 | 37:50:12 |
| 4001 | Ari | 3:39 | Tau | 25:27 | 51:47:59 |
| 5001 | Pis | 19:26 | Tau | 25:11 | 65:45:10 |

**Fig A : Sky Position 1st May '98 to 14th May '98 at 10 PM at Delhi**
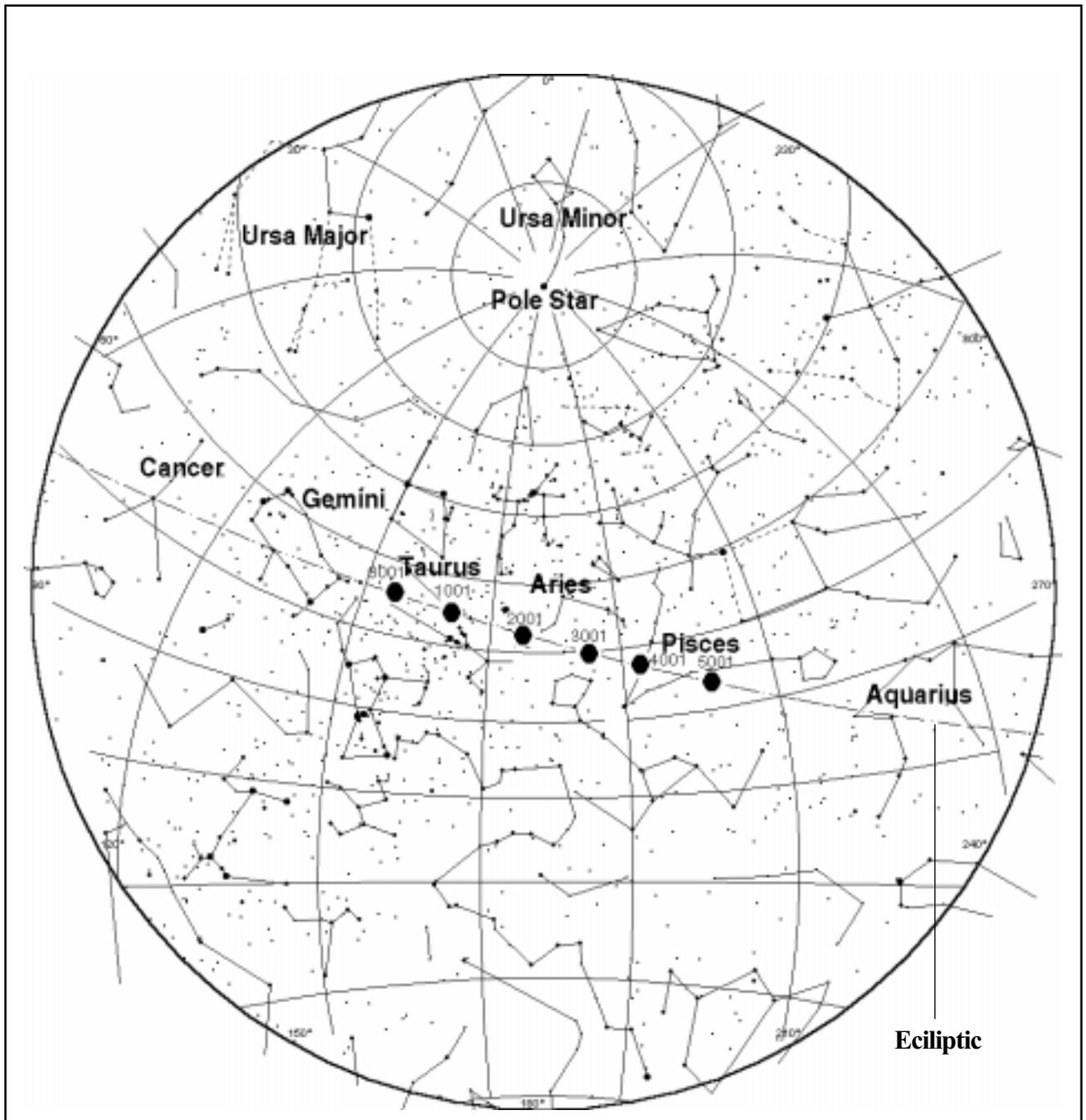
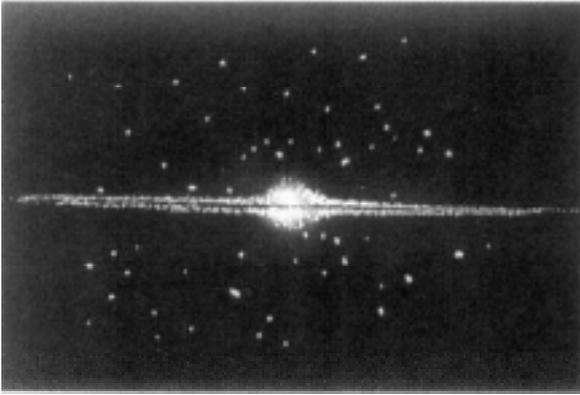**Fig B : Sun Position on 15th May '98 12 Hrs. at Delhi during year 0001 to 50001**
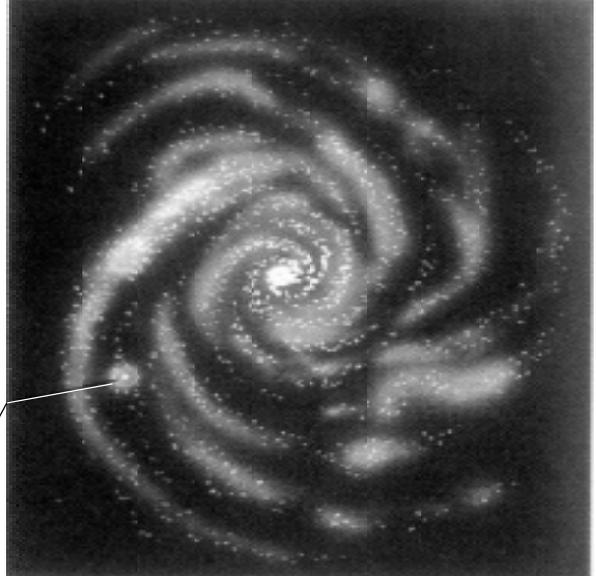
**Fig. C.** Milky Way Galaxy from the Side

**Fig. D**. Position of the Sun in the Milky Way Galaxy ➔



Then how both the systems can be correct at the same time & still be different? We know that western system is basically a solar system & not based on stars. Here zero degree refers to a position with respect to the Sun coordinates or the Vernal equinoctial point i.e. the ascending node of the ecliptic on the equator. It does not have to do any thing with the Aries star whereas in the Nirayan system, 0 degree means a position in the direction of Aries star. Actually zero degree of sayan system which never refers to Aries star has mistakenly been taken as zero degree of Aries. This small anomaly has led to the confusion between the Sayan & the Nirayan system. We should not confuse overselves & say that Sun enters into Aries on 22nd March every year. We should rather say that Sun attains a longitude of zero degree on 22nd March as per Sayan system or the Solar coordinate system.

With this clarification let us also clarify that astrological predictions given as per the sayan system does not have sound astrological basis. We can not & should not take the properties of various signs same for Sayan and Nirayan systems.

Let us understand what is ayanamsa which makes all this difference in the two systems. Ayanamsa is basically precession of the equinoxes. It can be understood better when we look at our galaxy. We know that our solar system is a part of galaxy called "Milky Way" which looks like fig. C & our solar system is moving around the centre of the milky way as shown in fig. D. Sun takes roughly 26,000 years appox. to complete one circle around the galaxy. The stars remain fixed and do not move around. Because of the motion of the sun, the position of stars changes by 50.3 arc seconds every year and it takes roughly 20 minutes 24 seconds more time for earth to complete the circle around Sun with respect to these stars. That is why the sidereal year is 365.256363 days compared to solar year of 365.2422 days only.

To sum up we Know that Indian astrology is based on stars and any planet passing through the particular star gives the results of that star or changes its behaviour acco-rding to the stars it passes through. Only Nirayan system gives us computations of planets with respect to stars; Sayan system refers to planet positions in solar coordinate system. Hence only Nirayan system should be followed for predictions in astrology. ∎