

THE MATHEMATICAL BASIS OF ARABIC PARTS AND A PARADIGM SHIFT IN ASTROLOGY

Santino Mancuso

Copyright © 2005 All Rights Reserved

INTRODUCTION

An Arabic Part forms an **isosceles trapezoid** with the 3 points used in the Arabic Part formula. This fact has enormous implications regarding why Arabic Parts are important, how they work, and even the fundamental assumptions of astrology! However, the underlying geometry of Arabic Parts has been almost completely overlooked throughout the entire history of astrology.

ISOSCELES TRAPEZOID:

An isosceles trapezoid is a four-sided figure which has two opposite sides of the same length, and the shape is vertically symmetrical. Note that an isosceles trapezoid is similar to a parallelogram, but has very different properties from a parallelogram. A parallelogram has 4 parallel sides and does not have symmetry, except in the case of a rectangle. A rectangle is simultaneously a parallelogram and an isosceles trapezoid.

A remarkable property of an isosceles trapezoid is that it has two pairs of equal angles. For example, if you measure the angles between the PF (Part of Fortune), Sun, Moon, and Asc, you will find two pairs of parallel angles. In the author's birth chart (May 1, 1949, 4:26 AM, East Meadow, NY, USA), for example, rounded to the nearest degree the Asc is 3 Aries, the Sun is 11 Taurus, the Moon is 15 Gemini, and the PF is 7 Taurus. Therefore, the Asc-PF angle is 34 degrees and Sun-Moon angle is 34 degrees. Also, the Asc-Sun angle is 38 degrees and the Moon-PF angle is 38 degrees. There are always two pairs of angles that are identical in an isosceles trapezoid, and because the Asc, Sun, Moon, and PF form an isosceles trapezoid this is also true among the 3 points and the Arabic Part used.

FORMULA:

In the previous paragraph I used the PF formula of Asc+Moon-Sun. The reader may know that the PS (Part of Spirit), whose formula is Asc+Sun-Moon, is regarded by many authorities as being the PF if the Sun is in the first six houses. Very interestingly, the PS also forms an isosceles trapezoid with the Sun and Moon. In the author's chart, the PS is 29 Aquarius. The PS-Asc angle is 34 degrees and the Sun-Moon angle is 34 degrees. Also the PS-Sun angle is 72 degrees and the Asc-Moon angle is 72 degrees.

Given three points, there are three other points that form an isosceles trapezoid with these three points. In the case of what is widely regarded as the three most important points in the chart (the Sun, Moon, and Asc), two of the points are the PF and PS. Both ancient and modern

astrologers very rarely use the third point. The formula for the third Arabic Part that can be constructed with the Sun, Moon, and Asc is $\text{Sun} + \text{Moon} - \text{Asc}$. When I first began experimenting with this Arabic Part, I called it the Part of Integration but then I noticed that it was already listed in my software and has the name Part of Retribution, and this Arabic Part is attributed to al Biruni. I have not yet researched al Biruni's work to see if he used this Arabic Part because it is the third isosceles trapezoid that can be formed with the Sun, Moon, and Asc, or perhaps someone simply wanted to experiment with the third formula that is possible in adding two of the three points and subtracting the third. I will use al Biruni's term, the Part of Retribution (PR). There is an elegant relationship between PF, PS, and PR; the formula involves adding two of the three points and subtracting the third. This elegant and simple formula calculates the three points which form isosceles trapezoids with any three points. In the author's chart, PR is 23 Cancer. The two pairs of identical angles are: Asc-Sun and Moon-PR are 38 degrees, and Asc-Moon and Sun-PR are 72 degrees.

Because most ancient astrologers appear to have not noticed, or were not concerned, with the fact that PF and PS form isosceles trapezoids, it is not surprising that the PR was largely overlooked. Most Arabic Parts formulae begin with the Ascendant, so subtracting the Asc instead of adding it may not have been an intuitively obvious thing to do. From the standpoint of the geometry involved, however, the PR would appear to be a natural corollary of the PF and PS.

As the reader no doubt noticed, particular angles are repeated in a given chart; in the author's charts, these angles are 34 degrees, 38 degrees, and the sum of these two angles which is 72 degrees. This repetition of particular angles can be viewed as a consequence of the three isosceles trapezoids having overlapping sides. Even more important is this vitally important fact: whenever two angles are the same in chart, there are two pairs of identical angles. As soon as two angles are the same, then an isosceles trapezoid is formed and there are two pairs of identical angles. This is similar to a crystal-forming function in nature, and is entropy-defying and life-enhancing.

The reason that I propose viewing the formation of two pairs of angles as entropy-defying whenever one pair of angles forms is this: one can view the double pairs of angles in an isosceles trapezoid as a huge resonance; from the viewpoint of wave theory, then, there is as a double-resonance, which in turn creates a huge astrological resonance. One can argue that this double resonance, from the standpoint of wave theory (or harmonic astrology, which is founded on the concept of waves), is far more powerful than the usual application of wave theory to support the concept of minor aspects. In fact, from the point of view of wave theory, the PF, PS, and PR are arguably the most important derived points in the chart! Thus, we have a curious consonance formed between John Addey's harmonic theory and the ancient system of Arabic Parts. The consonance is extraordinary because resonating angles are extraordinarily powerful according to wave theory, as the striking of a tuning fork at one end of a room and the other tuning fork echoing back the same note testifies. That we can use harmonic theory

retrospectively to identify Arabic Parts as the most important derived points in the chart produces perfect alignment of ancient astrological methods and harmonic astrology.

This perfect alignment, however, contrasts with the growing philosophical chasm that has developed between some adherents to ancient methods and those that espouse modern "scientific" methods. For example, in the book *The Arabic Parts: Lost Keys to Prediction* Robert Zoller refers to Kepler's astrology as "distorted" and John Frawley has similar scathing remarks about Kepler's introduction of minor aspects to astrology. Kepler's explicit description of minor aspects is the first known clear articulation of the concept, and minor aspects are a fundamental concept in the harmonic astrology further developed by John Addey in the 20th century.

In the article *The Newtonian Merry-go-round* Bernadette Brady has identified major shifts in astrological thought in the 20th century. Brady bases her thesis on a study of articles in major British articles. My less formal, personal anecdotal observations since the early 1970's in the United States confirms Brady's historical trends. According to Brady we are now in a cycle where disillusionment with simple Newtonian proofs of astrology is inspiring us to develop greater interest in qualitative, rather than quantitative models, and many astrologers now have forsaken the view that astrology just needs more research to be validated in simple experiments. I agree with Brady's observations. This movement away from astrology as a simple science is huge, and there is a growing wave of interest in pursuing more subtle views of astrology, incorporating concepts such as divination, chaos theory, etc. Works by Patrick Curry, Geoffrey Cornelius, Garry Phillipson, and many others are creating a new framework for understanding astrology in the 21st century.

BASIS OF ARABIC PARTS IN EUCLIDEAN GEOMETRY AND WAVE THEORY:

The identification of a basis for Arabic Parts in Euclidean geometry and wave theory, therefore, may be greeted by some skeptically, as an anachronistic throwback to the old days of Newtonian thinking. However, the magic performed by these simple Euclidean methods does not end with the above observations, and there is much more insight to be gleaned by a close study of the mathematics that lies behind our astrological methods. For example, many astrologers are familiar with the fact that PF and PS are equidistant from the Asc axis and are therefore mirror points of each other.

PR has a similar symmetry around a point as follows:

- PR and PS are equidistant from the Sun and therefore are mirror points of each other.
- PR and PF are equidistant from the Moon and therefore are mirror points of each other.
- Consequently, PS is closely tied to the Sun, as it has a mirror point around the Sun, and PF is closely tied to the Moon, as it has a mirror point around the Moon.

- Therefore PS is solar and PF is lunar, which is another way of saying that the ancient doctrine of sect is critically important to an understanding of PS and PF, and PR serves as the balancing point around the Sun and Moon.

Thus, our analysis of the geometry of Arabic Parts has identified that sect is involved in understanding PF and PS. This is a most extraordinary discovery because we now have a mathematical basis for understanding why the ancients used one formula for day charts and a different formula for night charts!!!

SUMMARY:

To summarize: Not only are Arabic Parts indicated by harmonic astrological theory, but even the doctrine of sect applied to the Part of Fortune and Part of Spirit is indicated by harmonic astrological theory.

This finding completely destroys what we had previously assumed: that Arabic Parts are a mystical formula not amenable to Newtonian analysis, and even goes beyond this to demonstrate complete agreement between an ancient technique and harmonic astrology.

Zoller correctly points out that Arabic Parts were discarded in modern times because of their apparent non-rational basis, but, amazingly, they are now found to be completely rational and harmonic astrological theory (i.e. wave theory) confirms that Arabic Parts should be given the very high priority and importance that they are given in classical astrology.

Understanding the geometry of Arabic Parts illuminates our understanding of Arabic Parts, while also opening up new insights, such as the introduction of PR, along with PF and PS. Note that the geometrical foundation of Arabic Parts is a mathematical truth regardless of whether one believes in astrology or not, and regardless of whether one thinks that this geometry is relevant to a greater astrological understanding of the Arabic Parts.

The isosceles trapezoid is an elegant concept that integrates many seemingly disparate astrological concepts, such as midpoints, antiscia and solstice points, Jonas birth control, Vedic tithi returns, the traditional aspect patterns of grand trines, grand crosses, mystic rectangles, and yods, and even the very popular composite chart that was introduced in the 20th century. The isosceles trapezoid was identified by the founder of the Hamburg school of astrology Alfred Witte. Witte referred to isosceles trapezoids as planetary pictures. Rather than find the fourth point that makes an isosceles trapezoid (an Arabic Part), Witte interpreted isosceles trapezoids that occur in the chart. He did not, to my knowledge, emphasize the geometric shape or the fact that planetary pictures and Arabic Parts are mathematically identical; he was more intrigued by the symmetry that planetary pictures have. Symmetry is always created when there is planetary resonance, so Witte is correct; whether one prefers to focus on the symmetry or the resonance, one is actually identifying the same phenomenon. Planetary resonance is based on wave theory, which allows an even wider number of astrological influences to be integrated into a single conceptual framework.

A large number of astrological techniques are either comprised of isosceles trapezoids, or can be viewed as derivatives of isosceles trapezoids. A full discussion of the relationships of these astrological techniques to isosceles trapezoids and to each other requires hundreds of pages, but hopefully this very terse introduction to some new vistas in astrological thought has been informative, interesting and inspiring to the reader.

The re-introduction of simple mathematical and scientific models into astrology at this time may create some consternation, but it may well be that the current paradigm shift in astrology towards divination and qualitative research will give way to a higher synthesis that incorporates the astrology of Kepler and Addey with ancient methods to create a framework that is not distorted, as Zoller refers to Kepler's astrology, but rather stronger, durable, and more useful and practical than our current edifice. My own sense is that we are on the verge of yet another paradigm shift even before we have settled comfortably into our current movement away from the quantitative and Newtonian approach and towards divination and qualitative research. No doubt this is an unpopular view but we can all agree that interesting times lie ahead of us!

A final note: After reading this article, several people have asked how they can access this information in their software. There are many techniques that employ these concepts, such as composite charts, etc., but most often people want to find PR in their charts and know what isosceles trapezoids occur in their charts.

An isosceles trapezoid mathematically is simply a midpoint conjunct or opposition a midpoint, and a list of midpoints conjunct and opposition midpoints is a good way to view them. My observations indicate that an orb of only about 1/2 degree is used for aspects to Arabic Parts and for midpoints conjunct midpoints, so I look at them up to about a 1 degree orb but pay close attention to only those configurations that are within about 30 minutes orb. Evidently the planetary resonance occurs only when the angular distances are nearly identical. Kepler 7 users can see PR in the list of Arabic Parts using the default list of Arabic Parts. Select Listings and then Arabic Parts; sort by Arabic Part name to quickly find "Retribution" listed, or you can view this Arabic Part in the Arabic Parts wheel. You can select Listings, and then select Harmonic Patterns Listings, and then select the first option of "Harmonic triangles and Midpt conj Midpt" and scroll to the bottom of the listing. For my own use I change the orbs from 3 degrees to 1 degree; to change the orbs, click on the "Orbs of Aspects" buttons on the screen where you select the report, and then click the Next button until you get to the end of the list of aspects, and change the applying and separating orbs of the midpoint conjunct midpoint and midpoint opposition midpoint to 1 degree. Note that oppositions are regarded as equivalent to conjunctions because the midpoints in both cases lie on the same midpoint axis. Users of other major astrological software can probably select these features in a similar manner in their programs.

References:

Brady, Bernadette, **The Newtonian Merry-go-round**, article at website www.geocosmic.org,

2005

Cornelius, Geoffrey. **The Moment of Astrology**, The Wessex Astrologer Ltd, Bournemouth, England, 2003

Frawley, John. **The Real Astrology**, Apprentice Books, London, England, 2000

Kepler, Johannis. **The Harmony of the World**, American Philosophical Society, Philadelphia, PA, 1997

Phillipson, Garry. **Astrology in the Year Zero**, Flare Publications, London, England, 2000

Zoller, Robert. **The Arabic Parts: A Lost Key to Prediction**, Inner Traditions International, Rochester, VT, 1980