

Arc Transform Charts: Why and Wherefore

by John Townley

If you ever wanted to understand about arc transform charts, this is the article you should read. John Townley, with his understanding and experience of this intriguing subject, masterfully simplifies it to its common denominators, demonstrating how it relates to harmonics and fractals alike.

f the plethora of new techniques that blossomed in the astrological revival of the 1970s and 1980s, only a few have gained truly wide popularity. One of them is the composite chart (which I had the honor to introduce); another is Astro*Carto*Graphy (Jim Lewis's brilliant expansion of the simple relocation chart), not to mention harmonic charts (John Addey, et al). Of course there was the interpretation of the major four asteroids among lots of other planetary and semi-planetary bodies such as Chiron, and now Eris along with a host of other real trans-Neptunians (as opposed to the hypothetical trans-Neptunians of the Ebertin school). Since then, older and formerly less used methods from classical astrology, including fixed stars and Arabic parts, have come back into vogue to enliven the mix.

Some of the suggested approaches that were run up the flagpole got shot down or have fallen out of favor (like Davison time-composites, group composites, and coalescent charts), though computer programs still make them available, and others never got saluted sufficiently because they were simply not properly understood. Among the latter is the arc transform chart, which is rarely used and even more rarely properly understood.

Because there is no widespread general usage on which to draw and elucidate upon the common and accepted interpretation of this method, I will thankfully spare you a long series of example charts that would be nothing but personal opinion. Instead, I think it more important to investigate what arc transform charts actually are,

what they physically tell you, and how that might be usefully connected to the mainstream and conceptual bottom line of astrological thought. In other words, this is not a *how-to* presentation, but more *what-is* and *why-to* (or not to) look at this interesting technique. Its implications about astrological structure are considerable, and it is a method to dig out details and approaches to astrology that aren't that obvious or available by other methods. It can also be a gallery of mathematical mirrors and illusions that you need to be aware of and discount or dodge as you examine them.

What Is It, Really? (The Harmonic Chart)

So what, exactly, is an arc transform chart? It is a chart derived from the arc between two planets similar to (in fact, a higher derivative of) a harmonic chart.

So, first then, what is a harmonic chart? It is a reduction of a regular chart by a fractional factor, so that all planets that have an angular separation of that fraction or its multiples appear as a conjunction. In a 4th harmonic chart, for instance, all oppositions and squares (1/4 steps around the circle) appear as conjunctions (the familiar Uranian 90° dial) and semi-squares and sesqui-quadratures will appear as oppositions. It makes it easy to see at a glance what planets are related by a subdivision of the circle by four or its multiples. It simply stretches the 360° by a factor of four and lays the planets over it, restarting every 90° as you go through the chart, kind of like you folded the circle into quarters and then stretched it back into a circle, giving a magnifying effect to everything related by four—a little like origami, if you think about it. The arithmetic way to accomplish this is to multiply the position of each planet (in 360° notation, so that, for instance, 0° Leo is 120, 0° Scorpio is 210) by your harmonic factor, and then successively subtract 360 from

each total until it is less than 360. A clever trick of prestidigitation, indeed.

Fourth harmonic example:

If your Sun is 0° Leo, that's $120 \times 4 = 480$.

Subtract 360 = 120 (0° Leo)

If your Moon is 0° Scorpio, that's $210 \times 4 = 840$.

Subtract 360 twice and that's 120

(0° Leo).

Voila! You have what was once a square, now a conjunction, and that will prove true for any other squares in the chart (though they may not be at 0° Leo, but somewhere else).

By this method you can derive a chart that will spot any of the finer harmonic aspects in any chart, depending on what you're looking for, from obvious 5^{ths} and 7^{ths} to obscure 87^{ths} or 137^{ths}.¹ Do they mean anything? Well that's another issue, for later.

The Arc Transform Chart

The arc transform chart was invented by English astrologer, James Williamsen, simply by adapting the method of calculating a harmonic chart. It is calculated by taking the shorter arc between any two planets and dividing it into 360 and using that result as the decimal fraction (harmonic) to multiply all planetary positions, before then reducing each with 360° subtraction. So, if two planets were 100° apart, a bit wide for a square, but not nearly a trine, you would divide 360 by 100 = 3.6 and use 3.6 to multiply everything by, and then reduce.

What you then would get is all planets 100° apart (or multiples of it, like 200 or 300) shown as conjunctions on the new arc transform chart. Planets 50°, 150°, 250° and 350° apart would become oppositions; planets 25°, 75°, 125°, 175°, 225°, 275° and 325° apart would appear as squares; planets 33 1/3° or 66 2/3° and their multiples (ones that don't coincide with 100, 200 or 300) would show up as trines, and so on. Of course, you could reduce the fraction 100/360 and find that arc to be a 5/18, or part of the 18th harmonic, but it would be more difficult to reduce if it were, say, a 97° arc (somewhere between 7/26 and 3/11).

But, whether you're deriving a harmonic chart of a more common fraction whose numerator (n) is 1 or an arc transform chart of a perhaps unknown fraction, you will pretty quickly run into a number of arithmetic artifacts that might look meaningful but really aren't (composite charts have the same problem). Any tight conjunction in the original natal chart will remain so in a harmonic or arc transform, regardless, though it will get less tight the higher the denominator (d). It doesn't mean they are related to anything, only that any arc you roll over

Uranus and Neptune 100° Apart

Jul 25, 1949

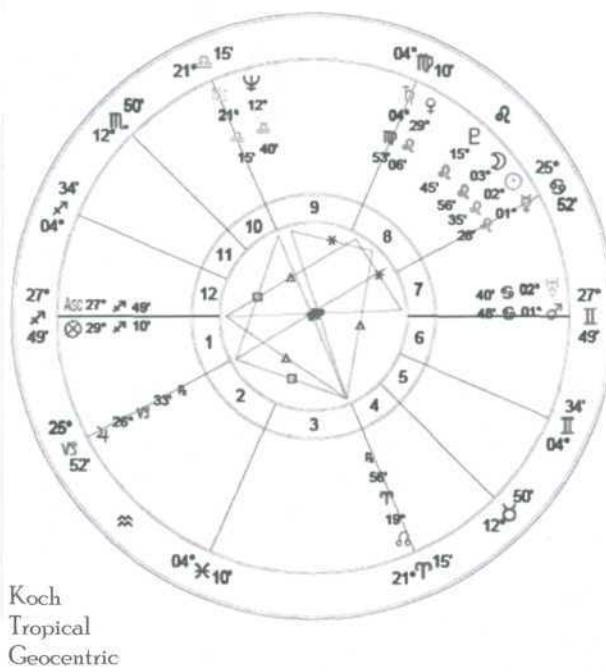
6:00 pm EDT +400

Sea Cliff, NY

73W38 43

Chart 1

Natal Event



Uranus and Neptune 100° Apart

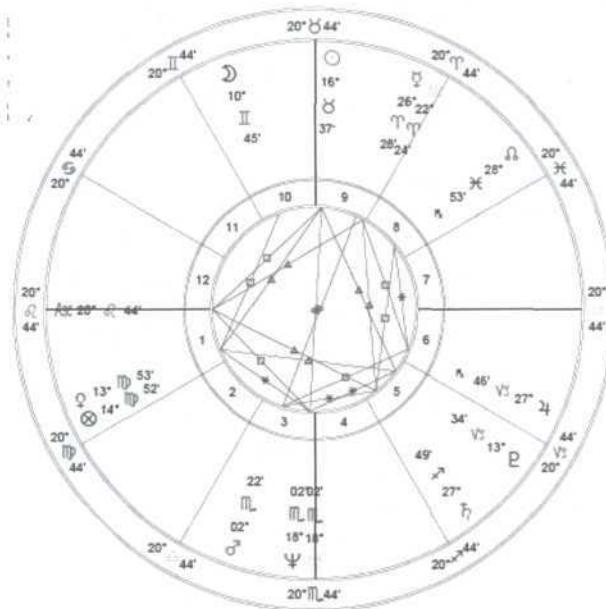
Jul 25, 1949

6:00 pm EDT

Sea Cliff, NY

Chart 2

18th Harmonic



them that hits one will hit the other. Further, if you cast charts for harmonics where the denominator is the same but the numerator is different, you will only sometimes get the same conjunctions and other mutual relationships and never the same zodiacal degrees where they occur. That's because this is really an arithmetical way to magnify the fractional arc into an artificial circle for viewing in horoscope-like form, and nothing more. Thus, a 1/18 chart (the 18th harmonic) will keep the relationships the same as a 5/18 (the 100° arc transform) but a 7/18 or any other n/18 will not, and instead will have oppositions, trines, sextiles, noniles, or in the case of 7/18 a 36°, depending on the relationship of the numerator to the denominator. If, however, the original arc was 7/18 (140°) then that chart would share the same relationships (but not zodiacal positions) of the basic 1/18 harmonic; but none of the others would.

Note in Chart 1 (the natal event chart) that Uranus and Neptune are exactly 100° apart (which is 5/18 of the circle or a 3.6 arc transform).

Chart 2 shows the same natal data as the 18th harmonic. Chart 3 shows the arc transform.

The arc transform paints identical relationships but totally different zodiacal placements, because they are different values of the 18th harmonic; so all three charts tell similar but different stories.

Uranus and Neptune 100° Apart
Jul 25, 1949
6:00 pm EDT
Sea Cliff, NY

Chart 3
Arc Transform



What is important to carry away from all this complexity is that you are looking at the same original chart every time, just from a slightly different window and *magnification* where one doesn't always fit snugly on top of the other, especially when prime numbers are involved in the fraction.

Further, the higher and finer the fraction described by the arc transform, the more wildly it will vary when the originating factors appear to remain the same. Although the positions of Uranus and Neptune in the example, remains at 100° apart (within a minute of arc) for several hours before and after this exact time given, arc transform charts closely on either side of it will differ considerably from a simple 18th harmonic chart. A great deal depends on the total accuracy of the orbital elements used to compute the ephemeris positions, and that is less exact than you might think, especially near the stations of the planets. This is also a problem for planetary return charts with the exception of solar and lunar. All in all, while appearing to be a tool of great exactitude, arc transforms are only as reliable as the absolute data they derive from; and when that is off, even microscopically, they can vary wildly from the actuality of the situation, whatever that might really be. Still, the technique is certainly an information mine of a sort, but of what earthly good is it? Again more later.

First, a closer look at the spacey world of fractional parts of the circle (often called *harmonics*, but that word itself may be misused). If you're looking at what numbers to find your 5^{ths}, 7^{ths}, 9^{ths}, 11^{ths}, 13^{ths} and up to the 30th part of the circle, on the next page is a nice table of them, connected in a special way.

Each adjacent aspect is separated with a mutual orb border based on their denominators, so that higher fractions get smaller orbs than larger ones, directly determined by what's next to them and how big they are. Of course, with this approach, because of their denominator size the usual standard, Ptolemaic aspects take up a larger orb than the smaller, less-explored harmonics—but also because of their denominator size, the lesser-used quintile has a bigger orb than a sextile; plus, a septile, nonile, decile or even an 11th, get a bigger orb than a more traditional semi-sextile or a quincunx. The simplicity of it gives one pause for thought about what orbs you should really take. If you added a lot more of the smaller fractions, it really wouldn't tighten things up all that much (unless you went to infinity), as you can see that as you approach a major aspect, the smaller ones dive off the edge toward a infinitely rising denominator, like a deep breath, until they reach the big aspect, both applying and separating. It's a nice image, really, with larger aspects like black holes absorbing the smaller ones into their orbs.

Table 1—Fractional Parts of the Circle, often called Harmonics

0°	0' = 0 / 1	23°	29°	46°	9°	68°	6°	92°	18°		112°	57°	136°	13°	158°	38°
9 44		24 0	= 1 / 15	46 27	= 4 / 31	68 34	= 4 / 21	92 34	= 9 / 35	113 9	= 11 / 35	136 33	= 11 / 29	158 49	= 15 / 34	
10 0	= 1 / 36	24 33		46 40		68 56		92 43		113 20		136 48		159 4		
10 8		24 50	= 2 / 29	46 57	= 3 / 23	69 14	= 5 / 26	92 54	= 8 / 31	113 41	= 6 / 19	137 9	= 8 / 21	160 0	= 4 / 9	
10 17	= 1 / 35	25 7		47 22		69 29		93 6		114 9		137 28		161 3		
10 26		25 43	= 1 / 14	48 0	= 2 / 15	69 41	= 6 / 31	93 20	= 7 / 27	114 33	= 7 / 22	137 39	= 13 / 34	161 23	= 13 / 29	
10 35	= 1 / 34	26 20		48 39		69 51		93 36		114 54		137 53		161 38		
10 45		26 40	= 2 / 27	49 5	= 3 / 22	70 0	= 7 / 36	93 55	= 6 / 23	115 12	= 8 / 25	138 28	= 5 / 13	162 0	= 9 / 20	
10 55	= 1 / 33	27 0		49 24		70 14		94 17		115 28		139 5		162 21		
11 5		27 42	= 1 / 13	49 39	= 4 / 29	72 0	= 1 / 5	94 44	= 5 / 19	115 43	= 9 / 28	139 21	= 12 / 31	162 35	= 14 / 31	
11 15	= 1 / 32	28 25		49 51		73 51		95 6		115 56		139 35		162 51		
11 26		28 48	= 2 / 25	50 0	= 5 / 36	74 7	= 7 / 34	95 18	= 9 / 34	116 8	= 10 / 31	140 0	= 7 / 18	163 38	= 5 / 11	
11 37	= 1 / 31	29 11		50 14		74 17		95 31		116 18		140 29		164 21		
11 48		30 0	= 1 / 12	51 26	= 1 / 7	74 29	= 6 / 29	96 0	= 4 / 15	116 28	= 11 / 34	140 52	= 9 / 23	164 34	= 16 / 35	
12 0	= 1 / 30	30 38		52 41		74 43		96 35		116 44		141 11		164 45		
12 12		30 51	= 3 / 35	52 56	= 5 / 34	75 0	= 5 / 24	96 55	= 7 / 26	120 0	= 1 / 3	141 26	= 11 / 28	165 0	= 11 / 24	
12 25	= 1 / 29	31 2		53 7		75 21		97 17		123 10		141 38		165 24		
12 38		31 18	= 2 / 23	53 20	= 4 / 27	75 47	= 4 / 19	98 11	= 3 / 11	123 26	= 12 / 35	141 49	= 13 / 33	166 9	= 6 / 13	
12 51	= 1 / 28	31 35		53 37		76 9		99 0		123 35		142 6		166 50		
13 5		31 46	= 3 / 34	54 0	= 3 / 20	76 22	= 7 / 33	99 19	= 8 / 29	123 45	= 11 / 32	144 0	= 2 / 5	167 9	= 13 / 28	
13 20	= 1 / 27	32 0		54 21		76 36		99 35		123 56		145 57		167 27		
13 35		32 44	= 1 / 11	54 33	= 5 / 33	77 9	= 3 / 14	100 0	= 5 / 18	124 8	= 10 / 29	146 19	= 13 / 32	168 0	= 7 / 15	
13 51	= 1 / 26	33 29		54 47		77 51		100 28		124 22		146 26		168 31		
14 7		33 45	= 3 / 32	55 23	= 2 / 13	78 16	= 5 / 23	100 48	= 7 / 25	124 37	= 9 / 26	146 40	= 11 / 27	168 45	= 15 / 32	
14 24	= 1 / 25	33 58		56 0		78 33		101 3		124 54		146 56		168 59		
14 42		34 17	= 2 / 21	56 15	= 5 / 32	78 45	= 7 / 32	101 15	= 9 / 32	125 13	= 8 / 23	147 16	= 9 / 22	169 25	= 8 / 17	
15 0	= 1 / 24	34 37		56 28		79 1		101 32		125 35		147 41		169 49		
15 19		34 50	= 3 / 31	56 51	= 3 / 19	80 0	= 2 / 9	102 51	= 2 / 7	126 0	= 7 / 20	148 14	= 7 / 17	170 0	= 17 / 36	
15 39	= 1 / 23	35 7		57 17		81 0		104 13		126 29		148 42		170 11		
16 0		36 0	= 1 / 10	57 36	= 4 / 25	81 17	= 7 / 31	104 31	= 9 / 31	127 4	= 6 / 17	148 58	= 12 / 29	170 32	= 9 / 19	
16 22	= 1 / 22	36 55		57 52		81 30		104 44		127 30		149 16		171 0		
16 45		37 14	= 3 / 29	58 4	= 5 / 31	81 49	= 5 / 22	105 0	= 7 / 24	127 45	= 11 / 31	150 0	= 5 / 12	171 26	= 10 / 21	
17 9	= 1 / 21	37 30		58 23		82 6		105 22		128 0		150 42		171 49		
17 34		37 54	= 2 / 19	60 0	= 1 / 6	82 17	= 8 / 35	105 53	= 5 / 17	128 34	= 5 / 14	150 58	= 13 / 31	172 10	= 11 / 23	
18 0	= 1 / 20	38 18		61 28		82 30		106 22		129 14		151 12		172 30		
18 28		38 34	= 3 / 28	61 43	= 6 / 35	83 5	= 3 / 13	106 40	= 8 / 27	129 36	= 9 / 25	151 35	= 8 / 19	172 48	= 12 / 25	
18 57	= 1 / 19	38 55		61 52		83 43		107 2		129 50		152 0		173 5		
19 28		40 0	= 1 / 9	62 4	= 5 / 29	84 0	= 7 / 30	108 0	= 3 / 10	130 0	= 13 / 36	152 18	= .11 / 26	173 20	= 13 / 27	
20 0	= 1 / 18	40 55		62 19		84 15		108 50		130 13		152 33		173 34		
20 22		41 9	= 4 / 35	62 37	= 4 / 23	84 42	= 4 / 17	109 5	= 10 / 33	130 55	= 4 / 11	152 44	= 14 / 33	173 48	= 14 / 29	
20 34	= 2 / 35	41 19		63 0		85 16		109 17		131 43		153 0		174 0		
20 46		41 32	= 3 / 26	63 32	= 3 / 17	85 43	= 5 / 21	109 34	= 7 / 23	132 0	= 11 / 30	154 17	= 3 / 7	174 12	= 15 / 31	
21 11	= 1 / 17	41 51		64 0		86 5		109 50		132 15		155 41		174 23		
21 36		42 21	= 2 / 17	64 17	= 5 / 28	86 24	= 6 / 25	110 0	= 11 / 36	132 38	= 7 / 19	156 0	= 13 / 30	174 33	= 16 / 33	
21 49	= 2 / 33	42 51		64 37		86 40		110 12		133 3		156 13		174 42		
22 2		43 12	= 3 / 25	65 27	= 2 / 11	86 54	= 7 / 29	110 46	= 4 / 13	133 20	= 10 / 27	156 31	= 10 / 23	174 51	= 17 / 35	
22 30	= 1 / 16	43 27		66 19		87 6		111 25		133 33		156 55		175 6		
22 59		43 38	= 4 / 33	66 40	= 5 / 27	87 16	= 8 / 33	111 43	= 9 / 29	133 43	= 13 / 35	157 30	= 7 / 16	180 0	= 1 / 2	
23 14	= 2 / 31	43 54		66 59		87 34		112 0	= 1 / 4	135 0	= 3 / 8	158 24	= 11 / 25			
		45 0	= 1 / 8	67 30	= 3 / 16	90 0	= 1 / 4	112 30	= 5 / 16	135 0	= 3 / 8	158 24	= 11 / 25			

In harmonics, 1-36, orbs are divided between larger and smaller aspects according to the size of the denominator.
Note how finer aspects exponentially bunch up around the larger ones.

What is mainly to be gathered from this comparison of harmonics with arc transforms is that any arc transform represents some multiple of a whole single-fraction ($1/d$) of the circle (an aspect, but usually a finer one), however small the actual fractional division may be. Thus, an arc transform chart is an analogue of a harmonic chart (which is always $1/d$, whereas an arc transform may be $2/d$, $3/d \dots x/d$), a particular multiple of a higher-than-obvious fraction whose numerator and denominator are unknown (but ultimately reducible to n/d), with the arc transform chart giving you a magnified key to how that arc is inhabited throughout the original horoscope. Like a harmonic chart, it is not a horoscope in itself, just a horoscope-formatted way of looking at subdivisions of a fractional division of the circle laid end to end.

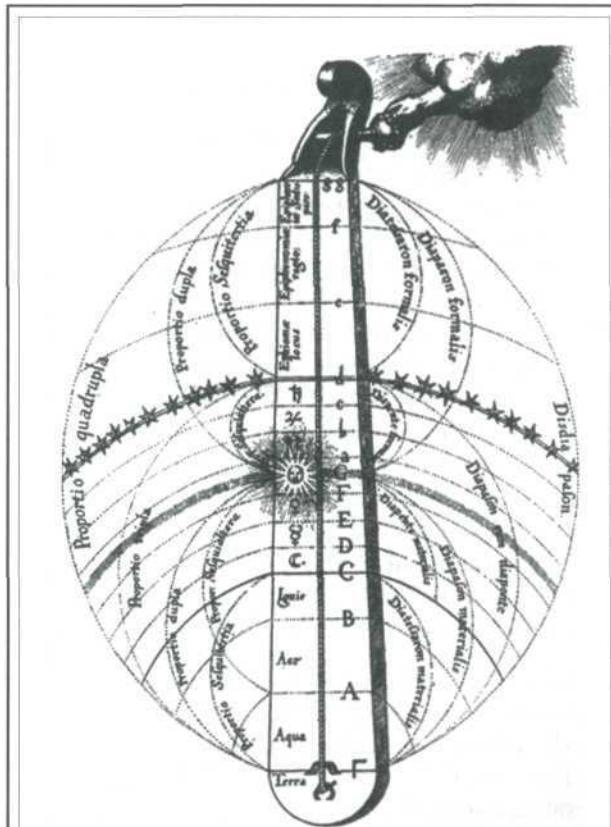
Larger vs. Smaller Arc

Another caveat about this technique and its cleverly-simplified arithmetic calculation is that it breaks down if you decide to use the larger arc (over $\frac{1}{2}$ the circle) instead of the smaller. This is because, of course, the larger arc doesn't repeat itself even once, and applying the usual arithmetic to it will yield a chart with everything bunched up together into just a few signs and most of the chart empty. Try doing a 0.18 harmonic chart on most computer programs and you'll see what I mean. Suddenly, you're looking through the wrong end of a telescope instead of a microscopic close up.

Astrological Antecedents

Now, in search of meaning: this may be an interesting, modern mathematical approach to twisting ordinary data about, but does it have any precedence in traditional astrological theory or practice? Actually, it does, in several places.

The idea of turning a limited section of the horoscope into an interior, scaled miniature, or fractal, of the whole has antecedents in the rolling rulerships of dwads, decanates, planetary hours and lunar mansions, which are all looked at as whole systems that lay themselves end to end until they have by repetition covered the entirety of the larger circle of the day, month, year or lifetime. Those are probably the closest places to look to, for example, on how to use the arc transform chart. It's the worlds-within-worlds point of view that highly populates Hindu culture and pops up with considerable regularity in Western philosophy as well, also having been rediscovered by modern mathematics in the exploration of the fractal. Does the arc between two specific planets make up a little fractal world, which repeats itself over and over around the circle?



From Fludd's De Musica Mundana

The Mundane Monochord with its Proportions and Intervals

In this chart is set forth a summary of Fludd's theory of universal music. The interval between the element of Earth and the highest heaven is considered as a double octave, thus showing the two extremes of existence to be in disdiapason harmony. It is significant that the highest heaven, the Sun, and Earth have the same tone, the difference being in pitch. The Sun is the lower octave of the highest heaven and Earth the lower octave of the Sun. The lower octave (F to G) comprises that part of the universe in which substance predominates over energy. Its harmonics, therefore, are more gross than those of the higher octave (G to g) wherein energy predominates over substance. "If struck in the more spiritual part," writes Fludd, "the monochord will give eternal life, if in the more material part, transitory life." It will be noted that certain elements planets, and celestial spheres sustain a harmonic ratio to each other. Fludd advances this as a key to the sympathies and antipathies existing between the various departments of Nature.

Cosmic Music

Recent measurements of distant space objects suggest they are giving off various kinds of waves at very low frequencies, corresponding to *cosmic music*, according to some fanciful astronomers, including a black hole emanating the lowest B-flat in the universe. Although there may be a big B-flat coming from afar, there may be a much more local reason for C being so central as the home tone here on Earth. If you take Earth's yearly cycle, 365.2422 days, convert it to seconds and then divide it by two to reduce it to shorter octave cycles all the way to audible Hz, you eventually reach 0.003637097 or just 272 Hz, just between tempered C and C sharp if A=440.

True C2 is 264 Hz, or expressed in a decimal fraction of a second 0.0037878787—just the tiniest bit flat of Earth's tuning.

Tempered C2 is 261.626 Hz or 0.00382250, the tiniest bit flatter still. So, Earth's own frequency might appear to be between C and C sharp (and if you use A=444, it's closer still to true C).

After discovering the pitch of Earth, a little above C, it's worth calculating the rest of the planets. Quite curiously, Venus (most associated with music) is smack on A at just 442 Hz. Of the rest, the inner and outer most planets, Mercury and Pluto, are multiple octaves of each other at just above C sharp (C#), and all put together the tones E, F, G, B-flat, B, E-flat (E-b) are lacking. Here's the list, all compressed to the same octave, although some others (like Mars and Saturn) are actually also octaves or so apart:

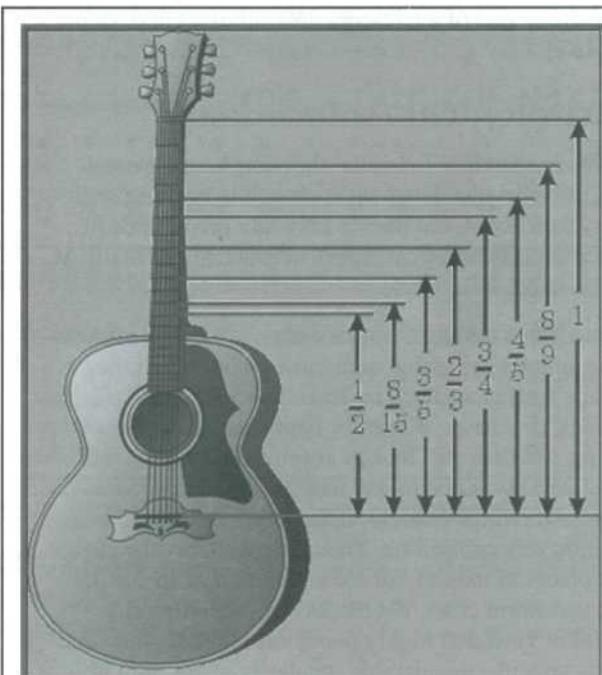
Earth	= 272	= C, a trifle sharp
Mercury	= 282.5	= C#, a trifle sharp
Venus	= 221.22, or 442.44 = A	
Mars	= 289.44	= D, a trifle flat
Jupiter	= 367.15	= F#
Saturn	= 295.69	= D
Uranus	= 414.71	= G#
Neptune	= 422.86	= G#, a trifle sharp
Pluto	= 281.34	= C#, a trifle sharp

There is another similar usage, and that is Arabic parts. An Arabic part is determined simply by applying the arc between two given planets outward from a third point (or from one of the original two) to see where it winds up (which place becomes the part of whatever)—which yields one (though not the only) set of places which would become a conjunction in their arc transform chart. Arabic parts only do that once, however, and not stepwise until the whole circle is covered, unlike an arc transform chart.

So, in all these earlier methods, the ancients have considered important the kind of data that an arc transform chart yields. Why did they do this, how did they interpret it, and is it about dividing space, time, or both? The answers aren't easy to pin down, but they likely lie in two principal areas: natural resonance and learned repetition.

Natural Resonance

There are reasons, probably quite physical, that astrology has traditionally leaned on the so-called major aspects and larger minor aspects (in essence, the larger harmonic divisions or simple multiples of prime numbers under 12). Primary among these is the observation that the natural world seems to resonate according to these divisions, especially musically. The natural octave and its whole tones and semitones are determined by ratios described by



The fundamental proportions of the larger numbers and their fractional proportions determine pitch and harmony, and on the cosmic scale have been considered the determiners of the music of the spheres.

these numbers. Indeed Pythagoras and later Renaissance astrologers like Fludd (see sidebar, page 15) and Kepler conceived of the planetary ratios as fundamentally musical. If we simply step up their relative orbital periods by octaves until we get into the audible spectrum, we get many of the fundaments of the musical scale (see *Cosmic Music* and the illustration of the guitar to the left).

What's interesting is that the ratios of all the planet cycles are very Pythagorean, indeed, and seem to put them in distinct musical families, not surprising after eons of settling into their mutually resonant orbits.

It's Gravity

When you get beyond mere musical metaphor, however, you find that the laws of gravitation tend to roll planets into just these kind of natural harmonic relationships. The Lagrange points of orbital stability and instability virtually define the fundamental largest aspects of conjunction, opposition, trine, and sextile.²

Astrologers should probably take note that they are fundamentally dealing with some very physical phenomena, and our behavior and psychology which we connect with the planets has been driven by evolution, itself driven by environmental cycles powered by planetary cycles. Thus, we do not project our myths upon the planets, but rather derive our innermost sets of growth, timing and mythology and symbolism from them, around which our character structure, both as individuals and as a species, forms as part of life evolution in general. The fundamental resonances of the solar system are integral to what we do—they predate us and we formed ourselves around them as resonant attractors with intractable momentum over time. It's a picture painted simply by the step-down effects of resonant gravity, and the continuing lock it has on all existence, as the planets inexorably entrain and reinforce these rhythms from the top down and the ground (our environment) up.

Individual Resonance

But if that was all there was to it, we'd be living in a crystalline universe, totally locked in to a perfect, stable resonant chord. Ultimately, we may become so, but for the moment the fact is we're not. We are not solely tuned to and timed by the external timing factors stepped down from above, from diurnal, solar, lunar, tidal and less obvious, but equally as strong longer-period cycles. There is a wiggle factor.

We also have individual internal clocks that keep us going relatively in sync with our environment, on which we rely when fundamental cues may be temporarily absent and which we reset as driver rhythms

reassert themselves. This is where the temporal factor becomes as important as the spatial one. It is likely that much of the effects of any natal chart comes from its reinforcement by continual transits (cycles) tweaking it in regular fashion. If there are certain kinds of events that repeat within a given time segment, we become attuned to them and they in fact add to, if not mostly create, our expectations and hence our inner structure. The fundamental cycles that we all share, give us joint character, and the ones we don't share (or the unique combo that is our nativity) give us our individual natures as they vary from the average. It is a matter of repeating the same experiences over and over until they become us, starting at extreme infancy and building into full adults over the years, varying from slightly to markedly different for everyone.

This approach might indeed be labeled *behaviorist* astrology, and in relation to the natal chart is hard to prove, since it's hard to document and so utterly subjective (especially since the most important parts are established in early childhood, entirely unrecorded and unremembered, quickly-relegated, to the subconscious and autonomic parts of our personalities). But the principle becomes much more obvious when we take another type of astrological chart in which the process can be watched to work as the obvious determining factor. That would be the composite chart. A composite chart is not a chart of a beginning, but of an acquired process, and its strength and influence on the two people involved increases as they remain in contact and it absorbs more repeated transits, gaining ever-stronger definition by accretion. As events cause each person to meet at the set of dynamic mutual shores that define a composite chart, it becomes a virtual individual in itself, created by evolving circumstance. That's why when we see a bad one, we can run while it's still weak and relatively unmanifested before it gains strength and eats both individuals alive.

Here, indeed, we may find the very mechanism of any meaning to be found in an arc transform chart (or, for that matter, Arabic parts, or any system that primarily exploits a particular arc that is subject to reinforcement by multiple transits and progressions). For instance, the arc between the Sun and Moon marks out a certain length of time between when we get hit by something and then the next one takes the same hit—diurnal rhythms mark that in hours, lunar in days, solar in months, and so on. The more it happens, the more we absorb (and then internalize and forget) that timing factor, until it becomes a part of us. Thus, while everything at large may be resonating in gravitationally-resonant major aspects, you, yourself, are marching to a different, more fragmented drummer, but it's yours alone, and the longer you live, the more familiar the beat.

The Sun-Moon arc is naturally the strongest (it's the easiest to feel, being the environmentally most influential), and not surprisingly, the Part of Fortune is the most-used and familiar Arabic part, being the first and primary projection of the Sun-Moon arc transform. From there, it's a step-down to the rest of all possible planetary pairs. You have an internal clock ticking out the set of time spans between them, and it is these rhythms that help shape your expectations and innate timing in life.

That, I believe, is what is uniquely useful about arc transform charts—they accentuate the eccentricities of any one given natal chart, the extra set of non-standard rhythms that make for the vagaries of the individual existence. The overall tendency, over time (over the ages) is for systems to stabilize and resonate in the major harmonic relationships, the bigger aspects. Thus, the solar system was pretty chaotic until the current state of the planet's orbits settled in and adjusted to each other, in general equilibrium, even though never quite the hypothetically ideal, perfectly-locked resonance. A great deal of our own individual lives are about coming into some sort of the same equilibrium while having to live with our own uniquely different separations from it. A major harmonic chart will tell you how well you fit into that overall equilibrium, and an arc transform will tell you how your planets match up on their own, much finer sets of what are, essentially, just higher harmonics, overtone series of the more fundamental drivers.

A Tool for Tuning, or Beyond...

With that in mind, I personally use arc transforms for just that—fine-tuning. When I see no obvious harmonic at all between two planets, they bring otherwise unavailable insight. When I see two that are close, but not quite exactly on a major harmonic, they give me an idea as to whether the whole chart resonates better with the major harmonic or whether there is actually a tighter picture in the arc transform. An example would be my Moon-Sun, which are in a bi-septile aspect to each other. A 7th harmonic chart shows some interesting resonances around the board, a grand trine. A Moon-Sun arc transform, however, ties everything together much more precisely, actually making the aspects tighter, especially the Venus-Chiron-Pluto relationship with the Jupiter-Neptune-Mars-Uranus cluster, showing that it rings of itself even more and slightly differently than just in the basic harmonic. That's partly because the fundamental Sun-Moon relationship is close to bi-quintile (2/5)

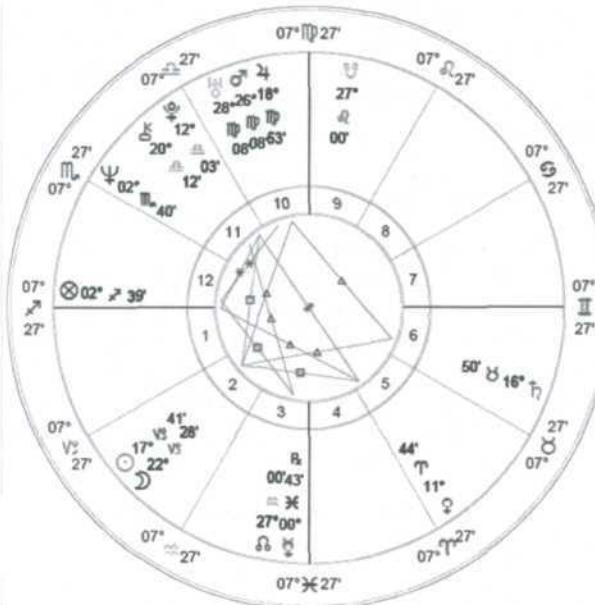
John Townley
Aug 17, 1945
01:51:00 am EWT +4:00
Walter Reed DC
77W01O0
38N55 00

Chart 4
Natal



John Townley
Aug 17, 1945
01:51:00 am EWT +4:00
Walter Reed DC

Chart 5
7th Harmonic



and the harmonic chart by nature gives a single-quintile reduction (1/5), changing the Venus position from opposition to square.

Sometimes choosing between the two can put you in totally different worlds, however. In her excellent book *Insights Into Astrology*,³ Nona Press spends many pages on her well-reasoned take on both harmonics and arc transforms, using her chart and those of her family as primary familiar examples. Her Sun and Moon, however, are within a 2°14' conjunction, so when she leans on a Sun-Moon arc transform, that's super-magnification of a tiny arc to an almost magical degree, somewhere around the 161st harmonic. Anyone else would have left it as a tight conjunction (1/1 harmonic, the natal chart itself) and not bothered to fine-tune it further, but she finds meanings both by transit and progression as that tiny arc repeats and divides itself in sub-cycles around her chart. Her interpretations, lending planetary assignments to

Note that Chart 4 is my natal chart.

Chart 5 is the 7th harmonic of my natal chart.

Chart 6 is the Sun-Moon arc transform.

An arc transform can both tighten and rearrange the view of a close-by harmonic, as with the relative Venus position shown in Chart 6.

John Townley
Aug 17, 1945
01:51:00 am EWT +400
Walter Reed DC

Chart 6
Sun-Moon Arc Transform



particular harmonics and meanings to them with which I would not necessarily agree, still seem to come out all of a piece when all is said and done. She uses both harmonics and arc transforms to create whole new super-magnified worlds of individual existence, whereas I would use the technique simply as a fine-tuning adjunct of what is to be seen through more traditional methods.

In summary, regardless of how you use arc transforms or whether you use them at all, they bring up fundamental questions as to what astrology really is, physically and experientially, and what is and isn't legitimate within that framework. In the end, I don't think they will see much more use among practitioners than they already have, except for the few who devote themselves to the technique, mainly because of the massive amount of fine data they present, even with a computer to keep track. Still, they can be of use both as a practical and a philosophical tool to see how consistent and effective your overall viewpoint is, and they reveal a window into the enormity of the fractal environment which is our moment-to-moment, totally personal experience of existence.*

Endnotes

1 <http://www.astrococktail.com/minoraspects.html>.

2 <http://www.astrococktail.com/Lagrangepoints.html>.

3 Press, N. *Insights into Astrology*. CA: ACS Publications, 1993.

All Rights Reserved.

Early in his astrological career, **John Townley** introduced the composite chart technique for analyzing relationships in his book, *The Composite Chart*, and twenty years later wrote the definitive work on the subject, *Composite Charts: The Astrology of Relationships*. He has been the president of the Astrologers' Guild of America, and was the editor of *The Astrological Review*. For more on the author, visit his website: www.astrococktail.com. He can be reached at townley@astrococktail.com.

Editor's Note: If you would like more individual interpretive text on what smaller harmonics mean, you will find such on <http://www.astrococktail.com/minoraspects.html>. Described is the meaning of some of the minor aspects-harmonics based on John Townley's experience. The harmonic list included in this article works quite well with the definitions on the above cited web page.