There are many astrological terms found in the historical record. Many are clear enough in themselves to understand. There also appears to have been some that the earlier astrologers each had their own terms for which caused both confusion and some rather bitter accusations among them. The term ‘transit’ for example is one such word. In our understanding today we take it to mean any time one planet passes another in degrees of longitude on the ecliptic. However, the astrological historian Al Birūnī, goes into great detail in his treatise called “Al-Bīrūnī on Transits” where he clarifies the misuse of terms and sets the record straight so to speak.

There is another term much used today that I find has been misunderstood both by astrologers today as well as some in ancient times. This is the term ‘orb of influence’.

We won’t find this expression in early Hellenistic astrology. Where and when the conception arose is unclear in the historical record. There are hints of it in Ptolemy\(^1\) for example when he writes:

> For they are prevented both if they fall within the term of a beneficent planet and if one of the beneficent planets projects its ray from quartile, trine, or opposition either upon the destructive degree itself or upon the parts that follow it, in the case of Jupiter not more than 12º, and in that of Venus not over 8º;

Even earlier than Ptolemy there is this reference in the writings of Balbillus and a chart dated to 47 BC\(^2\) that records the comment that,

> Mars could not become destroyer because Venus is rising after it within 8º.

The first clear reference to orbs and one recognisably consistent in later medieval authors is found in Porphyry’s \textit{Introduction to Tetrabiblos}\(^3\).

\begin{itemize}
  \item \textbf{55. The Rays (Orbs) of the Planets}
  \begin{quote}
  The rays of the Sun reach as far as 30º, 15 forward, and 15 backward. Those of the Moon, 24 degrees, 12 forward and 12 backward; Saturn and Jupiter, 18 degrees, 9 forward and 9
  \end{quote}
\end{itemize}

\(^1\) \textit{Tetrabiblos} Book III, chapter 10
\(^2\) \textit{Greek Horoscopes}, Neugebauer and Van Hoesen – American Philosophical Society, 1959 (CCAG 8, 4) p.78
\(^3\) \textit{Porphyry the Philosopher, Introduction to the Tetrabiblos}, translated by James Herschel Holden, M.A., ©2009 American Federation of Astrologers
backward; Mars, 16, 8 forward and 8 backward; Venus and Mercury, 14, 7 forward and 7 backward.

Pingree seemed to be convinced that these last 3 chapters of Porphyry were spuriously inserted by perhaps Rhetorius or some other early medieval Arabic author.⁴ I must admit that if it was Rhetorius, why don’t we find it in his own Compendium of Astrology? However James Holden believes these last 3 chapters (53 – 55) in Porphyry were perhaps translated from Arabic to Greek and mistakenly inserted by Demophilus.

Whatever the case may be, the when and where it was conceived and who coined the expression is lost to us.

There is another trace of it discussed in the collection of material that is attributed to Hermetic teaching called the “Liber Hermetis”. However, there is some difference of opinions as to when this material was compiled and if it is genuinely “Hermetic”. There are those who attribute this to pre-Arabic era (6th and 7th century AD), while other historians will point to a post Arabic Era (ca. 1100 AD) compiler. This particular term and consideration found in this material, does cast some doubt about this material being Hermetic and deriving from pre-Arabic teachings!

In a chapter where the compiler is discussing how to make predictions concerning the parents from the lunar phases, we find the forerunner of the teaching on orbs. The compiler writes,

...because the perimeter of the same Moon is 20 degrees and its distance [to the Lot of the father] is five degrees, we say that the Moon aspects the part. It is contained by half a perimeter which is according to a conjunction which is 10 degrees…⁵

Now nowhere in this text does the compiler refer to this as an orb! He merely says perimeter. Nonetheless, the editor⁶ of this translation footnotes the word perimeter and writes,

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⁶ With the utmost respect for Rob Hand, I maintain that his statement, in the context of the ancients, is incorrect. I hope he will not be too put out at me for taking that position since he himself has been clear in all his earlier writings at the start of this retrieval effort, (and I quote him from one such early effort); “The reader must be aware of several matters...First of all, this and all subsequent booklets in this series must be regarded as preliminary. Neither we, nor anyone else that we know of, has fully mastered all of the concepts involved in ancient and medieval astrology. We are learning as we go just as the reader is. As we work more with these texts, it is safe to say that we will learn more, we will make the proper changes in these texts...” Now Rob wrote that in 1995. His remarks in the Liber Hermetis date even earlier to at least 1993! So while I always read...
Orb is a fairly decent translation of the original Greek word ‘perimetros’ from which comes our word perimeter. Also, we have to keep in mind that for most modern astrologers an orb is actually one half of what the renaissance and medieval astrologers would have considered an orb. Ours is the radius of the circle or orb surrounding the planet, theirs was the diameter.

The question that arises in my mind is; is the assertion that ‘orb’ is a decent translation of ‘perimeter’ valid? As an engineer and mathematician, I’d say absolutely no, because we can describe the perimeter of a square as the length of its sides, or the perimeter of a triangle as the length of a right side to the apex. The perimeter of a circle is its diameter. Perimeter also means the distance around an object, such as the perimeter of a square or triangle. Perimeter does not automatically mean orb nor is it necessarily synonymous. The original authors of these texts were both mathematicians and astronomers and it is impossible for me to believe that they were referring to perimeter in such a context as orb.

In the “Liber Hermetis”, the author only says that the entire “perimeter of influence” of the Moon is 20° and that half of that perimeter is 10°.

The author is speaking of the perimeter which is the outer boundaries measured as its total length. (Figure 1)

The ‘perimeter’ in the context of an orb or circle then, is the diameter of that orb or circle. In figure 1, the perimeter of the Moon’s orb as pictured is 24°, half of its perimeter (called its radius) extending before it and half behind. The difference in my figure and the example in the Liber Hermetis is that the author there uses a diameter of 20°, “the perimeter of the same Moon is 20 degrees” and where half of that ‘perimeter’ extends before the Moon and the other half behind, “It is contained by half a perimeter”.

There is no doubt about what the author is describing yet there is also no reason to assume he is talking about an orb or circle. The fact of the matter is he could just as easily been describing something entirely different.

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and learn from these footnotes, I am always aware of Robs’ admonitions, to not cast in stone anything they may have then stated or asserted, because this retrieval process is one that is fluid, and we are all learning along the way as we read, study and gain a fuller insight into all these texts.

Ibid - Footnote #470, p.97 by Rob Hand

perimeter n. – the outer boundary of a figure or area; the total length of this; Mil. a boundary strip where defenses are set up
What if, for example, each planet has two orbs, one orb before it and one after? The planet’s ‘perimeter’, in that case, would extend from the extreme of the one orb before to the extreme of the orb after. (*Figure 2*)

Now perhaps, to our “Newtonian” thinking, that sounds strange. The authors of these ancient texts however were not, “Newtonian”. Their conception of astrological influence was “quantum” in its conception. How did they conceive this perimeter? Was it a perimeter surrounding the planet as we conceive an ‘orb’?

Well what we “perceive” may in fact be an orb with a source at the middle such as is most often used as an example of a planet’s orb. But is what we “see” an accurate description of what it is?

Thanks to modern techniques we are at last able to photograph what a planet’s ‘orb’ actually looks like, like this very recent photo (*figure 3*) of a star’s electromagnetic field.9

Does it look uncannily like my suggestion referring to two orbs emanating before and behind?

What about a planet’s ‘orb of Influence’? Look at a photo of the earth’s field of ‘influence’. (*Figure 4*) Can you see its “Orbs of influence” before and behind?

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9 Star photo taken from by the Hubble Space Telescope. The presence of magnetic fields would nicely explain the complicated shapes of planetary nebulae, as the ejected matter is trapped along magnetic field lines. This can be compared to iron filings trapped along the field lines of a bar magnet - a classic demonstration in high school physics classrooms. Since strong magnetic fields at the surface of the star also exert pressure on the gas, matter can more easily leave the star at the magnetic poles where the magnetic field is strongest.
Let’s try and put some clarity on what is asserted in the record by investigating just what the ancients do say and what they do not say.

Abū Ma’shār (c.787-886) writes of the planets’ influence.

[11] Each one of them [the planets] in its body has power over a certain number of degrees before and after it. [12] The power of the body of the Sun is 15 degrees in front of it, and the same number behind it. The power of the body of Saturn and Jupiter, both of them, is nine degrees in front and behind them both. The power of the body of Mars is eight degrees in front and behind it. The power of the body of Venus and Mercury, both of them, is seven degrees in front and behind them both.

Abū Ma’shār’s use of words here is very important! He does not say they have an orb of light that reaches out before and behind but he carefully says, “…has power over a certain number of degrees before and after it.”

He does not say what that “power” is or even tries to describe it. He only specifies that each has power over a certain number of degrees “…in front of it, and the same number behind it.”

This is not much different than the description in the “Liber Hermetis”, which also only refers to a ‘perimeter’ that extends before the Moon and behind it.

...because the perimeter of the same Moon is 20 degrees and its distance [to the Lot] is five degrees, we say that the Moon aspects the part. It is contained by half a perimeter which is according to a conjunction which is 10 degrees...

In Abū Ma’shār’s assertion the ‘perimeter’ of the Sun is 30°; i.e. its diameter! The ‘perimeter’ of the Moon is 24°, etc.

Sahl ibn Bishr (1st half of the 9th cent.) otherwise known as Zahel wrote in his “Introduction to Astrology”,

[You] will know that the orb of light of the Sun is 30 degrees, the half of which is in front of him, i.e. fifteen degrees in front of the Sun itself and fifteen degrees behind. Whenever the degrees, between the Sun and any planet, are from 1° up to 15°, then it [the Sun] casts its light over it [the planet] and is being joined to it. And the light of the Moon is twelve degrees in

11 Part I, Chapter 21 (p. 25) – “The Liber Hermetis” – translated by Robert Zoller and Published by Spica Publications.
front and twelve behind. And the light of Venus and Mercury, of each one of them, seven degrees in front and seven behind these [lacuna 3-4 words]... join to planet the light of Saturn and Jupiter, of each one of them, nine degrees in front and nine behind. Also, the light of Mars is eight degrees in front and eight behind.

The difference between Zahel and Abū Ma‘shār is NOT what they consider the perimeter (for those are the same), but it is the language describing the same conceptualisation. In Zahel’s case, he literally calls it an “orb of light”.

Ibn Ezra continues this teaching of the planet’s influence in front and the same behind, writing:

> [Concerning Saturn] the influence of his body is 9 degrees before and also after him.
> 
> [Concerning Jupiter] …and the orb of influence of his body is 9 degrees before and after.
> 
> [Concerning Mars] …and the orb of influence of his body is 8 degrees before and after.
> 
> [Concerning the Sun] …and the orb of influence of its body is 15 degrees before and after.
> 
> [Concerning Venus] …The orb of influence of her body is 7 degrees before and after.
> 
> [Concerning Mercury] …and the influence of his body is 7 degrees before and after.
> 
> [Concerning the Moon] …and the influence of her body is 12 degrees before and after.¹²

Now if there are any who would like to assert that Ibn Ezra means that these degrees are the total orb before and after, i.e. half of these degrees he gives for each planet before and the other half behind, that misconception can be set straight by reading the sample he gives of a conjunction.

An example is when the distance between the Moon and Saturn is 8 degrees, before or after, then each one of them is within the [orb of] influence of the other. But when there are 10 degrees between them, then Saturn is within the influence of the Moon, but the Moon is not within the influence of Saturn.¹³

The Moon's orb of influence is 12 degrees, so when she is 10 degrees from Saturn he is within her orb of influence [in front of her as she is applying], but Saturn's orb of influence...

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¹² Chapter IV – the entire chapter deals with the nature of the seven planets, their influence, and all that they indicate. “The Beginning of Wisdom” – translated and annotated by Meira B. Epstein; published by ARHAT ©1998

¹³ Ibid – Chapter 7 p.117
influence is 9 degrees so the Moon does not fall within his orb which is 9 degrees behind him because she is applying to him. *(Figure 5)*

When they are 8 degrees apart then both fall within the orb of influence of each other. *(Figure 6)*

So Ibn Ezra means exactly what he says; the planets orb is the same number of degrees he has listed both before and the same number behind!

The language used by Ibn Ezra is also interesting for he says, the influence of their body is so many degrees before and after (like Abū Ma'shār) yet he also calls that influence an orb before and after. In other words, the influence of the planets body is an orb of influence before it and an orb of influence behind it.

When we get to Bonatti, he says nothing contrary to this teaching. Of Saturn and Jupiter, he simply writes,

| «And the quantity of his orb is nine degrees.»

And of Mars, he says similarly,

| «And the quantity of his orb is 8 degrees.»

In these first three, he seems to be echoing Alchabitius in his language. When he gets to the Sun, that changes as he writes,

| And the quantity of his orb is 15 degrees before and after.

In the middle of these planets he suddenly echoes the others by specifying, "...before and after". In fact, he goes on in the next sentence to say,

| And understand this concerning every orb of the planets, namely, [that it is] before and after.14

Now again there are those who would like to assert that what Bonatti meant by degrees before and after is that those are the total degrees both before and after....for the Sun, 15 degrees total, before and after, so that its moiety (or half) is 7.5 degrees before it! Well, I do know that is NOT what Bonatti meant by before and after also, for when he gets to Venus he is most clear when he states,

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The quantity of her orb is 7 degrees before and just as many after.

Bonatti does not vary one tiny nanometre from the teaching of the ancients as concerning the influence of a planet. In harmony with Abū Ma’shār, he also states that every orb is before and after, which leads us back to my suggestion that we are talking about two orbs for each planet; one before it and one after.

Among all of the main stream traditional authors, I surprisingly found support for this suggestion in the one astrologer I least expected to find support from, namely William Lilly. I am going to quote this section in Lilly’s first book of his “Christian Astrology”.

…I will again insert the Table of the quality of their Orbs, although I have in the Planets severall descriptions mentioned them; they stand that as I have found by the best Authors and my own Experience.15

What is important in this sentence from Lilly is that he is referri ng the reader back to what he has previously written concerning the quality of their orbs, “I have in the Planets severall descriptions mentioned them”. He is re-affirming what he has written concerning them and is suggesting what they should be according to his experience and lists two columns as reproduced below. The first column of degrees is what Lilly says according to his experience. The second column of degrees is what he refers to the ancients and he lists in his “Description of the Planets”.16

<table>
<thead>
<tr>
<th>Planet</th>
<th>Degrees and Minutes</th>
<th>Commentary</th>
<th>Degrees and Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturn</td>
<td>10° 00’</td>
<td>According to others</td>
<td>09° 00’</td>
</tr>
<tr>
<td>Jupiter</td>
<td>12° 00’</td>
<td>As some have wrote</td>
<td>09° 00’</td>
</tr>
<tr>
<td>Mars</td>
<td>07° 30’</td>
<td>All consent</td>
<td>07° 00’</td>
</tr>
<tr>
<td>The Sun</td>
<td>17° 00’</td>
<td>Most say</td>
<td>15° 00’</td>
</tr>
<tr>
<td>Venus</td>
<td>08° 00’</td>
<td>Many write but</td>
<td>07° 00’</td>
</tr>
<tr>
<td>Mercury</td>
<td>07° 00’</td>
<td>All consent only</td>
<td>07° 00’</td>
</tr>
<tr>
<td>The Moon</td>
<td>12° 30’</td>
<td>Generally but</td>
<td>12° 00’</td>
</tr>
</tbody>
</table>

To understand his table and comparison, he has referred us back to what he has already said. Let me compile specifically what he says concerning these orbs of influence in the section on the Planets several descriptions in Chapter VIII,

On Saturn,

16 Ibid – Chapter VIII p.57
[ORBE.] His Orbe is nine degrees before and after; that is, his influence begins to work, when either he applies, or any Planet applies to him, and is within nine degrees of his aspect, and from that aspect.\footnote{17}

It is important to understand that in this first description, Lilly is explaining to the student what is important to know about orbs, not just concerning Saturn, but all the subsequent planets! Right off, he tells the reader that this orb is a certain number of degrees before and the same degrees after! He does not waiver in one iota from the teaching of the ancients in this conception! And he most certainly is not making Saturn an exception!

And so he continues:

- **Jupiter:** [ORBE.] His Radiation or Orbe, is nine degrees before and after any of his aspect.\footnote{18}
- **Mars:** [ORBE.] His Orbe is onely seven degrees before and after any of his aspects.\footnote{19}
- **The Sun:** [ORBE.] Is 15 degrees before any aspect; and so many after separation.\footnote{20}
- **Venus:** [ORB.] Her Orbe is 7 before and after any aspect of hers.\footnote{21}
- **Mercury:** [ORBE.] His Orbe is seven degrees before and after any aspect.\footnote{22}
- **The Moon:** [ORBE.] Is 12 degrees before and after any Aspect.\footnote{23}

Lilly, exactly like his predecessors, describes this influence as degrees before the planet and the same amount of degrees behind for ALL the planets! His difference of opinion has nothing to do with this conception but is only about how many degrees before and after!

It is in fact Lilly that clarifies this ambiguity concerning orbs. We must look closely at the entire paragraph found on page 107,

\begin{quote}
A Platick Aspect is that which admits of the Orbs or Rayes of two Planets that signifye any matter: As if Venus be in the tenth degree of Taurus, and Saturn in eighteen degrees of Virgo, here Venus hath a Platick Trine, or is in a Platick Trine of Saturn, because she is within the Moity of both their Orbs; for the Moity of Saturn his Rayes or Orbs is five, and of Venus 4, and the distance betwixt them and their perfect aspect is eight degrees; and here I will again insert
\end{quote}

\footnotesize
\begin{footnotes}
17 Ibid – p.59  
18 Ibid – p.64  
19 Ibid – p.67  
20 Ibid – p.72  
21 Ibid – p.76  
22 Ibid – p.80  
23 Ibid – p.83
\end{footnotes}
the Table of the quality of their Orbs, although I have in the Planets severall descriptions mentioned them; they stand that as I have found by the best Authors and my own Experience.24

I want to direct the attention of the reader to the highlighted text, “for the Moiety [I.e. half] of Saturn his Rayes or Orbs. Pay particularly close attention to his use of the plural; Saturn’s Rayes or orbs. It might be a “slip of the pen” to write the plural of orb, but it is NOT a slip of the pen to write the plural of both rayes AND orbs. Saturn has more than one orb!! It has Orbs!! Saturn has one behind it (and one before it) that Lilly asserts from his experience is 10°. The moiety, or half, of that orb is 5°!! Venus has orbs, plural; an orb that is 8° before it (and one behind it) and that has a moiety of 4°. When both planets are within one half [moiety] of their orb (Saturn 5° behind and Venus 4° before) they are in a “platick” aspect!

I must reiterate one more time that what Mr. Lilly describes in his text book is exactly the same as the teaching of the earlier masters in astrology. It is no different. (Figure 7)

What Lilly is describing is demonstrated in the above figure. Saturn is in 18° Virgo and Lilly says Saturn has an orb of influence 10° before it and an orb of influence 10° behind it. Venus is in 10° Taurus and has an orb of influence 8° before it and an orb of influence 8° behind it. When the Venus is applying and the distance between it and Saturn is ½ [moiety] the sum of their orbs [before Venus and after Saturn] then they are in a platick trine! Both of their rays fall within the orb of the other planet!

Figure 7

Conclusion

I understand the ambiguity in language and terminology that exists in the historical record. It is attested to in not only the writings of the ancients but also the commentaries, like Al Birūnī’s on transits.

Many may proclaim that this conception of two orbs was beyond their science. I disagree! As a school boy, we performed the most elementary demonstration in my 8th grade physics class. It is in fact an ancient demonstration and one well within the science of the Arabs. We took lead shavings from a pencil sharpener and placed them on a sheet of cardboard paper. We placed a magnet under the paper (the ancients would have had lodestones) and the result was that the lead shavings take the form of the magnetic field created by the poles of the magnet! – Orbs of influence before and after!

There is no doubt in my mind as to what the ancients were explaining. They were for the most part consistent in their conceptions25 even if the language varied between orbs of their bodies, degrees of influence, or orbs of light.

25 Alchabitius calls them the “size of their body” and gives as the diameter what the others described as the radius. Cf Chapter 2, “The Introduction to Astrology” by Al Qabīṣī – translated by Charles Burnett, Keiji Yamamoto & Michio Yano – published by the Warburg Institute ©2004