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Translations of Kepler's Astrological Writings

Part III. Kepler on Astrological Theory and Doctrine

Section 1. On Directions, 1601-1602

Translated by Cornelia Linde and Dorian Greenbaum; annotated by Dorian Greenbaum

Taken from Opera Omnia 8.1, pp. 295-99; Gesammelte Werke 21, 2.2, pp. 496-507

The treatise on directions is among the most difficult material in this collection of Kepler's astrological writings, in terms of both translation and comprehension. Aside from discovering what Kepler is doing astrologically, many sentences in the treatise have to be read carefully to be fully understood. This is not astrology writing (or reading!) for the faint-hearted. We need to keep in mind that this treatise was never formally published; it exists only in this manuscript form.

When Kepler uses the term 'directions' in this treatise, he does not always mean primary directions, as in the style of Ptolemy. Although he is comparing primary, or diurnal, motion to secondary, or zodiacal motion, Kepler's system in general is more or less what modern astrologers would call secondary progressions, using a day for a year symbolism. But in his worked examples (in 'On Directions' these include his own chart and those of his children Heinrich and Susanna; and elsewhere the chart of Rudolf II¹), he appears to be using, at different

¹ S Cornelia Linde (trans.) and Dorian Greenbaum (trans. and annotated), 'Kepler's Methods of Astrological Interpretation for Rudolf II, 1602', *Culture and Cosmos*, Vol. 14 no 1 and 2, Spring/Summer and Autumn/Winter 2010 pp. 79-104; Cornelia Linde (trans.) and Dorian Greenbaum (trans. and annotated), 'Kepler's Astrological Interpretation of Rudolf II by Traditional Methods, 1602',

times, a variation on quotidian progressions, secondary progressions using solar arc in right ascension, and solar arc directions. He uses (mostly) right ascension for the Midheaven, oblique ascension for the Ascendant, and solar arc for both the Sun and the Moon. He does not direct any other planets. Greater detail of the way Kepler analysed directions can be found in his interpretation of Rudolf II's chart.

*Kepler seems to take some standard techniques and improvise on them. He is not really 'making things up' but rather pushing against the boundary of standard techniques, just as he did in his work with aspects. It appears that Kepler's techniques were 1) modifications of Ptolemaic ones, 2) modifications of Regiomontanus and 3) modifications of his mentor Tycho's system, which appears to be similar to the modern idea of secondary progressions, though they are called directions. We can see this from the table at the end of Kepler's interpretations of Rudolf II's chart (see **Part I.2.1**, p. 100 in this volume).*

If we are to take anything away from this treatise, it is that Kepler privileges the motion of the Sun in developing a system for directions. But neither does he neglect the importance of the Moon, the Ascendant and the Midheaven. It is also striking how much emphasis he places on the relationship between the day, the month and the year, and how the present and the past intertwine. As Kepler eloquently puts it, 'life is a multiplication of the first breath'.

For the notes to this section, I am indebted to the astrological expertise of Joseph Crane, Nadine Harris, Bernadette Brady and Geoffrey Cornelius, who helped me immensely. For translation and palaeographic assistance, I am also indebted to Charles Burnett.

Note: Words or phrases appearing in GW, but not in OO, are added between forward slashes (/).

[OO 8.1, p. 295; GW 21, 2.2, p. 496] [*Pulkovo V, 173r*] Tycho said that in theology and astrology reasons are not to be sought, but only this much must be believed, that the former is from authority and the latter from experience. But by God, it is proper for the philosopher to refer those things which are stable through experience to their own causes. And indeed the causes of some things are to be found in a clear way, in which a cause brings itself forward in an effect; there are other things whose

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reason is concealed, so that it seems to be unable to be given up, and for a long time lies deeply and completely concealed from men. There are those things which are situated in an intermediate place, when either a reason and a cause is obscure, but nevertheless the way by which the cause brings itself forward in an effect, is discovered and established legitimately by our reasoning powers (*ratiocinatio*), or, on the other hand, the cause is certainly clear, but its way of acting remains obscure, when the remote cause is sought. Meanwhile, the remote cause is certainly suspected, but cannot be apprehended for certain, when neither the effect nor the intermediate [causes] have been explored sufficiently by us. In these difficulties the virtue of diligence and philosophical subtlety is observed (*spectatur*).²

The noblest part of astrology concerns directions, and it is strongly confirmed by experience. That experience, however, is uncertain, bearing witness in general terms about the certainty of the doctrine; in the specifics of whether to use one method of directing or another, it deceives not only ordinary astrologers but at times even the most accomplished practitioners of the art. This is caused by the multiplicity of events, the inequality of sublunar matter, which follows heaven slowly or fast, [and] finally from the inadequacy of astronomy even at this time. And so we seek both the support of experience from reasoning that is consistent with nature, and at the same time we are investigating the causes of directions.

[OO 8.1, p. 296] Some time ago I had grasped the manner and method of cause to effect in this definition, as it were, so that I thought that the image of the heavenly disposition, present at the moment of birth, sticks to the spirit or genius (*animo seu genio*) of the newborn child, and remains unmoved in that initial position; and that this [image] with its places (*locus*)³ presents signifiers⁴ to the astrologer. The movement of

² *Specto* can mean both ‘observe’ and ‘test’. Could Kepler intend a double meaning here?

³ I think he is referring to the zodiacal placement of the planets in the signs.

⁴ He may mean ‘signifiers’ in two senses: the general sense of a planet or point in the chart providing information about a life; and in the technical sense of a planet or point being used in a specific predictive technique. In the technique of directions, one planet (called the ‘signifier’) is moved in a certain way (usually by primary motion) to the position by conjunction or other aspect of a planet called the ‘promittor’. The usual signifiers in Kepler’s time were the Sun, Moon, Ascendant and Midheaven.

the sky which flows from the moment of birth to the 6th hour of the infant's life⁵ – this, [I thought], if it is traced back⁶ to the permanent [*Pulkovo V*, 173v] image (like a snake crawling to the discarded skin it has left behind) – this movement of the sky is, therefore, the image of 90 years of life. It followed, then, that the places of the promittors⁷ do not vary perceptibly, as is natural, between the 2nd, 3rd, 4th, /5th/ and 6th hours, apart from the Moon, because of her own and parallax motion. The conductings (*deductio*) [of the significators to the promittors] are made, in fact, through right, oblique and intermediate (*intermedius*)⁸ ascensions.

At first I was deterred from this opinion by Tycho's claim that the method of direction by equal degrees was not to be taken lightly,⁹ which was confirmed by the ready example of his own nativity (*propriae geneseos*). But that form of direction could not be reconciled with my own view.¹⁰

⁵ The first six hours after birth correspond to 90° in right ascension.

⁶ *OO* has 'si referatur', 'if it is traced back', here; the phrase is missing in *GW*.

⁷ The term 'promittor' (or 'promissor') derives from the verb 'to promise', because promittors are fulfilling a 'promise' to the significator of a certain action. In the technique of primary directions, the significators are the directed planets or chart points, and the promittors the planets to which the significators are directed. See Fred Gettings, *The Arkana Dictionary of Astrology* (London, 1990), p. 406; also Nicholas DeVore, *The Encyclopedia of Astrology* (New York, 1947), p. 316. For a survey of primary directions and other predictive techniques used historically, see Martin Gansten, *Primary Directions: Astrology's Old Master Technique* (Bournemouth, 2009).

⁸ I think this is a proportion between oblique and right ascension. These intermediate ascensions are used for the Sun and the Moon (see Ptolemy, *Tetrabiblos* III, ch. 11.11-34, 'On the Length of Life').

⁹ I think Kepler means the even application of one degree per day (= one year), in contrast to the actual motion of the Sun which may be more or less than 1°/day.

¹⁰ 'Ab hac sententia me depulit, primo Tychonis asseveratio de directione per gradus aequales non contemnenda, quae confirmabatur exemplo praesenti propriae geneseos. At illa directionis forma in conceptione mea locum habere non poterat.' At this point the transcription editor cites (*GW* 21, 2.2, p. 496 nn. 4 and 5) the location of Kepler's birth and conception charts in the volume, assuming that 'propriae geneseos' and 'in mea conceptione' refer to Kepler's own birth and conception charts (this would necessitate a translation something

[GW 21, 2.2, p. 497] Secondly, it seemed absurd to consider the contacts (*appulsus*)¹¹ of the planets as exchangeable (*mutuus*) in primary motion, where if¹² a significator were at the beginning of Virgo, the promittor in Scorpio would be passing many degrees (*partes*) beneath the significator in the circle of position,¹³ while in other conjunctions of the planets latitude takes away much of the efficacy, even though it is lesser. It is not absurd when this happens on the horizon. For the power of the rising [place] (*vis orientis*) is not present only at the point of the ecliptic, as it is for a certain star, but is scattered through the whole extent of the rising sky.¹⁴

Thirdly, the Sun and Moon [☉ ☽]¹⁵ seemed to have to be separated from the Ascendant [and] the Midheaven [*asc* MC] in this form of direction. For the Ascendant [and] the Midheaven (*asc* MC) exist (*sunt*) and arise (*existunt*) because of the terrestrial horizon, and are changed (*variantur*) through the primary motion. But the Sun and Moon [☉ ☽]¹⁴ are moved forward by secondary motions.¹⁶

like: ‘At first I was deterred from this opinion by Tycho’s claim that the [method of] direction by equal degrees was not to be taken lightly, which was confirmed by the ready example of [my] own nativity. But that form of direction could not be reconciled in my conception chart.’). However, I know of no examples in medieval or Renaissance astrology where a conception chart is ever directed, nor any instructions to do so in an astrology text. So I think it far more likely that ‘*propriae geneos*’ refers to Tycho’s own birthchart, and ‘in conceptione mea’ ‘in my [Kepler’s] view’, since the next paragraphs outline reasons why, for Kepler, Tycho’s use of equal degrees is incorrect.

¹¹ Literally, ‘pushing towards’. The significators are ‘pushing towards’ the promittors.

¹² ‘si’ in *OO*; ‘se’ in *GW*. We follow *OO* here.

¹³ The signs of Virgo – and Libra – are the signs of longest ascension (they take the longest to rise) in the Northern Hemisphere, while Scorpio rises in a shorter amount of time. Because different signs rise in different amounts of time, the resulting unevenness, Kepler thinks, does not justify Tycho’s use of equal degrees.

¹⁴ ‘It is not absurd ... rising sky’ added in the margin of the manuscript.

¹⁵ ‘And’ (*et*) not in *GW*.

¹⁶ Primary motion is diurnal motion, in which the Sun (appears) to move through the sky from east to west in one day, moving clockwise. Secondary motion

Fourthly, if I were to consider a more obscure cause, although not even now can the first cause be perceived transparently enough. With this in mind I proceeded in this way, with single years being signified by single degrees for the reason that, while the Sun completes 1°, by primary motion 361° are turned, which the Sun completes in one year.¹⁷ So the consideration of solar motion is doubled.

Fifthly, there was no reason why 30° Aries should yield 15 years in growth (*ortus*),¹⁸ for the Sun does not advance on the equator, but in the zodiac.¹⁹

Therefore let us, who have begun first from considering the prime cause as far as possible, now take a different approach. Since we live on Earth, it is proper to use the Earth's motion for signifying. In fact there are two motions for the Earth, yearly and daily.²⁰ From this, therefore, the causes of directions are to be sought. Why, indeed, does a degree signify a year? What do a degree and a year have in common? In astronomy, what is a degree? For we do not [need to] linger over the astronomers' (*astronomi*) [*Pulkovo V, 174r*] beautifully fitted divisions in physics. As I was saying, in the first place, the Sun's daily motion is equal to almost

proceeds from west to east, counter-clockwise, and is the motion of the planets in zodiacal order. So as the Sun is moving through the sky above and below the horizon each day, it is also moving through (approximately) one degree of the zodiac in secondary motion. The Moon moves 12-14 degrees per day in secondary motion. Kepler describes these two kinds of motion in the next few paragraphs.

¹⁷ 'anno uno' in *OO*; 'a uno' in *GW*. Clearly the *OO* version is correct.

¹⁸ This has to do with the ascensional times of Aries (Aries is a sign of short ascension in the Northern Hemisphere). This would suggest that Tycho's equal-degree method may have used arcs from the Ascendant. There can be more than one meaning for *ortus* here: it can mean 'birth', 'growth' or 'rising'. Possibly *ortus* here means 'rising place', i.e. Ascendant.

¹⁹ 'Fifthly ... zodiac' added in the margin of the manuscript.

²⁰ Because the earth moves in both primary and secondary motion, Kepler is advocating a system that accounts for both. He is trying to have astrology mimic the natural motion of the earth and the appearance of the sky. This is the kind of (astrological) thinking that will lead to Placidus's embrace of the system of secondary progressions which, though moving the planets in secondary motion, directs the angles in primary motion.

one degree, and additionally the increment of a natural day. In these two things, therefore, is a clue (*suspicio*) to the cause. But so as not to be forced to give conflicting reasons, these two are conflated into one, and suspicion (*suspicio*) falls on the day, so that not the degree but the day signifies the year, for the reason that the turning (*conversio*)²¹ of the Earth is a kind of image of the yearly turning (*conversio*) of the globe.²²

When, therefore, any day revolves [through] 361 degrees (*partes*) of the equator, because the Author and Conductor (*dux*) of the day, the Sun, passes through almost 1° every day, it will happen that the boundaries (*termini*) of the day (the rising and setting of places; for the days are linked to the horizons, and when it is day here, it is night somewhere else) are also moved forward through degrees of the equator. So, if today the first hour after noon (the equal principle)²³ rises with 360 [degrees], 0° Aries [α], tomorrow at the same first hour it will rise with 361 [degrees], 2° Aries [α].²⁴ So it will happen, by a reason totally in accord with nature, that the boundaries of the days, the Ascendant and Midheaven,²⁵ are directed by the equator, since that which also produces the day, the rotation of the Earth, is equal under the equator. Thus indeed that first degree which has come to the rising place (*ortus*),²⁶ will not signify a year, but all 361°. And since the significators stood earlier in that imaginary little heaven (οὐρανίσκος),²⁷ as the promissors were approach-

²¹ I.e., rotation, the turning of the earth on its axis in 24 hours.

²² ‘Yearly turning’ = revolution, i.e. the orbit of the earth around the Sun. So there is a relationship between rotation and revolution.

²³ A reference to Tycho’s direction by equal degrees.

²⁴ There may be a textual error here. To be consistent, the second zodiacal position should be 1° Aries, not 2° Aries. (Sidereal time begins each day when 0° Aries passes over the local meridian.)

²⁵ Naturally, the Ascendant and Descendant (the rising and setting points) are linked. The Midheaven corresponds to noon in the chart.

²⁶ I.e., the horizon or Ascendant.

²⁷ This considers the birthchart as a ‘little heaven’ or even, to use modern parlance, a ‘virtual heaven’. I have not seen this term used of the birthchart before, but I believe that is the correct interpretation of οὐρανίσκος (a diminutive of οὐρανός; see LSJ s.v. οὐρανίσκος; also below, note 64. The idea of a little

ing them, now we imagine that the significators are approaching the promissors. Thus these things hold up well in relation to diurnal motion.

[**OO 8.1, p. 297**] The ninetieth day after birth will signify the ninetieth year, and a day will signify 366¼ other days. The parts of this day will signify the parts of the year, but not that strongly, and if the boundaries (*termini*)²⁸ should be menaced (*infestentur*), the reasoning will be the same as in revolutions when, in the term (*finis*)²⁹ of the year planets, striking against the Sun, inflict misfortunes.

For example, Heinrich [Kepler],³⁰ whose M.C. is 23° Leo [g], and Sun at 14° Aquarius [b], died after 63 days. After 63 days the Sun [☉] is at 17° Aries [a] in real (*verus*) motion. The difference between the right ascensions in [**GW 21, 2.2, p. 498**] time is 3:53 [*i.e. 3 hours 53 minutes*]; add to the time of the R.A.M.C. [*Right Ascension of the Midheaven*], 9:41 [*9 hours 41 minutes*], making 13:34 [*13 hours 34 minutes*], 25° Sagittarius [c] will rise, and the outcome isn't far off.³¹ For Mars [♂] is stationary at 28° Gemini [II].³²

heaven is also present in the concept of the birthchart as a microcosm (reflecting the macrocosm).

²⁸ I think this means the Ascendant or Midheaven.

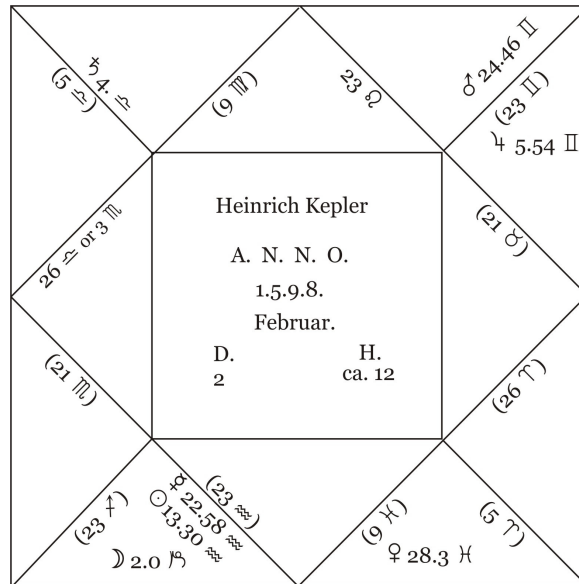
²⁹ 'Term' in the sense of a period of duration.

³⁰ Johannes' first-born son. See the Maestlin letters (**Part I.1.4** in this volume), and also Kepler's astrological comparison of his family's charts, **Part I.1.3** in this volume. The chart for Heinrich has been recreated from the data given in those sources and the present text; an actual chart has not survived.

³¹ This is what Kepler is doing. He is taking the difference in right ascension between the natal Sun (21:06) and the 'death' Sun (1:03) (right ascension is measured in hours and minutes, not degrees and minutes). This comes to 3:57 (Kepler was off by 4 minutes in his calculation of 3:53). This figure is added to the right ascension of the natal Midheaven, 9:41 (the natal Midheaven is 23° Leo). The sum is 13:34 (using Kepler's figures; the actual figure is 13:38). 13:34 hours of right ascension = about 24° Libra. Using this as the new M.C., a new Ascendant of 25° Sagittarius is calculated. That position is opposite Heinrich's natal Mars, which is stationary (it had just turned direct) at 25° Gemini (not 28° Gemini as Kepler says).

³² Mars, a malefic planet and 'promissor' of death, would have opposed 25° Sagittarius, causing the death of Heinrich. In his family comparison (**Part I.1.3**), Kepler gives Heinrich's Mars position as 25° Gemini.

Figure 1. Heinrich Kepler’s birthchart, according to positions in *Mira cognatio* (Part I.1.3), with MC as given in *On Directions* (positions in parentheses not in original texts)³³



In this manner Susanna [Kepler]³⁴ had 15° Cancer [f] rising,³⁵ while the Sun [☉] was at 20° Gemini [♊]. She died after 35 days, when the Sun [☉] was at 23½° Cancer [f]. The different ascensions were 2:25 / 14:52 / 17:17. It comes to 8° Pisces [♓].³⁶

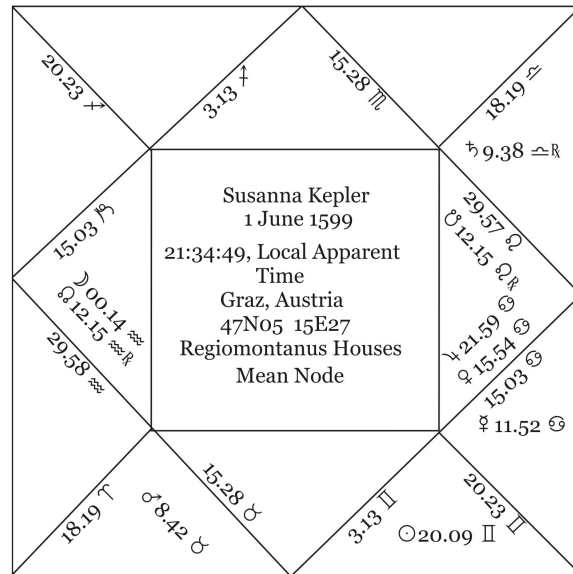
³³ Though in his family comparisons (see **Part I.1.3**, p. 61 [under ‘Daughter and Son’] in this volume), Kepler specifically places Heinrich’s Sun in the 4th house (with an I.C. of 3° Aquarius), I have had to move the Sun and Mercury to the 3rd based on the ‘On Directions’ position of the M.C. at 23° Leo.

³⁴ Kepler’s daughter, who also died as an infant. No birthchart for her is extant either, but has been created from the data given.

³⁵ Given the numbers cited below, it is impossible that Susanna had Cancer rising; it had to have been Capricorn. This must again be an error in the text.

³⁶ Again, this is Kepler’s method. He takes the difference in right ascension between the natal Sun and the ‘death’ Sun, 2:25, adds it to the R.A.M.C. 14:52 (15°28’ Scorpio), and the sum is 17:17, making a new M.C. of 20° Sagittarius

Figure 2. Birthchart of Susanna Kepler, created from positions given by Kepler (using a modern calculation program, Solar Fire Gold)³⁷



[*Pulkovo V, 174v*] We will say the same about the motion of the Sun: however much it produces in diurnal motion, a year is signified by it, for the reason that however much it glides through in diurnal motion, the Sun produces it in yearly time. Accordingly, the Sun is directed because its motion is the motion of the Earth; and in the same way the quantity of this year is $366\frac{1}{4}$ days. But it does not hold the clear determination of replacement [*i.e., substituting diurnal motion for yearly time*], were it not by chance that after 365 years the precession (*anticipatio*) of the equinoxes, which in motion is the same as that of the Earth, denotes 6 years, through about 6° , and in the same way this direction is backward, and may fall in a strong place. And again the 90th day of motion will be the image of about the 90th year.³⁸

and derives from that a new Ascendant of 8° Pisces. 8° Pisces is in exact sextile with Susanna's natal Mars at 8° Taurus; again, Mars is the 'promittor' of death.

³⁷ We know that Susanna was born in June of 1599. A Sun position of 20° Gemini gives a date of 1 June 1599. This date also gives the position of Mars necessary to sextile the directed Ascendant.

³⁸ This last phrase describes the theory behind secondary progressions.

We are uncertain about the motion of the Moon. For its motions are not all of the Earth; only one is in common with the Earth. But if we were on the Moon we would say that a year is signified by a month.³⁹ Now set on Earth, we will say again that a year is signified by that which it [the Earth] produces in diurnal motion, for the very reason that however much it glides through in diurnal motion, the Sun produces it in yearly time. So it happens that one month signifies 389°, 29 years and a month, for the reason that 1 day or 361° signifies a year and a day. Since, therefore, the monthly motion of the Moon [☾] exceeds 360 by around 29°, and a month signifies 29 years, it will happen as before, that a degree is responsible for one year. But it is not that those 29 degrees left over are the image of 29 years, just as before there was not a single addition on the day; but the whole 389 degrees denote the whole 29 years, just as before the whole 361 were a whole year. Thus three months, which are about 90 days (as before) will signify about 90 years. And indeed the attack (*incurtio*) of the end of 29 years on a dangerous place has to be held the strongest. (And if the Moon [☾] is in a bad place after 19 years,⁴⁰ it is especially dangerous.)

There is, however, another question here. If the Moon is 4° away from Mars, 4 years are signified through equal degrees. But according to this doctrine, the Moon after 4 days has moved forward 52° and will be 48° beyond Mars. But experience shows that, if the Moon [☾] is oppressed⁴¹ in earlier years, the usual method signifies grave illnesses, up to the fourth year. Therefore here we could go in two directions, either by reducing the number of those years, until the Moon [☾] comes to the ray of Mars so that in the seventh year the Moon arrives at the square⁴² of Mars [☾ *ad* □ *Martis*] and here a reason for the crises (*climacterici*) would be given, for every direction of the Moon falls approximately at

³⁹ Modern astrologers would call these tertiary progressions (i.e., one day after birth = one lunation).

⁴⁰ Nineteen years is the length of a Metonic cycle, equal to 235 synodic months. Thus nineteen years is an amount associated with the Moon.

⁴¹ I.e., when the Moon is afflicted by being 4 degrees from Mars, a malefic planet.

⁴² *OO* has only 'radius' (ray) here; *GW* prints the glyph for 'square'. We follow *GW* here.

the septenaries⁴³); or, by directing the beginning of our month so as to maintain always the same distance [*Pulkovo V, 175r*] of the Moon from the Sun as the Sun itself has moved.⁴⁴ This would be the manner of equal direction from the Moon [☽] by the usual method.⁴⁵

We might combine both of these, so that the attacks (*incursus*) [onto a planet or point] would have the most strength when this type of direction of the true place of the Moon [☽] falls in a septenary period. Nevertheless we cannot neglect contacts (*appulsus*) of the Moon made by its own motion (so also the contacts of the Ascendant meeting in the diurnal revolution), if we wish to follow our assumed cause equally in all cases. [GW 21, 2.2, p. 499] For the direction of the Sun, since it does not go retrograde (*reditum non faciat*) when it is slow,⁴⁶ is none other than contact by its own [apparent] motion. Nevertheless it has a great effect, [and] therefore [it follows that] the Moon [☽] and the Ascendant also [must have] some effect.⁴⁷

This argument has this advantage, namely that as regards the Moon, all her motions have a joint effect and significance, just as the Sun's do. This combination should be made even [OO 8.1 p. 298] for a day signifying

⁴³ Periods of seven, whether days, months, years or even hours. The Moon is associated with the number seven because of its cycle of approximately 28 days, which would make a square or opposition with the Sun, and therefore a crisis, every seven days (these correspond to the standard phases of the Moon as well: New, First Quarter, Full and Last Quarter). Kepler's description here seems to be saying that one can decrease the amount of time that passes for each degree (symbolically).

⁴⁴ I.e., the Moon stays in the same relationship to the Sun as it was at the birth (the natal lunar phase arc); the Sun moves in solar arc. Kepler brings this up again later in the treatise (see p. 256 and n. 99, 'the Moon to its natal age').

⁴⁵ To maintain the natal lunar phase arc, the Moon has to be directed at the same rate as the Sun, thus leading to the Moon being directed by solar arc (thanks to Bernadette Brady for this observation).

⁴⁶ Note: *reditus* (lit., 'a going back' or 'return') is slightly unorthodox for 'retrograde', but it is the only interpretation that makes sense in this context, i.e. 'does not go retrograde on account of slowness' (in contrast to planets which, when about to go retrograde, do appear to slow down and then stop). Of course, the Sun (and Moon) never do go retrograde, nor do they appear to do so on Earth.

⁴⁷ 'Nevertheless we cannot neglect ... some effect.' is an addition in the margin.

more than a year,⁴⁸ so that by however much the Sun is moved through the higher arc of its daily course,⁴⁹ the Ascendant is moved the same amount in one year through the measuring arc of the equator – and this means that as often as such a direction should fall within the boundaries of the days, it will be conducted (*deduceretur*) to certain days through diurnal revolution.⁵⁰

So the directions of all the four places⁵¹ (for the Part of Fortune is fictional)⁵² might, again, depend on one cause. The first day after birth signifies a year and a day,⁵³ the first month after birth 29½ years and a month (a month from conjunction to conjunction [*ab σ in σ*]),⁵⁴ the first year after birth⁵⁵ 365¼ years, because the same number of degrees in a day, month and year is turned in diurnal motion, as the Sun completes in 1, 29 and 365 years respectively. The drawback to this doctrine, though it seems absurd, is that the signification extends to the second and third month of the child's life, rather than to the fifth or sixth hour of the first day, when the child's nature is still tender and malleable.⁵⁶ This absurdity

⁴⁸ The actual motion of the Sun could be more than 1 degree per day, depending on whether its movement is fast or slow.

⁴⁹ The ecliptic.

⁵⁰ Again we see in this paragraph that Kepler is emphasizing the Sun. Also notice that he is not using oblique ascension; he is subordinating the angles to the zodiacal motion of the Sun.

⁵¹ These would be the Sun, the Moon, the Ascendant and the Midheaven.

⁵² This echoes Ptolemy's view that 'lots' (the Greek word which became *pars*, 'part', in Latin) had no physical basis and therefore should not be used (he did use the Part of Fortune as a significator, though, justifying its use through other philosophical reasons). See *Tetrabiblos*, Book III, ch. 4, sentence 4.

⁵³ 'first...after birth' written above the line.

⁵⁴ That is, a lunar month, which would extend from new moon to new moon. (Again, 'first...after birth' is written above the line. In *OO*, 'birth' is *ortum*; in *GW*, *partum*.)

⁵⁵ Again, 'first...after birth' is written above the line (in *OO*, 'birth' is *ortum*; in *GW*, *partum*).

⁵⁶ This appears to make a contrast between what later came to be called secondary directions (i.e., progressions), in which the first three months after

could be avoided by the physical observation that it is not absurd to extend the signification indefinitely, if this were the state of the human lifespan. For life is a multiplication of the first breath, and like an outpouring of the birth from one fountain, and therefore it is not absurd that its signification remain through multiplication. /And just as a father lives with his son, so that time which truly measures our life advances together with the signification of the past time./ Motion itself, time itself are in a way a kind of flowing (*fluxio*), according to Plato, in which the force of an impression now past / (in violent motion)/ and the beginning of time due to memory (*principium temporis causa memoriae*)⁵⁷ / (for time is number)⁵⁸ is somehow present and sharing with the motion itself.⁵⁹

This doctrine excludes the rest of the planets, which are not subject to either of Earth's motions, and so cannot be signifiers, but only promitters. /But thus far [we have only talked] about the signifiers./

The next parts, in three sections, were written in different parts of the margins of the manuscript (the GW editor does not specify which parts of the main text spurred these notes). Since 'On Directions' was never published, we should consider the manuscript a draft of Kepler's thoughts on directions, especially when marginal notes are added.

Section 1

It is not absurd [that] equality is preserved, so that however much time, [even] at an extreme limit, signifies a 361fold [amount], which is also the proportion of a day to a year.

birth would represent the human lifespan, and primary directions, in which the first 5 or 6 hours after birth represent the human lifespan.

⁵⁷ Normally, in phrases with *causā* + genitive ('for the sake of...'), *causā* follows the genitive, which would be 'the beginning of memory due to time'; but Kepler's usual practice lets *causā* precede the genitive, which yields 'the beginning of time due to memory'.

⁵⁸ For time as number, see Plato, *Timaeus* 38b-d.

⁵⁹ This comment is reminiscent of Aristotle's *On Memory and Reminiscence*, Chapter 1 (449b24-450a22).

Section 2

Note: It is not the outflow (*effluxio*) of motion in that it is motion, but in that it produces something; moreover it produces something through intellection. Therefore the outflow of motion is intelligible, and that is the cause of both time and intellection, just as sound [is the cause] of the song and time. The intelligible outflow of time is its proportional multiplication. Proportion in the mind...[*edge of page missing*] motion is paired reasonably (*rationabiliter*) to motion moves the mind.⁶⁰ It is reasonable either in resemblance or dimension.

Section 3

There is a certain astonishing outflow (*exfluxio* [sic]) of light, with regard to place, for the nature of light admits dimensions. How wonderful, therefore, that there exists a certain astonishing outflow of motion or time or parts of time.

A marvelous flow of sound is the cause of place and time, because it also receives bodily dimensions, and it happens because of the disposition of bodies and because it happens in time. As sound is to the ear and light is to the eye, so geometry, harmony, astronomy are to the spirit. The little heavenly figure (*figura οὐρανίσκη*)⁶¹ is referred to geometry and light, and it has a similar outflow which endures forever. Harmony [and] astronomy [are referred] to directions, and these to sound, as the outflow is after the event⁶² and passes away.⁶³

[GW 21, 2.2, p. 500] The difficult question about the promissors is whether they should be [*Pulkovo V, 175v*] assumed as immovable

⁶⁰ ‘Proportio in mente ... motus motui rationabiliter comparatur movet mentem.’ This is not grammatically clear, because of the missing part of the page.

⁶¹ I.e., the birthchart. (See notes 27 and 64.)

⁶² ‘post rem factam’, lit. ‘after the thing is done’.

⁶³ Here I think Kepler is contrasting geometry and light, which he thinks of as eternal, to harmony and astronomy (i.e., the movements of the heavens and their recording), which pass away. Geometry and light are referred to the natal chart, which lasts forever (in that the birth moment is fixed and unchanging), but any kind of direction is referred to sound (i.e. harmony) and astronomy which pass through, making contacts with the natal chart, but do not endure.

(*immobiles*) in conformity with the little heaven,⁶⁴ or moved forward in conformity with the actual sky in the first 3 months. There's clearly a great difference. The elegant symmetry of nature argues that they should be considered movable (*mobiles*). For if these times, the day, month and year, are held as natural for significators, to the extent that their movement is varied anyhow, then why not the promittors also and, if we look at that which is truly there in that case, why should we not do the same here [in this case]? [But] experience seems to prove rather that we should assume them immovable. Let the Sun be 6° before Mars. It will be harmed in the sixth year by the equal method, if the place of Mars, and not Mars itself progressing, is the promittor. For on the 6th day the Sun reaches that place. But if the progressing Mars is being considered, the Sun hardly comes to Mars within 30 or 40 days, and so it will signify that number of years.⁶⁵ These things are easy to observe, and I have already noted that the signification belongs to Mars's [*στῆτις*] immovable place.

In addition, the little heaven is to be set up beforehand, on account of a man's character, and easily observed transits bear witness that the power of suffering resides in the little heaven, since planets and their rays⁶⁶ are led through its places (*loca*)⁶⁷ and the lodging-places (*hospitia*)⁶⁸ of the planets, although they are, of course, mostly empty of their guests (*ut*

⁶⁴ The οὐρανίσκος as the chart that represents the sky at the moment of birth; 'literally a 'little heaven' or microcosm. Of course this 'snapshot' would 'freeze' (i.e. immobilise or fix) the planets at that point in time.

⁶⁵ If the Sun is 6° from Mars, it will be 30-40 days in real time before the actual synodic conjunction of Mars and the Sun.

⁶⁶ Here is the ancient and medieval view of aspects: all aspects are conjunctions, but some are by body (what modern astrologers call a conjunction), and some are by ray (any other aspect than the conjunction), meaning that the 'ray' of the planet hits another planet by the amount of the geometrical angle of the aspect.

⁶⁷ 'Places' here, I think, just generally refers to the way the birthchart is laid out based on the time and place of birth, not necessarily to the specific 'houses' (usually called *domus* by Kepler) of the chart. For examples of *domus* as house, see the next paragraph; also the Letter to Maestlin, *OO* 1, p. 298, last line (see p. 75 in this volume).

⁶⁸ The 'lodging-place' is the planet's natal position, i.e., the sign and degree in which the planet happens to fall.

plurimum sane, vacua suis hospitibus).⁶⁹ Why, therefore, should I not now attribute to them [*the promittors*] a power to act (on account of [their] significance), that they may be outcroppings (*scopuli*) against which the significators dash in their forward flow? For even if there [the promittors] are just naked signs, [and] here [the significators] are real motions, nevertheless the impact is not considered as due to the reality of the motions, but due to the significance [of the promittor] which extends itself over many years.⁷⁰ And so acting [*by signifiicator*] and suffering [*by promittor*] are analogous (*Itaque αναλογα sunt agens et patiens*). So I, rather, incline to the belief that the two can be combined.⁷¹

Take, for example, the doctrine of revolutions and transits. It is not without effect that a planet transits another's lodging-place (*hospitium*), even if it does not find the host in that house.⁷² Nor is it entirely without effect if it meets the one which I have called the host in another place.⁷³ But if it finds that one in its own house (*domus*), this is, at last, the strongest cause (*ratio*).⁷⁴ It rivals the composition of solid proportions out of simple perfect [proportions], or the composition of the section of a line

⁶⁹ Since there are 12 houses/places and only 7 planets, it is more likely that the houses/places will be empty of planets.

⁷⁰ This sentence is very difficult. Kepler seems to be saying that the promittors, even though they are stationary, are as meaningful as the moving significators, because it is the significance of the promittors that gives meaning to the action of the significators. When the significator hits the promittor, it actualises the potential of the promittor which, up until that point, is just a 'naked sign'. It is important because it causes the hitting in the first place, and by that contributes to the events indicated by the significator. (Thanks to Bernadette Brady, Joseph Crane and Nadine Harris for insights into the meaning here.)

⁷¹ That is, considering both the stationary and the moving places of the promittors.

⁷² This means that the transiting or revolution planet lands in a place that may have been occupied by a planet in the natal chart, but by transit or revolution, it is no longer there. Yet there is still an effect, because the planet was there natally.

⁷³ E.g., when transiting planets meet, or planets in a revolution (return chart) meet. This is like looking at transit-to-transit aspects, or aspects within a return chart itself.

⁷⁴ E.g., when a transiting or revolution planet meets a planet in the same position it was in the natal chart.

in accordance with (*secundum*) the end and the middle. And maybe the reasoning behind this business has to be reconsidered. So therefore in directions, when the significators are driving toward (*appellunt*) the places of the promissors, this is of great import, and corresponds [*Pulkovo V, 176r*] to the transit through the places; otherwise, when the promissors strike [*OO 8.1, p. 299*], it has a lesser but not negligible effect. But if they should meet in the place either one that is stopping during stations or turned back to it,⁷⁵ it is of the greatest import.

Examples of this situation. First, the very slow Saturn [♄] makes its progressions (*progressus*) over a few short days.⁷⁶ Let the Sun [☉] be a few degrees before it; therefore, in a few days he [the Sun] will come to it, bumping up against it almost in its own lodging-place. 2) The situation of the Venus [♀] stations⁷⁷ is easily understood. Through [the phenomenon of] reversal (*reversio*),⁷⁸ the situation is twofold. Either if the significator moves backward (*retrocedat*) a little afterwards⁷⁹ and has a place in Venus [or] Mercury [♀]; 3)⁸⁰ or if it truly is retrograde (*revertatur*), and has a place in the Moon [♁] alone, so that if the Sun [☉] is 28° before the Moon [♁], in the same number of days [the Sun] itself and the Moon [♁] will meet in the former place of the Moon [♁].⁸¹ Note that learned men have discussed these things on account of the danger of the 27th and 28th climacteric year. It is greatly confirmed by what is already known through experience, that if directions from the past and revolutions from the present are blended, and this happens, it [*i.e., such blending*] will not be useless. For example, if⁸² the direction of the Sun is

⁷⁵ Retrograde.

⁷⁶ Kepler means Saturn's motions over days, which occur in real time, but then are correlated to correspond to the yearly motion of progressions.

⁷⁷ 'stationum' in *OO*; 'stationem' (incorrectly, we think) in *GW*.

⁷⁸ Literally 'turning back', i.e. retrogradation.

⁷⁹ I.e., is stationing and about to go retrograde.

⁸⁰ Written '4' in the manuscript.

⁸¹ Here Kepler refers to the secondary progressed return of the Moon to its natal position (thanks to Bernadette Brady for this observation).

⁸² Reading 'ut si' for 'nisi' in the transcription (thanks to Charles Burnett, who suggested it could be easy to misread 'nisi' for 'ut si'), which consequently

to the lodging-place of a planet and that planet is found there in the present time; or also if a planet advancing in its own true motion highlights (*ostendat*) a direction advancing elsewhere, yet this is of lighter significance.⁸³

Within the 30th year of my life, I would have a direction of the Moon to oppose [natal] Mercury, [and] a very strong square to [natal] Mars [♃ *ad* S ♄, ☐♂ *fortis valde*], for it is in the return of the month (by direction) and highlights these rays there.⁸⁴ Within the 29th year, however, the Sun [☉] would be in <square> [☐] to [natal] Saturn [♄] by direction, with Saturn [♄] immovable, and in the 30th year in square to Saturn [☐♄] (considered movable).⁸⁵ [GW 21, 2.2, p. 501] The year therefore is extremely dangerous. And since there are⁸⁶ 29 days between 15.7 Capricorn [v] and 14.34 Aquarius [b], the time of the additions is 2 hours 3 minutes, therefore for the end of the 29th day after my birth add 2 h. 3' to the Midheaven. The same will be added to the rising place which, since it is 24.40 Gemini [♊] /in latitude 49° (*a<litudo> p<oli> 49*), it

provides examples of Kepler's previous statement about blending directions and revolutions (revolution being the planet moving in the present).

⁸³ Here Kepler provides two examples of the blending of directions and revolutions, first where the directed Sun contacts a transiting planet, and second where a transiting planet contacts a directed planet. In using the word 'revolution' in a general sense here, Kepler does not mean solar or annual revolution, but the continuous movement of planets in real time, or what modern astrologers would call transits.

⁸⁴ During Kepler's 30th year, the progressed Moon will return to its natal place (see note 74).

⁸⁵ Kepler is directing (i.e. progressing by solar arc) the Sun both to natal Saturn and to progressed Saturn. We can ascertain that he is not referring to transiting Saturn, because Saturn by transit in January 1600 (Kepler's 28th birthday was on 6 January N.S.) is at 27° Libra, and in 1601 (on Kepler's 29th birthday N.S.) it is at 9° Scorpio, neither of which positions square the directed Sun; but the directed Sun in 1600 (Kepler's 29th year), at almost 14° Aquarius, will square natal Saturn during that year, and during his 30th year (29th birthday), the directed Sun at almost 15° Aquarius will square progressed Saturn at 15° Scorpio.

⁸⁶ *GW* has 'intersunt'; *OO* has 'intersit'. We follow *GW* here.

will proceed⁸⁷ by direction, at the end of the 29th year, to 21 Cancer [f], not a bad place.⁸⁸ And since the 365 days of the year 1601 flow by 361 degrees of the equator on the 29th day after my birth,⁸⁹ therefore after 24 days,⁹⁰ i.e. 30 January, [the Ascendant will be] in sextile with Mars; after 31 days, i.e. 6 February, in square with Saturn; after 80 in opposition with Jupiter (i.e., 30 March); after 107, i.e. 23 April, in conjunction with Mars, around 12 June in conjunction with Saturn.⁹¹

What the soul⁹² does really, /suddenly/ and durably in the present on account of the present astronomy, it repeats and carries out the same transitorily in the future, on account of the multiplication and extension (*prorogatio*) of this astronomy, about which [I have spoken] above. But

⁸⁷ *OO* has ‘profiscetur id per directionem’; *GW* has ‘Profiscetur id directionem’.

⁸⁸ ‘not a bad place’ added in manuscript. The sign of Cancer falls in the first and second houses, which are not bad astrologically speaking (although the first house is ‘better’ than the second). Here Kepler is adding the solar arc in right ascension to both the Midheaven and the Ascendant. Note that Kepler is only directing the Sun and the Ascendant by solar arc in right ascension here, not other planets.

⁸⁹ Corresponding to the year 1601.

⁹⁰ I.e. 24 days after his birthday on 6 January NS.

⁹¹ I think that here Kepler is using what amounts to secondary progressions with quotidian-progressed angles. Thus the angles move forward each day in accordance with the real motion of the Midheaven from one day to the next (the clue that he is doing this is in his mention of ‘361°’). Using a modern calculation program (Solar Fire Gold) with the progressed chart showing the progressed Midheaven’s Mean Quotidian position (thus moving 361° per day), we can move the chart day by day through the year 1601, coming very close to the aspects to the Ascendant that Kepler describes: on 30 January 1601, the Ascendant (by quotidian progression) reaches about 8° Leo, sextiling natal Mars at 8° Libra. On 6 February 1601, the Ascendant reaches ca. 13° Leo, close to the square of natal Saturn (14° Scorpio); on 27 March 1601 (correcting Kepler’s date of 30 March in the ms. (i.e., 80 days after 6 January 1601, Kepler’s 29th birthday, is 27 March 1601) the Ascendant reaches 18° Virgo, opposite natal Jupiter at 18° Pisces; on 23 April 1601 the Ascendant reaches 7° Libra, close to conjunction with natal Mars at 8° Libra; and on 12 June 1601, the Ascendant reaches 13° Scorpio, almost conjunct natal Saturn.

⁹² ‘anima’ in *GW*; ‘animus’ (‘mind’) in *OO*; we follow *GW* here.

why does it [the position of the stars] not destroy in the present, when its action is stronger?⁹³ It is because the recently born child is well-tempered (εὐκράτος).

[Pulkovo V, 176v] **A more careful exposition (*diductio*)⁹⁴ of the methods (*partes*).**

First, in direction, since a day denotes a year, and there are three distinct motions of the Earth – of the year, the month and the day – this direction becomes threefold. Next, either the leader (*caput*) of the year, month, [or] day progresses (*progredditur*), because it is of the most powerful import, or a planet progresses from the leader (*sidus a capite*).⁹⁵ So the progression (*progressio*) of significators⁹⁶ becomes six-fold. Third, the meetings (ἐντεύξεις)⁹⁷ either to the natal places of the promittors or to their transitory (*ephemera*) places are considered. And so the direction becomes twelve-fold.

Explanatory note: Directions involve the motions of the year, the month and the day. So there are three types of directions, i.e. progressions – yearly (secondary), monthly (tertiary) and daily (quotidian). The leader of the year, month or day progresses (for leaders, I think he must mean the Sun, the Moon and the Ascendant). So to the three types of direction are added three significators, and thus the direction is in six ways. The three significators moving in the three motions can make contact either to the natal place of the promittor, or the transitory place (I think this is transit by progression, not actual movement in the sky in the present.

⁹³ *OO* 8.1, p. 299 has: ‘...anne actio ejus est fortior?’ ‘or is its action [not] stronger?’ *GW* 21, 2.2, p. 501 has: ‘...<c>um actio ejus est fortior?’, which seems more sensible. In other words, why do the ‘flaws’ in the birthchart not immediately destroy the child?

⁹⁴ Now Kepler begins to outline the different methods of ‘direction’ in comparison with ‘revolution’.

⁹⁵ I.e., a planet that has any relationship to the leader, based on the leader’s motion.

⁹⁶ *GW* 21, 2.2, p. 501 has ‘significatorum’; *OO* 8.1, p. 299 has ‘significationum’, ‘significations’.

⁹⁷ *OO* 8.1, p. 299 has ἐντεύξεις (‘bindings’), but since Kepler uses the verb ἐντυγχάνω (‘meet’) in the next paragraph, we think it likely that he is using the noun associated with that verb (i.e. ἐντυγχάνω) here.

Evidence for this being the case is shown in Kepler's previous example of the movements of Sun and Saturn by progression in his 29th and 30th years [see p. 253]). Thus there are twelve possibilities for using directions.

In revolutions, since three stars are directed, the same number of significators also will return (*revolventur*): the Sun, the Moon, the angles. The Sun returns to <its> natal declination,⁹⁸ the Moon to her natal age,⁹⁹ the angles to the natal hour.¹⁰⁰ But will a star, in any year, come to the point where it is directed? No, but each of the motions happens in the same zone (*plaga*). The [comparative] proportion of the motions in fact = 1:36<0>. But thus the revolution¹⁰¹ becomes threefold. Next, the revolutionary places, which are now this and now that under fixed [conditions], either fall on the natal or transitory places of the promittors. Thus the revolution is six-fold.¹⁰²

Explanatory note: So in revolution charts, we have three possibilities: the Sun returning to its natal declination (and to the same position in its declination cycle), the Moon returning to its position relative to the Sun (i.e., a lunar phase return), the angles returning to their natal positions. Thus there are three kinds of revolutions. And each of the revolution charts can contact the natal or the transitory position of a promittor (by 'transitory' here, I think Kepler means the transiting position in real

⁹⁸ Using the celestial equator as his reference point, rather than the zodiac. By 'declination', I think that Kepler means both at the same declination and in the same place in the Sun's declination cycle; I think that the second condition must apply for Kepler, because his calculated solar returns are all to the Sun's birth longitude. (Thanks to Joseph Crane for his insight here.)

⁹⁹ A chart for when the Moon is at the same position in relation to the Sun as it was at the birth; this keeps the angular measurement between the Sun and the Moon. This would be a lunar phase return, in contrast to a lunar return, where the Moon returns to its natal place.

¹⁰⁰ A chart cast for the same angles as the birthtime (these are known as 'diurnals'). These are all different kinds of 'return' charts, which Kepler calls 'revolutions'.

¹⁰¹ 'illa triplex revolutio' in *OO* 8, p. 299; 'ita triplex revolutio' in *GW* 21, 2.2, p. 501.

¹⁰² All text after this point is omitted in *OO*.

time). Thus there are six ways that revolutions can be used. At this point the transcription continues in GW:

However, in the revolution, which is transitory, you will consider the transitory places more; in the direction, which is natal, you will likewise consider the natal places. Third, they [*i.e.*, *the natal places*] are tacked on to the revolutions, so that either the leader of the <re>volution meets with (ἐντυγχάνου) [them], or the planet (*sidus*) itself. The revolution becomes twelve-fold.

Explanatory note: So the leaders or stars (planets) of the revolution can contact transitory places or natal places, and thus the six types of revolution become twelve.

From here to the end of the manuscript page, according to the editor of GW (p. 502, note 1), the text appears as individual notes, tightly written, much corrected and with additions above the line and in the margin of the manuscript.

The leader (*caput*) of the year under fixed [conditions], the Sun, under the same declination, of course (as in Tycho's nativity), may come to the immovable place of Saturn [♄] under fixed [conditions].

Example: Return Sun comes to natal Saturn. Naturally the position of the birth Sun and return Sun are identical.

[GW 21, 2.2, p. 502] The leader of the year, the Sun, in the same declination under fixed [conditions] may come to the place of Saturn [♄] in the revolution¹⁰³ under fixed¹⁰⁴ [conditions].

Example: Return Sun comes to transiting (i.e. return) Saturn

Because of slowness, these two modes should be held to be rejected (*inter rejectio<nem>*).¹⁰⁵

¹⁰³ According to the GW editor, 'in the revolution' is an addition above the line.

¹⁰⁴ GW editor's note (p. 502, n. 3): 'f<ixis> illegible in the manuscript margin' (note: only one letter is visible).

¹⁰⁵ The GW editor points out (p. 502, n. 4) that 'rejectio<nem>' is illegible in the margin. But Kepler's point appears to be that in practice, these two modes are virtually useless in interpretation, because 1) the natal and return Sun are the same, and thus the return Sun duplicates the natal Sun's aspects to natal planets; and 2) slow-moving planets like Saturn will make the same aspects for a long time.

If, however, instead of the leader of the year you select the whole chart (*thema*), you will have grasped all [matters] through the Moon [☾] and the M.C. The leader of the year may come to the moving place of the promittor, which precedes, if it is direct; [and] follows, if retrograde. As in Tycho's nativity, Saturn [♄] is ahead of the Sun [☉] by 4 degrees.¹⁰⁶ Therefore, consider that day by day from [the day of] the nativity Saturn [♄] comes into the place of the Sun [☉]. [Such a practice has been] insufficiently considered thus far, but of great import, I think. This kind of transit may be called 'directory'. And this is the first mode of direction.¹⁰⁷

Direction Mode 1. Example: moving ('transiting') Saturn conjunct natal Sun. In direction, this equates to the movement of (progressed) Saturn to conjoin natal Sun.

The Sun under the same declination falls into the movable place of the promittor. This is the legitimate (*justus*) revolution and its first mode.

Revolution Mode 1. Example: Natal/return Sun conjunct transiting Saturn (i.e. in the solar return chart).

Understand the whole natal chart, instead of the Sun – thus far, the old [positions] should be kept (*tenendi veteres*).¹⁰⁸ But also <understand> the parts of the chart separately, [for example] the transits of the promittor, as you mention.

The Sun himself approaches (think, e.g., of my nativity) the natal place of the square with Saturn (*ad locum ☐ ♄ natalitium*). This is the direction of the Sun in the ecliptic (*in eclipsi*) through diurnal [motion] of the Sun, and the second mode of directions to be considered.

Direction Mode 2. Example: Progressed Sun squares natal Saturn

The Sun himself approaches the natal square (☐) with Saturn (♄). This may be called a diurnal profection. And it is another mode of revolution.

Revolution Mode 2. Example: Transiting Sun squares natal Saturn. (The transiting sun, **but not necessarily the return Sun**, squares natal Saturn; this is called a diurnal return in modern astrology.)

¹⁰⁶ In Tycho's birthchart, Saturn is at 28° Sagittarius, and the Sun is at about 2° Capricorn. (See *GW* 21, 2.2, p. 288, No. 690, Tycho's Horoscope.)

¹⁰⁷ This is transiting Saturn meeting the natal position of the Sun.

¹⁰⁸ I think this means the natal positions.

The Sun himself approaches the transitory (*ephemeron*) square (□) with Saturn (♄). This is a third mode of directions. And it can be called an aspect of direction.

Direction Mode 3. *Example: Progressed Sun squares progressed Saturn.*

The Sun himself approaches the transitory square (□) with Saturn (♄). This is the third mode of revolutions and is called simply aspect.

Revolution Mode 3. *Example: The transiting Sun squares transiting Saturn (not necessarily in a return chart).*

From here to the end of this section was written in the margin of the manuscript. I do not think that the numbering necessarily correlates to the different numbers of the modes listed above. I think Kepler is just making (numbered) points about directions and revolutions. However, the text is very opaque here. Given the amount of additions, corrections and marginalia, it is clear that this part of the treatise is still very much in draft stage.

In direction 1. In [the case of] the Moon [♌], its direction is through the arcs of the ecliptic, i.e. the Sun's diurnal motion [☉]. In [the case of] the Part of Fortune [♌], [its] direction, instead of the diurnal motion of the Sun, [is through the arcs] corresponding with the daily [motion] of the equator.

In revolution 1. Here also the leader of the month, such as for me fell near the thirtieth [of the month] in 6° Cancer [♋]. In [the case of] the Part of Fortune [♌]. If natal, think of it coming into the rising place (*in ortum*) or Midheaven at the hour of the birthday.

In direction 2. In [the case of] the Moon [♌], if the leader of the month falls in a bad aspect. In the case of the Part of Fortune [♌] likewise, if the Ascendant [and] MC at the natal hour are attacked bodily or by rays.

In revolution 2. Called by Ptolemy 'yearly transit' (ἐνιαυσιαία παροδος [sic *accents*]).¹⁰⁹ If Mercury [♃] is at 22 Aquarius [♒] on the MC.¹¹⁰ If

¹⁰⁹ These are Ptolemy's 'annual profections', detailed in *Tetrabiblos*, IV, 10. *GW* 21,2,2, p. 502, n. 12 wrongly calls ἐνιαυσιαία παροδος 'vergangene Zeit' [past time]. It appears that Kepler has interpreted this as a reference to the solar return.

¹¹⁰ This is a reference to Kepler's chart, which has a Midheaven of 22° Aquarius.

there is a conjunction of Mars and the Moon [within?] 5 [degrees?] [σ ♂ ♃ 5]. If anything is 1 [degree?] from the Sun [☉1].¹¹¹

In direction 3. In [the case of] the Moon [♃], a degree signifies a month on account of the Sun. In the case of the Part of Fortune [♁], a degree [signifies] a day or, thereto, 384 deg[rees] [signify] 29 ½ years and 361 de[greess] [signify] a year, by fixed [conditions].¹¹²

In revolution 3. As if the Moon [♃] [came] to 14 Scorpio [x],¹¹³ and if 14 Scorpio [x] [came] to the rising [place] (*in ortu*).

In direction 4. Here too the journey between the Moon [♃] and the place of the future aspect is considered 384 [degrees =] 29 ½ [years]. And here between the MC and the place of the aspect.¹¹⁴

In revolution 4. As if the Moon [came] to the square with Saturn [♄ in ☐♄]. Or if Saturn [♄] [came] to the rising [place] [*ortus*].

[GW 21, 2.2, p. 503] Depiction of the Directions with an example¹¹⁵

[*Pulkovo V, 177v*] When any planet comes to a place in the radix, because that [place] is observed as immovable, it may be called ‘contact’ (*appulsus*), just as to a target...¹¹⁶

When, however, [it comes] to the movable place of a planet, because that is as if by chance, it may be said to ‘seize’ (*apprehendere*).¹¹⁷

¹¹¹ It appears that Kepler is giving orbs for the interpretation of the return chart. I am not sure why he mentions these particular aspects; perhaps they are germane to his own birthchart?

¹¹² I think these are tertiary progressions (for the Moon) and quotidian progressions (for the Part of Fortune). Also, 384 may misread the correct 389 (360 + 29), which Kepler discussed earlier (GW 21, 2.2, p. 498; p. 245 above). A manuscript 9 could be misread as a 4 (thanks to Charles Burnett for his advice here).

¹¹³ 14° x is the position of Kepler’s Saturn.

¹¹⁴ Again, misreading 389 as 384.

¹¹⁵ Title written in German by the GW editor.

¹¹⁶ GW 21, 2.2, p. 503, n. 2 says ‘illegible in the page margin of the Ms.’.

¹¹⁷ As in ‘seize the moment’?

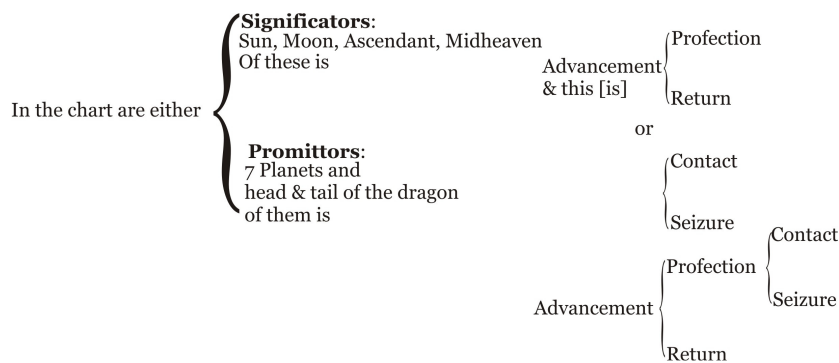
Seizure may be twofold, either as of the significator, which may be said to advance (*incedere*), or as of the promittor, which may be said to progress or regress (*progredi vel regredi*).

Advancement (*incessus*) also is divided into profection and return (*profectio et reditus*). Profection is the direction of the day, month, year.¹¹⁸ Return (*reditus*) is the direction of the leader (*caput*).¹¹⁹

All these are valuable either in the future or in the present. Save only that in respect to the future there is no return (*reditus*) of the Sun, when [*Pulkovo V, 178r*] a man dies. And in respect to the future, the signification may be called direction; in respect to the present, [the signification may be called] revolution.

Revolution, in fact, is either of the day, the month or the year; of the day [*i.e., diurnals*] is most common on account of frequency and is not remarkable. The revolution of the month is examined by Cardano. The [revolution of] the year [is] from the years.¹²⁰

Figure 3. Kepler’s Flow Chart of Significators and Promittors
 [*Pulkovo V, 178r*]¹²¹



¹¹⁸ Based not on planets and their actual movement, but on the passage of time; this would violate Kepler’s naturalistic sense of astrology and would be consistent with his mistrust of the zodiac signs.

¹¹⁹ When one directs a leader (i.e. Sun, Moon, Ascendant), it is called return (a form of revolution).

¹²⁰ ‘Anni ab annibus’. *Annibus* is a rare ablative plural form for ‘annus’ (assuming that Kepler is referring to years here).

¹²¹ This entire list (‘Significators...Return’) was later crossed out in the manuscript.

As significators they advance (*incedunt*), profect (*proficiscuntur*), return (*redeunt*).¹²²

As promittors, the same motion which before was called profectio, is now progression or regression (*progressio vel regressio*).

And both by consequence are called something else: Contacting, Seizing.

[*Pulkovo V, 178v*] Anyhow, since the day is multiplied into a year, and from the diurnal it becomes yearly, not the whole system of heaven, but only that which has brought about the day – namely the Sun – and because of the Sun, the Ascendant and M.C., are directed, and the originator (*principium*) of the month [*i.e. the Moon*]. From this point ‘progressions’ or ‘regressions’ of the promittors seem to have to be disregarded, and only ‘contacts’ must be considered.

Since it does nothing as far as the day is concerned, that Saturn is [regarded as] slow or quick. For that does happen within a day. Certainly a character which is imprinted, is imprinted in the moment; in it are significators and promittors. Now direction happens only in respect of significators; for it is the multiplication of character through proportion, by what part it is proportional, and it is only proportional by ratio to the day. Accordingly the other places of the Sun are added into the character, but not likewise the places of the other planets. And therefore the places of the planets come into the character, as silent places, the places of the Sun and [*GW 21, 2.2, p. 504*] Moon [work] in either way, and as such are [both active] agents, for example when the Sun (☉) by direction comes to the M.C., it affects the M.<C>.; or passive [recipients], for example when the Sun (☉) is affected by the permanent square of Saturn (☉☿).

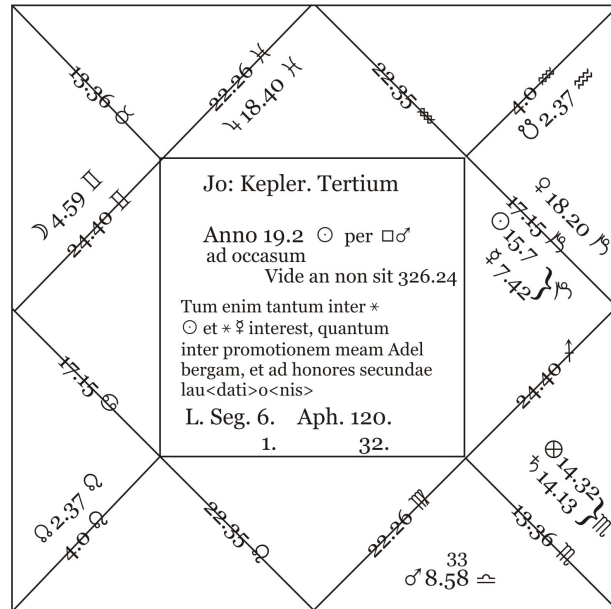
Therefore, since the Moon (☾) is borne by a double motion, both its own and another’s, and by the one common to it and the sun, because of these reasons it is included here, but not there. For that one [*i.e. the Moon*] is [acting] as promittor, as [well as] significator. For the significators are ..¹²³ changeable by the motion of the Earth.

Here we provide Kepler’s final (rectified) birthchart, for ease of comparison with the directions given below.

¹²² ‘Advance’, ‘profect’ and ‘return’ are emphasised in the manuscript with larger handwriting.

¹²³ Incomplete word as transcribed in the text: ‘de..untur’.

Figure 4. Transcription of Kepler's third (final) birthchart
 [Pulkovo XXI, 457v]



Comp[lete]: 30 [days after birth]

Note: these are the progressed/directed positions on Kepler's 30th birthday, 27 Dec. 1601 O.S. (6 Jan. 1602 N.S.), corresponding to the (O.S.) date of 26 January 1572.

1572	☉ 15.30b	♃ 8.15f	♄ 15.54x	♅ 24.22n	♂ 17.52n ¹²⁴
26. Jan(uary)	r 26 b	♀ 30 b	L 1. 6g	MC 26n	Asc. 22 f

The Sun moves (*revolvitur*)¹²⁵ beyond the square with [natal] Saturn [♄♃].

Explanatory note: Kepler's natal Saturn at 14°13' Scorpio, the progressed Sun at 15°30' Aquarius.

¹²⁴ GW has n (Pisces), but it must be z (Libra). That is the only way that Mars could trine the revolution/return Sun. (I suspect this is a transcription error, not a manuscript error.)

¹²⁵ The verb is not the technical term 'revolve' as in revolution, but in the sense of movement in general, whether by direction or transit.

Saturn is entering (*ingreditur*) the place of the moving Sun (*in loco revolutionis Solis*) by square. Thus on this day there occurs a conjunction of the Sun and Saturn [$\sigma \odot \text{♄}$].¹²⁶

The Moon moves (*revolvitur*) beyond the opposition with [natal] Mercury (♁) and after a few days [goes] to a square with [natal] Mars (♂).

Explanatory note: Kepler's progressed Moon at 8°15' Cancer, natal Mercury at 7°42' Capricorn; his natal Mars at 8°58' Libra.

The leader of the month [*i.e. the Moon*] nearly moves (*revolvitur*) to the same place, without a doubt to 5°30' Cancer [♋], to opposition with [natal] Mercury, square with [natal] Mars [♁ , ♂].

Explanatory note: Kepler's natal Mercury at 7°42' Capricorn and his natal Mars at 8°58' Libra. On 26 Jan 1572, the Moon returns to its natal phase with the Sun when it comes to 6°22' Cancer (using the phase angle given by Kepler's calculation of his Sun [at 15°07' Capricorn] and Moon [at 4°59' Gemini], thus 140°52').

The M.C. moves (*revolvitur*) to 26° Pisces [♓]. Two days ago Jupiter was entering the place of the moving M.C. (*revolutionis MC*).

Explanatory note: I.e., two days ago, equating to two years ago, progressed Jupiter was at 24° Pisces, where the progressed M.C. also was.

Now it is entering the place of the [natal] Ascendant by square.

Explanatory note: Progressed Jupiter at 24° Pisces, natal Ascendant at 24° Gemini.

The Ascendant moves (*revolvitur*) to 22° Cancer [♋]. 5 or 6 days ago, Mars was entering the place of the moving Ascendant (*revolutionis ascendentis*) by square; after two days it will enter the place of the moving Sun (*revolutionis Solis*) by trine. Thus on this day there occurs a trine of Sun and Mars [♁ , ♂]. At this time, it enters [the place of] [natal] Venus by square.

Explanatory note: Five or six years ago (1596 or 1597), progressed Mars was squaring the progressed Ascendant. In 1597, progressed Mars was at 16° Libra, progressed Ascendant was at 17° Cancer. In 1596, progressed Mars was almost at 16° Libra, progressed Ascendant was almost at 17° Cancer. In 1604, progressed Mars will move to 17° Libra, trining the progressed Sun at 17° Aquarius. In 1604 the progressed Sun will also move into a square with natal Venus.

¹²⁶ Kepler means a conjunction by ray (*i.e.* a square), not by body.

4 days ago, Venus was on the [*natal*] MC, 2 days ago in trine with the [*natal*] Ascendant. 5 days ago Mercury was on the [*natal*] MC, 3 days ago in trine to the [*natal*] Ascendant.

Explanatory note: Four years ago, progressed Venus was in the 22nd degree of Aquarius, conjunct Kepler's natal MC at 22° Aquarius. Two years ago, progressed Venus at 24° Aquarius trined his natal Ascendant at 24° Gemini. The position of Mercury is notoriously difficult to calculate (Kepler's natal position for Mercury, 7°42' Capricorn, is actually off by 2 degrees); we can assume Kepler thought that five years ago, progressed Mercury would be at 22° Aquarius and conjunct his natal MC, and three years ago, at 24° Aquarius, trining his natal Ascendant; but actually, using the position Kepler used for his natal Mercury (7°42' Capricorn), his progressed Mercury would have fallen at ca. 20° Aquarius in 1597 and at ca. 24° Aquarius in 1599.¹²⁷ [Dresden, Sächsisches Hauptstaatsarchiv, Loc. 8113, 66r]

2. Method of natural directing¹²⁸

If you want to direct the hylegical places¹²⁹ to the exact thirtieth year, then count thirty days from the birthday in the Ephemeris, for the year of birth; if the birth hour is twelve noon of that place for which the Ephemeris is computed, then also that place of the Sun, which is found in the Ephemeris after 30 days, is the place of the direction of the Sun.

If the birth hour is not precisely the twelfth hour, then for the birth day itself carefully find out the difference between the place of the Sun at noon and the place of the Sun at the birth hour. Also establish such difference between the place of the noon Sun, after the thirtieth day, and the place of the directed Sun.

For the Moon, see how much difference there is between the places of the Sun at noon on the birth day and the thirtieth day; add this difference

¹²⁷ The progressed positions for this note were calculated with a modern calculation program, Solar Fire Gold.

¹²⁸ Here, according to *GW*, a different hand has added 'Master Kepler's doctrine'.

¹²⁹ Traditionally, the hylegical places (those which determine length of life) are the positions of the Sun, Moon, Ascendant, Midheaven and Part of Fortune. For more of Kepler's thoughts on the theory of the hyleg (also called *apheta*), see **Part III.2**, pp. 274-276 in this volume.

to the natal place of the Moon, and the place of the directed Moon at year 30 will be produced.¹³⁰

For the Asc[endant], MC and the Part of Fortune (♃).¹³¹ Take the place of the directed Sun; with this, and with the birth hour, erect the chart; the place of the directed MC will be produced in the MC; in House I the place of the directed Asc[endant] will be produced; to which add the radix distance of the Moon (♁) from the Sun (☉); the place of the directed Part of Fortune will be produced. (♃).

Example

Let the radix be 1581, 25 December O[ld] S[tyle]. Hour: 17.30.¹³² Place of the Sun 14°15'v. Moon 18°28' v. MC 7°24' z . Asc[endant] 9°40' c. Part of Fortune 13°53' c.

The direction is to be made after 39 [years] have passed
[GW 21, 2.2, p. 505]

Therefore, at noon on 26 Dec. the place of the Sun	14°32'v		9 ^s 14°32'
at noon on 3 Feb[ruary] 1582 the place of the Sun	24. 6 b		10. 24 6
Arc of direction	39.34		39.34 ¹³³
Place of the radix Sun	14.15 v		
Place of the directed Sun	23.49 b		
<Arc of direction	39.34>		¹³⁴
Place of the radix Moon	18.28 v		
Place of the directed Moon	28. 2 b		¹³⁵

[Dresden, Loc. 8113, 66v] For the M.C. and Asc[endant]

¹³⁰ This method directs the Moon by solar arc; but in the previous example of Kepler's age 30 directions, the Moon was not directed by solar arc, but by its own motion (roughly one degree per month).

¹³¹ Kepler consistently uses this glyph for the Part of Fortune, as opposed to the modern glyph of ^.

¹³² We do not know whose birthday this is.

¹³³ 9^s is 9 signs; the answer, 39.34, is obtained by adding the 30 degrees of one sign to the 9°34' already obtained by subtraction.

¹³⁴ Editor of GW has added this for clarification.

¹³⁵ Unlike the previous example of Kepler's own directions in 1602, where the Moon was directed by its own motion, here Kepler directs the Moon by solar arc.

[RA = Right Ascension]

Place of the directed Sun 23.49 b . RA Temporal Hours 21.44
 Birth Hours 17.30
 Right Ascension of directed M.C. 15.14

This temporal RA gives a M.C. of 21 x as place of the directed M.C.

It also gives an Ascendant of 16 v as place of the directed Asc.

Distance of the radix ☽ from the ☉ 4.13

Place of the directed Part of Fortune 20.13 v

In this nativity Mars [♂] in the radix is 27°36' c. In what year does it come to the Ascendant?

The table of houses indicates around 14.3 hours,

27° 3/5 cis rising, when 3 x is the midheaven

But in the radix the M.C. was 7.24 z temporal hr in RA 12.27

temporal hour of radix Sun in RA 19. 2

Contradictory (Ἀντίλογον) 6.35 Difference in RA 6.35

For year 22, which I suspect is the direction of the Asc. to Mars [♂]:

After 22 days from the radix,¹³⁶ i.e. 17 January 1582.

Sun [☉] at noon 6.54 b

At noon in the radix 14.32 v

[Arc of direction] 22.22

[Arc of direction] <22.22>¹³⁷

Place of the Sun [☉] at radix hour 14.15 v

Place of the directed Sun [☉] 6.37 b RA temporal¹³⁸ hour 20.36

Birth hour 17.30

Right Ascension of directed M.C. 14. 6

gives degrees of the Ascendant 29 c

Therefore I supposed well. For at age 21, the Ascendant directs to 27 ³/₅ c.

¹³⁶ GW has 'radis' but it must be 'radicis'.

¹³⁷ GW 21, 2.2, p. 505, note 4 says: '<Arcus directionis 39.34> put in by editor for clarification.' But of course the arc of direction at age 22 will certainly not be the same as the previously calculated arc of direction at age 39! Kepler has correctly calculated the arc of direction as 22.22, i.e. the arc from 14°32' Capricorn to 6°54' Aquarius. I have replaced the editor's incorrect arc with the correct arc here.

¹³⁸ GW has 'temporis' ('of time'), but it must be 'temporaria' ('temporal') as it was above.

[*Dresden, Loc. 8113, 75v*]¹³⁹ The direction is to be made after 47 years have passed

[*GW 21, 2.2, p. 506*]

At noon on the day of the radix,

26 December in the year 1581 the place of the Sun 14°32' v 9^s 14°32'

At noon 11 February, 1582 the place of the Sun 2. 9 n 11. 2. 9

Arc of direction 47.37 1.17.37

Place of radix Sun 14.15 v

Place of directed Sun 1.52 n

<Arc of direction 47.37 >¹⁴⁰

Place of radix Moon 18.28 v

Place of directed Moon 6. 5 n

For the MC, Ascendant and Part of Fortune

Place of directed Sun 1°52' n.	RA temporal hour	22.15	See table
	Birth hour	<u>17.30</u>	of houses at
	RA of directed M.C.	15.45	latitude...

This temporal RA gives an M.C. of 29 x – place of directed M.C.

It also gives an Ascendant¹⁴¹ of 26 v – place of directed Asc

Distance of radix Moon from the Sun 4.13 gives place of directed Part of Fortune 0.43 b

The revolution is to be made after 39 years. In Tycho, see page 108.¹⁴²

35 years in v give the hour 11.51' For directing 17.30

4 years in v give 23.17 At 40 16.58

1581 11. 8 1621. 25 Dec., hour 10.28

39 17.30 1620. 25 Dec., hour 4.38

1620. 25 December hour 4.38 1619. 25 Dec. hour 23.50

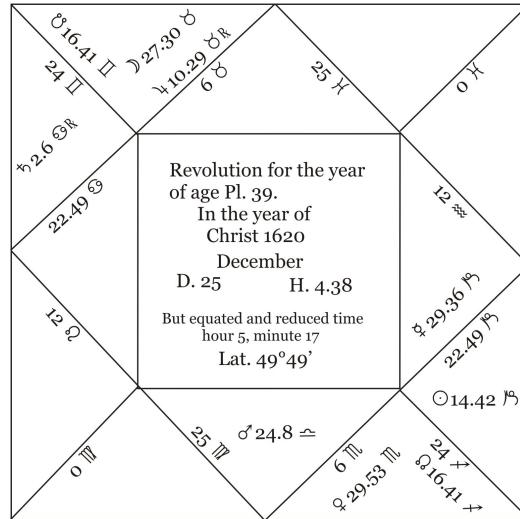
¹³⁹ The calculation for age 47 has been done in a foreign hand, according to *GW*.

¹⁴⁰ Added for clarification by *GW* editor; though the note in *GW* (p. 506, n. 1) incorrectly says the arc is 39.34.

¹⁴¹ Making 'Asc' in the text in the accusative case.

¹⁴² 'In Tycho...108' in margin.

Figure 5: Transcription of the solar revolution for 1620¹⁴³



(Dresden, Loc. 8113, 76r) For revolutions:
 See fol. 108 in Tycho's Book 1 [Written in a foreign hand in the margin]
 [In Kepler's hand:]
 Seek from Tycho Brahe the longitude of the year begun from the birth day place of the Sun, up to the same. Add this longitude to the natal hours and minutes, and you will have the hour and minute of the revolution.

[The next two calculations in a foreign hand:]
 The revolution is to be made after 39 years.
 The radix was in the year 1581. 25 December, hour 17°30'.

[GW 21, 2.2, p. 507]

<p>35 Years give in v 11^h51'</p> <p>4 Years give in v <u>23.17</u></p> <p style="margin-left: 20px;">35. 8</p> <p>In the year 1581. 25 Dec., hour <u>17.30</u></p> <p style="margin-left: 20px;"><u>52.38</u></p> <p>That is in the year, 25 Dec. hour 4.38</p>	<p>For directing the hour 17.30</p> <p>To 40 <u>16.58</u></p> <p>1621. 25 Dec. 10.28</p> <p>1620. 25 Dec. 4.38</p>
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¹⁴³ The positions are taken from the transcript in GW 21, 2.2, p. 506. The format is similar to that used by Kepler for other charts. Note: we are not sure what word is abbreviated by 'Pl.' in the central square.

[*Now again in Kepler's hand:*]

A strong semisextile aspect has one sign, as γ 26v, ♃ 26b .

A quintile has 72 degrees. \odot 14v stands in quintile to 26n
or \odot 14v in quintile to 2x.

A biquintile has 144 degrees, that is, 6 degrees less than five signs.

as ♃ at 26b stands in biquintile to 20f
or ♃ at 26b in biquintile to 2z .