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Johannes Kepler's Horoscope Collection

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Updated and translated from the German by Patrick J. Boner; * additional editing by Dorian Greenbaum

Astrology in Kepler's time (1571-1630) experienced a second highpoint in its history. Kepler the astronomer also had to deal extensively with astrological questions. From these questions came his theoretical writings on astrology, *De fundamentis astrologiae certioribus* (1602), *Antwort auf Röslini Diskurs* (1609), *Tertius interveniens* (1610)¹ and *Harmonice mundi* (1619), Book 4, Chapter 7.² However, while these writings have been considered in numerous scholarly studies,³ Kepler's dealings with

* Boockmann's original article appeared as 'Die Horoskopsammlung von Johannes Kepler', in *Miscellanea Kepleriana. Festschrift für Volker Bialas zum 65. Geburtstag*, eds Friederike Boockmann, Daniel A. Di Liscia and Hella Kothmann (Augsburg, 2005), pp. 183-203. [Ed.]

¹ Johannes Kepler, *Gesammelte Werke*, ed. the Kepler-Kommission, Bayerische Akademie der Wissenschaften (Munich, 1937–) (hereafter referred to as KGW), vol. 4 (1941).

² KGW, vol. 6 (1940), pp. 264ff.

³ Robert S. Westman, 'Kepler's early physico-astrological problematic', *Journal for history of astronomy* (2001), vol. 32, pp. 227-36; Judith V. Field, *Kepler's geometrical cosmology* (Chicago, 1988); Judith V. Field, 'A Lutheran astrologer: Johannes Kepler', *Archive for history of exact sciences* (1984), vol. 31, pp. 189-272; J. Bruce Brackenridge and Mary Ann Rossi, 'Johannes Kepler's *On the more certain fundamentals of astrology*' (translation and commentary), *Proceedings of the American Philosophical Society*, 123 (1979), vol. 123, pp. 85-115; Gérard Simon, 'Kepler's astrology: the direction of a reform', *Vistas in astronomy* (1975), vol. 18, pp. 439-48; W. A. Koch, *Aspektlehre nach Johannes Kepler: Die Formsymbolik von Ton, Zahl und Aspekt* (Hamburg, 1950).

2 Johannes Kepler's Horoscope Collection

practical astrology, namely his forecasts in calendars and prognostics⁴ as well as his astrological advice in letters, have been given far less attention.

Kepler's private, approximately 350-page collection of horoscopes has remained practically disregarded to this day, although it is generally accepted that Kepler increased his income through the composition of horoscopes. So far, only a few details from this impressive collection have been published. Christian Frisch (1807-1881) imparted brief essays⁵ and above all Kepler's biographical remarks on his own horoscopes and solars (annual horoscopes)** as well as horoscopes for his family members.⁶ In particular, the two horoscopes composed for Albrecht von Wallenstein (1583-1634), with Kepler's detailed commentaries, have enjoyed continual interest.⁷ The first, hitherto unpublished overview of the full extent of the collection was provided by long-time employee of the Kepler-Kommission, Martha List (1908-1992), who used it internally for her own research on Kepler. In her alphabetically ordered list of every name and birthdate, there number approximately 800 individuals for whom Kepler calculated horoscopes.⁸ Since Kepler sometimes composed

⁴ KGW, vol. 11.2 (1993).

⁵ Christian Frisch, *Opera omnia*, vol. 8.1 (Frankfurt, 1871), pp. 294ff. See Kepler's so-called 'Selbstcharakteristik' in Christian Frisch, *Opera omnia*, vol. 5 (Frankfurt, 1864), pp. 476-83; cf. KGW, vol. 19 (1975), pp. 328-37.

** I.e., solar revolutions or, in modern astrological terms, Solar Returns. [Ed.]

⁶ Christian Frisch, *Opera omnia*, vol. 8.2 (Frankfurt, 1871), pp. 670ff. Frisch (vol. 5, p. 476) published the second of three different times of birth calculated in Kepler's horoscopes.

⁷ See, for example, Angelika Geiger, *Wallensteins Astrologie: Eine kritische Überprüfung der Überlieferung nach dem gegenwärtigen Quellenbestand* (Graz, 1983), pp. 88-110; Martha List, 'Das Wallenstein-Horoskop von Johannes Kepler', in *Johannes Kepler: Werk und Leistung* (Katalog zur Kepler-Ausstellung, Linz, 1971), pp. 127-36; Otto Struwe, *Beitrag zur Feststellung des Verhältnisses von Kepler zu Wallenstein* (Petersburg, 1860); Christian Frisch, *Opera omnia*, vol. 1 (Frankfurt, 1858), pp. 386-91, and vol. 8.1 (Frankfurt, 1871), pp. 348-58. Finally, from the point of view of an astrologer, see Ulrike Voltmer, *Rhythmische Astrologie: Johannes Keplers Prognose-Methode aus neuer Sicht* (Neuhausen am Rheinflall, 1998).

⁸ Martha List, 'Das Wallenstein-Horoskop von Johannes Kepler' (ref. 7), p. 129.

more than one horoscope for the same person (for various times of birth and even different days and years of birth), and also evaluated some individuals with several solars, the collection contains roughly 900 to 1,000 horoscopes.

This enormous horoscope collection will soon – within the scope of the edition of select posthumous works by Kepler – be published in highly condensed form in KGW, volume 21.2.[†] To begin with, the collection should be introduced here with an historical description, even if a conclusive account of the contents of the complete collection is possible only upon presentation.

1. The Transmission of the Horoscope Collection

Probably once organised, Kepler's private horoscope collection was incorporated after his death into the scholarly estate that includes astronomical, mathematical, musical and chronological works ranging from preliminary papers to completed, unpublished works, letters, etc.⁹ After various turns of fate, Michael Hansch (1683-1741) acquired this scholarly estate at the beginning of the eighteenth century. Hansch organised it and had it bound into 22 volumes¹⁰ which still form the basic foundations of the estate today. Eighteen of these volumes arrived in the eighteenth century at the Pulkovo Observatory in St Petersburg (hence the name *Pulkovo volumes* in the *Gesammelte Werke von Johannes Kepler* edition). Today they are stored in the archive of the Russian Academy of Sciences at St Petersburg under a new number and shelf mark: F 285 op. 1, No. 1-18.

Hansch managed the horoscope collection – in accordance with his time, which no longer placed great stock in astrology – with much negligence. He did not have this large collection bound into a single volume, but rather mixed it in with another approximately 350 pages of complete *astrologica* as well as non-astrological writings such as

[†] Published in 2009 as volume 21, 2.2. [Ed.]

⁹ Kepler's scholarly estate was taken up in extracts by Frisch in the *Opera omnia* (Frankfurt, 1858-1871) without indicating the manuscript volumes or pages. It has also been edited in extracts in KGW, vols. 20.1, 20.2 and 21.1 (1988-2002), and soon in vol. 21.2 (forthcoming) [now published 2009 as vol. 21, 2.2 –Ed.]. The letters in the estate have been edited in KGW, vols. 13-18 (1945-1959).

¹⁰ Martha List, 'Der handschriftliche Nachlaß der Astronomen Johannes Kepler und Tycho Brahe', in *Deutsche Geodätische Kommission bei der Bayerischen Akademie der Wissenschaften* (Munich, 1961), pp. 1-37, esp. pp. 24f.

4 Johannes Kepler's Horoscope Collection

chronologica, genealogies and family trees.¹¹ Hansch dispersed these mixed writings amongst four of the final volumes (Pulkovo volumes 18, 19, 21 and 22),¹² each in turn with other, rather thematically different, writings.

The horoscope collection itself has been included mainly in Pulkovo volumes 18 (fol. 205-252) and 21 (fol. 403-516v, 522r-530). It is recognisable by the form the arrangement of the horoscopes takes: on one manuscript page, there are two to eight horoscope figures with no preliminary calculations but often brief remarks written in the margin corresponding to the horoscope figure about unusual aspects or biographical details.

The other approximately 350 pages of complete *astrologica* consist of Kepler's smaller disquisitions, such as, for example, his two deliberations, prepared according to the wishes of Holy Roman Emperor Rudolph II (1552-1612), on the precise birth date of Caesar Augustus,[‡] or his opinion on the political prognoses of other astrologers.[¶] There is also an entire series of letters requesting one or more horoscopes for the letter writer or other individuals.¹³ Here also are the birth details of one or more persons or an entire family, which were sent to Kepler and inserted haphazardly. Horoscopes annotated in the hand of Tycho Brahe (1546-1601) are found in the appendix to the letters from Tycho's

¹¹ The family trees and genealogies, first and foremost the House of Hapsburg, chronologies and the report on the calendar of Albin Moller (1541-1618) – of only peripheral significance for astrology – found a rather awkward home here.

¹² The aforementioned four Pulkovo volumes today bear the St Petersburg shelf mark Arch ADW, F 285 op. 1 No. 14, 15, 17 and 18.

[‡] See Part I.3.2 in this volume. [Ed.]

[¶] See Kepler's letter to an unnamed official about Rudolf II's belief in astrology and the predictions of other astrologers, Part I.2.3 in this volume. [Ed.]

¹³ The letters have been edited in the correspondence volumes, KGW, vols. 13-18 (1945-1959). In some cases, Kepler calculated the positions of the planets simply on the reverse side of the query and then drew the resulting horoscope figure, which Max Caspar (1880-1956) did not mention in the edition: e.g., Oswald Müller to Kepler, Pulk. 18, 155r-v, printed in KGW, vol. 16 (1954), no. 516, p. 214 [155v now in *GW* 21, 2.2, no. 442, pp. 210-214 –Ed.], and Wolff Auracher to Kepler, Pulk. 18, 156r-v, printed in KGW, vol. 18 (1959), no. 1068, p. 325 (without figure) [now in *GW* 21, 2.2, no. 443, pp. 214-218 –Ed.].

correspondence that came into Kepler's possession (Pulkovo vol. 19). Furthermore, individual notes with birth details and horoscopes, as well as small astrological disquisitions, are found throughout the entire estate (see *Appendix, Survey of the Handwritten Records of Kepler's Astrologica*).¹⁴

Consideration of Kepler's large collection brings up the question of when it originated. Birth horoscopes in this form were assembled in larger numbers as early as the fifteenth century.¹⁵ So, for example, Girolamo Cardano (1501-1576) and Tycho created horoscope collections. Wallenstein also owned a small book with horoscopes, amongst other examples.

2. Astrology as a Subject Taught at University

Since the fourteenth century the renown of astrology had risen continually, and it became established not only in literature, but also in architecture, book illumination and the other visual arts. Highly-placed persons had their horoscopes prepared for them or occupied themselves intensively with astrology, amongst others, Philipp Melanchthon (1497-1560), Rudolph II and Wallenstein, to name only a few. However, the opposite opinion also existed: Wilhelm Schickard (1592-1635)¹⁶ and Michael Mästlin (1550-1631), for example, gave this art short shrift.

In the Faculty of Arts at the University of Tübingen, Kepler himself had studied astrology, like every university student of that time, together with astronomy.¹⁷ Both areas belonged to the subject of mathematics,

¹⁴ See, for example, Pulk. 21, 79: birth details of Louis XIII (1610-1643) [= *GW* 21, 2.2, no. 81, p. 51 –Ed.] and Anne of Austria (1601-1666) [= *GW* 21, 2.2, no. 80, p. 50 –Ed.]; Pulk. 21, 27: horoscope figure (without name) [= *GW* 21, 2.2., no. 78, p. 50 –Ed.]; Pulk. 5, 173r–176v: disquisition *De directionibus* [= *GW* 21, 2.2, pp. 496-502, translated in Part III.1 in this volume –Ed.]; Pulk. 11, 295r-296v: disquisition *De motu Veneto* [= *GW* 21, 2.2, pp. 437-439 –Ed.], etc.

¹⁵ Helmut Grössing, *Humanistische Naturwissenschaft: zur Geschichte der Wiener mathematischen Schule des 15. und 16. Jahrhunderts* (Baden-Baden, 1983), p. 63.

¹⁶ Friedrich Seck, *Wilhelm Schickard: Briefwechsel*, vol. 2 (Stuttgart, 2002), pp. 202f.

¹⁷ Friedrich Seck, 'Johannes Keplers Studium in Tübingen', in *Bausteine zur Tübinger Universitätsgeschichte (Werkschriften des Universitätsarchivs Tübingen, 2nd series, no. 9)* (Tübingen, 1984), pp. 49-67, here p. 56.

which, alongside ethics, logic, physics (in the sense of natural philosophy), poetics, rhetoric, Greek, Hebrew and history, was one of the subjects of the Arts or Philosophy Faculty. According to his own testimony, Kepler loved the formidable subject of mathematics more than all the others.¹⁸ The following topics were enumerated, for example, in the course outlines of the Collegium Romanum in 1565: the exposition of the first six books of Euclid's *Elements*, arithmetic (that is, Euclid, Books 7–9), the celestial globe, cosmography, astrology, planetary theory and horologigraphy. Similar course material was taught as well at the Jesuit-influenced University of Würzburg and Charles University in Prague, and also at the Protestant University of Heidelberg.¹⁹ In Tübingen, within the subject of astronomy, Mästlin taught, as Professor of Mathematics, the worldview of Ptolemy according to his own textbook, the *Epitome astronomiae* (1582); at the same time, Mästlin often mentioned Copernicus in his lectures, since he was one of the few in his day convinced of the truth of the Copernican system. Mästlin also imparted to students the basic principles of astrology, which were especially essential for early students of medicine.²⁰

Astrology at the time was distributed among several areas, including weather prediction (or astrometeorology), natal astrology (or genethliology), interrogations and elections, etc. In the following account, we will deal primarily with personal fortunes (without forgetting the wide range of other objects of astrological study, such as public events, cities, nations, and even natural disasters). The calculation of a horoscope was part of the basic knowledge of this area, which involved picking out the respective positions of the planets from the ephemerides, calculating for a particular place and a particular point in time, and determining the arrangement of the twelve houses of the zodiac, for which there were many methods.

Only after these preparations, which required basic astronomical knowledge, could the resulting horoscope first be interpreted. During the

¹⁸ See Kepler's 'Selbstcharakteristik', KGW, vol. 19 (1975), 328-337, p. 328: 'Mathemata prae caeteris studijs amavit'.

¹⁹ Georg Schuppener, *Jesuitische Mathematik in Prag im 16. und 17. Jahrhundert (1556-1654)* (Leipzig, 1999), pp. 41f.

²⁰ Franz Hammer ('Die Astrologie des Johannes Kepler', *Sudhoffs Archiv*, 55 (1971), vol. 55, pp. 113-135, here p. 117) cannot imagine that Mästlin taught astrology given his aversion to it.

process, the computed twelve houses with their various significations were related to the zodiac signs, which in turn were coordinated with the four elements. The reckoning of the houses began with the cusp of the first house, the ascendant, which was the point of the zodiac rising in the East at the time of birth or moment of origin. From the ascendant the houses, seen geocentrically, extended first beneath the Earth through to the *Imum Coeli* (the cusp of the fourth house) and on to the descendant (the cusp of the seventh house), which stood exactly opposite the ascendant. From the descendant the houses ascended to the *Medium Coeli* (the cusp of the tenth house), the intersection of the local meridian with the ecliptic in the South. From there, the houses declined towards the ascendant. These four points, called the cardinal points, held a special significance in the interpretation of a horoscope. In addition, the positions of the planets with respect to each other were considered, in particular the aspects (that is, conjunction (0°), opposition (180°), trigon (120°), quadrature (90°), sextile (60°), etc.), along with the situation of the planets in the houses and their places of rulership in the zodiac, from which strong or weak efficacies arose. Further, there were the ascending and descending lunar nodes. The art of the astrologer, then, consisted in deciphering accurate testimony from the above multiplicity of relations concerning a newly born individual or in providing counsel according to such things as a solar revolution cast for the moment at which the Sun returned to its natal position in a particular year.

Undoubtedly, contemporary literature was placed in the hands of Tübingen students for this purpose. First and foremost was Ptolemy's *Tetrabiblos*, widely read since the late Middle Ages. The second book of the *Tetrabiblos* described the cosmological influences on peoples and the weather, the third and fourth books on human life; there was also the *Somnium Scipionis* by Macrobius, the corpus of astrological writings by Abraham Judaeus (ca.1362-1458), and others.²¹

3. Kepler's Engagement with Astrology in Tübingen

This course of instruction on the subject of astrology was imparted to every student who aspired to the *Magister artium*. Kepler took his examination for this degree on 11 August 1591 (old style, that is, the date determined according to the Julian Calendar). At nearly the same time, Kepler was so ardently absorbed in astrology that he thought it worthwhile to write to the eminent municipal physician of Hagenau,

²¹ John D. North, *Richard of Wallingford* (Oxford, 1976).

Helisäus Röslin (1545-1616). Kepler asked Röslin, amongst other things, why his fierce fever from the beginning of 1591 was not to be found in his horoscope.²²

Through Röslin's letter of response on 17 October 1592,[#] in which Röslin calculated Kepler's horoscope with the birth time of 2:30 according to Kepler's information, we can chronologically order Kepler's own horoscope figures, which have been preserved in the horoscope collection without dates. After two earlier attempts, with birth times of 1:00 and 1:30, Kepler accepted the time of 2:30 as the correct one. Kepler himself 'numbered' his three attempts with the designations *aliter* and *tertium*, so that the sequence of the horoscopes was tied together. In the two earlier attempts, he also pronounced the later effort, the recognised birth time of 2:30, as correct.²³ For his three horoscopes, Kepler calculated not only the angular degrees but also the minutes of arc of the house divisions and the positions of the planets. The third, final horoscope bears, in addition, a revealing note in the central quadrant, 'anno 19.2'. By this Kepler does not mean an annual horoscope, or solar, for his nineteenth year of life, but rather is indicating how old he was when he calculated the horoscope. This conclusion is convincingly corroborated by comparison of the dates of all three birth horoscopes and of Kepler's annual horoscope.

Also worth mentioning is the following: Kepler compared the statements that could be made about a horoscope according to astrological rules with the actual events that occurred, in this case with a severe fever. Since Kepler himself found no satisfactory answer, he requested advice from the renowned astrologer Röslin, who advised him

²² Only Röslin's letter of response on 17 October 1592 has been preserved. See KGW, vol. 19 (1975), pp. 320f., esp. p. 320: 'Quod Dominus Magister infert, se causam ex Directionibus reperire non posse, quare in Bacchanalijs anni 1591 tam acutam et ardentem febrim perpressus fuerit?'

[#] See the translation of this letter in Part I.1.1 in this volume. [Ed.]

²³ In the first horoscope (Pulk. 21, fol. 450v [= GW 21 2.2., no. 95, pp. 54-55 – Ed.]), the time of birth is 1:00, but with the correction, 'Fuit [h]ora 2 ½'. In the second horoscope, designated by 'aliter' (Pulk. 21, fol. 451 [= GW 21, 2.2, no. 96, pp. 56-57 –Ed.]), the time of birth is 1:30, and also includes the correction 'fuit H.2.30'. The third horoscope, designated by 'tertium', can be found in Pulk. 21, fol. 457v [= GW 21, 2.2, no. 143, pp. 70-71 –Ed.].

according to his own abundant experience.⁺ Already as a young man, Kepler upheld a basic attitude, which we know sufficiently well from his later astronomical studies, that a theory or hypothesis ought or must agree exactly with the physical reality.²⁴ However, Kepler would later express a more nuanced view of astrology. He also took into consideration human free will and the interpersonal network of interactions, as he wrote, for example, in 1625 in his second explanation of Wallenstein's horoscope:

He who, learned or unlearned, astrologer or philosopher, in discussing these questions averts his eyes from the will of the individual born, or anything else from his character and qualities in the face of political circumstances, and wishes to hold all this from merely the heavens alone, regardless of whether [his character] is under compulsion or from aptitude and inclination, has truly not yet rightly learned and has not yet rightly cultivated the light of reason kindled for him by God; and if he only deliberates on things with diligence, he will find that it is an entirely nonsensical way, not only to discuss this question but even to put it forward. For my part, I thank God that I have studied astrology so much that I have thus secured myself from those illusions that are often to be found in the books of astrologers. If the heavens were capable of such things, so would they rule all men, who contribute to the fortune of the individual born, each and every one through his own nativity and not through the nativity of the individual born, which the astrologer considers while he cannot know the nativity of other men.²⁵

⁺ Röslein gave Kepler several explanations regarding the timing of astrological prediction. In addition to such timing not coinciding with the time of the actual event because of the competing effects of two simultaneous directions, particulars interfering with general conditions, or inaccurate recording of astronomical positions, Röslein also pointed out that even a slightly inaccurate birth time could lead to predictions being off by days if not years. See the translation of this letter in Part I.1.1 in this volume. [Ed.]

²⁴ See, for example, Rhonda Martens, *Kepler's philosophy and the new astronomy* (Princeton, 2000), pp. 107-108.

Along with Kepler's own horoscopes, there is evidently another, very early horoscope stemming from his collection, which Kepler clearly calculated strictly for study purposes. It is the horoscope of his brother, Heinrich, born on 14 July 1573. Kepler wrote it down on the reverse side of his draft of a letter to his grandfather, Sebald (ca.1515-1596). In this letter of 24 July 1593 (old style), Kepler asked his grandfather to host his brother for a short while. He drew the horoscope figure of his brother and took special note of the aspects, compared the horoscope with the horoscopes of his parents, and noted especially exceptional aspects for earlier years. In addition, Kepler attached a long report in Latin on Heinrich's harsh life circumstances up to that point in time (1593).²⁶ This abundance of dates for a single horoscope is unique in the collection, with the exception of Kepler's own horoscope.

We know indirectly of other horoscopes that Kepler had already calculated at this early time. For example, Melchior Schärer (ca.1570-ca.1601) in Widdern wrote on 27 January 1593 (old style) to Kepler in Tübingen:

²⁵ Pulk. 19, 63v-64r, copy by foreign hand; cf. Christian Frisch, *Opera omnia*, vol. 8.1 (Frankfurt, 1871), p. 352 [= *GW* 21, 2.2, pp. 459-460, here p. 460 –Ed.]: 'Welcher Mensch glehrt, oder Vnglehrt, Astrologus oder Philosophus in erörterung dieser fragen die augen von des Gebornen eignen Will Chur adwendet, oder sonsten von seinem Verhalten vnd Qualiteten gegen den Politischen Vmbständen betrachtet, vnd will diß alles bloß allein aus dem Himmel haben, es sey gleich iezo Zwangs oder nur Inclinations vnd Naigungs weiß, der ist wahrlich noch nie recht in die Schuell gangen, vnd hatt das Licht der Vernunft, das ihme Gott angezündt, noch nie recht gepuzet, vnd wann er der Sachen nur mit Vleiß nachsinnet, würdt er befinden, das diese fragen baides zuerörtern, vnd auch fürzulegen eine rechte vnsinnige weiß seÿen, Ich meins theills sage Gott danckh, das ich die Astrologiam Bücher heuffig zuefinden, gesichert bin, Wann der Himmel dergleichen vermöchte, so wurde er Ja alle vnd iede menschen, welche zue eines Gebornen Glückh concurrirn, ieden für sich selber durch sein eigne Nativitet regieren müßen, vnd nit durch die einige Nativitet des Gebornen, welche der Astrologus ansihet, vnd die andere anderer leuth eigne nit wissen khan'.

²⁶ For the account of Heinrich's life with the horoscope figure and the comparison with the aspects of the parents, see Pulk. 412r [= *GW* 21, 2.2, pp. 18-19 –Ed.]; Frisch (*Opera omnia*, vol. 8.2 (1871), pp. 828f.) edited only the *vita*. For the letter draft and additional aspects, see Pulk. 21, 412v [= *GW* 21, 2.2, pp. 19-20 –Ed.]; KGW (vol. 13 (1945), no. 7, p. 9) printed only the letter draft.

I see that you are exceptionally well-versed in those [astrological] studies, for I have not only those who are closely acquainted with you as witnesses, but also your letters you have sent me and the enclosed horoscopes, in which you demonstrate your diligence sufficiently well.²⁷

It is not clear from this letter whether Kepler calculated the horoscopes on his own initiative or by request and thereby also earned money in the process. But his knowledge in astrology appears to have been exceptional, just as he excelled in other areas as well.

5. Kepler's Early Astrological Studies in Graz

After his examination for the degree of *Magister artium*, Kepler studied theology for three years. Shortly before his promotion, however, Protestant officials from the province of Styria requested at the end of 1593 a qualified candidate from the University of Tübingen, 'one of the chief centres of reformation life and activity',²⁸ for the recently vacant post of mathematics professor at the regional seminary (*Landschaftsschule*) in Graz.²⁹ The choice of the university senate fell on Kepler, clearly because, as Max Caspar wrote, 'he was, on the basis of his mathematical and astronomical knowledge, by far the most suitable candidate for the teaching position there, the only one worthy of consideration and likely to bring honour to Tübingen University'.³⁰ Kepler himself was, at least initially, not very happy about this choice. He wanted to finish his degree and become a theologian instead.

²⁷ KGW, vol. 13 (1945), no. 5, p. 6: 'Intelligo Te in illis studiis haud vulgariter esse versatum: cuius rei non solum testes mihi sunt illi, qui te familiariter nôrunt; sed literae etiam tuae ad me datae, insertaque Themata, in quibus industriam tuam satis probas'. The original letter is lost. Hansch printed from it only this opening quotation.

²⁸ Max Caspar, *Kepler*, trans. and ed. C. Doris Hellman, introduction and references by Owen Gingerich, additional bibliographical citations by Owen Gingerich and Alain Segonds (New York, 1993), p. 50.

²⁹ On the grounds for why the Protestant seminary turned to Tübingen, see Friedrich Seck, 'Johannes Keplers Studium in Tübingen' (ref. 17), pp. 63f.

³⁰ Max Caspar, *Kepler* (ref. 28), p. 52.

12 Johannes Kepler's Horoscope Collection

When Kepler, then 23 years old, arrived in Graz on 11 April 1594 to teach as the seminary mathematician,³¹ he also took on the task, amongst other things, of calculating the official calendar and providing weather predictions. Hence, he also had to deal with astrology. One of the very few datings in the horoscope collection – from 25 May 1594,³² that is, precisely one day after the official commencement of his teaching post at the regional seminary – comes from carrying out this commission. On this dated page, Kepler busied himself with his own horoscope. He also conversed about his astrological works in letters with Mästlin.³³

From the same year – the opening date reads ‘August 1594’ – a letter from Kepler to a young, unknown nobleman has come down to us. Kepler sent this nobleman a copy of his calendar for the coming year, 1595, and, pointing to the possibility of ‘becoming famous as a particular patron and promoter’, requested birth dates from him for the purposes of private study:

. . . according to this noble art [i.e., astrology], grounded primarily on lifelong experience and sundry examples of the nativities of noble persons, I wish to humbly entreat Your Grace, since some more distinguished individuals, either of noble origin or far greater princely persons (or hence descended) than those of us still rummaging about in life, would have recorded the times of birth and would kindly wish to grace me with copies for the promotion of this art and my studies of it and take the opportunity to send [them] at their convenience.³⁴

³¹ On the considerations and deliberations, as well as the administrative acts that precede this move, see Friedrich Seck, ‘Johannes Keplers Studium in Tübingen’ (ref. 17), pp. 64-67.

³² Pulk. 21, 410v. [See *GW* 21, 2.2, pp. 14-15 –Ed.]

³³ See Mästlin's letter of response of 14 November 1594 (old style) in *KGW*, vol. 13 (1945), no. 14, p. 17: ‘Quae de nouis, et de Astrologicis rebus scribis, hactenus hoc biduo sufficienti iudicio et attentione profectò legere non potui, id quod iam nunc, sumpto tempore conueniente facere decreui’. Later, see also Kepler's letter to Mästlin, 13 March 1598, in *KGW*, vol. 13 (1945), no. 89, pp. 183ff.

³⁴ *KGW*, vol. 13 (1945), no. 12, p. 14: ‘. . . demnach dise edle Künst fürnehmlich auff langwüriger Erfahrung vnd allerley Exempeln von fürtrefflicher Leütt

It was no later than this that Kepler began the systematic collection of horoscopes, in this case for the purposes of private study. Kepler's two-
folio study in 1595, splendidly printed in Graz by Georg Widmanstetter
(d. 1618), with a list of the precise dates and places of birth for the fifteen
children of Archduke Charles II of Austria (1540-1590), probably came
into the collection at this time.³⁵ Kepler calculated the horoscopes of the
children and compared them with each other.³⁶ In a letter of 1596
concerning a family inquiry, a student colleague, Lukas Osiander (1571-
1638), sent Kepler his own birth date as well as the birth details of his
family and the birth date of Duke Friedrich of Württemberg-Mömpelgard
(1557-1608).³⁷ Kepler thereupon calculated all of the horoscopes and
incorporated them into his collection.³⁸

Nativitäten gegründet: hab ich . . . E. G. vnderthenig ersuechen wollen, da
selbige etwa fürnehmer Leütt, entweder auß dero adlichen Stammen oder auch
sonsten fremder, fürstlicher Personen, sowol der abgeleitben, als noch bey vns
im Leben herumwallenden, Geburtsstunden verzeichnet hetten, die wollten mir
zur befürderung diser himmlischen Kunst vnd meiner Studien derselben copias
gnediglich vergünstigen vnd etwa nach dero Gelegenheit zuzustellen
unbeschweret seyen.'

³⁵ Pulk. 18, 159v and 160r [= *GW* 21, 2.2, nos. 447-461, pp. 225-227 –Ed.]. The
page records, in chronological order for each name, the place, month, time and
year of birth of the fifteen children. A column is set aside for the year of death.
At the head of the table are the names and titles of both parents, Charles II and
Maria Anna (1551–1608), Countess Palatine of the Rhein, each flanked by the
splendid coats of arms. Later, Kepler entered in his own hand the date of death
for each deceased family member.

³⁶ Pulk. 18, 212v, 213r and 214v [= *GW* 21, 2.2, nos. 629-640, 653-656 –Ed.].
There are additional horoscopes for individual children. The impressive
comparison of all fifteen horoscopes is recorded in concentric circles in Pulk. 18,
254v, the analysis of this comparison in Pulk. 18, 255v. [See *GW*, 21, 2.2, p. 386
for this diagram. –Ed.]

³⁷ *KGW*, vol. 13 (1945), no. 33, pp. 73f.

³⁸ Pulk. 18, 165; for a second horoscope of Osiander, see Pulk. 21, 455 [= *GW*
21, 2.2, no. 121, p. 63 –Ed.]. There are additional horoscopes for Duke Friedrich:
see Pulk. 18, 206 [= *GW* 21, 2.2, no. 556, pp. 253-254 –Ed.], 211v [= *GW* 21,
2.2, no. 622, p. 267 –Ed.] and 214 [= *GW* 21, 2.2, nos. 649-652, pp. 276-277 –
Ed.]; Pulk. 21, 455v [= *GW* 21, 2.2, no. 127, pp. 65-66 –Ed.], 491 [= *GW* 21, 2.2,

From Graz, Kepler calculated the horoscope – with two different times of birth – of his former fellow student at Tübingen, Christoph Ortolph, who replied in jest in his response of 20 June 1595 (old style).³⁹ Ortolph died two years later, and Kepler noted in the margin of Ortolph's horoscope in his collection: 'He died in the year 1597 from the plague, two years after I predicted it to him'.⁴⁰ From Ortolph's letter to Kepler, it is clear that Kepler really warned him: 'I would not contend many things concerning my time of birth, [for] it makes no difference to me. I am waiting for the Lord to come, and to advance me, withdraw me, [and] summon [me] to him.'⁴¹

If this horoscope was actually calculated earlier on his own initiative, so, in 1595, did Kepler also regularly receive requests for horoscopes: for example, on 14 May 1595 (old style) from the former classmate Konrad Vischses,⁴² and on 1 November 1595 (old style) from Georg Erasmus Tschernembl (1567-1626) concerning a marital matter.⁴³

In an astrological self-portrait [*Selbstcharakteristik*] composed at twenty-six years of age (in 1597), Kepler discussed planetary aspects and their significance for his personal qualities. Here, Kepler also disclosed details from the horoscopes of the Tübingen Professor Martin Crusius (1526–1607),⁴⁴ of his former fellow students Christoph Ortolph and David Maegerlin,⁴⁵ and of an otherwise unknown 'Schwagers Simon'.⁴⁶

nos. 310-312, pp. 125-127 –Ed.], 493 [= *GW* 21, 2.2, no. 317, pp. 129-130 –Ed.] and 505 [= *GW* 21, 2.2, nos. 369-370, pp. 156-157 –Ed.].

³⁹ Letter from Christolph Ortolph to Kepler, *KGW*, vol. 13 (1945), no. 20, pp. 25-27; both horoscopes are preserved in *Pulk.* 18, 239v [= *GW*, 21, 2.2, nos. 943-944, p. 353 –Ed.].

⁴⁰ *Ibid.*, 239v: 'Peste extinctus anno 1597, biennio post quam ego id illi praedixi'.

⁴¹ Letter from Christolph Ortolph to Kepler (ref. 39), p. 26.

⁴² Letter from Konrad Vischses to Kepler, *KGW*, vol. 13 (1945), no. 19, pp. 24f; horoscope in *Pulk.* 18, 230r [= *GW* 21, 2.2, no. 829, p. 323 –Ed.].

⁴³ Letter from Georg Erasmus Tschernembl to Kepler, *KGW*, vol. 13 (1945), no. 25, pp. 47f. The horoscope is actually no longer extant in the collection.

⁴⁴ Crusius' birth horoscope is preserved in *Pulk.* 18, 219r [= *GW* 21, 2.2, no. 709, p. 293 –Ed.], and his solar for 1594/1595 in *Pulk.* 21, 475v-476r [= *GW* 21, 2.2,

Kepler's studies grew in intensity so greatly that already in his first calendar he expressed his position on astrology and thereby also articulated his arguments for and against astrological predictions. His opinions, which he deepened in discussions with Tycho, were again expressed in 1602 in his theoretical text on astrology, titled *De fundamentis astrologiae certioribus*. In particular, Kepler referred in this work to his many explorations of his position on astrology. In the horoscope figures of the collection, however, no conversion of opinion can be ostensibly identified. As late as one of his demonstrably last horoscopes, that of his youngest-born daughter, Anna Maria (born 18 April 1630 in Sagan),⁴⁷ they remain unchanged in form.

Kepler probably collected horoscopes for the purposes of private study only in his early years as an astrologer. Later, he may no longer have considered it necessary. In letters with requests for a horoscope, the question of a fee was seldom so explicitly addressed as in a letter of 1 May 1625 from the Imperial Forestry Superintendent (*Forstmeister*), Hans Wolf Höritzer von Steinbach, who promised Kepler, amongst other things, '100 Reichsthaler' if he would compose the nativity of an unnamed noble.⁴⁸ Incidentally, as List wrote, 'our knowledge of the sum of the gifts of money credited to him for book dedications and horoscopes he elaborated must be considered incomplete . . . this unofficial part of his earnings eludes our estimation'.⁴⁹

6. Kepler's Horoscope Collection

6.1 Persons

nos. 252-253, pp. 105-106 –Ed.]. Cf. Kepler's 'Selbstcharakteristik' in KGW, vol. 19 (1975), p. 330.

⁴⁵ On Ortolph, see ref. 41; cf. Kepler's 'Selbstcharakteristik' in KGW, vol. 19 (1975), p. 330. Maegerlin's horoscope is preserved in Pulk. 21, 466 [= GW 21, 2.2., no. 210, p. 90 –Ed.]; cf. Kepler's 'Selbstcharakteristik' in KGW, vol. 19 (1975), p. 333.

⁴⁶ The corresponding horoscope is still unidentified; cf. Kepler's 'Selbstcharakteristik' in KGW, vol. 19 (1975), p. 330.

⁴⁷ Pulk. 21, 427v [= GW 21, 2.2, no. 72, pp. 40-41 –Ed.].

⁴⁸ Letter from Hans Wolf Höritzer von Steinbach to Kepler, Pulk. 19, 49; cf. KGW, vol. 18 (1959), no. 1005, 232–233, p. 233.

⁴⁹ Martha List, KGW, vol. 19 (1975), p. 479.

As early as in Tübingen and at the very latest in Graz, Kepler laid the cornerstone for his enormous horoscope collection, which grew continually over the course of his life. In only the course of a decade, Kepler possessed horoscopes of approximately 800 personalities from every social stratum: contemporary rulers, domestic and foreign, with their families and descendants, such as Holy Roman Emperors Rudolph II, Matthias (1557-1619) and Ferdinand II (1578-1637), the Kings of Denmark, England, France, Poland, Spain and Sweden, but also rulers long dead, such as Matthias Corvinus of Hungary (1443-1490), the Dukes of Württemberg, the Palatinate, Saxony and Brandenburg and their families; families of nobility, such as the Herbersteins, Aurspergs, Starhemburgs, Herberstorffs and Kienbergs; scholars, such as Mästlin (two annual horoscopes), Tycho and his family, Haly Abenragel, Jakob Andreae (1528-1590), Conrad Celtis (1459-1508), Georg Hartmann (1489-1564), Caspar Peucer (1525-1602), Melanchthon, Johannes Remus Quietanus, Christoph Scheiner (1573-1650) and even Cicero; his own acquaintances, such as Johann Ulrich Holp and Ortolph; and distant relatives, such as Johannes Huldenreich, for whose wedding in 1590 Kepler penned a poem.⁵⁰ There are also horoscopes for persons such as 'a good, square (*viereckter*) Hans', 'the wife of a *Speisemeister*', a child who died at birth, etc. For some personalities, a series of solars has been preserved, for example, thirty-three solars alone for Archduke Charles of Austria and fifteen for Anna Maria Zimmermann, the daughter of the dean of the University of Graz.⁵¹

In addition, there are the horoscopes of Kepler's family: his grandparents and their children, or his parents,⁵² his own horoscopes and

⁵⁰ See Friedrich Seck, *Keplers Hochzeitsgedicht für Johannes Huldenreich* (Munich, 1976).

⁵¹ For the annual horoscopes of Archduke Charles, see Pulk. 21, 482-490 [= *GW* 21, 2.2, nos. 275-308, pp. 113-125 -Ed.]; for the annual horoscopes of Anna Maria Zimmermann, see Pulk. 21, 478-481v [= *GW* 21, 2.2, nos. 260-274, pp. 108-113 -Ed.].

⁵² Pulk. 21, 403-407 [= *GW* 21, 2.2, nos. 1-20, pp. 5-12 -Ed.]; for various charts of Kepler's father, Heinrich (1547-1590), see Pulk. 18, 226r [= *GW* 21, 2.2, no. 788, p. 313. This chart is cast for 19 January 1548, 0:30, one year off what Kepler eventually seems to have accepted as his father's birth year, namely 1547. He appears to have experimented with different years and times. -Ed.]; Pulk. 21, 405 [= *GW* 21, 2.2, no. 11, p. 9 -Ed.], 451v-452r [= *GW* 21, 2.2, nos. 99-101, pp. 57-58. No. 99 is a chart cast for 19 January 1547 at 1:30; no. 100

solars for his second to ninth, sixteenth, nineteenth, twentieth, thirtieth to thirty-third and fifty-eighth to sixty-fourth years of life (the latter five of which would not be measured against actual experience),⁵³ his siblings⁵⁴ and his children with both wives, Barbara (1573-1611) and Susanna (1589-1636).⁵⁵

rectifies the 1:30 chart to 1:32:12; no. 101 uses the time of 1:30 with equal houses –Ed.], 457 [GW 21, 2.2, no. 140, p. 69. This chart is cast for 19 January 1548 at 1:30. –Ed.], 458v [= GW 21, 2.2., no. 152, p. 73. Though the center space says ‘mei patris’, this is not his father’s chart, but Kepler’s own chart with the Ascendant at the Sun’s position. –Ed.], 476v-477v [= GW 21, 2.2, nos. 254-259, pp. 106-107. These are solar revolutions for Kepler’s father – perhaps Kepler was still unsure of the birth year, because he ‘corrects’ the age in his notes. –Ed.]. For various charts of Kepler’s mother, Katharina (1547-1622), née Guldenmann, see Pulk. 21, 405, 409v [= GW 21, 2.2., no. 21, p. 13. This is her birthchart. –Ed.], 414 [= GW 21, 2.2., no. 26, pp. 23-24. This is an alternate birthchart cast for 8 November 1550. –Ed.], 423 [= GW 21, 2.2, no. 58, p. 33. This is a chart comparison between Kepler, his mother and his brothers. –Ed.].

⁵³ Kepler calculated his conception horoscope (Pulk. 21, 414 [= GW 21, 2.2, no. 25, p. 23 –Ed.]), three birth horoscopes for three different times (Pulk. 21, 450v, 451, 457v; see ref. 23) and the aforementioned solars (Pulk. 21, 415-420r, 454, 455v, 456v [= respectively GW 21, 2.2, nos. 27-47 and 49-51, pp. 24-32; nos. 112-113, p. 61; no. 128, p. 66; nos. 135-136, p. 68 –Ed.]) and ensuing considerations or calculations (Pulk. 21, 410v-411r [= GW 21, 2.2, no. 22, pp. 13-17 –Ed.], 413 [= GW 21, 2.2, no. 24, pp. 20-23 –Ed.], 423 [= GW 21, 2.2, no. 58, p. 33 –Ed.], 429r-432 [for 429r-432, see Part I.1.3 in this volume –Ed.], 437-438 [= GW 21, 2.2, no. 74, pp. 45-48 –Ed.]); see also Kepler’s ‘Selbstcharakteristik’ (Pulk. 21, 438v-446v).

⁵⁴ Pulk. 21, 457v-458; in addition, on Kepler’s brother Heinrich (1573-1615), see Pulk. 21, 412, 423; on brother Sebald, see Pulk. 21, 423, 492; on sister Margareta, see Pulk. 21, 464; on brother Christoph (1587-1633), see Pulk. 21, 423; on brother Bernhard, see Pulk. 21, 421, 423. [= respectively in GW 21, 2.2: (siblings) nos. 141, 144-146, 148, pp. 69, 71-72; (Heinrich) no. 23, pp. 17-20 and no. 58, p. 33; (Sebald) no. 58, p. 33 and nos. 313-314, pp. 127-128; (Margareta) no. 195, pp. 85-86; (Christoph) no. 58, p. 33; (Bernhard) no. 53, p. 32 and no. 58, p. 33 –Ed.]

⁵⁵ For horoscopes of Kepler’s first wife, Barbara, his step-daughter, Regina, and his children, see Pulk. 21, 424v-427v [= GW 21, 2.2, nos. 59-72, pp. 34-41 –Ed.]. On Kepler’s second wife, Susanna, see Pulk. 18, 197 (biographical note) [= GW 21, 2.2, no. 530, pp. 245-246 –Ed.], Pulk. 21, 403 (horoscope without date of birth) [= GW 21, 2.2, no. 2, p. 5 –Ed.].

At present, the collection includes only one horoscope commissioned during Kepler's time of service in Styria that applies not to a person but rather to an important political meeting.⁵⁶

It is not usually clear from the horoscopes whether Kepler composed them for his own purposes or by request from the individual named in the horoscope or an intermediary.⁵⁷ Extant letters concerning the horoscopes occasionally provide relevant information. Wallenstein, for example, instructed Kepler in a letter of 1 February 1629 to examine the horoscope calculations for the General Vicar (*Generalvikars*) of the army, Forteguerra, for the Emperor, for his sons and for other royal persons, particularly the King of Hungary, Ferdinand III (1608-1657).⁵⁸ The best known example of an intervention, which in this case was carried out for security purposes, is perhaps that of Wallenstein's date of birth to Kepler through the governor (*Landeshauptmann*) Gerhard von Taxis, or through the physician Dr Stromair.⁵⁹

6.2 The Horoscope Figures

For graphical reasons, Kepler drew two, four, six or eight horoscope figures on one page. He preferred almost exclusively quadratic figures, which were frequently used in his time. In the middle of such a figure, in the central quadrant, the individual's name was recorded – more often for reasons of secrecy in abbreviation or only with initials, sometimes in Kepler's secret code, sometimes paraphrased – along with the corresponding date of birth, with hours and minutes.⁶⁰ Kepler seldom noted

⁵⁶ Pulk. 21, 470v [= *GW* 21, 2.2., no. 241, pp. 101, 476 –Ed.]; : query, as the assembly proceeded on 15 February (no year specified), beginning at 7:30.

⁵⁷ For example, the horoscope in Pulk. 18, 235v, bears no name, only that of the intermediary: 'vom Herrn von Zelting'.

⁵⁸ Letter from Albrecht von Wallenstein to Kepler, *KGW*, vol. 18, no. 1098, pp. 373f.

⁵⁹ Martha List, 'Das Wallenstein-Horoskop von Johannes Kepler' (ref. 7), pp. 127ff. For both of Kepler's horoscopes for Wallenstein, see Pulk. 18, 250. [See also excerpts from Kepler's work on Wallenstein, Part I.2.4 in this volume. –Ed.]

⁶⁰ The identification of such individuals is not quite simple. For Pope Paul V (1550-1621) (*Paulus V. P[ontifex] M[aximus]*), the given position of the Sun in 4° Libra actually agreed with that of the Pope, but the date of birth given in the horoscope did not (Pulk. 18, 189 [= *GW* 21, 2.2, no. 487, p. 236 –Ed.]). For

the place of birth, however, and occasionally in place of it he recorded the geographical latitude, in part with the value given in the *Rudolphine Tables* (1627).

Most horoscope figures are complete. A complete horoscope includes the house divisions and the positions of the seven planets and both lunar nodes. There is also a wide variety of unfinished horoscopes. Horoscope figures also more often appear to have been previously composed and prepared for use. Thus, Kepler, as transcription errors indicate,⁶¹ first calculated and perhaps also composed the horoscope figures on additional pages, sent a copy of the horoscope figure with a commentary supplied to the corresponding petitioner,⁶² and finally transferred to his private collection only the horoscope figure and the exceptional aspects appearing in the margin of the individual's horoscope. Only occasionally did Kepler record the previous calculations, such as, for example, the calculations of the positions of the planets in the horoscope of Holy Roman Emperor Matthias.⁶³ For the calculation of the horoscope, Kepler depended on tables or even on his own observations.

6.3 Kepler's Commentaries on His Horoscopes

Kepler relatively seldom made lengthy comments on the horoscopes he calculated and composed. At most, his commentaries consist of notes in the margin of the corresponding horoscope in the smallest script and the

Anna Maria Zimmermann, daughter of Dr Johann Wilhelm Zimmermann, dean and preacher in Graz, Kepler calculated numerous annual horoscopes under encoded and completely different names: 'Anna Maria Zim.' or 'Anna Maria Zimmermennin Deckendor.', 'Teggendoerfferin' and 'Filia Doctoris'. Here, the constant position of the Sun proved successful: see Pulk. 18, 232 [= *GW* 21, 2.2, no. 853, pp. 329-330 -Ed.]; for the annual horoscopes of 1594-1599, see Pulk. 21, 478-481v [= *GW* 21, 2.2, nos. 260-274, pp. 108-113 -Ed.].

⁶¹ Kepler mistakenly mixed up certain names in the central quadrant and later corrected them.

⁶² One such horoscope with detailed analysis by Kepler for an individual unknown to us today is preserved in Brussels, Algemeen Rijksarchief, Mercey-Argentaeu Archives, Reg. 43, fol. 471-473, discovered and ed. by Andries Welkenhuysen, 'A horoscope cast by Johannes Kepler, Linz, 3 June 1619', *Lias* (2000), vol. 27, pp. 207-227.

⁶³ For Kepler's calculations of the horoscope for Holy Roman Emperor Matthias, see Pulk. 21, 544-548 [= *GW* 21, 2.2, nos. 423, 425-426, 428-429 -Ed.], and Pulk. 22, 298v [= *GW* 21, 2.2, no. 1148, pp. 405-406 -Ed.].

briefest form. These notes allude to one or more exceptional events in the life of an individual (university exams, marriage ceremonies, severe sicknesses, dates of death), as far as they were known to him. Sometimes, Kepler only noted aspects that struck him especially. On other occasions, he compared the aspects of two horoscopes with each other, for example, those of spouses, of parents and their children, as well as of siblings. By contrast, Kepler annotated almost all of his family horoscopes with commentaries varying in length. While in certain instances he reported especially noteworthy planetary aspects, in other instances he pointed to exceptional life circumstances, from which biographers continue to derive most of their material. Frisch had mixed these notes – without horoscopes – up with Kepler's letters, assembled together under the title, 'Vita Joannis Kepleri', which then led to the false assumption in the secondary literature that Kepler kept a diary.⁶⁴

The knowledgeable Kepler scholar Martha List already supposed what astrologers confirm through current procedure, namely that Kepler needed no notes in his private collection, since he could at any time read the facts from the horoscope at hand.⁶⁵

Lengthier analyses or commentaries conserved in Kepler's collection are rare. Amongst the few, for example, are the two horoscopes of Wallenstein (Pulk. 19, 56-59v, 60-72v) and a longer explication of his birth horoscope (Pulk. 21, 537-541).⁶⁶ There is also a great deal to be

⁶⁴ See Christian Frisch, *Opera omnia*, vol. 8.2 (Frankfurt, 1871), pp. 670ff.

⁶⁵ Martha List, 'Das Wallenstein-Horoskop von Johannes Kepler' (ref. 7), p. 129.

⁶⁶ See Christian Frisch, *Opera omnia*, vol. 1 (Frankfurt, 1858), pp. 386–391, and vol. 8.1 (Frankfurt, 1871), pp. 348–358. Lengthier notes also appear in the margin of a horoscope of an otherwise unknown woman (Pulk. 18, 162b [= GW 21, 2.2, no. 468, p. 229 –Ed.]) and in the margin of a horoscope of Anton Schweickard (Pulk. 18, 166 [= GW 21, 2.2, no. 469, pp. 229-231]).

found on the horoscope of Rudolph II,⁶⁷ as well as predictions pertaining to King Henry IV of France (1553-1610).⁶⁸

Of course, Kepler also collected the horoscope analyses of other astrologers. From Tycho Brahe, three horoscopes written in the author's own hand with very detailed analyses have been preserved.⁶⁹ Kepler owned two horoscope analyses by Martin Zeidler.⁷⁰ An oval horoscope figure, unusual for Kepler, followed by a lengthy commentary written by a foreign hand, suggests that this horoscope did not derive from Kepler directly.⁷¹ Kepler also kept the aforementioned analysis by Röslin of his horoscope from the year 1592.⁷²

6.4 Kepler's Lifelong Work on the Collection

Once a horoscope was composed and incorporated into the collection, it was in no way then consigned to oblivion. When Kepler later learned of something important about someone, he would make a small note of it in the margin of the horoscope. Often, he recorded dates of death. In so

⁶⁷ See Kepler's writings to Rudolph II regarding his planetary aspects (Pulk. 22, 299-301v; cf. Christian Frisch, *Opera omnia*, vol. 8.1 (Frankfurt, 1871), p. 327f.), and his horoscope (Pulk. 22, 303r-314v; ed. in part by Christian Frisch, *Opera omnia*, vol. 8.1 (Frankfurt, 1871), pp. 338-343. See also Kepler's 'Nativitas Imperatoris Rudolphi' in Pulk. 22, 306-313v. [See Parts I.2.1, I.2.2 and I.2.3 in this volume. –Ed.]

⁶⁸ See Pulk. 22, 298r [= GW 21, 2.2, no. 1147, p. 405 –Ed.], 'De rege Galliae ex occasione colloquij cum Sepachio. 1602. 4 Julij'.

⁶⁹ 'Horoscopus principis Johannes' (Pulk. 19, 151v-171r; ed. by John L. E. Dreyer in *Tychonis Brahe Dani opera omnia* (Copenhagen, 1913-1929), vol. 1 (1913), pp. 251-280); 'In quendam genethliacam et coniecturalem praedictionem praefatiuncula' (Pulk. 19, 172-173); horoscope (Pulk. 19, 174-202v); 'Instruction vndt Erklerung wie diß Organum zuegebrauchen' (Pulk. 19, 203-206), not by Tycho's hand; horoscope for 25 August 1573 (Pulk. 19, 207-231).

⁷⁰ For Martin Zeidler's horoscopes of Gregorius and Zacharias Biccus, see Pulk. 18, 257v-261.

⁷¹ The horoscope is for an individual from Holstein, accompanied by very lengthy commentary; see Pulk. 21, 510-516 [= GW 21, 2.2, no. 379, pp. 476-480 –Ed.]; cf. Christian Frisch, *Opera omnia*, vol. 8.1 (Frankfurt, 1871), pp. 328-31.

⁷² Pulk. 18, 83r-85v, ed. by Martha List, KGW, vol. 19 (1975), pp. 320f; see ref. 22.

doing, Kepler seldom went into so much detail as he did with the horoscope of a certain Trauner, 24 January 1570:

Unhappy in a ruinous and thus fruitless marriage, he gave himself over to wine. Drunk, he was driven by his wife to madness, and in the course of assailing her, inflicting blows, he descended down stone steps, and, his body lacerated, slowly gave up his soul in the year 1610.⁷³

The following event, documented by Kepler, is especially exceptional: after December 1628, Kepler, probably in Sagan, received the message that the son of Wolfgang Wilhelm of Neuburg (1578-1653), Philipp Wilhelm (1615-1690), unknown by name to Kepler, had been killed by a horse. Kepler noted this message next to Philipp Wilhelm's date of birth (25 November 1615) and added astrological observations.⁷⁴ When this message was later, fortunately, proven to be false, Kepler added with another, sharper pen in a show of relief: 'Oh, what a diversion the rumour or written message presented to us! He lives and prospers by the grace of God'.⁷⁵ This second message did not prove to be a false report, for Philipp Wilhelm, a grandson of Duke Wilhelm V of Bavaria (1548-1626), reached a ripe old age – he died on 2 September 1590 – and played an important role in the political power scheme of the seventeenth century.

Kepler occasionally noted his sources or informants for the date of birth in horoscopes, even for members of royal families. He appended 'Ex relatu Joh. Milleri', for example, to the birth details of Sigismund of Brandenburg (1572-1619) and his new children.⁷⁶ From Thomas

⁷³ Pulk. 18, 246v [= *GW* 21, 2.2, no. 1024, p. 370 –Ed.]: 'Ferali matrimonio eoque sterili afflictus vino se dedit, et ebrius ab uxore in rabiem actus, cum cursu illam peteret, plagas inferens per lapideos gradus delapsus, et tardè lacerato corpore animam exhalavit anno 1610'.

⁷⁴ Pulk. 21, 528 [= *GW* 21, 2.2, no. 396, p. 167 –Ed.].

⁷⁵ *Ibid.*: 'Ohe, quos ludos nobis dedit fama seu nova publica typis expressa. Vivit valetque per d[ei] g[rati]am'.

⁷⁶ Pulk. 21, 532 [= *GW* 21, 2.2, nos. 408-422, pp. 169-170 –Ed.].

Mingonius, he received the dates of birth of Kings Philip III (1578-1621) and Philip IV (1605-1665) of Spain,⁷⁷ etc.

Sometimes Kepler later received a more precise or different date of birth. In such cases, he also noted the source or origin. Mosellanus, for example, possessed different dates of birth for Maximilian III of Austria (1558-1618),⁷⁸ as well as alternate dates of birth for the children of Holy Roman Emperor Maximilian II (1527-1576).⁷⁹ When considering the details of Nicolaus Reusner (1545-1602), Kepler queried how the variation in times of birth could occur.⁸⁰ Kepler also acquired dates from the small horoscope book of Wallenstein, the so-called 'Libellus ducis Fridl[andensis]', for example, the date of birth of King Christian IV of Denmark (1577-1648), which in turn contradicted the account of Johannes Müller.⁸¹

On the other hand, Kepler also copied – as far as is known, only once – a horoscope into the aforementioned collection of Wallenstein and noted this in the corresponding horoscope held in his own collection. This horoscope was apparently none other than that of King Gustavus Adolphus of Sweden (1594-1632). Kepler had first calculated his birth details using the false date of 8 December 1593, 7:30 in the morning, with the geographical latitude of 60°. ⁸² Later, he received on a single page a previously uncalculated horoscope figure, in the central quadrant of which was entered no name, only the date of 9 December 1594, the time of 7:00 and the geographical latitude of 58°50' according to the *Rudolphine Tables* ('polus ex Rotulfij's').⁸³ First appearing in 1627, the *Rudolphine Tables* record Stockholm under this geographical latitude and the second date (according to the Julian Calendar) is commonly

⁷⁷ Pulk. 21, 526, 527 and 529 [= *GW* 21, 2.2, nos. 384, 386-388, 404, pp. 164-165, 168 –Ed.].

⁷⁸ Pulk. 21, 502 [= *GW* 21, 2.2, pp. 146-149 –Ed.].

⁷⁹ Pulk. 18, 205 and 211 [= *GW* 21, 2.2, nos. 539-544, pp. 247-249 –Ed.].

⁸⁰ See Pulk. 18, 212 [= *GW* 21, 2.2, no. 828, p. 268 –Ed.], 'Ex Reusneri Genealogico', on Duke Philipp Ludwig of Palatinate-Neuburg (1547-1614). Kepler asked whether the Arabic numeral 11 was read as the Roman II.

⁸¹ Pulk. 21, 532 [= *GW* 21, 2.2, no. 408, p. 169 –Ed.].

⁸² Pulk. 21, 526 [= *GW* 21, 2.2, no. 383, p. 163 –Ed.].

⁸³ Pulk. 21, 531 [= *GW* 21, 2.2, no. 407, p. 168 –Ed.].

considered the date of birth of Gustavus Adolphus. Kepler now noted in the margin of this second horoscope figure in tiny characters, 'Transumptum hinc in lib[ellum] Frid[landensem]', that is, he copied it into the collection of Wallenstein.

Typically, Kepler calculated such a highly important horoscope especially carefully. For the four cardinal points and for all of the positions of the planets, Kepler indicated not only, as usual, the angular degrees, but also calculated the arc minutes and even the arc seconds for the Sun. Kepler later acquired an even more accurate account of the time of birth – 6:49, as opposed to the former time of 7:00 – from the General Vicar (*Generalvikars*) of the army, Forteguerra, and calculated the ascendant anew again, beneath the horoscope figure.

And thus Kepler continued to work on his collection. One of the final entries apparently concerns the birth of his youngest daughter, Anna Maria (born 18 April 1630 in Sagan),⁸⁴ a good half-year before his death. Over the course of Kepler's lifelong work on this project, he attributed a higher place of importance to it than a collection destined purely for documentation. The horoscopes may have contributed to the welcome improvement of Kepler's financial circumstances, of constant concern due to continual delays in the payment of his salary, but they also signified much more for Kepler. The collection served as a foundation for his research; lifelong observation sharpened his view.

⁸⁴ Pulk. 21, 427v; see ref. 47.

Appendix

Survey of the Handwritten Records of Kepler's *Astrologica*

Pulkovo Volume 5

Varia

De directionibus, treatise (fol. 173r-176v; ed. Frisch, 8.1, pp. 295-299)

Pulkovo Volume 11

Varia

De motu Veneto, treatise (fol. 295r-296v; ed. Frisch, 2, pp. 609f.)

Pulkovo Volume 18

I. *Varia* (fol. 38, 143-204)

Astrological judgement for Rudolph II, treatise (fol. 38; ed. KGW, 16, p. 466)

Nativities for horoscope figures (fol. 143r-151v, 153r, 157r, 158r, 162b, 166, 168r, 187r, 188-194v), often with lengthier commentary

Birth details, some with horoscope figures (fol. 157-162a, 184, 195, 197-198v)

Letters to Kepler with astrological subject matter (fol. 152r, 155, 156, 163r, 164r, 165, 167, 170r, 172r, 173r, 175r)

Letter from Joannes Pieronius (without astrological subject matter) (fol. 152, unedited)

Letter from Oswald Müller, with a request for a horoscope (fol. 155r; ed. KGW, 16, p. 214); calculations of the positions of the planets and horoscope figure (fol. 155v; unedited)

26 Johannes Kepler's Horoscope Collection

Letter from Wolff Auracher, reminder of a request for a horoscope (fol. 156r; ed. KGW, 18, p. 325); calculations of the positions of the planets (fol. 156v; unedited)

Letter from Thomas Mingonius, with a request for more precise positions of the planets for astrological purposes (fol. 163r; ed. KGW, 17, p. 270)

Letter from Thomas Mingonius, with a request for an addendum (fol. 164r; ed. KGW, 17, p. 281)

Letter from Lucas Osiander, with dispatch of birth dates requested by Kepler (fol. 165; ed. KGW, 13, pp. 73f.)

Letter from Tycho's widow, Christina Brahe, to Simon van Petkum, with death details; Kepler's calculations with horoscope figure (for Erich Brahe?) enclosed (fol. 167r; unedited)

Letter from Julian de Medici, with a request for astrological information (fol. 170r; ed. KGW, 17, p. 272)

Letter from Wallenstein, with a request for Kepler's opinion on the constellations of the horoscopes of Wallenstein and the King of Hungary (fol. 172r; ed. KGW, 18, p. 372)

Letter from Wallenstein, with a request for the reconsideration of his horoscope (fol. 173r; ed. KGW, 18, pp. 373f.)

Note from Wallenstein, with a request for an accurate calculation of the next great conjunction (fol. 175r; ed. KGW, 18, p. 552)

On the nativity of Caesar Augustus, two German treatises (fol. 176v-179r, 180r-182r; ed. Frisch, 8, pp. 331-335); also, two horoscope figures (fol. 183r; unedited)

On the calendar of Albin Moller (fol. 199r; ed. KGW, 16, p. 216)

Prognosticum of Sebald Brandin, extract (fol. 200r; unedited)

Judicium astrologicum de Ungaria (fol. 201r-204v; ed. Frisch, 8, pp. 335-338)

II. Horoscopes, some with notes (fol. 205-252, 298v)

III. *Varia* (fol. 254-300)

Horoscope comparisons within the family of Charles II of Styria, with illustrated descriptions and tables (fol. 254v-256)

Culture and Cosmos

Contract text in abbreviated form (fol. 256)
 Martin Zeidler, *Judicium astrologicum*, horoscopes and commentaries for Gregorius and Zacharias Biccus (by a foreign hand) (fol. 257v-258, 258v-261r)
 Kepler's German translation of Plutarch, *Amatorius* (fol. 262r-263v) *Epistola* from Johannes Pleuring (without astrological subject matter) (fol. 264; ed. KGW, 13, pp. 161f.)
Historica austriaca (fol. 265-266v); *Ex Wolfgangi Lazij de migrationibus gentium libro VI* (fol. 267); *Ex Cuspiniani Austria, qui Lazius legit, aut ejus commentator Hungerus* (fol. 268); *Ex Megiseri historia Carinthiaca* (fol. 268v-269v); table (fol. 270); *Discursus historicus de Austria Clementis Jegeri 1550* (German, by foreign hand) (fol. 271-276)
Genealogica der Karolinger, ex Peucero (fol. 277, 279v; addendum on 284r)
 Birth dates of the family of Wolfgang Jörger (fol. 280)
 Genealogy of the extended family of Wolfgang Jörger (by a foreign hand) (fol. 281)
 Funeral oration (fragmentary) for Wolfgang Jörger (fol. 283; ed. Frisch, 8, 212-214)
Genealogica (fol. 284r, addendum on fol. 279v; 284v-286r); *Cognatio sex primorum Caesarum* (fol. 287r-288v); *Genealogie der ägyptischen Könige* (fol. 289r, 290r, 291r); *Genealogie österreichischer Kaiser* (fol. 293v-295r)
 Seating plan of the royal families, illustrated description (fol. 296v-297r)
 Genealogy of the Concini and Polheim families, with a horoscope figure for Georg Christoph Concini (f. 298)
 Family tree of Herodes (f. 299)
 Genealogy of the Egyptian Kings (fol. 300r)

Pulkovo Volume 19

I. *Varia* (fol. 19r-20v, 23r-50r)

Collatio primae geneseos cum secunda, tertia, quarta et quinta (fol. 19r-20v)
 Birth details (fol. 29)
 Letters, each with a request for a horoscope
 Letter from Konrad Vischses (fol. 23r-24v; ed. KGW, 13, pp. 24f.)

28 Johannes Kepler's Horoscope Collection

- Anonymous letter to 'Herr Albert', with a request to forward to Kepler (fol. 25; unedited)
Letter from Hans Zeidler (fol. 26; ed. KGW, 15, pp. 420f.)
Letter from Cyrianus Schräckhinger (fol. 27-28v; ed. KGW, 16, pp. 136f.)
Letter from Johannes G. Poltz von Poltzhügel (fol. 31r-32v; ed. KGW, 17, pp. 118f.)
Letter from Gundacker von Polheim (fol. 33; ed. KGW, 17, pp. 128f.)
Letter from Gerhard von Taxis (fol. 34r; ed. KGW, 17, pp. 131f.)
Letter from Gerhard von Taxis (fol. 35r; ed. KGW, 17, p. 144)
5 letters on the horoscopes of Wallenstein (fol. 36r-40v; ed. KGW, 18, pp. 217-220, 246f.)
Letter from Hans Wilhelm von Zelking (fol. 42; ed. KGW, 17, p. 133)
Letter from Ludwig Schleiffer (fol. 44r-46v; ed. KGW, 17, pp. 272-274)
Letter from Ludwig Schleiffer, thanking Kepler for horoscope (fol. 47; ed. KGW, 17, pp. 281f.)
Letter from Johannes Lehner (fol. 48r; ed. KGW, 17, pp. 315f.)
Letter from Hans Wolf Höritzer von Steinbach (fol. 49r; ed. KGW, 18, pp. 232f.)
Letter from Siegmund Schleicher (fol. 50r; ed. KGW, 18, pp. 317f.)

Anno 1616, Haec scripta Rittelio per Binderum affinem (fol. 43r)

II. Horocopes/*Varia*

- Horoscope interpretations (German) (fol. 51)
Birth details (German), with horoscope figures (fol. 52)
Horoscopes (fol. 53r, 55r)
Birth details (fol. 54)
2 commentaries on the horoscopes of Wallenstein (both by a foreign hand) (fol. 56r-59v; ed. Frisch, 1, pp. 386-391; fol. 60r-72v; ed. Frisch, 8.1, pp. 348-358)

III. *Chronologica* (fol. 74r-81v)

IV. Horoscopes (fol. 83-85v)

Horoscopes with commentaries (by a foreign hand) (fol. 83-84v)
Helisäus Röslin's horoscope for Kepler (fol. 85; ed. KGW, 19, pp. 320f.)

V. Letters (fol. 87-114v), not including *astrologica*

Letter from Tycho to Hagecius (fol. 87r-99r; ed. Dreyer, Epist. 2 (7), pp. 196-218)

Letter from Tycho to Galileo (fol. 100, ed. Dreyer, Epist. 3 (8), pp. 311f.)

Letter from Tycho to Cosmo Concino (fol. 101r-102v; ed. Dreyer, Epist. 3 (8), pp. 309f.)

Letter from Wolf Theodorus to Tycho, Salzburg, 3 April 1601 (fol. 104r-105v)

Letter from Wolf Theodorus to Tycho, 11 May 1601 (fol. 106r-109v)

Letter from Kepler to anonymous (fol. 109v, additional note; ed. KGW, 18, p. 324)

Letter from Wolf Theodorus to Tycho, 14 June 1601 (fol. 110r-112v)

Motuum Solis ac Lunae ab . . . Tychone Brahe restitutorum plena expositio . . . auctore M.G.L.F.J.F. (sent by Papius on 20 March 1603 to Kepler) (fol. 114)

VI. *Apologia Tychonis Brahe*

Ad Craigum Scotum de cometis (by a foreign hand) (fol. 115r-150v; ed. Dreyer, 4, pp. 418-475)

VII. Horoscopes with commentary by Tycho (written in his own hand) (fol. 150a, 151-233v)

Geneathliaca Tychonis Brahe (heading only) (fol. 150a, small note)
Horoscope for Johannes of Denmark, third son of Friedrich II (no name mentioned), date of birth 26 July 1583, geographical latitude 55.0°; *directiones* in draft and copy (fol. 151r-160v) and detailed analysis, draft (fol. 161r-173v); date: 'Anno 1600 Mense Septembris'

30 Johannes Kepler's Horoscope Collection

(fol. 151r-173v; ed. Dreyer, 1, pp. 253-280, according to the Copenhagen manuscript, Ant. Coll. Reg. 1823 in 4°, written in 1583)
Horoscope for 'U[lricus] FR[iderici] D[omini] Filius', that is, Huldaricus of Denmark, second son of Friedrich II (later added: 'Ulricus.'). date of birth 30 December 1578, geographical latitude 55.30°, detailed analysis, draft (fol. 174r-202v; ed. Dreyer, 1, pp. 211-249, according to Copenhagen manuscript, Ant. Coll. Reg. 1822 in 4°, written in May 1579)

Instructio vndt Erklerung wie diß Organum zuegebrauchen, treatise (fol. 203r-206r, 206v)

Horoscope with no mention of name or date of birth (note by Kepler, 'Ex Th[emate], 1573, 25 Aug.'), *directiones* and analyses (fol. 207r-231v)

Pulkovo Volume 21

I. *Varia* (fol. 27r, 28r, 79r, 384, 385)

Birth details (fol. 27, 79r, 384r, 385r)
Horoscope (fol. 28)

II. Treatises (fol. 174r-175v, 226r-263v)

Prognosticon Theolog-Astronomicum: Ergänzung des Prognosticon von Paul Sutorius durch Röslin, copy (German) (fol. 174r-175r)

Bedencken vber das Buch . . . Sutorij, von Helisäus Röslin, copy (fol. 175r-224r)

Astronomica falsa sunt, notes and calculations concerning the previous work (f. 225)

Vber das büechl Helisaei Röslini . . . iudicium vnd censvra, Kepler's outline of a report to the Emperor, title written subsequently (fol. 226r-263v; ed. Frisch, 8, pp. 300-320)

III. Horoscopes (fol. 403-516v, 522r-530)

Horoscopes of Kepler's immediate and extended family (fol. 403-446v)

Grandfather Sebald and his children (fol. 403-407)

Kepler's first horoscope, calculations, etc. (fol. 410-414, 437-438)

21 annual horoscopes of various years (fol. 415-420)
Horoscope of Kepler's first wife, Barbara, and all of his children
(fol. 424-432)
'Selbstcharakteristik' (fol. 438v-446v; ed. KGW, 19, pp. 328-
337)

Other horoscopes (fol. 433-436)

Numbered horoscopes, nos. 1-224 (fol. 449-499v)

Amongst others, Kepler's second and third horoscopes, as
well as annual horoscopes (fol. 454, 455v)

Kepler's siblings (fol. 457v-458)

Kepler's father, Heinrich, with annual horoscopes (fol. 476v-
477v)

Horoscopes (fol. 500-516v, 522-530, 544-548)

'Herr auß Holstein' with commentary (by foreign hand) (fol.
510r-516v; fol. 511r-516v; ed. Frisch, 8, pp. 328-331)

Horoscope calculations (fol. 522)

Horoscope of Wallenstein, calculations and planetary
positions (fol. 523r-525v)

Horoscopes (fol. 526r, 527, 531r)

Birth details (fol. 528r, 529r; 532r, with horoscope figure)

Horoscope calculations (fol. 533v)

Explicatio huius geneseos treatise (fol. 537r-541r)

Tract with astrological subject matter (fol. 541r-542v)

Horoscope of Holy Roman Emperor Matthias, calculations
for 1552, 1557 and 1601 (fol. 544r-548v)

IV. *Varia* (fol. 517-521v)

Chronology (fol. 517-521v)

Pulkovo Volume 22

I. *Varia* (fol. 291r-298)

Calendar *prognostica* (fol. 291r-297)

Anno 1600 Collectanea ad prognosticum, text and horoscope figure
(fol. 291r-296; ed. Frisch, 8, p. 733 (extracts), KGW, 11.2, p. 57
(here the manuscripts were deemed lost))

32 Johannes Kepler's Horoscope Collection

Annus 1601, predictions for, for example, Ferdinand I, Rudolph II, etc. (fol. 297)

De rege Galliae ex occasione colloquij cum Sepachio. 1602. 4 Julij (fol. 298r)

II. Horoscopes (fol. 298v-314v)

Matthiae genesis; Rudolphi, calculations (fol. 298v)

Planetary aspects of Rudolph II (fol. 299-301v; ed. Frisch, 8, pp. 327f.)

Horoscope of Rudolph II (fol. 303r-314v; ed. Frisch, 8, pp. 338-343 [extracts])