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In this article Peter Marshall introduces us to Rudolf II (1552-1612) – Holy Roman Emperor, King of Bohemia, Hungary, and Croatia, Archduke of Austria, Habsburg heir, and extraordinary patron of the arts and mysticism. Driven to understand the deepest secrets of nature and the riddle of existence, Rudolf invited to his court an endless stream of genius and established Prague as the artistic and scientific center of Europe at that time.

While Neoplatonism, Hermeticism, the Cabala, and magic were essential elements in the world view of Rudolf’s court, alchemy and astrology were the main sciences that shared the same perspective. Alchemy attempted to transform nature by drawing on invisible energies as well as physical means, while astrology assumed that the subtle web of correspondences between heaven and earth ensured that celestial events would influence those on earth. Although they were considered—with magic—part of the “occult” sciences, their higher purpose was to banish the darkness of ignorance and to attain enlightenment through knowledge.

The word alchemy comes from the Coptic word for Egypt Al Kemia, meaning the “Black Land,” and alchemy had first emerged in Alexandria in the second century BCE. The Arabs had brought it to Europe during their occupation of Spain and Sicily and the greatest thinkers of the Middle Ages—Thomas Aquinas, Roger Bacon, Ramón Lull, and Arnald de Villanova—had all been involved in the pursuit of the Philosopher’s Stone.

The Philosopher’s Stone was the Holy Grail of the art and science of alchemy. The Philosopher’s Stone, the alchemists believed, could not only transmute base metal into gold and offer untold riches but prolong life indefinitely and provide the key to the riddle of the universe. Alchemy was a sacred science, blending mystical religion and philosophy with medicine and chemistry. The alchemists believed in the alchemy of matter as well as the alchemy of spirit: If an alchemist was not spiritually pure, he would never achieve success in his experiments. To discover the Philosopher’s Stone was therefore an outward sign of inner enlightenment, the two aspects were inextricable. The alchemists’ aim was to attain personal harmony which mirrored the ultimate harmony of the universe. Moreover, they sought not only the transmutation of metals but the moral and spiritual transformation of humankind. Underlying their obsessive pursuit of the Philosopher’s Stone was undoubtedly a drive for harmony and perfection and for the truths of revealed religion. The alchemical dream of the Renaissance was nothing less than a search for the Creator through his created works.1

Rudolf would have known about the fiery dreams of the alchemists ever since he was a boy. The libraries of his father in Vienna and of his uncle in Madrid were full of the works of the German, Italian, and Spanish alchemists and physicians who wrote and communicated with each other in Latin. Rudolf’s quest for miraculous knowledge would have been excited by the imperial court physician and astronomer-astrologer Dr. Tadeáš Hájek of Hájek (Thaddeus Hagecius). A native of Prague and a master of ars magica and occult philosophy, Hájek had been first engaged by his father. He conducted alchemical experiments in his house on the corner of Bethlehem Square in the Old Town and it became the meeting place for many alche-
mists, physicians, scientists, and scholars. Hájek completed Rudolf’s Spanish education by introducing him to the writings of the medieval philosophers Albertus Magnus and Roger Bacon (whose works were on the Index forbidden by the Vatican), the infidel physician Avicenna (the “Aristotle of the Arabs”), the alchemist Geber (the “Prince of the Arab Philosophers”), and the works of Paracelsus (the founding father of modern medicine and chemistry). The heady writings of the Spanish alchemist Arnald de Villanova, who was a physician to several Popes and accused of heresy, were not neglected.

Rudolf had an alchemical laboratory built in the Powder Tower set in the northern wall of Prague Castle and invited alchemists from all over Europe to use it. It would have been full of athanors (furnaces), with sooty assistants working the pumps, warming up stills called alembics (after the Arabic al abiq) and pelicans (so called because they looked like the bird) as well as the bain-marie, named after the Alexandrian alchemist Maria the Jewess who first invented the bath for gentle heating. Rudolf would often call unannounced to see how the experiments were proceeding. He may even have had his own laboratories in the cellar of his summer house in the castle gardens and under his Kunstkammer next to his private apartments.

Rudolf was not unusual in his interest in alchemy. Many European princes and kings were fascinated by the subject and accepted its belief in a universal scheme of correspondences. During Rudolf’s reign alchemy became the greatest passion of the age in Central Europe and it is not surprising that he should have been infected along with other nobles and wealthy families. Certainly alchemical literature, both in manuscripts and printed texts, was heavily represented around 1600 in the Bohemian archives. The wealthiest and most powerful Bohemian prince, Vilém Rožmberk, was a fellow adept and accumulated considerable debts supporting an array of alchemists. The Duke of Brunswick, Rudolf’s close ally, was also a keen patron of alchemists and an ardent seeker after the Stone.

Just as Rudolf’s artists used emblems to express their moral and religious allegories, so his alchemists expressed their aspirations through symbols and emblems. Indeed, what Rudolf was trying to achieve
in his castle is beautifully evoked by the title of an illustrated book on alchemy by Daniel Stoltzius von Stolzenberg, a late representative of Rudolfine Prague, *A Chemical Pleasure Garden*, “decorated with handsome figures cut in copper, illustrated with poetic paintings and explanations, so that it may not only serve to refresh the eyes and the spirit but arouse at the same time a very deep contemplation of natural things…” It shows perfectly how at Rudolf’s court science and art, reason and imagination, philosophy and religion were inseparable.

Rudolf II painted as Vertumnus, Roman deity of the seasons, by Giuseppe Arcimboldo. Rudolf greatly appreciated the work.

Rudolf also took a keen interest in astrology, a subject which alchemists studied in order to make sure they undertook their experiments at the right Cosmic Time. The terms astronomy and astrology were considered to be interchangeable in the Middle Ages—both were studied by mathematici—and they only began to be separated from one another during the late Renaissance. Astrology continued to interpret the meaning of the influence of the moving celestial bodies on life on earth, while astronomy increasingly became concerned with recording and calculating the movements of the heavens as a form of celestial mechanics. Rudolf’s parents had had his horoscope cast by the famed Nostradamus in 1565 and he went on to employ many astrologer-astronomers at his court. While he constantly consulted them about his state of health, his prospects, and the state of the empire, they in their turn began to lay down the foundations of modern astronomy.

During the Renaissance, alchemy and astrology were still central to medicine. Alchemy provided medicines and elixirs made from chemicals, minerals, metals, and herbs, while astrology was important both in diagnosis and treatment. The horoscope of a person could indicate their underlying character: if Saturn was prominent in their chart, for instance they would tend to have a saturnine, melancholic tendency. This in turn would help to understand their bodily weaknesses and strengths. In addition, the main organs of the body were associated with different planets, reflecting the ancient Hermetic principles of “as above, so below” and “as within, so without.” Astrology would be able to tell what planets were having a beneficial or malefic
effect on particular organs in the patient. It would also provide the correct timings to take the medicines, according to the most favorable disposition of the planets, so that they could have their maximum effect.

Most physicians still worked within the Aristotelian tradition of the four humours which were associated with the four elements: fire, earth, air and water. Disease was explained in terms of a serious imbalance of the humours in the body. But the followers of the revolutionary Swiss physician, alchemist, and astrologer Theophrastus Bombastus von Hohenheim, otherwise known as Paracelsus, were beginning to gain ground, especially in Prague, which during Rudolf’s reign became the European capital of Paracelsians. In the first half of the century, Paracelsus became the founding father of iatro-chemistry and pharmacy as well as a forerunner of homeopathic medicine. He believed that with his “spagyric art,” as he called alchemy (from the Greek word spao and ageiro, meaning “tear apart and gather together”), he could produce the panacea for all ills; even Erasmus, the greatest humanist of the age, had faith in him. Although influenced by the Cabala and the Hermetic writing, experience was his great mentor.

He insisted that his students throw away their old books and study the “Book of Nature.” He broke with tradition by writing in German rather than Latin. He certainly lived up to his “bombastic” name and reputation. He famously said: “What light do you shed, you doctors of Montpellier, Vienna, and Leipzig? About as much light as a Spanish fly on a dysentery stool!” On another occasion, he dismissed a critic as a “wormy and lousy Sophist” and called himself a “Monarch of Arcana.”

According to Paracelsus (his name means “Beyond Celsus,” the Roman physician), in the beginning was Iliaster, a word he derived from the words Ilias (Troy) and astrum (star). This “Great Mystery” was a kind of “matter-energy” which had condensed to form the heavens and earth. It also gave birth to three main forces—the tria prima—that constitute the world, underlay all phenomena and are to be found in all substances. They are salt, sulphur, and mercury, which correspond respectively to the body, soul, and spirit. If the tria prima are not in balance, a person will be ill. The physician is therefore an alchemist of the body who seeks to re-establish the natural harmony of health based on the right proportions of the tria prima. Nature is always the foundation of medicine because [humans] the microcosm is a quintessence of all creation and of all the forces flowing through the world.

Paracelsus also argued that since All is One and human beings are a microcosm of the macrocosm there are astra—planets—in the body as well as the heavens. The sun for instance rules the heart, the moon the brain, mercury the liver and so on. The task of the physician-astrologer is to restore the natural harmony between the heavenly and the bodily astra as well as between the tria prima.

Into this royal crucible, with its heady brew of Neoplatonism, Hermeticism, the Cabala, magic, alchemy, and astrology, Rudolf welcomed some of the greatest thinkers and scientists of the day. These included the English magus John Dee, the German alchemist Oswald Croll, the Polish alchemist Michael Sendivogius, the Italian philosopher Giordano Bruno, the Danish astronomer Tycho Brahe, and the German mathematician and astronomer Johannes Kepler. Because of the constant threat of persecution from Church and State, such original and subversive thinkers were often obliged to travel around Europe in search of a congenial place to continue their pioneering and potentially heretical work. They were men who were prepared to risk their lives in the search for knowledge
wherever it might lead them, and despite their different nationalities, backgrounds, and interests, they shared with Rudolf a readiness to go beyond the boundaries of permissible thought. Each one was, as Galileo addressed Johannes Kepler, a “comrade in the pursuit of truth.”

Rudolf was gripped by the Renaissance drive for knowledge as well as beauty. Indeed, he shared the widespread Renaissance view that the true is beautiful and the beautiful is true. As the world around him threatened to descend into the chaos of religious discord, he hoped to recreate a beautiful world of harmony based on the sacred science of the ancients. Yet for all his belief in miracles and wonders, Rudolf was far from being a relic of a bygone age. He was fascinated by the claims of magic, alchemy, and astrology, but he was also interested in the emerging sciences of chemical medicine and mathematical astronomy.

While their work was rooted in the medieval world view, the late Renaissance thinkers who came to Rudolf’s Prague developed new methods of experimentation and observation which saw the first glimmerings of empiricism and the modern scientific method. Steeped in alchemy, they were the fathers of modern chemistry and medicine; believing in astrology, they created the new astronomy.

ENDNOTES

2. Daniel Stoltzius von Stolzenberg, _A Chemical Pleasure-Garden_ (Frankfurt, 1624).

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