

Ya`kûb ibn Ishâk ibn Sabbâh al-Kindi  
ALKINDI

# DE RADIIS STELLICIS

On The Stellar Rays  
C9<sup>th</sup> AD

Translated by

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# ALKINDI ON THE STELLAR RAYS

## Preface

This text has been long known to historians of science who find in it a clear expression of the Theory of Magic by a renowned Moslem philosopher who flourished during a time when this type of magic was prevalent.

While many contemporary historians dismiss magic as an ancient superstition they can not overlook the significance of such a historically important doctrine. Here, in Alkindi's work is found a clear exposition of that doctrine, written at a time when magic was both accepted and practised, and written by someone who believed in it. As such it provides a reliable reference point to examine a subject that is as difficult to define as it is to research.

It is widely accepted that the roots of science are to be found in the occult arts. Academic interest in magic has been further stimulated in the field of the history of mathematics, physics and medicine. It is realised on the one hand, that astrology played an important role in the development of geometry (especially spherical), trigonometry, logarithms, optics and astronomy. While on the other hand, both alchemy and magic played dominant roles in early pharmacology and medicine.

Likewise, for the history of thought, this text is important, as it exhibits the unified conception of reality with respect to objective and subjective phenomena prevalent prior to the scientific revolution and Enlightenment. It also contains ideas relating to an entirely different conception of causality to that which developed in the West after the seventeenth century.

The text's importance for astrologers is somewhat different to its importance to the devotees of the derivative modern sciences. Modern astrologers must have both a clear theoretical understanding of their art as well as an accurate understanding of its historical development. By the first they may adapt eternal principles to modern demands and by the second they learn the truly noble stature of their discipline as well as recover concrete, reliable techniques and doctrines otherwise in danger of being lost. For these reasons, while astrologers are active practitioners of an ancient art, they, no less than physicians, astronomers and mathematicians, need scholars dedicated to translating, preserving, studying and presenting to them the ancient texts on which their tradition rests.

The value of re-discovering and re-stating astrological tradition is to engender public respect facilitated by the recognition that hoary antiquity and astute philosophic inquiry both guided by rational principles and a sober, ethical and practical application characterise a legitimate field of endeavour. The alternative is arbitrary, whimsical and nonsensical jibber-jabber.

For too long the astrologer has laboured under the cloud of condemnation arising from a public misconception that his Art is merely a cover for foolish, if not criminal pursuits. Too often, the astrologer, though willing to defend their Art against the such slander has lacked the historical, scientific, philosophic and rhetorical resources needed to rout the enemy. Astrology and astrologers have thus lived under a blight born of an ignorance of their noble estate. It is hoped that works of this sort, produced by astrologers, for astrologers, may awaken astrologers to the fact that they pursue an ancient and honourable science. One far richer than many, at present, appreciate.

I would like to acknowledge the help of Robert Hand and Robert Schmidt in connection with this translation, which was originally produced as the first tract of Project Hindsight. Many suggestions were made and much philosophy was discussed. The result was a degree of edification for all of us as well as a deeper insight into Alkindi's intention. For the translation itself, any infelicities it may have I myself am responsible.

## Introduction

A few words are necessary by way of introduction to the reading of this book by the modern reader.

Alkindi (Ya`kûb ibn Ishâk ibn Sabbâh Alkindi), who died c. 870, is one of the greatest names in the history of Arabic learning. He is known as "The Philosopher of the Arabs" and was the teacher of the great Persian astrologer Abu Ma'shar. Alkindi worked in the famous House of Wisdom erected by the Caliph Al-Mansur in Baghdad (founded 762) for the purpose of promoting the Arab's assimilation of Indian, Greek and Persian science. He translated the works of Aristotle and other Greeks into Arabic and developed his own philosophy (heavily influenced by the Neoplatonism). Many books are attributed to him on such subjects as philosophy, politics, mathematics, medicine, music, astronomy and astrology. Unfortunately, few of his works survive.

Together with other philosophers, magi, alchemists and physicians such as Abu Ma'shar<sup>1</sup>, Al-Farghani<sup>2</sup>, Ishâk ibn Honein<sup>3</sup>, Honain ibn

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<sup>1</sup> Full name: Abu Ma'shar Ja'far ibn Muhammad ibn `Umar al-Balkhi (b. 787. d.886 AD) is an example of Hermetic influence on Arabic astrology. His works (written in Arabic) represent a curious fusion of Sabian Hermeticism, Persian chronology, Islam, Greek Science and Mesopotamian astrology. He was instrumental in fostering the identification of the Antediluvian Prophet Idris with Enoch and Hermes. He was an extremely successful practitioner of the Art who travelled throughout the Mid East in service to numerous Indian, Persian, Arab, and Egyptian chiefs of state. His reputation was established in the Christian West by Peter of Abano in the 13th century in his Conciliator Differentiarum Philosophorum et Precipue Medicorum (Diff. 156) where he quotes the AL-Mudsakaret or (Memorabilia) of Abu Sa'id Schadsan, a student of Abu Ma'shar's who recorded his teachers answers and astrological deeds. The Memorabilia - which have come to be known among scholars as "Albumasar in Sadan" due to traditional corruptions of both men's names, is analyzed by Lynne Thorndike in ISIS 1954 pp 22-32.

It will suffice to say here that it is, perhaps the only example of a medieval astrological hagiography. It portrays "the master" as a nearly omniscient wise man learned not only in the techniques of all branches of the Art but also in its traditional history and aware of the contributions of his predecessors. He is quoted, in Albumasar in Sadan (p.29 of Isis article), that he follows Messahala's method of projecting rays and in other locations admits to following other methods of Messahala (Masha'allah).

Ishâk, Geber<sup>4</sup> and others, he was instrumental in spreading the Hermetic Philosophy throughout all levels of ninth century Moslem society. Initially this was effected as an esoteric doctrine, but eventually became the underlying structure of the entire system of values of the Baghdad State and, for a time, the spiritual focus of the culture. Under the influence of this cabal astrology, alchemy and magic were to become the three highest sciences under the Koran and the Hermetic magician subordinate only to Allah and his prophet Muhammad.

This coup was accomplished by means as yet imperfectly understood. We do know that Abu Ma`shar worked as an astrologer for almost all the kings, caliphs and rajas of Western Asia and India. His teacher, Alkindi was put in charge of the Bait al- Hikma (House of Wisdom) in Baghdad - a city whose construction had been guided by two famous astrologers: the Persian al-Naubakht and the Egyptian Jew Mash`allah. Two Nestorian Christians (Hunain ibn Ishaq and his father, Ishaq ibn Hunain who had been sent to the Caliph al-Ma`mun upon the latter's request for Greek Scientific and Philosophical works began the translation of Ptolemy's *Almagest* and other alchemical, medical and astronomical texts. At the same time, Alkindi commenced translating the works of Aristotle, Plato and Proclus. He also wrote the Hermetic magical text *On the Stellar Rays* which played a significant role on the development and transmission of both Hermetic magic, and esoteric optics throughout the Arab world and later into the European Christian Middle Ages.

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<sup>2</sup> Alfraganus, 9th cent. Turkish Christian astronomer. Full name: abu-al`Abbas Ahmad al-Farghani. Summarized Ptolemy's Almagest.

<sup>3</sup> The Nestorian Christian Ishaq ibn Hunain translated the Almagest and the Tetrabiblos into from Greek into Arabic at Baghdad around 828 for the Caliph al-Mansur.

<sup>4</sup> Geber (Jabir ibn Hayyan As-Sufi) was an important figure for the history of Alchemy as well as of the Harranian Sabians He studied alchemy under the 6th Shiite Imam Ja`far As-Sadiq before the latter's death in 765 and served as court alchemist to calif Harun al-Rashid. Geber died 815 AD at Tus. He is said to have been a Harranian Sabian and is called al-Sufi. He cites Hermes and Agathodæmon frequently. Alchemy for Geber (and apparently for the entire Sabian community to which he belonged) was part of a complex inter-related system of Neo-pythagoreanism, Neo-platonism and Hermeticism. From the looks of Geber's The Books of the Balance, the Harranians had developed a highly precise and numerical theoretical alchemy and medicine. In Geber we see what the Syrian schools had been doing since Iamblichus.



The work of the Hermeticists in the Bait al-Hikma transformed the direction Islam had been taking by joining to the militant zeal of the desert tribes an equally zealous cultivation of Greek Philosophy and Science. These were merged with Persian and Egyptian concepts and, above all with astrology by which the Will of Allah could be read in the heavens. Behind all lay the occult doctrines of Hermes Trismegistos.

The Hermetic Cult was veiled in Koranic respectability by the fusion of Hermes and Idris (the antediluvian prophet known in the Old Testament as Enoch). Alkindi, Abu Ma'shar and Alfarganus seem to have been greatly influential in effecting this fusion. To the prestige of the Hermetic Teachings those of the Greek natural philosopher Aristotle were added. This eclectic combination provided the model that suggested that the way to Allah lay in studying the footsteps of the Divine in Nature. On this symbol rested the entire foundation of Arabic science as well as the justification for the study of Aristotle and all of Greek Science. The Hermetic magicians were thus enabled to erect a doctrinal edifice in which all the arts and sciences (including ethics, politics, and economics) were subordinated to Magic, Astrology and Alchemy.

It was this unified cosmological conception which entranced the Christian Crusaders when they came in contact with the Arab Culture during the Crusades. In Europe, it gave rise to Vincent of Beauvais' thirteenth century encyclopaedic *Speculum Maius*. This work was to be the literary prototype of the Gothic Cathedral- an encyclopædia in stone dedicated to God. Through the choice and arrangement of the materials, as well as the manner of ornamentation (especially in the Rose windows and masonry around the porches and entrances), all the arts and sciences known to medieval man were portrayed for the public's edification.

When Alkindi's *On the Stellar Rays* was written is unclear but its place of origin was probably Baghdad. Why it was written seems to be implied by the text itself. The work presents a theory of magic which is founded upon Neoplatonic Aristotelian logic and metaphysics while at the same time attempting to establish a physical explanation for magic. Alkindi is writing this text as an argument for a physical causality in magic and against a religious or spiritualistic explanation for the same phenomena. He seems to be arguing against the Old Testament

injunctions regarding sacrifices<sup>5</sup> and possibly against the mistaken opinions of groups like the Harranian Sabians who in his day still practised animal sacrifice. Yet it is not sacrifice *per se* which offends Alkindi so much as what he seems to regard as a superstitious belief in spirits (or gods) interceding on behalf of a supplicant who has performed a sacrifice. Sacrifices do have an effect, says Alkindi, but because of reasons other than that of the intercession of spirits.

In explaining the efficacy of prayer by a physical theory - as well as explaining how things come to be and pass away by a physical theory - he is clearly deep in heretical waters. He explains man's use of prayer on a physical basis; not on a religious one. There is an inherently homocentric point of view expressed. Homocentric, but not necessarily humanistic and certainly, not theocentric.

It seems that this book is an attempt by a rational man to make sense of phenomena previously unexplained. It appears that, while the practice of magic was common in Alkindi's day, there was no theory of magic. Of course, there may have been a Theory of Magic in an oral tradition of which no written trace remains because none ever existed, but one gets the impression, while studying this work that the author, if he knew of such an esoteric doctrine, found it insufficient and unsatisfactory.

I believe Alkindi was trying to rationalise the tradition and that what we have here is a Medieval Philosopher attempting to express an esoteric dogma in what in his day were modern, "state of the art" terms. The use of words such as *illustrantibus* shows that the author regards light and optics as typical of all transmission of effects (as in action at a distance)- even sound. This concept of the transmission of effects is tied up with his rays theory as an explanation of both magic and physics. In Alkindi's thinking magic, astrology, physics and psychology are all interwoven.

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<sup>5</sup> Cf Exodus 29; Leviticus 1,2,3,4 & *passim*, 16, 17, etc.; Numbers 7, & *in aliis locis*.

## Ninth Century Islamic Magic

If we are to understand Alkindi's book, we must have some understanding of the Magical context it belongs to. Islamic teachings on magic were expounded by the fourteenth century historian Ibn Khaldun in his *Muqaddimah*<sup>6</sup>.

Ibn Khaldun gives an account of the reports of prior authors on this subject. He tells us that the Koran condemns to death the practitioners of the magic arts. The Babylonians and Nabateans were renown for this study as were the Egyptians. The Chaldaeans composed books which had survived to Ibn Khaldun's day (circa 1377). He lists *The Books of the Seven Stars* and the book of Tumtum the Indian on *The Figures of the Degrees of the Signs of the Zodiac and the Stars* and works by other authors. He considers alchemy to be sorcery because he denies that the transmutation occurs by means other than demonic spiritual agency. Therefore Geber (Jabir ibn Hayyan), the renown alchemist, is called "the chief sorcerer of the East". Maslamah ben Ahman al-Majriti, a renown mathematician, is said to have been the leading Spanish scholar in mathematical and magical studies. He abridged all the available books on sorcery and corrected and collected them in his *Ghayah al-hakim* (known in the West from the eleventh century as the *Picatrix*). No one has written on the subject since him.

Human souls he tells us are one in species but differ in qualities. Therefore they are of different kinds. The souls of prophets are prepared to have divine knowledge and to be addressed by angels in the name of God and to exercise the influence upon created things which goes with all that.

The souls of certain sorcerers are able to exercise influence upon created beings and to attract the spirituality of the stars so that they can use it and can exercise an influence through either psychic or satanic powers.

The souls that have magical ability are of three degrees: The first kind exercises its influence through mental power alone; without any instrument of aid. This, the philosophers call sorcery. In Ibn Khaldun's

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<sup>6</sup> The *Muqaddimah*, by Ibn Khaldun, New York, 1958: Bollingen Foundation, Pantheon Books, 3 vols. Ibn Khaldun deals with magic in pp 156-246. Page 156 has his section 27 entitled, "The sciences of sorcery and talismans."

opinion, such people are Satanic.

The second kind exercises its influence through the aid and harmony of the spheres and elements or with the aid of the properties of numbers. This is called talismans. It is weaker than the first kind.

The third kind exercises its influence upon the powers of imagination. The person who exercises this kind of influence relies upon the powers of the imagination. He plants different sorts of phantasms in the imagination: images, pictures, whichever he intends to use. Then he brings them down to the level of sense perception so that others may see them by the power of his own soul. As a result, the phantasms appear to the observers as things existing in the external world (while in fact, there is nothing of the sort there). For instance a person may see gardens, rivers, castles where none exist. The philosophers call this prestidigitation.

Now the sorcerer possesses this power potentially but transforms it and makes it active by exercise. All magical exercise consists in directing oneself to the spheres, the stars, the higher worlds, or to the devils by means of various kinds of veneration, worship, submissions and humiliation. Thus magical exercise is veneration, etc of beings other than God and for this reason magicians ought to be killed.

The first two kinds of sorcery are real and the last is not. The Koran asserts the reality of sorcery and says that the devils Harut and Marut taught it to man.

Various sorts of talismans are described which use numbers. This sort of talisman seems to have been considered superior. The *Kitab al-Ghayah* by Maslamah ben Ahmad Majriti is a systematic treatment of this craft. The author has seen the effects of talismans and does not doubt their real effect.

The philosophers distinguish between talismans and sorcery. First, they affirm that both derive their effectiveness from the influences of the human soul. He cites their reasoning that the soul rules the body: a man walking a tight rope will not fall unless he conceives the idea of falling. Thus, the idea in the soul rules the body.

In sorcery the sorcerer does not need any aid, while those who work with talismans seek the aid of the spirituality of the stars, the secrets of numbers the particular qualities of existing things and the positions of

the stars as they act on the elements as the astrologers maintain. The philosophers say that sorcery is a union of spirit with spirit while the talisman is a union of spirit with body. As they understand it, that means that the high celestial natures are tied together with the low terrestrial natures, the high celestial natures being the spirits of the stars. Those who work with talismans, therefore, usually seek the aid of astrology.

The philosophers think that a sorcerer does not acquire his magical ability but has, by nature, the particular disposition needed for exercising that type of influence.

Miracles are done by good people for good purposes and by souls that are entirely devoted to good deeds. The power comes from God. Sorcerers, on the other hand act from their own psychic power, and occasionally by the aid of demons. Sorcery is practised only by evil people who are devoted to evil deeds. They cause, for example discord between a husband and a wife, destruction of enemies, and similar things.

This short précis of Ibn Khaldun's relation of Islamic attitudes toward magic should suffice for showing how different and how radical Alkindi's *On the Stellar Rays* actually is. There is nothing of the religiously orthodox in Alkindi's treatise and yet, Ibn Khaldun's, written approximately 400 years later, by asserting that magicians work through spirits, and that spirits teach magic to men, contains the very ideas Alkindi argued against.

Alkindi clearly addresses what Ibn Khaldun claims to be the second level, which employs mathematical methods and astrological images, and the third level of magic, which includes what we would term hypnosis. Alkindi discusses this in Chapter Six. By denying the role of spirits in magic and by according to man as he does the capacity for self-development, Alkindi tacitly denies the existence of what Ibn Khaldun regards as sorcery and Satanic. By denying the reality of spirits, Alkindi denies and eschews as superstition the belief that any benefit or harm may derive from them and therefore, while he does not specifically say so, any worship of them is vain. In holding this opinion he is proof against the charge of idolatry.

It is an interesting but unproductive speculation whether or to what degree Alkindi's peculiar theory of magic was an effort to reform the surviving heathen magic (such as that practised by the Harranian

Sabians whom Alkindi certainly knew of) so as to make it legal under Islamic law. After all, astrology had been sanitised by the ninth century. The works of Messahala and Abu 'Ali al-Khayyat show no trace of the astral polytheism of the Assyrians, Babylonians, Egyptians or Persians. Such religiosity had been transformed during the 5th and 6th centuries by the hostile environment of Hellenistic Christianity into a philosophic science. Alchemy too, had divested itself of recognisable heathen symbolism in favour of Neo-Pythagorean and Neoplatonic philosophical language and a universal, if nonetheless impenetrable, symbolism.

However this may be there is no doubt of Alkindi's Aristotelianism. Neoplatonism was created by Ammonius Saccus in the first half of the third Century AD in Alexandria through the wedding of the teachings of Aristotle to those of Plato. In subsequent centuries Platonic Doctrine came to be regarded as authoritative in a religious sense while Aristotelian teachings were relied upon for insight into Nature.

Aristotle's teachings provided two very useful philosophic tools: his Logical Teachings or *Organon* provided the *modus sciendi* or a way of knowing things; while his Scientific Theories of nature provided an explanation of the physical universe which provided a doctrinal structure which provided the philosopher with a context in which he could assimilate what was learned.

Of the former, i.e. his *Organon*, little was known directly in the Middle Ages but Aristotle's logical teachings had been epitomised by the Neoplatonist Porphyry in the 3rd century AD in a work called the Introduction or, *Isagoge*. This work was very widespread in both Medieval Europe and in Syria and was outstandingly influential in spreading knowledge of Aristotle's ideas to Islam after the 8th century. Of Aristotle's Scientific Writings, his *Generation of Animals* was known to the author(s) of the *Rasa'īl*<sup>7</sup>. Richard Lemay<sup>8</sup> has shown that Alkindi's student Abu Ma'shar knew Aristotle's *De Generatione et Corruptione, Physica, De Caelo, Meteorologica* and *Metaphysica*.

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<sup>7</sup> An encyclopedic work attributed to the Brotherhood of Purity and dated by some to the 9th century. Cf Muslim Neoplatonists: An Introduction to the Thought of the Brotherhood of Purity I.R. Netton, London: 1982, George Allen and Unwin.

<sup>8</sup> Abu Ma'shar and Latin Aristotelianism in the 12th Century, American University of Beirut, Publications of the Faculty of Arts and Sciences. Oriental Series, no. 38.

Ivry<sup>9</sup> shows that Alkindi follows Aristotle's arguments for contingent substances as found in *The Metaphysics* and *Physics* and knows *De Anima*<sup>10</sup> (second hand).

An important feature of Aristotle's concept of causality is his idea of motion. We must address this or Alkindi's constant references to motion of nature, etc will be unintelligible.

Briefly stated, all change is a form of motion. Since both medieval Aristotelian biology and psychology were conceived to be sub sets of Physics, both biological change, such as the generation and growth of animals, and psychological changes of mood, imagination or will are manifestations of motions of some kind. Actually, this is not as strange as it may seem at first.

We have taken this idea over into English, though we are usually unconscious of it. For instance, our words "commotion", "emotion" and "promotion", signifying an agitation, a psychological movement and a vertical movement in social status. For Alkindi things come to be through a motion in some matter.

Not only does Alkindi rely upon Aristotelianism in general, but in his emphasis on Aristotle's Logic and specifically on predicates (*conditiones*) he stresses a linguistic, syntactical structure to reality. Words have an eternal existence and the way words are strung together affect nature just as words and combinations of words receive their power from the *harmonia mundi*.

Alkindi frames his doctrine of the power of the words on the basis of the medieval seven liberal arts tradition. He has Aristotle's logic in mind as well as his *On Interpretation, Topics, Categories and Metaphysics*. He is mindful of the role of predicates in specifying thought and speech. He presents us a doctrine in which Grammar and Syntax play a role in the formulation of magical incantations.

His use of the *Trivium* hints at the existence of seven Esoteric Liberal

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<sup>9</sup> Alkindi's Metaphysics, a translation of Ya`kûb ibn Ishâk Alkindi's treatise "On First Philosophy" (fi al-Falsafah al-Ula), with Introduction and Commentary by Alfred L. Ivry, State University of New York Press, Albany, 1974, p.17-18.

<sup>10</sup> p. 134, op. cit.

Arts:

Grammar	Incantation
Rhetoric	Enchantment
Logic	Laws of Nature follow laws of thought because mind moves matter.
Arithmetic	Number Magic & Gematria in Greek, Latin, Arabic or Hebrew.
Geometry	Sigils and Figures
Music	Orphic or Davidic psaltery
Astronomy	Astrology and Astrological Images

There are many examples of this in the major religious traditions. We need only mention Mantra Shastra among the Hindus.



## Relevance for Today's Astrologer

It is not intended that all who read this work will immediately adopt Alkindi's Theory of Magic. It is, important, however, from an historical point of view to understand astrology's relation to the other occult arts, especially when we may thereby get a fuller understanding of how our predecessors explained astrological influence. It is particularly worth noting in this work that, while the stellar rays are the ultimate explanation for events in this world, Alkindi also posits the existence of mundane, elementary rays as well. In other words, terrene things have an effect on each other as well. He asserts the importance of the material cause. This is something we have lost in modern astrological theory and its loss manifests as arguments among astrologers about the role of genetics or class in determining one's personality, behaviour and fate.

Lacking an astrological theory which addresses the material cause, one is sought in theories which are non-astrological and even antithetical to astrology. We would do well to permit Alkindi to re-open the search for a way to re-incorporate the material cause into astrological theory. In the past this was accomplished through the *Climata* and, to some degree, through the *spiritus* theory. These solutions may not be cogent in this day and age and need not be slavishly adopted but they could still provide a discussion with a point of departure in a new investigation aimed at rediscovery of the material cause in astrology.

It is interesting to note that in Alkindi's physical causality context, psychological affirmation magic such as is asserted to be useful by New Age "magicians" is superfluous. While the will plays an important role in Alkindi's concept of magic, it is the light of the stars which, in the final analysis, is always bringing things forth and causing them to pass away.

Alkindi's theory of elemental rays is to be based on ancient optics and the multiplication of images. It is part of a tradition of esoteric optics which we see in Roger Bacon, in John Dee and in Johannes Kepler and Placidus. John Dee, in his *Propaedeumata Aphoristica* urges the use of a catoptric contraption to focus and intensify the light of the stars in making astrological images. Kepler, in *On the More Certain Foundations of Astrology*, argue for the light of the stars as the active agent in astrological influence. A similar argument is also to be found in Placidus' *Primum Mobile*. Modern advocates of electromagnetism as the explanation for astrological causality are in good company from the historical point of view.

Alkindi's argument also does away with the need of any theory of a universal spiritual medium (be it ether, akasha, mind or phlogiston) in the production of effects at a distance.

This book is of interest from the psychological point of view as it presents us with an approach to the issue of causality in general which was prevalent long before the 17th century West separated objective and subjective and relegated the latter to the Hades of non-relevance. Mesmer's condemnation by Ben Franklin and the French Academy and the difficulties which psychology (especially Jungian psychology) has faced in receiving recognition from the scientific establishment demonstrate how modern western science has denied vast areas of human experience once considered scientifically pertinent. It is time to free ourselves from such ideological straight jackets and address the question of the relation of mind to matter.

Perhaps the most important issue for modern astrologers which Alkindi directs is the issue of Fate vs Free Will. While *On the Stellar Rays* does not address this issue from a theological point of view, Alkindi's philosophical concept of astrological causality and his understanding of the celestial harmony's relation to matter, as well as his understanding of the problems of perception and judgment have collectively, profound moral or ethical ramifications for the Fate and Free Will issue.

Briefly put, Alkindi posits a kind of modified determinism in which nature is thoroughly ruled by the concourse of astrological forces (called by him "the celestial harmony"), but man, and even beasts to a lesser degree have the power to alter matter through their actions. The behaviour of beasts, being dominated by their appetites, is largely in

conformity with the dictates of the stars. Man's status is somewhat different. Having, beyond Desire, Will, Speech, and above all Reason, he is capable of making an effect upon matter which nature and its irrational beasts cannot. But beyond this, some men (whom he refers to as the wise), "on account of the temperance of human nature more perfectly thriving in them than in other men," "by ... rectitude of character, and the regular {philosophical} exercise," these men "learned to aspire higher things for their own perfection, and motivated by this aspiration... did not cease their whole lives from" the task. These few men, assisted by inspiration, ultimately attain self mastery and the knowledge of the secrets of heaven and of matter by which they are enabled to exercise a creative magical influence upon the world around them. In effect, they become demi-gods, co-operating with the will of heaven in the generation of effects.

Are these men above the rule of the stars? Alkindi never says so, though by attributing god-like powers to them he at least claims for them a unique status in nature. They are above the elements and the irrational beasts and capable of co-operation with the stars who otherwise exert a ruling sway over all of nature. As mentioned above, Alkindi articulates a philosophy which is homocentric.

Notice that he does not assert this semi-divine status as available to all men equally and automatically. There are two kinds of people for Alkindi: the wise and the vulgar. It is only the wise who are heirs to the higher possibilities and they rise to such heights mostly through their own efforts, total life long commitment and the use of Reason with some mysterious assistance from "inspiration". The vulgar never rise to such heights.

It is not Islam which is the source of such ideas. Rather, it is to Neoplatonism and to its philosophical fellow traveller Hermeticism (which Alkindi knew of through the Harranian Sabians) that we must look for the sources of Alkindi's homocentric magical conception of human perfectibility.

The moral and ethical consequences of such a doctrine are far reaching, though Alkindi does not address this issue in *On the Stellar Rays*. This book is obviously addressed to philosophers involved in, or about to become involved in the investigation of the occult arts. Some of the implications of this view, however, seem inescapable: From the political point of view, in keeping with the general teachings of Plato, received by Alkindi through the Neoplatonic Tradition, only such "philosophers" were competent and legitimate rulers. On the level of personal behaviour, the question of personal responsibility remains.

The individual is not released from the moral and ethical strictures of living according to the laws of the country he lives in, since theoretically, his actions can have an effect - even to the point of altering the natural course of events - but his real ability to do this will vary considerably. It will depend, for instance, on his level of knowledge, his moral standing, his precise adherence to the detailed demands of "due ceremonies" and the fixate of his will. In the final analysis, however, all these considerations apply only to "philosophers" since "the vulgar" are unfit for philosophic exercise and are ruled by their appetites. From the philosophical view point the laws of society exist not for the "philosophers" but for the herd for the former impose restrictions upon themselves far more demanding than the legal code and the latter must be ruled by fear and penalties.

It is not the purpose of this writer to attempt to answer the question of how modern astrologers ought to apply what they find in this book, be it philosophical speculation or astrological theory. The reader must arrive at his or her decision after having given due consideration to the ideas contained herein. This work is neither a polemic nor a manifesto. It is merely a presentation of an important text in the history of astrology, which contains ideas considered cogent by those who found wisdom in Hermeticism and the Neoplatonic. Others, both Moslem and Christian, including the author of the tract *Errores philosophorum*<sup>11</sup> found much to criticise in Alkindi's book.

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<sup>11</sup> Mentioned by Thorndike in his History of Magic and Experimental Science, New York, Columbia University Press, 1923, 1964, Vol. I, Chapter XXVIII, pp. 642-643. Also Cf. *De Radiis Stellicis* edited by M.-T. D'Alverny and F. Hudry in *Archives d'histoire doctrinale du Moyen Age*, vol. 41, 1974, published in 1975 where the Latin text is frequently compared with the criticisms of it found in *Errores philosophorum*.

Finally, Alkindi speaks of constellations and signs. He does not address the question of precession and the difference of sidereal and tropical zodiacs, so I pass over this issue.

## Problems in Translation

This text belongs to a class of Medieval Latin translations that were not known for their elegance and clarity. They were not always made by scholars fluent in Latin and Arabic and as a result the phrasing is difficult and there is no flow to the prose. Equivocation is often confronted. For example, the following words often occur with more than one meaning:

*secundum speciem*. This is an example of the equivocation found in the term species. The term can mean appearance, figure or species (the category). It can be argued that in this case it can be translated in any of the above ways. Each usage will give a somewhat different implication. Thus, there is an intentional ambiguity in the text.

*Motus*: This word, a translation of the Greek *kinesis*, can mean, in an objective sense, motion or operation. In a subjective sense, impulse, emotion, affection, agitation. This becomes clear when one realises the role the concept of motion plays in Aristotle's Philosophy. In short, some form of motion produces all phenomena and this holds true of what we call subjective (or psychological) phenomena as well as of objective phenomena. In this text *motus* has been translated as "motion" even though the English word is generally used to indicate change of position. I have done this in order that the original philosophical concept may be preserved. While this makes the text read a bit oddly in places, the reader will know by the context if the motion is subjective or objective.

*modum* : There is a certain equivocation in this word which can mean: manner, way, measure, time, way of life, etc. It also has a grammatical sense of the form of a verb or voice or mood. I believe we should take it in two ways: as manner and in its grammatical sense as Alkindi seems to be thinking of Predicates where the Latin has *condicio*.<sup>12</sup>

The author seems to use a word in one way for a while and then, suddenly, to introduce it with a specialised meaning. For instance, at the end of Chapter 6 the author seems to use *nomen* in the sense of name until the last paragraph where he expects us to recognise it as authority or delegated power. After this he shifts back again to name.

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<sup>12</sup> Thanks to Robert Schmidt who pointed out to me the possibility that this was the case.

*respectus* as used in this text may mean relationship or aspect. Generally it can mean regard or a looking back at. I have translated it as the former and made mention in the footnotes of the possibility that it may have rendered an Arabic word meaning astrological aspect.

*oratio*: which figures rather prominently in Chapter 6, indicates prepared rather than spontaneous speech. The English word "oration" suggests a public declamatory speech. The Church Latin *oratio* signifies a prayer. This latter meaning is tempting but, in fact, while magicians sometimes pray they also curse, wheedle, make deals, flatter, etc. I have chosen "discourse" to translate *oratio* because it is a prepared speech but not a declamation nor limited to prayer.

*ratio*: the Latin equivalent of the Greek *logos*, has been translated as "reason" but it should be understood that both words have many more meanings. They can both refer to calculation, proportion, ratio and mathematical formulae.

*passio*: has been translated as "passion". The reader is advised to understand by it more than intense emotion. It is the opposite of "action" and is something endured.

In many places I have used the Latin word, phrase or sentence which seems notable, troublesome or otherwise ought to be noted. To do this in all such cases would have been to print the entire Latin text, however, as the prose is often dense, obscure and uses what seem to me to be odd phrasing. Some of this is due to the Latin translator trying to render as the Arabic as accurately as possible. Some of it is due to odd medievalisms.

Some is due to the unpolished Latin of the Latin translator who seems to have been an interested party rather than a polished Latin scholar and some, no doubt, is due to my own shortcomings. The result is a text whose prose is not flowing. The text itself, as it exists in Latin, is the very reverse of refined polished prose. The editors of the Latin text recognised that this work is part of an entire medieval literature of practical occult texts which are notorious for having been written in a rough style by unpolished scholars. They considered their job well done just to determine the Latin text. And we owe them gratitude for establishing a critical edition.

I am continuing a tradition here. Like the Latin translator of Alkindi, I too am a practitioner whose Latin is just equal to the task. Neither he nor I are re-born *Cicero redivivus*, but then, his audience consisted of practical people who wanted to know what may be of immediate value in these texts, be it of an historical or practical nature. Although centuries separate him from me, my audience is quite similar.

*Here follows the translation.*



# Alkindi On the Stellar Rays

*Here begins the Theory of the Magic Arts*

## Chapter One: On the Origin of Opinion.<sup>13</sup>

All men who perceive sensible things by means of the senses apprehend them in some form<sup>14</sup>. By this apprehension they discover, through the operation<sup>15</sup> of reason, that individual things perceived by sense agree with some forms and differ from others. With this exercise of sense<sup>16</sup>, through the ruling unity<sup>17</sup> of each man, the office of reason concurs that that very unity<sup>18</sup> comprehends a thing in a common form by subtraction<sup>19</sup> of the things which are not common. And this is the

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<sup>13</sup> Some of the content of this chapter is also discussed more fully in Alkindi's Metaphysics. See edition cited in Introduction.

<sup>14</sup> The faculty of recognition in us is contingent upon a geometrical congruence. Presented with sense input from sight, for instance, the mind observes the form of that impression and judges its form according to Same or Other. What is true of visual input is also true of input from the other senses by analogy.

<sup>15</sup> *Motus*. This word can mean, in an objective sense, motion or operation. In a subjective sense, impulse, emotion, affection, agitation, or operation in the sense of a faculty (in this case, a mental faculty).

<sup>16</sup> Cf. Aristotle, On the Soul (*De Anima*), sec. 414b, 1-5: Aristotle connects living beings (including man) with the sensory, appetite, passion and imagination. All these will play important roles in what follows. In particular, he asserts that imagination is never found without sense and that the judgement is often influenced by appetite (desire) and imagination. Importantly, Aristotle asserts that appetite, mind and imagination are all capable of initiating movement. For a thorough discussion of the relation of Astrology to the Aristotelian Tradition see, R.Lemay, Abu Ma'shar and Latin Aristotelianism in the Twelfth Century, American University of Beirut, Publications of the Faculty of Arts and Sciences, Oriental Series, no.38.

<sup>17</sup> i.e. the soul, in which is the observing consciousness or Observer in man.

<sup>18</sup> the observer in man

<sup>19</sup> *cum subtractione non communium*. Literally, "*cum subtractione*", means " with

mental comprehension of the intellect which, comprehending things in this way, is called a "universal" according to the nature of the form and by comprehending the mode<sup>20</sup> is divided into 5 species: *genus, species, differentia, proprium, accidens*.<sup>21</sup>

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a taking away" or, "withdrawal". Robert Schmidt points out that it is a well established notion of Aristotle's that a universal signification is recognized as such by taking away all that is not common. For a clear statement of Aristotle's concept of "abstraction," see his Metaphysics, vol III in The Works of Aristotle, trs & ed by W.D. Ross, 2nd ed. Oxford: 1960, section *Kappa*, 3, 1061a 28ff. I believe the author is of the opinion that this act of abstraction is analogous to an alchemical extraction that separates the dross leaving the pure metal. Alkindi discusses his own ideas of perception in his Metaphysics edition cited above, pp 61-63. He contends that there are two forms of perception: sensory and intellectual. By the former we see sensibles. By the latter we "see" *genera* and *species*. Every concept above the *species* is incapable of being represented in the soul and are merely known as intellectual principles (as being or not being) since all representation is sensible.

<sup>20</sup> *modum* There is a certain equivocation in this word which can mean: manner, way, measure, time, way of life, etc. It also has a grammatical sense of voice or mood or the form of a verb. I believe we should take it in two ways: as manner and in its grammatical sense as Alkindi seems to be thinking of Predicates where the Latin has *condicio*.

<sup>21</sup> "*genus, species, differentia, proprium, accidens*". These five classifications or "*species*", as Alkindi's latin translator calls them, are predicates of something. Predicates are things which can be said about something. For instance, in the sentence: "The man is learned", "learned," is the predicate of "the man" both grammatically and philosophically. Aristotle realized that if one is to philosophize a precise philosophical usage and clear classifications of things are essential. His teachings on these matters are found in his logical writings or *Organon*. Three of these books were of particular importance in the Middle Ages, namely the Categories and On Interpretation and The Topics. Yet Aristotle's works were not known directly to the Medieval Europeans or to the Arabs whose knowledge of Greek Science and Philosophy were dominated by the Neoplatonic Tradition (especially, it seems, of the Syrian School). It was through Porphyry's (3rd cent.) *Isagoge*, an introduction to Aristotle's logic, that the Philosopher's ideas were known.

The list of classifications found in our text (also as given above in this footnote) derives not from the Greek Aristotle but from Porphyry's *Isagoge*. Aristotle gave a list of only four classifications: *Definitio, differentia, proprium and accidens*. It was Porphyry who broke up definition into genus and species thereby making five. This list of classifications is arranged in order of descending specificity. *Genus* is the most general and *accidens* the most individual. Genus and species are words used in our modern systems of classifications, so they are familiar terms. *Differentia* was a commonly used word in medieval latin philosophical texts as a category more or less reflecting Aristotle's "*diaphora*" found in the Categories.

When, therefore, in the said manner, a universal has arisen in the mind of a man because of the innate desire of knowing he investigates its conditions by the operation of reason. Now, the understanding arising from such an operation always arises from the senses as a universal conception. But because in similar things a similar judgement is always given, it happens that some condition is attributed by the understanding<sup>22</sup> which {condition}, known to it<sup>23</sup>, does not coincide with sense but it has been perceived to coincide with something similar with respect to sense, and by this {mental procedure}, the same circumstances<sup>24</sup> are attributed to a similar judgement.

If, however, some individual or universal thing or a condition in thought<sup>25</sup> were conceived, whose like were not perceived by sense,

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Basically it means a sub-classification. *Proprium* is a characteristic of a thing peculiar to itself; not something it has by virtue of belonging to a larger class. The *accidens* is a tangential feature of a thing which is unrelated to its nature, e.g. it may be broken, large or out of date. The consideration of universals deals with the higher terms of this series, usually, the *genus* and the *species*. Cf. Porphyry the Phoenician: *Isagoge*, with translation, introduction and notes by Edward W. Warren, Toronto: The Pontifical Institute of Medieval Studies, 1975, esp. the introduction.

Why does our author bring up these classifications? He seems to drop the issue almost immediately. One possibility is that in his subsequent discussion of "conditions" he has Porphyry/Aristotle's Predicates or Categories in mind. It is possible that the latin translator did not recognize the Arabic term used by Alkindi for the Greek *diaphora* or category as a technical term and rendered it merely "*condicio*" instead. If this is so, then Alkindi is introducing the reader to the subject of astrological magic via a standard Neoplatonic Aristotelian approach which deals with the metaphysical consideration of universal predicates. What he implies thereby is that by knowing with certainty the universal principles underlying perception and causality, the magician can establish a scientific foundation for his Art.

<sup>22</sup> *cogitatione*

<sup>23</sup> That is, known to the understanding.

<sup>24</sup> *convenientia*. The author is drawing attention to the verb he has been using (*convenio*, translated here as "to agree with"). The "circumstances" referred to are the things the understanding has "agreed" are similar.

<sup>25</sup> *condicio in cogitatione*

such a conception of the soul is void according to the human understanding<sup>26</sup> which needs to arise from sense.

But some universals and their conditions, which sense did not teach, are formed in the reason, as for instance, the species of virtue from which operations proceed in bodies. Indeed the power of heating in fire is comprehended in the reason but its likeness is not perceived by sense because that power is not itself known by the reason but rather is only imagined by its effect which is perceived by sense, and through this that power is said to be comprehended by the reason. And this it ought to be known regarding individual things.

If indeed the likeness of things are not subjected to the senses the intellect is to that degree void understanding individual things in such a way, although it seems to some that the matter is comprehended.

The formation of a universal form from individual things perceived one at a time by sense has been given by a certain necessity to the human genus because it is impossible to perceive all individual things {simultaneously}. But because it is possible to perceive some things, it was necessary that from certain things perceived by sense, a universal is gathered which is comprehended in a certain manner so that, by a known universal any individual thing may be known which occurs to sense under that universal content. Universal science is necessary for man because it is the science of individual things which alone contains human utility<sup>27</sup>, because of the motions<sup>28</sup> which they make, which universals never make<sup>29</sup>. So, therefore, the conditions of all things are known first by sense: what, what kind of, how much, how acting, how suffering, what relation they have to themselves or to other subjects whether universal or particular.

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<sup>26</sup> *secundum humanum intellectum*

<sup>27</sup> universal science = the science of astrology which provides the organizational principles for all subordinate sciences and the context in which they work.

<sup>28</sup> *motus*

<sup>29</sup> Things in the "real" world, i.e. the physical or sensible world, suffer motion and change. Cf. Aristotle's discussion of the six kinds of change (Categories, 14,). Aristotle's text says: " There are six kinds of change: generation, corruption, increase, diminution, alteration and change of place." According to Aristotelian Philosophy, it is such motions that cause the operations of natural things and the benefits which man derives from them.

But {regarding} things both individual and universal and also the conditions of things, some are manifest, some are more manifest, some are most manifest, others are occult, still others more occult and yet others are most occult both to sense and to reason. Which diversity the nature of those things causes, producing them in such and such a condition.<sup>30</sup>

Also some things are more or less perceptible both with respect to sense and to reason of men and this proceeds from the proper quality of each thing disposing it more or less to perception.

From this it happens that certain men are wiser than others. He is called wiser who perceives things less perceptible and their conditions. Whence it is that those who are informed with the holy desire of wisdom labour very much for the comprehension of the hidden condition of things.

By this aforesaid desire the ancient fathers, seeing with the corporeal eyes the multifarious diversity of worldly things, investigated their origins and conditions with thoroughness and zealous investigation and regarding those things they perceived by sense, they discovered by the guidance of reason things which are reputed by wise men of our times to be beyond human comprehension.

These things we believe: that these men attained, on account of the temperance of human nature more perfectly thriving in them than in

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<sup>30</sup> Alkindi appears to be referring to the doctrine of occult virtues which held that apart from whatever power or operations a thing might have by reason of its genus, species, differentia, etc, it might also have powers or operations stemming from "occult" or hidden causes. A favorite example of such "occult virtues" was the magnetic power of the lodestone for which no rational cause could be offered since, except for its magnetic ability to attract iron, the lodestone appeared to be identical to any other piece of iron ore. This doctrine was linked by H.C. Agrippa, in his De occulta philosophia (1534), Book I, Chapters X-XIII, to the effect of the stars on the birth of things. Thus, differences of intelligence, or physical strength between individual human beings, or the differences in the medicinal properties between individuals of a same botanical species could have a material cause such as the environment they were grown in, but that *this* man could tell the future, or calculate rapidly whereas neither his parents nor fellow citizens could, or that *this* plant, useful for fever, also kept parasites from your vegetables, were considered to be occult virtues resulting (Agrippa suggests) from their astrological geniture.

others participating in the same nature, with rectitude of character having been acquired, by means of the same {rectitude of character} and by regular philosophical exercise, they learned by these to aspire more diligently to higher<sup>31</sup> things for their own perfection, and with this aspiration not ceasing for their whole lives they did not cease from the zeal for knowledge. This, therefore, was only accomplished, because of the many things they perceived regarding visible things, which seem to have been suggested to them rather by divine inspiration than by human reason.

For looking up, they saw certain conditions of the many stars; and they especially sought to investigate and know which of the seven planets' properties were more well disposed than the others, for they had proved by long experience that they were the especial stewards of the world. They acquired undoubting faith, through sense, that the arrangement of the stars ordered the world of the elements and all things in it which are composed of them, comprehended in every time and place and that therefore no substance subsists here which is not figured in heaven in its own manner and that this happens by the rays of the same stewards sent down into the world is not to be doubted.

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<sup>31</sup> *res meliores*

## Chapter Two: On the Rays of the Stars

Every star has its own nature and condition in which the projection of its rays with others is comprehended. Just as each star has its own nature (which is found in no other) in which the emission of rays is comprehended, so those rays in diverse stars are of a diverse nature, just as the stars are diverse in nature.

Every star has its own place in the mundane machine, different from all others. Whence it necessarily comes about that each star is allotted a different relationship<sup>32</sup> than other stars<sup>33</sup> both to all things and {to all} places contained in the world.

Varied relationship, however, varies the effect of the rays just as all the other properties of them are varied. Whence it happens that each star causes one thing or another in diverse places and things as much in small things as in things differing only slightly since the whole operation of the stars proceeds through the rays which are themselves varied in every varying aspect.

For a ray which descends from the centre of a star to the centre of the earth descends most powerfully is proved to be most powerful in its species of its operation. One which is turned away<sup>34</sup> is weakened in its effect<sup>35</sup> according to the proportion of its obliquity unless to the extent that they are strengthened by the rays of the other stars falling on the same places.

For into every place every star pours rays, on account of which<sup>36</sup>,

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<sup>32</sup> *respectum* It is possible that the Arabic word the Latin word *respectum* was intended to translate meant "astrological aspect" though the word *aspectum* is used at the end of the paragraph. I have translated *respectum* as "relationship" because a relationship, even if an aspect, is not limited to the Ptolemaic aspects of 0, 60, 90, 120 & 180 degrees.

<sup>33</sup> text has: *quam alia ad omnes et res omnes et loca in mundo contenta.*

<sup>34</sup> *obliquantur*

<sup>35</sup> This is why the influences of rising, culminating or setting stars or planets are held to be most powerful.

<sup>36</sup> *propter quod*

because the diversity of the rays having been blended, as it were, into one, varies the contents of each place, since in each diverse place, the tenor<sup>37</sup> of the ray (which is derived from the harmony of all the stars) is diverse. Beyond this, since it {the harmony} is continually altered<sup>38</sup> according to place by the continuous movement of the planets and the other stars<sup>39</sup>, the world of the elements and all of its contents are continually moved into diverse conditions, springing forth into actuality<sup>40</sup> according to the demand of the same harmony of the moment, although to human senses some things of the world seem to be permanent. That this is not so has been rather evidently proven according to a physical reason by extracting the origin from sense<sup>41</sup>. It is therefore clear that all diverse places and all diverse times construct the diverse individuals in this world, which the celestial harmony continually diversifying itself produces through the rays projected into the world, and it is also declared by sense in some things and in others.

In this way it is gathered by the reason that the stellar rays {playing} on a given subject composed of the elements affect the thing diversely according to the diverse nature of the things compounding it.<sup>42</sup> The rays of the sun shining on a dark body (such as a human body) are

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<sup>37</sup> The Latin translator of Alkindi uses "*tenor*" to translate whatever the Arabic equivalent was. I have kept the word in English since it is also an English word and serves to maintain the musical metaphor found in the Latin text. "*Tenor*" in Latin means "content, uninterrupted course, career, or tone."

<sup>38</sup> *mutatur*

<sup>39</sup> A common assertion in medieval astrology, resting upon the astrological reading of Aristotle's *Metaphysica*, *Physica* and *De generatione et corruptione*, the motion of the stars are asserted to be the cause not only of change of state in the elements, as well as alteration and decay, but also of motion in place. Cf. Aristotle's *Metaphysica*, Book *Lambda*, lines 28-31.

<sup>40</sup> *exeuntes in actum*

<sup>41</sup> *Hoc autem sic non esse est ratione physica a sensu trahente originem, evidentius comprobatur.* Again the alchemical metaphor applied to the mental process of analysis.

<sup>42</sup> *Hoc idem ratione colligitur quod stellares radii in re eadem ex elementis composita, secundum diversam naturam componentium diversimode rem afficiunt.* "*Componentium*" is from *compono*, to unite, order, compose, compound, arrange. *Componentium* is from *componens*, compounding or arranging. The idea is that the stellar rays influence the mixing of the elements in various ways depending upon how they fall on the sublunary elemental subject.



reflected to the degree that colour exists on its surface, {but} to the degree that {the Sun's} heat enters into that body and heats it and as the rays have a nature that is life-giving, the human spirit is fortified and so it is very much the same in those things which are not so manifest to sense.

Therefore, it is proven by reason that the rays of all the stars have diverse operations in the things of the world according to their diverse properties since all things arise and exist through the rays.

But this ought to be especially attended to: that since every thing of this world is continuously moved by some species of motion, the form which it receives through this motion has a form on account of the matter sowing in advance<sup>43</sup> in so far as the same thing is released {from any prior form}.

Indeed, every form presently existing is in the matter of a thing closely imitating {it} and {the form} passes into it {the matter} through the operation<sup>44</sup> of the dominating rays of the stars on the thing with all its condition.<sup>45</sup>

Whence it happens that diverse matter, sowing in advance through diverse motion<sup>46</sup> receives a new form, namely one which is more fit by its nature for receiving that form. And from thus it is that from the seed of corn, a corn harvest is produced<sup>47</sup> rather than a barley

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<sup>43</sup> *pro materia preiacenti*. Glossary of Later Latin to 600 AD., Souter, Oxford: 1949, 1964, has *preiacio* (*preicio*), sow before hand. The idea is that the rays of the stars are continually sowing forms in matter as a farmer sows seeds in a field.

<sup>44</sup> *motus*

<sup>45</sup> Footnote by the editors of the Latin Text: "The neoplatonic theory of the succession of forms is assumed by the astrological savant. It is the movement of the stars which provokes the succession of forms in matter. R. Lemay has analyzed a part of the *Introduitorium maius* of Abu Ma'shar relative to the influences of the stars as the cause of the transmutation of the elements and to generation and corruption. He places the doctrine of Abu Ma'shar in rapport with the assignment of Aristotle regarding the role of the Sun in generation and corruption, but he ought to recognize that the Arabic Astrology tended to an Aristotelian usage. Cf. Abu Ma'shar and Latin Aristotelianism, pp 59-113."

<sup>46</sup> *motus*

<sup>47</sup> *procreatur*

{harvest} in some<sup>48</sup> place in which, if barley seed had been sown, a barley harvest would have been generated by that same power of the rays simultaneously coming together in this {same} place, which, - the same things happening in any place - cause diverse things according to the diversity of the matter found there.<sup>49</sup>

But know this: that human manners and the behaviour of beasts modify the matter sowing in advance and its inmost nature<sup>50</sup> is often discovered in its effect. From this cause it is that a king's son is king after his father because the condition of succession in the seed exerts its influence through the quality of the manners existing in the son having been generated by the same character which the father had, on account of the easy transit of such a matter into such a composite thing<sup>51</sup>. And the son of a craftsman is usually born more fit for to the work of his father {than another}, because the stellar rays dispense a motion<sup>52</sup> of this sort into the material {body of the son}.<sup>53</sup>

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<sup>48</sup> *in hoc loco*

<sup>49</sup> Thus, the rays of the stars, carrying down into matter their active instigating impulses, are only one cause of the form in matter at any given moment. The matter itself has certain diversities which contribute something to the form as well.

<sup>50</sup> *eius esse*, i.e. the matter's condition. *Esse* is a term which is used in the Latin Aristotelian Tradition to refer to the property of some thing to exist as substance, i.e. to exist or be. For Thomas Aquinas, *esse* was "What is inmost in each and everything and what is deepest in them all- for it is formal in respect of all that is in a thing." In an astrological context, it sometimes means a planet's condition, what we, following Morinus, might call its zodiacal state; but may as well mean the planet's nature. Here it probably means, *ens*, being, to be, substance. In other words, we are in the realm of Aristotelian Physics and Philosophy and *esse* most likely refers to a thing's inmost nature.

<sup>51</sup> "...*propter levem transitum qui est a tali materia in tale materiatum.*" The medieval translators of the Arabic originals were confronted with many words and concepts for which they had no Latin equivalents. They created words to fit their needs. Thus, for instance, arose *elementata* ("elemented"), signifying the 4 primitive qualities: hot, cold, wet, and dry, from *elementum*, element. So too Alfano of Salerno, in his translation of Nemesius, created the word *materiatus*, which we see as the last word in the above quote. It signifies a thing made, composed, or constructed, out of matter. It is probably from *materio*, *-atus*, 1.v.a. "to build of wood". Here, of course, it is not used in this sense, but in a special sense of "mattered" or made of matter. The Latin translator seems to have followed Alfano's usage. The "mattered thing" or "composite thing" here is the prince's body.

<sup>52</sup> *motus*

The diversity, therefore, of things in the world of the elements appearing at all times, proceeds from two causes, namely from the diversity of the matters and the various operations of the stellar rays. Between these, because in some things the difference is greater; in some lesser, things are produced at one time more, and at other times less, different in various times and places. Whence some things are discovered differing with respect to genus, some with respect to species, some with respect only to number.

The matters sowing in advance have more differences with each other with respect to the genus of differences than the matters from which the differences of species have proceeded. Similarly, the matters from which things are made naturally (differing between themselves with respect to species) differ more than matter from which individuals (differing only with respect to number) are made by the motion<sup>54</sup> of nature. In the same way the mingling of the rays of the stars (which in diverse places cause<sup>55</sup> things differing with respect to genus) contains in itself more difference and diversity in diverse places than that which causes different species. Likewise, that which causes things differing in species has in itself more difference and diversity in diverse places than that which causes things differing only in number.

Indeed, since all the stars are of diverse natures, and through their rays all of the diverse effects in the world of the elements happen, it is this condition of the celestial harmony which makes the effects of the rays assist each other in one matter and impede each other in another. Thus, in every thing made by the harmony some star is predominant and some sign likewise which acts<sup>56</sup>, before all others, in the work and

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<sup>53</sup> Astrology at this time was considered a branch of physics. Even psychology, medicine and biology- in this case genetics, were viewed as physics. This accounts for the author's discussion of the accidents of birth in terms of matter and his analysis of the different fortunes of birth in terms of different matters. We would tend to offer social, economic or psychological explanations for such differences today. Not so for Alkindi.

<sup>54</sup> *motus*

<sup>55</sup> *operatur*

<sup>56</sup> *gerit*

regimen of that thing as its ruler<sup>57</sup>.

From the condition of the rays among themselves such diversity of things arises in this world that in no place two or more things existing in actuality<sup>58</sup> are to be found in every way exactly alike, although the sense of man may not suffice for understanding their difference. When, however, from some species of matter some species of things is generated; made by the motion<sup>59</sup> in that same matter, as frequently happens, it is called "natural generation" by men; but when such species of things are generated apart from the usual manner from such species of matter, such a generation is deemed preternatural. But the same celestial harmony operates in both, and in diverse places and times operates in such a diverse manner that now similar are generated from similar; but now dissimilar, and this frequently in some things, in others rarely, in yet others, very rarely, and in yet again others never in so far as it has been detected by men. It also produces similar now with a similar motion, now with dissimilar motion, now with a slow motion, now with a rapid motion and in innumerable other ways.

The things of this world and their motion according to place and times are found to vary, which--because they proceed from a celestial cause--led either all or some of the wise who knew the virtue of this cause to wonder. If it were given to anyone to comprehend the whole condition of the celestial harmony, he would fully understand the world of the elements with all of its contents in each place and at every time, as it were the caused by the cause. If, indeed, should he understand any one thing in this world in its total condition, the condition of the celestial harmony itself would not lie hidden, because he would understand the cause by its effect. Everything acting in the world of the elements, however small, is an effect of the entire celestial harmony. All things which have been and which are yet to be are denoted in that same harmony, although in another manner than things, which have actual existence in this time.

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<sup>57</sup> *principatum* from the deponent verb *principor*, -ari to rule. Here we see the philosophical argument for the *Almutem*.

<sup>58</sup> *actu* - for Aristotle, things may exist *in actu* or *in potentia*. The latter is merely a potential existence, it might be. The former an actual existence, it already is.

<sup>59</sup> *motus*

Whence he who has noted the condition of the celestial harmony-knows past, present and future. Also, should the condition of one individual thing of this world be fully known there would be present to the knower, as in a mirror, the total condition of the celestial harmony, since every thing of this world is an exemplum of the universal harmony.

### Chapter Three: On the Rays of the Elements

Now therefore, since the world of the elements is the exemplum of the sidereal world so that each thing contained in it contains the figure<sup>60</sup> of the same {sidereal world}, it is manifest that every thing of this world, whether it be substance or accident, makes rays in its own way like a star otherwise it would not have the figure of the sidereal world to the fullest.

But this is sensibly manifest in other things. Fire, indeed, transmits the rays of heat to an adjoining place, and earth the rays of cold<sup>61</sup>. Curative medicine taken internally or applied externally seems to pour the rays of its virtue through the body of the one using it. Also the collision of bodies makes the sound pour itself forth from all sides through rays of its own kind and every coloured thing emits its own rays by which it is seen. This is also more subtly known in many other things. Whence, indeed, in all things the same {principle} is seen to be true by reason.

Assuming that this is true, therefore, we say that every thing that is actual and has existence in this world of the elements emits rays in every direction and that the whole world of the elements is filled by

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<sup>60</sup> *species*

<sup>61</sup> According to Medieval Science, hot, cold, wet, and dry were different things not merely relative qualities such as we conceive them. Hence Geber, whose alchemical and philosophical works Alkindi would have undoubtedly known, asserted that it was possible, through spagyric separations to isolate the so called *elementata*, or Primitive Qualities, Hot, Cold, Wet and Dry from any subject and, through recombination according to different proportions, to create artificial substances not produced in nature. With such a concept of hot and cold it is not unreasonable to suppose that cold is as capable of being radiated as is heat; especially as one can feel cold in the presence of a cold body. For instance, if you stand about a foot in front of the opened door of your refrigerator on a hot day (without touching it) you will feel cooler than you would in another room. The sensible impression is rather indistinguishable from that *mutatis mutandis* of standing before a radiator on a cold day. Our physics tells us that the two experiences are not identical, though they may feel so. In the latter case radiation of heat does occur. In the former case there is no radiation from the refrigerator but rather it is we who radiate heat and, in front of the open refrigerator, we lose it more than elsewhere due to the cooling system in the refrigerator which is constantly sucking heat from the inside of the unit. When we open the door, we become one of the knockwursts in the meat bin.

these rays according to their mode of being. Whence it is that every place of this world contains the rays of all things existing "*in actu*" ("*in actu*" {lit. in act} is a technical term in Aristotelian philosophy indicating actuality, being as fact. It is used to indicate some principle, thing or state of being which is manifested as opposed to existing potentially). And just as one thing differs from another, so the rays of each thing differ from all other things in their effects and nature, from which it is that the operation of the rays in all diverse things is diverse.

In particular, the distance of one thing from another makes a difference in the effect of its rays on the things of this world.

Likewise, a place more or less distant from the centre of the earth makes a difference in the effect of the rays on neighbouring bodies.

Likewise, the greater or lesser obliquity of the aspect produces a difference in the effect of the rays.

There are, perhaps, other accidents that induce diversity in the effects of the rays of the elements.

But this ought to be known: because the rays proceeding from some thing accompany a diverse nature and a diverse effect, from the aforesaid causes different rays of different things falling on the same subject modify each other, by increasing the species of the effect where they agree and by diminishing its effect where they disagree, or in other ways by aiding or impeding each other just as happens in the parts of the celestial harmony. Also, the diversity of matter receiving the rays of all elemental things causes the diversity in the effects of their rays, for instance, in fire we see that the same rays by which lead is softened, harden brick, which happens from their different matters.

But this ought to be attended to, namely that certain rays are stronger in some effect and weaker in others. Likewise, certain are much aided in their effect by other rays of another species but some are aided little by others. Likewise, some have almost the same effect in diverse places and materials while others appear diverse. Likewise, some rays operate very much in one time which operate very little at another time. Likewise, some want to operate with many additional circumstances and not otherwise, but others are content with fewer and in these things there is such diversity of modes that words do not suffice to define it. On this issue men have partially investigated the matter, some through experiments and some through reason first.

There are some things which are as yet shut up in the treasure house of nature, namely those things which still have not attained to anyone's notice, regarding which there are certain things the capacity of human cognition does not suffice to comprehend; there are certain things which are able to be known, to the knowing of which, however, the soul of no man has yet attained. Some things are more perceivable but the knowledge of them is scarcely known to a few, other things, however do not exceed the common human understanding. There are some things that are known by all men either by sense only or by sense and reason.

The action of each thing is produced by its own elementary rays: it is either exercised locally by conjunction with something else or at a distance<sup>62</sup>.

In conjunction a thing acts when one thing is applied to another through continuity or contiguity. Then indeed the things so conjoined act on each other and suffer the mutual infusion through the rays and mutually produce according to the exigency of the nature of the active and passive causes as is manifest in many things. Such operations of things the doctrine which is called "physics" by the vulgar considers and determines.

An elemental thing acts at a distance<sup>63</sup> locally through the infusion of rays and just as in conjunction, although this operation may not be apparent to the senses nevertheless it is clearly just as has been set forth. For it is sensibly known that the diamond attracts iron<sup>64</sup> from a distance<sup>65</sup> and that a mirror shows to the eyes the images of things

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<sup>62</sup> *Actio autem cuiusque rei elementaris radiis suis facta aut exercetur in coniunctum localiter aut in separatum.*

<sup>63</sup> We are not suggesting here that the 17th Century "action at a distance" or other later scientific concepts are identical to Alkindi's concept of *actio in separatum* though they may be derived therefrom.

<sup>64</sup> Usually the medieval magical texts present the ability of the lodestone to attract iron and the alleged ability of the diamond to interfere with this attraction as examples of natural magical "occult virtues." In this particular case the diamond is represented as attracting the iron. This may stem from the fact that `adamas' can mean `diamond' or `very hard stone,' and that at some point `adamas' was thought to be lode stone.

<sup>65</sup> *a se separatum*



separated from the mirror.

This indeed has been proved sensibly in many other things, concerning which the wise handed down the doctrine regarding the actions of elemental things on things remote.

## Chapter Four: On the Possible

As evidence of this business<sup>66</sup> it is fitting to know that man, through his nature and the use of reason receives science or faith regarding<sup>67</sup> the conjunction of things and conceives will and desire about things good for him and in some cases they produce free will about getting them which we say happens to men from their lack of understanding of things. Since every human cognition arises from sense, the properties of things are things which sense very often does not comprehend<sup>68</sup>. Regarding these things and their conditions there may be no knowledge in the reason. Whence concerning the totality of things, there are certain things which are known and others which are thoroughly unknown.

If however all things should be known by someone, he would in turn have knowledge of the causality things. He would know, therefore, that all things that act and happen<sup>69</sup> in the world of the elements have been caused by the celestial harmony and then he would know that the things of this world related to that {celestial harmony} come forth by necessity. This, indeed, has been clearly ascertained by the wise in many instances and for this reason and in all others things, is judged to be the same by human reason.<sup>70</sup>

Now, therefore, because this causality is not impressed in the minds of men, with the exception of a few who followed this in a few particulars, the opinion of the contingency of things in the thought of most people was advanced who, seeing that some occurrence of things comes forth {one way} in one time and otherwise in similar circumstances in another time, they judged such an event contingent, so that before it happened they thought it possible that it might

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<sup>66</sup> *rei*

<sup>67</sup> *super*

<sup>68</sup> Sense perceives things. Mind conceives properties.

<sup>69</sup> *omnia que fiunt et contingunt*

<sup>70</sup> If all things occur by necessity, fate exists and can be known by knowing its cause.

happen and possible that it might not.<sup>71</sup>

However, if they knew the causes fully, they would hold a fixed opinion on the one part, namely, that which the causes demonstrate. Even those who have comprehended a universal from all things known<sup>72</sup> by sense in single occurring things; not from things known by the cause, will judge, the thought having been set free, that either of two things are possible. But the wise man, by the relation to causes having been made, knows that one of the two is necessary.<sup>73</sup> Thus, therefore, all men believe that many future things happen contingently, because they desire that which they think possible.<sup>74</sup> But if they carefully considered all the circumstances, they would know that they were impossible because the causes are of necessity. Nor would they conceive faith that they would be in the future nor would they conceive desire for them nor hope nor fear. They do not admit that such affections of the soul concerning themselves are known to be impossible. We only desire, hope for and fear contingent and possible

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<sup>71</sup> In other words, some people incorrectly hold the opinion that events produced by the stellar rays are not necessary but only possible (and therefore contingent) since they see events produced by the celestial harmony which seem to differ. This leads them to overstate the importance of the material cause and to doubt that events produced by the stellar rays occur by necessity.

<sup>72</sup> *habitus*, Lewis and Short, page 835. middle column, G. The author uses a different verb here to indicate a different kind of "knowing" than that implied by *scio*.

<sup>73</sup> In this paragraph Alkindi insists, once again, that true understanding is based on consideration of what one sees, hears, etc, (that is, on what is held by sense) rather than on one's mental speculation as to what is possible. To do the latter is to commit a two fold mistake. First, knowledge arises from the analysis of sense input, not from theory; and thus, secondly, to emphasize the conceptual aspect of the problem interposes a mental construct between the philosopher and the world he studies which must inevitably lead him astray. He also argues for a thorough determinism which is the only basis on which a science can be erected.

<sup>74</sup> The implication is that the desires of the vulgar are condemned to be frustrated because they are not based upon what will happen of necessity. He may allude to the almost universal believe that "they" (meaning scientists) will discover an elixir of life which will enable them (meaning those who hold this unfounded hope) to escape death. It is possible that scientists might discover such an elixir, yet if it is to happen it will be contingent upon a number of things (such as funding, skilled scientists doing whatever it takes for as long as necessary, knowing what to do.) Of course, the whole exercise will be in vain if the project is impossible.

things. The ignorance of man is the cause of the opinion of future events and through this means ignorance is the cause of the desire and the hope and the fear. The cause of this is the imperfection of the existence in another manner.<sup>75</sup>

The desire, the hope and the fear, when they are properties of an individual are a part of his ruling unity for which reason, according as they are present or absent, they cause a difference in the rays which proceed from any individual onto things near or remote, and therefore, the projection of the will in human endeavour adds something to the effect.<sup>76</sup>

Nothing may alter<sup>77</sup> that which we said, that the individual primitive qualities<sup>78</sup> act by their rays on other elemental things. This, indeed, is said according to human opinion which holds itself such that when one thing is found with another brought together in some circumstance, one of the two causes is regarded as active whether the two connected things are conjoined in place or separate. For this reason fire is regarded as the active cause of the heating of an individual joined to it and diamond is regarded as the active circumstance of iron that it attracts it to itself by its own nature.

According to the opinion of the common herd, we say that one thing acts with its elemental rays on another, but according to the exquisite truth it does not act but only the celestial harmony acts. In truth, it will be only a simultaneous occurrence<sup>79</sup>, which we term action and passion, in elemental things sustaining impression<sup>80</sup> born to it from such action. And while we consider the conditions and connections, with the relation to the celestial cause not considered, the consideration

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<sup>75</sup> Perhaps, "of things being other than as they are."

<sup>76</sup> Here is a magical explanation of the "projection of one's will" based on Medieval physics!

<sup>77</sup> *moveat*

<sup>78</sup> *elementata*

<sup>79</sup> *concomitantia*

<sup>80</sup> *sustinentibus passionem*

will be physical, whether the things are conjoined or separated in place.<sup>81</sup>

When, however, we investigate celestial events through the elemental causes, we assume a metaphysical consideration.

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<sup>81</sup> And so the situation remains to this day. Do we perceive another, more "modern" point of view here?

## Chapter Five: On Things Accomplishing the Effect of Motions <sup>82</sup>

Therefore, discussing the effect of the rays proceeding from individual elementary things existing *in actu* to things distant, we add that all things which are in any existence *in actu* perform<sup>83</sup> some motion<sup>84</sup>, either always or in one time and not in another.

Which things, however, always move some things and do it in the same way, is not, under the rules of {the} doctrine, fitting to recount<sup>85</sup> whence we judge that it is unprofitable labour to point out that one thing is be connected to every other thing existing *in actu* by relation of similarity or dissimilarity: that this indeed the case is publicly manifest.

On account of<sup>86</sup> good or evil, however, it is profitable to know which things make some species of motion<sup>87</sup> in one time and not in another or govern<sup>88</sup> in one mode and not in another. But in such diversity there is no perceivable science for man, except in a few things, and regarding those few things which are possible to be carefully examined by human foresight<sup>89</sup>, only those which proceed from the human will ought to be investigated at present those motions<sup>90</sup> having been left behind which produce other elementary things in other remote things by means of their rays without the work of man.

Man, therefore, by reason of his proportioned existence arises similar to the world itself. Whence he is called a little world and he receives the

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<sup>82</sup> *motus*

<sup>83</sup> *operantur*

<sup>84</sup> This is explained by realizing that in Aristotle's Philosophy both objective and subjective experiences/ phenomena are produced by some kind of motion.

<sup>85</sup> *comprehendere*

<sup>86</sup> *propter*

<sup>87</sup> or operation

<sup>88</sup> taking *ministrant* for *ministata*

<sup>89</sup> *humana providentia*

<sup>90</sup> *motus*

power of inducing motion<sup>91</sup> in appropriate matter<sup>92</sup> by his own work just as the world has, however by imagination and intention and faith previously conceived<sup>93</sup> in the human soul. Man, desiring to make something, first imagines the form of the thing which he desires to impress upon some matter through his work. After having conceived the image of the thing, he judges whether the same thing is useful or not and desires it or rejects it in his mind. Subsequently, if the thing were considered worthy of desire, he desires accidents through which the thing may come forth into actuality<sup>94</sup> according to the opinion he has taken up.

Accidents assisting for the purpose of inducing motion are the passions of the soul, examining which we said that imagination and human reason take on the likeness of the world when the figures<sup>95</sup> of mundane things in them are actually imprinted through the exercise of sense because the imaginary spirit<sup>96</sup> has rays conforming to the rays of

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<sup>91</sup> or affection, operation, agitation, emotion, etc

<sup>92</sup> "in appropriate matter" (*in competenti materia*). Magical tradition holds that the magician must join or "wed," as Pico della Mirandola would have it in his "Magical Conclusions," things which are appropriate for the production of the desired effects. Such things must also be competent, that is capable of yielding the desired results. Finally, there is often a given attraction between such appropriate items, so they can be said to seek each other intensely (*con + peto*).

<sup>93</sup> *preconceptis: prae-conceptis* instead of *conceptis* to indicate that the thoughts must be in the mind before one can act on them?

<sup>94</sup> *in actum*

<sup>95</sup> *species*

<sup>96</sup> Alkindi is aware of the Greek Physiological theory, put forth by Epistratus of Chios (c 304BC- c 250BC) that explained the presence of vitality in the human body as well as psychological phenomena by reference to *spiritus*. Costa ben Luca (d. 912 AD), in his *De Differentiae spiritus et animae discrimine*, a major text by which the spiritus doctrine was transmitted to the West in the Middle Ages defines *spiritus* as, "a certain subtle body which arises in the heart and is distributed throughout the body by the veins in order to nourish it. It causes life, breath and pulse. Likewise it arises in the cerebrum and nerves and causes sense and motion." The original source of this *spiritus* was thought to be the sun and it was taken into the human body by inspiration whence, according to Medieval Physiology, it found its way into the heart. By means of this theory, mental processes such as sleep, dreams, memory and imagination were accounted for by reference to changes in the quality of the spiritus in the brain.

the world and thence it obtains the power of moving things placed outside by its rays just as the world itself- both superior and inferior<sup>97</sup> - moves things in diverse motions by its rays.

Moreover, when a man conceives some corporeal thing in the imagination that thing receives an actual existence according to species<sup>98</sup> in the imaginary spirit. Whence the same spirit emits rays moving external things like the thing whose image<sup>99</sup> it is. The image, therefore, conceived in the mind agrees in species with the actual thing as an *exemplum* of the image made through a work of will<sup>100</sup> or nature or both. For which reason there ought to be no wonder if a constellation, which produces an image in the mind of a man, produces the same in some other subject, since the latter does not differ from the former except with respect to the matter. We see at one time as it were innumerable animals of some species produced in the world by one constellation formative of that species. This is because much matter is suitable for the reception of that image through the same constellation and, as we say physically, through the actions and passions of those elementary parts imitating the constellation.

In the same way, the mental image and the real {image}, because they are of the same species follow each other as long as both matters may be inclined to receive that form and some accidents occur simultaneously relating to time and place which demand the generation of the thing.<sup>101</sup>

The first and principal accident necessary for the generation of the

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The author returns to *spiritus* below in Chapter 6.

<sup>97</sup> I.e. both the macrocosm and the microcosm have the power to move things by their rays.

<sup>98</sup> *secundum speciem*. This is an example of the equivocation found in the term species. The term can mean either appearance, figure or species (the category). It can be argued that in this case it can be translated in any of the above ways. Each usage will give a somewhat different implication. Thus, there is an intentional ambiguity in the text.

<sup>99</sup> This is the medieval theory of psychokinesis.

<sup>100</sup> *per opus voluntarium*

<sup>101</sup> This looks like the key.



thing through the *exemplum* of the mental image is the desire of the same man who imagined that it may be done. Desire as the adjunct of the imagination is like scammony (a gum resin used as drastic purgative) mixed with medicine which by its virtue makes the whole medicine a laxative. Thus the desire of man taken up regarding some motion<sup>102</sup> so that it reaches to one or many individuals, joined to an imagination of the same motion<sup>103</sup> renders the same imagination motive<sup>104</sup> of individuals placed outside {at a distance} by the rays which are transmitted to them with the effect of motion. It is necessary also that the desire be intense so that the motion<sup>105</sup> has the effect {along} with the other things which are demanded. Things which are negligently executed for an effect of an motion<sup>106</sup> do not suffice.

Also faith in a future effect is an accident which is necessary with the thoughts having been sent out<sup>107</sup>. He who despairs of the effect works in vain<sup>108</sup>, though it were otherwise wisely executed. Firm faith or hope regarding the desired event is a strength and a support of the desire, assisting the desire itself to the realisation of the effect just as the use of scammony assists him to loosen {his bowels} when it is given for medicine.

This, however, ought to be diligently noted: that conjoined thoughts sent forth<sup>109</sup> are not sufficient for inducing an operation<sup>110</sup> through their rays on distant things.

Imagination with desire and faith are formed within the human spirit.

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<sup>102</sup> *motus*

<sup>103</sup> *motus*

<sup>104</sup> *motivam*

<sup>105</sup> *motus*

<sup>106</sup> *motus*

<sup>107</sup> *premissis*. Cf. Seneca, Ep. 5,7: "*cogitationes in longinqua praemittimus*." "We send our thoughts into the distance."

<sup>108</sup> The editor of the Latin text points out that the text is mutilated here.

<sup>109</sup> *premissa... conjuncta*

<sup>110</sup> *ad motum inducendum*

Whence they do not have actual existence like things extended in space<sup>111</sup>, and therefore they only rarely accompany an effect without something else adjoined thereto which has actual existence.

Moreover, an external work, either of the imagination itself or of something else is an accident which, coinciding with thoughts having been sent out<sup>112</sup> makes a motion<sup>113</sup> in matter placed outside<sup>114</sup> as has been found to be so by many {persons}, so that therefore, a thing conceived in the soul may go out into the world into actual external existence<sup>115</sup>, the actual existence of the accidents fulfil the work accordingly as the thing conceived in the soul is thought<sup>116</sup> possible of fulfilment through the motions having been worked<sup>117</sup>.

There are, however, two kinds<sup>118</sup> of works through which, produced, as they ought to be, the thing conceived in the mind proceeds into actuality<sup>119</sup>, namely, the speech<sup>120</sup> of the mouth and the work of the hand. Any word<sup>121</sup> which is uttered<sup>122</sup> from the mouth with the

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<sup>111</sup> *sicut res expanse in locis*

<sup>112</sup> *cum premissis*

<sup>113</sup> *motus*

<sup>114</sup> i.e. at a distance from the operator

<sup>115</sup> *in actum exteriorem*

<sup>116</sup> taking *putatur* for *putat*

<sup>117</sup> *per motus operatos*

<sup>118</sup> *genera*

<sup>119</sup> *in actum*

<sup>120</sup> *locutio*

<sup>121</sup> *sermo*

<sup>122</sup> *prolatus*. This word is from *profero*, *-tuli*, *-latus*. It means to utter. But the author is not intending mere speech as a few lines below, at the end of this chapter, he uses the phrase "*prolatione in ipsas introductos*" which means "with *prolatio* introduced into them" so he clearly has in mind a breathing into the utterance or somehow or another an introduction, by the magician, into the utterance of some force or spiritual power. Thus, magical speech or incantation is different from normal speech. For this reason, *prolatio* must be translated as

imagination, faith, and desire of the one uttering it, now and then effects the actual alteration<sup>123</sup> of individuals in the world. This has been proven manifestly by frequent experiments. Therefore it is that almost all nations of men cite words<sup>124</sup> which they believe induce alterations<sup>125</sup> in some elementary things.

Whence prayers to God and to the spirits<sup>126</sup> and to diverse creatures are made for obtaining the good and for shutting out evil by the motion<sup>127</sup> of the words of things with magical utterance<sup>128</sup> introduced into them. But it is necessary that other things be joined with words in many instances for the realisation of the effect.

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utterance but understood to be a special kind of utterance.

<sup>123</sup> *motus*

<sup>124</sup> *verba*

<sup>125</sup> *motus*

<sup>126</sup> to the jinn

<sup>127</sup> *motus*

<sup>128</sup> see above footnote number 122 on *profero*.

## Chapter Six: On the Power of Words

Therefore because words<sup>129</sup> are believed by men to contain an effect of operation<sup>130</sup>, taking up this {opinion} again, we said that sounds<sup>131</sup> produced in actuality<sup>132</sup> make rays just like other actual things, and by their rays they work<sup>133</sup> in the world of the elements just as other individual things do. And since there are innumerable differences of sounds<sup>134</sup>, each one actually uttered has its own effect on elemental things which is different from the effect of others and sounds<sup>135</sup> have been allotted their effects by the celestial harmony just as herbs and other things, and likewise, the quality of the effect is extremely diverse in diverse {things}.

Indeed some incantations<sup>136</sup> strengthen the operation of Saturn, others, Jupiter', others Mars', others the Sun's, others Venus', others Mercury's, others the Moon's.<sup>137</sup> Likewise, certain agree in {their}

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<sup>129</sup> *verba*

<sup>130</sup> *motus*

<sup>131</sup> *voces*: voices, sounds, words, or incantations.

<sup>132</sup> *in actum producte*

<sup>133</sup> *operantur*

<sup>134</sup> *vocum*

<sup>135</sup> *voces*

<sup>136</sup> *vocum*. I switch over here in translating *vox* as utterance, word or sound to invocation as the author now connects the word with the planets. It is enough to note that the latin word *vox* means: that which is uttered by the voice, voice, sound tone, word, saying, speech, sentence, maxim, proverb, incantation, command.

<sup>137</sup> Note the reversal of relationship from what is normally thought to be the case. Instead of the Planet strengthening the invocation, or being its magical source, the invocation strengthens the planets operation. This seems to place man in an equal to or more important than the planetary gods or angels which were thought to be the ruling geniuses in each planet who were actually the causes of the planet's astrological effects. In Alkindi's concept, the angels are replaced by the light of the stars and man's will, expressed through his voice, can assist the action of the stars on sublunary things. Cf. Scott's *Hermetica, Libellus I*, 13a were Man, created by God as brother to (and therefore equal to) the

effect with certain images in heaven, others with others, because certain uttered incantations<sup>138</sup> accomplish the virtue and works of Aries, others of Taurus, others of Gemini, others of Cancer, others of Leo, others of Virgo, others of Libra, others of Scorpio, others of Sagittarius, others of Capricorn, others of Aquarius, others of Pisces, and of the other images depicted on the sphere of the fixed stars, from which it happens<sup>139</sup> that certain incantations<sup>140</sup> uttered in one constellation and rulership<sup>141</sup> have their own effect and others in others.<sup>142</sup>

Likewise certain invocations have an effect on<sup>143</sup> fire, some on air, some on water, some on earth. Again, some uttered incantations have an effect on animals, others on trees. Likewise, some have an effect on one species of animals or tree, others on another. Again, some incantations have power over one genus of accidents, another over another.

Likewise, some invocations have power in one time and others in another. Some have power in one place, others in others. Some have an effect by themselves. Others must be joined with other utterances. Some have one effect when uttered in one way, others in another way. Likewise, some have an effect {when} uttered only once, others only {when} uttered many times. Likewise, some by themselves, others only when with other works.

But invocations differ in many other ways in their effects, though in all

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Demiurge, also has creative ability.

<sup>138</sup> *quedam voces prolate*

<sup>139</sup> *propter quod evenit*

<sup>140</sup> *voces*

<sup>141</sup> *dominio*

<sup>142</sup> By this doctrine Alkindi is able to explain why the same incantation does not always produce the expected effect. It may also be that he hints that the effect of a given incantation in one constellation may have an effect in another through the ruler of the first mentioned constellation being placed at the time of the incantation in another constellation. Thus, a distribution of effect may occur according to the rules of astrological judgement.

<sup>143</sup> *super*

cases their powers have been attributed to them by the celestial harmony, which regulates the things of the elementary world according to its diversity. If the effect is to be realised, it is necessary that the intention of the one uttering be joined to the imagination of the form of that which he desires to actuality come forth into matter.<sup>144</sup>

After this it ought to be known that since all speech<sup>145</sup> existing *in actu* signifies the totality of all things, some signify certain things more expressly than others and this is clearly known in some instances.

Some of these signifying things signify naturally, namely according to the demands of the physical constitution<sup>146</sup> of the one uttering, such as the speech<sup>147</sup> of birds, and of brute animals. Indeed, such sounds, although they may have an effect in the same way that other things have, through their rays, their effect is not detected sensibly by humans unless in so far as, having been actually uttered, they excite the soul of another bird or animal hearing it to understand something. It has been ascertained that one brute animal calls out something and expresses sorrow and joy through the sound it emits. Indeed, such speeches<sup>148</sup> always and everywhere have similar effects, unless, through disobedience they were impeded. Whence, we do not treat here of such speech.

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<sup>144</sup> This is very important.

<sup>145</sup> *voces*. The idea seems to be that there is a "word" for all things. This "word" may be a tone, sound, word, sentence, etc. And it may be in the language of nature, animals or men. All these "words" taken together comprehend all things that are.

<sup>146</sup> *complexionis* Cf. Firmicus Maternus *Math.* 5, 9. In other words, the physical nature of the one uttering the sound is important. Birds and animals have less effect than man does.

<sup>147</sup> *voces*. The language of animals and of birds is a theme met with frequently in ancient and medieval magical and mystical literature and myth. To be able to understand the language of animals is to acquire power over them and also to be benefitted and instructed by them. Since birds and animals have languages and "words", the author must address this subject at least in passing.

<sup>148</sup> *voces*

There are, however, other sounds<sup>149</sup> significative of things through human application although these receive their signification from the harmonic disposition. Because man has his own substance and all his accidents from this substance in a given time and place, a man has also from the same disposition of calling<sup>150</sup> a man with this name and an ass with that and so regarding all other things in a given time and place. And because of diverse times and places men are informed with diverse qualities in their ruling unity according to the demand of their physical constitutions<sup>151</sup> they assume different speeches<sup>152</sup> for signifying things. The application of particular words<sup>153</sup> for the signification of a particular thing descends therefore, in the first place, from the harmony and through that to the physical constitution of man.<sup>154</sup> A word, made significant through the application and usage of man, drawn toward the signifying of a property, receives from this something significative which it did not previously have.<sup>155</sup>

From which it is that when actually uttered it emits rays of another mode<sup>156</sup> than it does when it remains without signification deriving

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<sup>149</sup> *voces*

<sup>150</sup> *vocandi*

<sup>151</sup> *secundum sue complexionem exigentiam*. The doctrine that the souls as well as the bodies of men vary depending upon where they were born (i.e. what terrestrial location) was an important feature in ancient and medieval astrology. The inhabitable world (of the Northern Hemisphere) was divided, for instance by Al-Biruni in his *Tafhim* ( Cf R.Ramsay Wright's translation of Al-Biruni's Book of Instruction in the Elements of the Art of Astrology, otherwise known as the *Tafhim*, London: 1934, Luzac and Co., sections 236 - 242) into 7 Climes, one for each of the Planets. The natures of the inhabitants in each of these climes was held to differ. Also Cf. Ptolemy's *Tetrabiblos*, Robbins' translation, Harvard University Press.

<sup>152</sup> *diversas voces*. Not only do the denizens of each of the climes differ physically and in disposition, but they also speak different languages.

<sup>153</sup> *talis vocis*

<sup>154</sup> This statement makes Alkindi's Hermeticism explicit. Man's peculiar dignity consists in his being the link between heaven and earth.

<sup>155</sup> *Vox autem facta significativa per impositionem et consuetudinem hominum deducta ad significandum proprietatem ex hoc recipit quam anatequam significativa fieret non habebat.*

<sup>156</sup> *modum* Taken in the grammatical sense, this would be "voice" or "mood".

from human usage. Whence it happens that it brings into matter another motion than it did before.

Moreover this ought to be attended to: that any word<sup>157</sup> uttered *in actu* has its own signification put together by the harmony and that this signification does not change as long as the word<sup>158</sup> remains the same- which is for eternity<sup>159</sup> - just as species of herbs have their proper virtues assigned {to them} from the same harmony which they do not lose so long as the species lasts.<sup>160</sup> Truly the words<sup>161</sup> having, in this way, their own proper significations from the harmony, vary them in effect according to the variations of the nature and the matter which they signify. Whence it happens that their rays which they emit when actually uttered sometimes make a motion<sup>162</sup> in matter and sometimes they do not and sometimes they make more motion<sup>163</sup> and sometimes less according to the diversity of their nature and the matter which suffers from a word<sup>164</sup> when it is uttered. So therefore, every word<sup>165</sup> which signifies {something} through {human} application also signifies {something} through the application of the harmony although more frequently in one way or in another way through the former than through the latter.

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The implication would then be that the heaven speaks according to a natural syntax and grammar. This implies a natural language discernable through the science of astrology. Such a natural language would be creative.

<sup>157</sup> *vox*

<sup>158</sup> *vox*

<sup>159</sup> Alkindi was not troubled by the recognition that languages change over time and therefore the words and grammar comprising them alter over the ages.

<sup>160</sup> Cf Genesis 2:19. "And out of the ground the Lord God formed every beast of the field and every fowl of the air; and brought them unto Adam to see what he would call them: and whatsoever Adam called every living creature, that was the name thereof."

<sup>161</sup> *voces*

<sup>162</sup> *motus*

<sup>163</sup> *motus*

<sup>164</sup> *patitur a voce*

<sup>165</sup> *vox*



When, however, the application of signification made by the harmony and that by human application come together in some word<sup>166</sup> a virtue of signification of that word is generated. *If, indeed, this name, homo, should have the signification of man by the harmonic disposition, as it does by the usage of the Latins,*<sup>167</sup> it would work by its rays on matter when it was uttered, by a two- fold virtue: namely natural and accidental and so it would arise in effect more strongly and the same is true regarding all other things.

Such a coincidence of signification happens, according to the vulgar opinion as often by chance as by a determined human reason.

Some men thoroughly investigating both the higher and the lower secrets of nature by having comprehended the celestial disposition understood many hidden things in the world of the elements. Whence, the names of thieves<sup>168</sup> and adulterers and others, which they desired to know by means of the celestial motion they frequently investigated by an art<sup>169</sup> which they sought in the wonderful discovery of this and through the same forms of words and of names<sup>170</sup> they discovered things efficacious for producing motions in things.<sup>171</sup>

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<sup>166</sup> *in aliqua voce*

<sup>167</sup> The lines in italic are probably a transposition made by the latin translator. The original would have likely given an Arabic word as an example.

<sup>168</sup> *furum*

<sup>169</sup> By horary astrology. H.C. Agrippa, in his *De Occulta Philosophia* (1534) Bk. III, chapters 26 and 27 relates methods purportedly used by kabbalists for extracting names of spirits from horoscopes. While it is not being suggested that the methods reported by Agrippa are the methods mentioned by Alkindi, for the one deals with the names of spirits while the other with the names of thieves, it is likely that there was some kind of similarity in concept between them. Contemporary Islamic occultism has methods for discovering the names of thieves, etc by means of letter permutations and tables of letters.

<sup>170</sup> in other words, the names and words whose power derives from the celestial harmony and/or from human application. The author does not mean the names of the thieves and adulterers.

<sup>171</sup> Thus, those men who comprehend the many occult things through understanding or comprehending the celestial disposition, use horary astrology to find out secrets, such as the names of thieves and adulterers. But they also use their knowledge of words and names of power for making things happen.

There were however other men possessing a happy constitution<sup>172</sup> so that the natural efficacy of other names came into knowledge<sup>173</sup> in them, by means of reason or through the intellect, their good physical constitution harmonising their understanding, and this sometimes in dreams and occasionally in vigils. {But} the opinion of the many<sup>174</sup> is that incorporeal substances reveal many things to men which, founded neither in sense nor in reason, they make known<sup>175</sup> in sense. The virtues of some words come into the knowledge of some people by chance, whereby, although they experience many things, in many cases, it happens in such a way that that which is perceived in experience, is believed by one who has never seen an instance of it in individual things, to happen thus universally.<sup>176</sup>

Wherever the forms of the said modes of words<sup>177</sup> come to

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<sup>172</sup> *felici complexione*

<sup>173</sup> *deviniret in notitiam*. Literally, this implies a kind of union as *notitia* may be associated with intimate knowledge through union. *Notitia feminae habere* means "to have carnal knowledge of a woman." In the present context, the idea conveyed seems similar to that expressed by Patanjali in Yoga Sutras, that through profound meditation (*Samyama*) on an object union with it may be achieved leading to magical domination of the object. Cf. Yoga Philosophy of Patanjali by Swami Hariharananda Aranya, trs P. N. Mukerji, Albany: state University of New York Press, 1983, pp.253-254. Thus, *deveniret in notitiam* means "to arrive at, or reach knowledge of a thing through union with it." There is an entire philosophy of yoga implied here. Note the role of a purified or perfected physical body in supporting the practitioner's capability for this exalted mental effort.

<sup>174</sup> Which Alkindi holds to be false.

<sup>175</sup> *nota*, literally, marks, signs, characters or notes. There is a large body of lore in medieval magic bearing on this concept. Magical are thought of as visible, geometrical expressions of the spiritual nature of some spirit, force or thing and as elements or letters in a magical, angelic or natural language. "Notes in sense" relates to *ars notoriae* and sigils. We are dealing with thinking similar to that expressed by Tommaso Campanella *De Sensu Rerum et Magia*.

<sup>176</sup> *Casu autem aliquorum verborum virtutes veniunt in notitiam aliquorum, qui cum multa experiuntur, aliquid de expertis sic contingit ut in pluribus quod cum experimento deprehenditur, sic universaliter contingere credit qui instantiam in singularis non vidit*. Cf. Chapter One of this work where Alkindi sets forth his ideas about how conceptions of universals are formed from sensory input.

<sup>177</sup> The modes of words, as we learn later, can pertain to their syntactical usage,

knowledge with the virtue attributed to them, if they were uttered in the proper places and times with the exact intention and solemnity, they would cause motion and impediments of motions in appropriate matter, by means of the rays born forth from them going out into matter on account of its impressionable nature, and thus occur illusions in the elements and motion both local and of the other mode<sup>178</sup> in individuals as well as impediments of motions. And thus some animals are generated and pass away and at times they are warded off<sup>179</sup>, and at other times they are attracted, and other things of this sort which seem like marvels to the vulgar.

Of such words some are significative of things among the men of that place in which they are uttered, others, however, signify nothing according to human application<sup>180</sup>. Those which lack signification to the one uttering them, if they are allotted the effect<sup>181</sup> which the one uttering them intends, they have this {effect} from their nature given to them by the harmony just as the virtue present within plants is from the same {harmony}.

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as for instance, indicative, imperative, optative subjunctive, etc. Alkindi will now give us what he feels is the correct opinion.

<sup>178</sup> i.e. actions at a distance

<sup>179</sup> *arcentur*

<sup>180</sup> Note by editor of Latin text says that the "non significative words" referred to are the so-called *ephesia grammata* found in certain magical papyri. We are referred to Preisendanz *Papyri graecae magicae*, I-II; Hoffner, *Greichisch-Aegyptischer Offenbarungszauber*, I, p.185 sqq., Delatte, *Anecdota Atheniesia*, I, *passim*; F.Dornsieff, *Der Alphabet in Mystik und Magie*, 2te auflage, 1925; *Die Vokalreihe im Zauber*, p. 35 sqq., et p.38 sqq.; also cf Iamblichus, On the Mysteries of the Egyptians, Chaldeans, and Assyrians, trs Thomas Taylor, London: Stuart and Watkins, 1968, *passim*. The *ephesia grammata* are also known as the "Barbarous Names."

<sup>181</sup> The idea of causality expressed here is a bit curious. Above, we heard of causes accompanying effects. Here, the words producing the effect are said to be allotted (*sortiuntur*) to the effect by the harmony. And yet, the characteristic of being allotted to an effect is something such words may have. It appears that the use of this word in the Latin derives from Alkindi's choice of an Arabic word to render the corresponding original Greek word (perhaps *kleroo*, to allot, or *lanchano*, to obtain by lot) in one of Alkindi's sources.

The significative words, however, are sometimes joined grammatically, sometimes without reference to the rules of grammar. And those which are joined ungrammatically, if the effect is allotted which the one uttering them intends, it is from the harmony just as with the non-significative sounds.<sup>182</sup>

Those which are joined by the grammatical art either make a perfect or an imperfect discourse<sup>183</sup>. If imperfect, the virtue of such sounds, if any such exists, descends from the harmony in the same way as does that of non-significative sounds, through human application. If, however, the words<sup>184</sup> were conjoined in a perfect mode<sup>185</sup> of discourse, that discourse will be either indicative or imperative, or optative, or deprecative, or obsecrative, or execrative, or showing some other affection of the one speaking.

Likewise, it is expressed sometimes by singing accompanied by a stringed instrument<sup>186</sup>, sometimes by chanting alone. Such discourse is likewise sometimes composed metrically, sometimes in prose. Likewise, sometimes it is expressed forwards, sometimes backwards. Likewise, in all of the said modes<sup>187</sup> some discourses are found to be effective for inducing motion or for impeding the same in some individuals, if they are uttered with the required ceremony and the said ways<sup>188</sup> of pronouncing these modes are discovered for which we said these discourses were invented.

Also it has been ascertained by experience that sometimes an indicative discourse has a false effect as easily as a true one. Also, the

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<sup>182</sup> *voces*

<sup>183</sup> The Semitic Languages, unlike the Indo-European ones, do not have three tenses, but merely a perfect and an imperfect tense, signifying the completion of action or its incomplete status respectively.

<sup>184</sup> *verba*

<sup>185</sup> *modum* Here, "tense."

<sup>186</sup> *psallendo*. As, for instance David sang with his lyre or as Orpheus did.

<sup>187</sup> I.e. either "indicative or imperative, or optative, or deprecative, or supplicative, or cursing, or showing some other affection of the one speaking."

<sup>188</sup> *dicti modi*

invocation of imaginary things, not having actual existence sometimes works. Also, a curse done for non-existent things many times induces an alteration<sup>189</sup> in things.

All words, as has been said, having been uttered, make some change<sup>190</sup> in all elementary matter, but the change is greater when the intention of the one uttering it assents thereto,<sup>191</sup> and still greater if a work is performed for an effect which is demanded by nature. These<sup>192</sup>, therefore, cause an operation<sup>193</sup> or impediment in individuals, but they are only<sup>194</sup> attended to by men when the operation or impediment is perceived by some sense. Then, indeed, the good or evil from that operation or impediment proceeds to him who used the words with this intention. The operations which the expression of the words<sup>195</sup> make with their rays on individuals, if they are not made perceptible by sense, do not cause good or evil. Whence, such an utterance is judged not to have an effect on account of the negligibility of the effect which is not attended to by men.

Every word<sup>196</sup>, indeed, every sound<sup>197</sup>, both significative and non-significative, has its own matter, given by the harmony in which it operates when uttered with the proper ceremonies, as has been said, yet indeed, if the intention of the one uttering it regards some matter other than the word naturally seeks, the expression of the words remains fruitless, as is often the case.

The more proper matter, however, in which words<sup>198</sup> cause<sup>199</sup> more

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<sup>189</sup> *motum*

<sup>190</sup> *immutationem*

<sup>191</sup> *accidit*

<sup>192</sup> I.e. the words and the intention

<sup>193</sup> *motum*

<sup>194</sup> or, "at last".

<sup>195</sup> *verborum prolatio*

<sup>196</sup> *omne verbum*

<sup>197</sup> *omnis vox*

<sup>198</sup> *verba*

characteristic things, is air and substances having as much as possible an airy nature. Sounds<sup>200</sup> are of an airy form because they are more operative in airy matter than in other matter. Air is far more easily impressed than the other elements because<sup>201</sup> sounds<sup>202</sup> have more efficacy on airy bodies and qualities than on the bodies and qualities of the other elements, although in these matters certain words<sup>203</sup> are allotted to the effect.

It is from this cause that certain words uttered with due observances, alter<sup>204</sup> the senses of animals and, especially, of men. The *spiritus* of man<sup>205</sup> is of an airy nature whence it easily receives transformation through words, just as from other sources, and from this it is that from the utterance of certain words images appear in a consecrated mirror and this is because sounds<sup>206</sup> are sometimes heard which have not been uttered by man. From this also it is that by the utterance of some words by adjuration strange images are formed in a man's imagination, mind and memory<sup>207</sup>.

From this, indeed, it is that by the expression of words diverse passions in the human soul are altered<sup>208</sup>, namely fear, hope, joy, sorrow, and these things are also done likewise in some animals.

Also, the will of man may be altered by the expression of words<sup>209</sup> so

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<sup>199</sup> *operantur*

<sup>200</sup> *voces*

<sup>201</sup> *propter quod*

<sup>202</sup> *voces*

<sup>203</sup> *verba*

<sup>204</sup> *immutant*

<sup>205</sup> See above, footnote 96 in Chapter 5.

<sup>206</sup> *voces*

<sup>207</sup> *in imaginatione et ratione et memoria*

<sup>208</sup> *immutantur*

<sup>209</sup> Alkindi is on thin theological ice with this idea in any of the three major

that it may seek something which it would not seek according to the course of the natural will. Thus, the delight of princes is acquired by means of the expression of words<sup>210</sup>, and women are made to burn with the love of some men, and generally every species of animal virtue in every species of animal is able to be transformed by words uttered with proper ceremonies in an external motion<sup>211</sup> and that motion is directed into some one of the modes by the harmony, in the same way that, by the harmony, the power present in those words is suited to the effect of the theme.<sup>212</sup>

The spirit of man or of another animal altered in this way produces in its subject a will of moving its members with some local motion or other which it did not have nor would have had if these words were not uttered.<sup>213</sup> The words alter the very will, as has been said.

Hence it is that scorpions and wolves and lions and mice and flies are expelled from their places by words and occasionally animals and birds are called to some place and await capture in this way. In all such {cases}, either the natural wills follow the motion<sup>214</sup> of the spirit of the enchanted animal, which was accomplished by words, or the very will in itself received alteration, transformed by the words into a new form which it would not have according to the natural course of things.

Although the effect of words may be greater and easier in spiritual matter, nevertheless, words uttered with the necessary ceremonies have an effect and the property of transforming all the elements into new forms and of dulling their natural forms so that they may not do what they would do according to their natural course.

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western traditions, Islam, Christianity or Judaism.

<sup>210</sup> or incantations, charms, etc.

<sup>211</sup> *in extraneum motum*

<sup>212</sup> "... sicut et fit per armoniam prestantem vim verbis illis ad effectum thematis." The editors' footnote accurately reminds us that the "theme" referred to is a horoscope of the sky at a given moment in time. It ought also to be noted that the author implies in this passage that the celestial harmony has moods which are reflected in grammar and are discoverable through horary astrological figures.

<sup>213</sup> An excellent description of the effect of a successful hypnotic suggestion.

<sup>214</sup> *motus*

The earth, indeed, because it is naturally frigid, by the power of words becomes hot and retains the heat. Water too, which, according to its nature, permits itself to receive heavy bodies within itself, by the power of certain words, is stripped of this nature, and becomes such that iron will swim on its surface. Air too, by words ceases from blowing and from the generation of rain. Fire surrenders its combustion by means of words though combustibles be applied to it.

From this it is that heavy bodies are often born through the air contrary to the usual course of nature. Light bodies also by the power of words descend below<sup>215</sup> and lightning and flashing and clouds and darkness and other accidents of the elements are produced. In all {these things}, the rays proceeding from the sound<sup>216</sup> to the thing itself give or take away some form by means of the harmonic property that which they {the rays} hold in another condition, just as has been said, and as appears manifestly in the diamond which deprives iron of the nature of descending to the centre while it is applied to it.

When, therefore sounds significant by human application are uttered conjoined in a mode of perfect discourse, from the conjunction there often is allotted an effect by their rays which they would not have if uttered separately, just as herbs made into a confection have an effect which they would not have separately, especially when the desire of the one uttering {them}<sup>217</sup> supports them.

The desire of man is in the heart because it is the centre from which are all the voluntary operations<sup>218</sup> and this centre has its own centric

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<sup>215</sup> This is "preternatural" or besides nature because according to Aristotelian Physics, heavy bodies descend, while light ones naturally ascend to their proper places.

<sup>216</sup> *a voce*

<sup>217</sup> Alkindi's suggestion that the words be in the "perfect mode" is not without importance. Esoteric teaching holds that Jesus spoke truly when he said (Matt. 21:21-22, "Verily I say unto you, If you have faith and doubt not, ye shall not only do this which is done to the fig tree, but also if ye shall say unto this mountain, Be thou removed and Be thou cast into the sea; it shall be done. And all things, whatsoever ye shall ask in prayer, believing, ye shall receive."

<sup>218</sup> The editors of the latin text remark that, for Aristotle, the heart is the central



nature as in some centre of the world. The individual man himself through his physical constitution<sup>219</sup> arises like unto the world, while every part of the world works<sup>220</sup> for his becoming one<sup>221</sup>. Whence it is that the centre of the world in its own way makes a centricity in each individual man, and certainly also in each animal. For which reason, the centre of man rules him in his motions<sup>222</sup> as the centre of the world in its way rules the world in its motions, and from this it is that rays proceeding from a property of the centre of man, namely from his desire, are more potent in causing motion in appropriate matter than rays proceeding from the other parts of the individual man or from their properties.<sup>223</sup>

And it ought to be known that the desire of one man is naturally more potent than another in causing motions externally, because the physical constitution of each man limiting the quantity and quality of the power, even where there are equally intense wills and desires in the different men. In fact, where there are equal desires by the nature of the physical constitution, if the desire of one rises into actuality more intensely than the other, that which is more intense contains the efficacy in making external motions.

When the desire of anyone is so intense so that he performs other works which are necessary for the effect, with the expression of the sounds of his desire, the rays assume a perfective virtue so that in things placed outside, and especially in airy bodies, they make now greater, now lesser motions according to the time, place and circumstances, promote the effect of his desire, with the celestial harmony acting on elementary matter, here acting, there patient, through the same formative power of the same harmony.

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organ of sensation and of movement originating from desire. Cf. *De partibus animalium*, 659 b, 17-19; 665a, 10-15; 666a, 14 seq.

<sup>219</sup> *per suam complexionem*

<sup>220</sup> *operatur*

<sup>221</sup> *individuationem*. According to Neoplatonic Doctrine all things, having originated in the One seek to return to it.

<sup>222</sup> *in motibus suis*

<sup>223</sup> In other words, the desires of the heart are more magically efficacious.

Speaking more completely concerning obsecration and adjuration, we say that because men having used sense and by this having learned the use of reason, they know that the things of this world exist as the causes of other things and they perceived sensibly that the causes of causes to be in many things. Whence, by the lead of reason, from the sensible condition of things having been known they concluded that the supreme cause of the union of things, was that which is above all condition with respect to sense, made known as exalted to itself, removed from intellect, the condition of which they, endeavouring<sup>224</sup>, established {this} by reason.<sup>225</sup> having investigated it by reason because they were not able to by sense. Wherefore, names appropriate to sensible things they deemed in every way inappropriate to this thinking it in no way possible to be named with its own name.

But, so that regarding this, some word should be had among men, they adopted certain names properly suitable to things known by sense, however these being in every way inappropriate to the supreme cause, calling it the cause of causes, god of gods, lord of lords, prince of princes, god and creator and with many other names signifying manifest and pre-eminent, with more suitable negations they designated it so that they called it infinite, uncreated, immortal, impassable, and with other names in this manner<sup>226</sup> of infinity, although equivocally with all other things so named.

The names, therefore, assumed by human application for the purpose of signifying this thing<sup>227</sup>, even if improperly, have some effect when uttered, like other names imposed on things. They alter<sup>228</sup> matter by their rays and are the more effective for moving the more the mind of the one uttering the greater thing believes in and intends to name {the cause of causes}.

Obsecrations and prayers are made by men to God, understood by

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<sup>224</sup> *conantes*

<sup>225</sup> In other words, they prove the existence of the Cause of Causes (or God) satisfactorily to themselves by means of reason.

<sup>226</sup> *in hunc modum infinitatis*

<sup>227</sup> God

<sup>228</sup> *mutant*

the wise in the said manner and speculated upon by the vulgar according to the doctrine of the wise or by the imagination, so that almost all men, by the use of sense and reason, believe that prayers made to God with the customary words, profit oneself and others, and from this grew up the solemn custom among men of adoring God and of conjuring<sup>229</sup> good or evil things, for having some things and for expelling others, and very often such prayers have an effect, though at other times they do not.

The effect follows when the place and time and other circumstances are favourable. The effect is frustrated when something is lacking which is demanded as a necessary requirement so that the prayers are allotted an effect. Whence, further, the prayers of men to God, when they lack intense desire and the zealous intention of obtaining the wished for thing, are said to be found fruitless, since that which is intended is rarely obtained in any appreciable degree known by sense, although some effect may be expected when the intention of the one saying them is to some degree favourable.

Such words, like all others, when they are actually uttered<sup>230</sup> with some intention, make an alteration in matter by their rays shining<sup>231</sup> on the same matter, but they do not perfect the hoped for thing. When, indeed, entreaties are uttered to God by men who understand no concept of God, provided that the desire of obtaining and faith and hope of obtaining is present, words thus spoken will have their effect, although he who speaks the words with the expectation of obtaining {the desired goal} may have no faith in God.<sup>232</sup> For no man is able to know God, but such ignorance in speaking does not impede the effect

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<sup>229</sup> *obsecrandi* can mean "of supplicating, entreating, requesting or conjuring." I take it in the last sense here because it is not usual to request evil things, while it is possible that one might conjure them on an enemy.

<sup>230</sup> *cum actu proferuntur*

<sup>231</sup> *illustrantibus* The use of this word seems to underscore the author's (or translator's?) understanding of light and optical phenomena as the model for all action at a distance including the propagation of sound.

<sup>232</sup> "...*licet de Deo fidem non habeat qui verba dicit cum optinendi voluntate.*" This is a very clear statement and quite at odds with conventional wisdom on matters of this nature. In the Middle Ages this must have been hot stuff.

of the motion regarding matter provided that the longing<sup>233</sup> of the one speaking should be present with the other ceremonies which the harmonic dispensation demands.

Discourses, therefore, and entreaties are {performed} by men for the purpose of making events happen by means of devoted minds and intense desire because they will not lack effect, although, indeed, sometimes they do not work for the event for which they were done. They are useful for something in so far as we, to whom the ignorance of causes creates an opinion of contingency concerning those things which as far as they come to be by necessity with respect to the order of causes, in which order it is constituted that this or that ought to come about with prayers along with other causes.<sup>234</sup>

Therefore prayers to God are necessary to men for following the Good and shunning evil on account of man's ignorance regarding the order of the harmony, in which it is very often so disposed that something does not happen unless the prayers with other things work the effect of the thing in the world of the elements.

It ought not to be thought of God that He who is in every way immoveable may be in anyway moved by prayers no matter how great the desire with which they may be expressed. But, with God having been prayed to, the matter of the elements is moved by prayers, as we say physically, which, in the first place and principally through the celestial disposition, receives such motion that we proffer simply metaphysical causes. Since therefore entreaties to God are made by men of devoted mind and of willing desire with due | ceremonies by inducing some motion in a subjected matter, the desired effect follows with the harmony in the first place procuring all things in everything.

Entreaties are not only directed to God, but even to spirits who are believed to exist<sup>235</sup> by some men, even though their existence is not

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<sup>233</sup> *votum*, a wish, longing, prayer, or vow.

<sup>234</sup> Remember, the author regards the common opinion of the contingency of things to be wrong. See above, Chapter Four.

<sup>235</sup> *esse*

perceptible to the senses of men<sup>236</sup>. They believe that numerous angels exist as incorporeal substances having the power of causing motion in elemental things. They believe that even men, freed from the body, retain a spiritual existence and sometimes cause motion in this world and that they are induced to do this by the desire-filled prayers of men.

There are others whose science and faith are derived only from sense and therefore they do not believe that the nature of spirits is in any mode of existing which is able to be attained by human understanding. That motion and images happen in air or in another element or primitive quality, which are not accustomed to be made known to the vulgar by nature, is not through the activity of spirits, but only from the condition of the celestial harmony fitting matter to such a motion and the reception of images through the actions of other corporeal things moving the same matter to the similitude of the harmony so that there are orations and names and some other things, such as herbs and gems.<sup>237</sup>

Whatever the faith of the one praying should be, the effect follows provided that he pronounces the words with the greatest desire and with required ceremonies of the work or of other motion. And these things have been said regarding obsecration {or entreaties}, which is a deprecatory discourse directed as an operative virtue for eliciting a motion in some matter taken up in the meditation<sup>238</sup> of the one uttering it.

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<sup>236</sup> This is an interesting statement apparently implying that belief in spirits was not universal in Alkindi's day.

<sup>237</sup> There is an abundant literature in Greek and Arabic on plants and precious stones as the editors of the latin text tell us. for the Greek we are referred to M. Wellmann *Die Physika des Bolos Demokritos und der Magier Anazilaos von Larissa- Abhandlungen der Preuss. Akad. der Wissenschaften Phil. Hist. Kl. 1928*, 7 ; for the Arab literature, M.Ullmann, *Die Natur- und Geheimwissenschaften im Islam*, p.393 sqq. and part. p. 402 sqq. Also, A.J.Festugière, *La Révélation d'Hermès Trismégiste* I, p. 133-136, p.137-160 is on astrological botany; p.160-166 analyzes a tractate of Arabic origin attributed to Masha'allah, which refers to Hermes and contains correspondences between stones, plants, stars and talismans. Also, P.Kraus *Jabir et la science grecque*.

<sup>238</sup> *cogitatione* thought, reasoning faculty, understanding, thinking, thought, power of thinking, etc.

Adjuration, however, is a deprecatory discourse directed at the matter of the motion setting forth the condition both of the operator's virtue and of the matter itself. Adjurations are made by the works of God and of spirits, either true or alleged, which either have been done or are thought to have been done, and likewise an adjuration is made through the passions which the subject matter has, had, or it is thought to have, or to have had, as water is conjured through its own liquidity and through its passion of consistency which it once had in some place according to the relation of history.

It matters little for having an effect of motion, whether the operations or passions may or may not {be}, whether they were or were not through which the adjuration is made, provided that there may be intense desire in the one adjuring accompanied by due ceremonies. False orations now and then have an effect of motion in matter through the celestial largesse, as do true ones.

Execrative discourse is the application of evil things to the matter of the motion by speech<sup>239</sup> under either the optative, imperative or obsecrative mood<sup>240</sup> of speaking, and certain such orations have an effect of motion when delivered with the required ceremonies.

Interrogative discourses and {those} enunciative of praise or vituperation sometimes are found to have an effect through the desire of the one intending but they are not so effective in so many things as are the obsecrative and conjurative {discourses}.

Besides, the manner of speaking sometimes works for the effect. Often, a pronouncement by singing, or by singing accompanied by a stringed instrument causes an effect which it will lack if pronounced evenly<sup>241</sup>; and this diversity, as indeed others, the celestial dispensation causes<sup>242</sup> which causes all things in everything through its formative virtue.

Regarding words made significative by human application, it may be

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<sup>239</sup> *per dictionem*

<sup>240</sup> *sub modo loquendi*

<sup>241</sup> Without meter and intonation.

<sup>242</sup> *operatur*

determined for the present by us turning our attention thereto, that there are certain names which receive no signification from human application, which, expressed with intention, are found to have great effect. And of these, some are thought to be names of God, but others {the names} of spirits or stars or signs.<sup>243</sup>

The names of God are attributed to Him by men because they have in their natural existence a regard to God, not indeed that they define God- this is impossible for any particular thing-, but more expressly and more than others in their natural signification they contain a sign of His Majesty by the consistent mode<sup>244</sup> of their sounds. And therefore such names are more powerful in an effect, the celestial harmony producing them in their active properties with respect to the Supreme Majesty.

In a similar manner, names are formed in the world of the elements by harmonic operation, with spirits, stars and individual signs like in power one by one. Whence, when they are uttered with intention and the necessary ceremonies, they produce<sup>245</sup> in matter that which the spirits and signs and stars have to produce similar to their nature.

In this way one thing works through the other since the operation of the higher is the operative cause of the same name<sup>246</sup> as the combination<sup>247</sup> of all the other celestial bodies. And as the spirits and the stars and signs differ in many places in nature and in operation, so the names receive diverse nature from them in essence and the operation of the motion in elementary matter through the rays which they emit on elemental things, when they are put forth with intention and the due ceremonies. And certain ancient wise men attained the knowledge of certain such things, who by the utterance and virtue of

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<sup>243</sup> This is only place I am aware of in which the "Barbarous Names of Evocation" are asserted to be names of stars or the signs.

<sup>244</sup> *modo vocibus convenienti*. The idea seems to be that the names of God have been chosen by men as accurately reflecting some characteristic sufficiently akin to God's nature that the combination of man's usage (application) and the natural congruence of the names gives these names special power.

<sup>245</sup> *operantur*

<sup>246</sup> *nominis*. It may help here to keep in mind that *nomen* in Latin means not only name but authority or delegated power as well.

<sup>247</sup> *cum temperamento aliorum omnium celestium corporum*

these {words} with the necessary ceremony did many wonders, and by all means they took advantage of the celestial and elemental nature.

And these things will suffice concerning the power of words.



## Chapter Seven: On Figures

Manual operation harmonises elemental things to the effect of motion.<sup>248</sup> Wise men proved by frequent experience that figures and characters written by the work of men in different materials with intention and due ceremonies of place, time and other circumstances had an effect of motion on external things.<sup>249</sup> That this is so is because every actual figure, certainly every form impressed in elemental matter, produces rays which cause some motions in all other things, as has been said above. Also each figure has its own nature and virtue different from others, just as their forms are different.

Wherefore there are some characters having power and virtue over fire, some over air, some over water, and some over earth; some indeed in the east, some in the west, others in the south, some in the north, some above, some below, some on the human species, others on other species of animals, some on herbs and on trees of one species, others on herbs and trees of another species. Some characters, set down with proper ceremonies strengthen the operations of Saturn, others of the other planets, and others, of the fixed stars. In the same manner, some agree in effect with Aries, others with the other signs, and this whole diversity of figures in virtue and effect is produced<sup>250</sup> by the celestial harmony attributing to each its virtue of causing<sup>251</sup> motion in bodies placed outside through the rays which it emits {producing} diverse effects as the figures are diverse in their forms, as

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<sup>248</sup> The idea that man exerts a transformative effect upon matter by working it manually, while simultaneously directing his attention fully to the work is fundamental to Alchemical theory. Here this idea is extended to the representation of magical characters the very act of drawing which are believed to alter matter.

<sup>249</sup> The editors of the Latin Text point out that this passage refers to the various designs commonly used in Islamic talismanic and amuletic magic. We are referred to R. Kriss, H. Kriss-Heinrich, *Volksglaube und Bereich des Islam, II, Amulette, Zauberformeln und Beschwörungen*, 1962, p. 74-79, and p. 81 (characters on lunettes).

<sup>250</sup> *operatur*

<sup>251</sup> *virtutem suam faciendi motus*

was said above regarding sounds<sup>252</sup>.

Every figure of a body, by its own rays, produces a motion of some species on other bodies, but those especially have such an effect which proceed into actuality<sup>253</sup> from the human will through the intention of some one making a motion in his own time and place and with the other circumstances having been employed according to the demand of the harmony's indication.

Whence certain characters have been invented by the wise (who perceived the secrets of both natures) which, set down with the required ceremony, bear an effect for expelling or inducing disease in men or in other animals. Likewise, there are some characters which, made in the appropriate material and with the required ceremony, by their rays, expel wolves, serpents, or flies from a place, be it present or at a distance. And it has been proven that any character that has an effect ought to be made with the proper ceremony in making the characters of the figure, this being shown in some cases by the celestial disposition, in some cases discovered by the industry of the student, in some cases through the revelation of spirits in dreams or while awake, and in some cases by casual experience, as has been said above regarding the effect of words.

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<sup>252</sup> *de vocibus*

<sup>253</sup> *in actum*

## Chapter Eight: On Images

Images of men and of diverse species of animals are also made with the observation of places, times and of other ceremonies, which having been ceremonially brought forth into actual existence by the work of man according to the theme<sup>254</sup> joins some effect of motion of the one intending into the things, promoting or prohibiting {them}, the celestial harmony informing the image so made through the projection of its rays.

And the image projects its rays according to its likeness into elemental things and moves them by some virtue of the modes of its rays which it receives from the harmony. And diverse species of images require materials according to what is done in diverse constellations, also the diverse ceremonies of the work.<sup>255</sup> The knowledge of these things proceeds from the knowledge of the nature of the stars and of the nature of the matter either agreeing or disagreeing with the property of the constellation and from the knowledge of the virtue of words and works which are required in the formation of images along with the intention of the operator.

Therefore in this way images, consecrated by men remain for those knowing, endure as secrets of nature retaining the effect of motion, as has been seen manifestly in many cases. An animal image, because it is a likeness of an animal that has a centre and ruling unity closely approaching equality, like the world, is more capable of receiving virtue through words and works in its formation than things employed by a man who intends the effect of some theme<sup>256</sup>, with will and sufficient desire, than are the species of things which have a center and ruling unity extremely distant from equality. The former carry in themselves a greater likeness with the world --which is perfect equality-- than the latter.

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<sup>254</sup> See note 212.

<sup>255</sup> The editors of the Latin text point out that it was common astrological magical practice to engrave or sculpt such appropriate materials and to consecrate them with magical ceremonies accompanied by incantations and incenses. Two important texts are cited: Thabit ibn Qurra's *De Imaginibus* and *Picatrix*. Thabit is reported as insisting on the importance of the science of the stars for the fabrication of images.

<sup>256</sup> See note 212.

The ordinary works of men induce ordinary passions<sup>257</sup> in corporeal bodies and unusual works induce unusual passions. Through usage mundane matter works for receiving accustomed forms by accustomed actions.

But actions done outside of what is usual do not find an accustomed matter for themselves. For which reason it is necessary that unusual forms are produced through such actions.<sup>258</sup> Hence it is that the backwards utterance of words in some matter produce an unusual form and motion. Likewise a backwards turn of a thread<sup>259</sup> makes a motion which the usual turn of the thread does not do and it is the same in all other works performed against custom with the intention of inducing some species of motion in the matter of the imagination. But not everything intended by such works proceeds into actuality at once, but finally, at last, such virtue is sown in such works by the celestial harmony. What, when and how it may come to pass in things has been proven by the wise by some of the aforesaid manners.

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<sup>257</sup> *passiones*. Another, and possibly more precise translation of this word would be "impressions" but this would lose the emotional content of passion which is here characterizing the matter acted upon by human will. The passion of the human operator has been transmitted to the matter.

<sup>258</sup> According to ideas prevalent the Ancient and Medieval periods, prodigies were produced in this way. Thus, monstrous births (for instance, by farm animals) and other prodigies were deemed dire omens foreboding social or natural catastrophes.

<sup>259</sup> *filantis* (from *filamen*) used in the sense of *filum* is unattested in the dictionaries. The reference is to the practice of "ligatures" by which humans and beasts are magically bound so that they must, or cannot, perform a given act.

## Chapter Nine: On Sacrifices

Among the manual works of man, sacrifices are found to be more efficient in inducing a motion<sup>260</sup> of power in the elements, by which some elemental things are found to have sacrifices by which some individual things are {intentionally} broken down from actual existence to non-existence<sup>261</sup>. And, regarding those things which are sacrificed<sup>262</sup>, the more alike they are in physical constitution, the greater the effect the operation is found to have, generally. Whence the killing of animals with the intention of killing them accompanied by other ceremonies<sup>263</sup> work more effectively than other sacrifices that which is intended, and this is seen to have a physical explanation.<sup>264</sup>

For every animal has a centre and ruling unity and a physical constitution proportionate to its parts through which it is constituted similar to the universal elemental world itself<sup>265</sup>, which {also} has a centre and a ruling unity and a physical constitution proportionate in its parts which is allotted by the celestial harmony which produces the world in such a way and likewise that same harmony produces every animal in every one of its conditions. Hence it is that while an animal lives, it informs the parts of the elemental world with its rays and acts on them in its own way as much as on matter. When it dies naturally, however, the world is not changed by its death except in so far as all nature shows in its own course. But

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<sup>260</sup> *motus*

<sup>261</sup> *non esse*

<sup>262</sup> *quanto ea que opere hominis corumpuntur in non esse....* Lit. the degree to which those things which are {intentionally} corrupted by human agency into non-existence....

<sup>263</sup> The editors of the Latin text point out that the *Picatrix* contains specific instructions as to the species of animal to be sacrificed for specific purposes, the proper incenses to use as well as detailed instructions of other aspects of the ceremonies mentioned.

<sup>264</sup> *quod rationem naturalem habere videtur.*

<sup>265</sup> Plotinus, *Enneads*, trs MacKenna, London: Faber & Faber, 1969, 4:12-13 where the harmony of the soul of the world and the soul of an individual regulates the descent of the individual soul into an appropriate individual body of the appropriate species (of which it is an image) at the appropriate time and place.

when it dies by the action of man, contrary to the course of nature, the matter of the world incurs a mutation contrary to nature on account of which, having been altered in this way, it is rendered more capable in some one of its parts to receive the motion and form which it would not receive through the characteristic course of nature. Whence the imagination, intention and desire of man coming together simultaneously with the sacrifice of an animal is allotted an effect of a theme when the required ceremonies are employed.

The imagination and intention of man have power over matter for the purpose of moving and informing it with an external operation because they arise in man who is a little world<sup>266</sup> and he is called this by reason of the constitution<sup>267</sup> of the centre and unity and {because} of the totality of things in the place of the contents of the imagination through which he is similar to the whole world in virtue and effect. And when a sacrifice is employed by man that power is doubled for the reason given.

Sudden motions<sup>268</sup> happen both in the elements and in elemental bodies either animate or inanimate by the sacrifices of animals performed with the required ceremonies; with the intention and desire of the theme bringing them into actuality; the celestial harmony dispensing the effect of the operation, as has been said frequently. Moreover in a particular theme, there is one species of animals which is more efficacious for the purpose of inducing such an alteration than others if sacrificed. This comes from the celestial cause, which things are known to those who by long study or in some other manner are adepts in the science of the secrets of nature.

Also some sacrifices happen from the aforesaid by men intending to induce previously sown motions and forms in some material. For the flesh of animals is burned in the fire, thyme and other spices are also burned in the name<sup>269</sup> of sacrifice because this has been proven by the wise to be helpful for the effect of some theme, such sacrifices are

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<sup>266</sup> clearly a translation of *mikrokosmos*.

<sup>267</sup> <et> *dicitur ratione centri et unitatis complexionate*

<sup>268</sup> *subiti motus*

<sup>269</sup> *nomine sacrificii*

performed by men intending to cause an effect of a desired theme<sup>270</sup> but sacrifices of this sort do not have in their nature the efficacy which the {ritual} killing of an animal has because a thing of this sort<sup>271</sup> offered in a sacrifice does not have sufficient similitude with the world as do animals because of the inequality of its physical constitution.<sup>272</sup> Whence the destruction of them by man through fire or in another way does not move the mundane matter so much as the destruction of an animal by man, unless by chance, the addition of some words or something else augments the effect, which often occurs.

Men who believe that spirits have their own manner of existence and cause alterations and forms in elemental matter believe that they are induced by sacrifices into causing that which the intention of the one sacrificing desires. Whence they offer sacrifices for the honor or pacification of the spirits as if they had power hoping and believing that by their approbation evil will be avoided and good procured according to what the appearance of the theme threatens. This opinion, as has been said before, does not arise in the soul of man from the basis of natural sense and therefore, that it is erroneous is not known by all men. But falsity of opinion does not impede an effect of this sort for he who sacrifices, provided that the sacrifice should receive from the celestial harmony a virtue of causing that which is intended, just as an herb placed on a wound is not impeded in its natural effect even if the one applying it does not believe that it will help.

Sacrifices to God himself of diverse kinds of things are offered by men who believe that He is pleased by sacrifices and made benevolent so that he will give good things and dispel evil things. And even if this opinion is not true, the sacrifice will still have power for the effect of what is intended by the theme at the time on account of its own nature and the property of the rays which it receives from the celestial cause if it is offered with the appropriate ceremonies, as very many wise men have proved by experiments.

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<sup>270</sup> *desiderati thematis*. I.e. an Election for a magical purpose.

<sup>271</sup> i.e. an incense offering or any sacrifice which does not entail animal sacrifice.

<sup>272</sup> In particular, it lacks a center and a ruling unity.

## Chapter Ten: On the Beginnings of the Operations

Moreover it is good to know that the stars and signs having dominion in the celestial harmony in the beginning of any work of will<sup>273</sup> rule that operation all the way to its end. Whence, if they are fortunes, they defend that operation from impediment. But if they were infortunes, they involve the operation with impediment.

And since each star and sign has its own proper names and their own characters conforming to them in virtue and effect, as has been said, their expression in the beginning of any work of will is necessary. If they were naturally concordant with the stars or signs they direct the work; but if discordant, they pervert the work.

And likewise, the formation of figures in the beginning of any work of will is useful for expediting or impeding according as the same figures agree or disagree with the stars then ruling in the signs. Moreover that these names and characters are harmonious or disharmonious is known by some of the aforesaid modes of this sort of thing.

Hence it is manifest that discourses and obsecrations and adjurations for the purpose of charming men by significative sounds done with will and desire at the beginning of any work of will further the direction of the work or, if an imprecation is made, the impediment of the work. Such words mutate the matter of the work either all the time or frequently, when they agree or disagree with the constellation of the time when they are expressed.

Likewise a sacrifice at the beginning of any work of will, properly performed, have a great effect in some work rectifying or distorting provided that it is performed in the {proper} place and time and {along with} other circumstances.

The ancient physicians, knowing the said virtue of words and figures, took all the herbs which they gathered for making medicines, with incantations having been previously spoken or with the formation of images or both together, thinking that their power and virtue in expelling disease was thereby strengthened.

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<sup>273</sup> *operis voluntarii*



That this is true there is no doubt for those who have the secret marks of heaven and of elemental nature.

Here ends the Theory of the Magic Art. Here ends Alkindi's *On the Stellar Rays*.

**END OF TRANSLATION**