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Agostino Paravicini Bagliani

LONGEVITY AND IMMORTALITY. EUROPE-ISLAM-ASIA
INTRODUCTORY REMARKS

Having hosted an international Conference on *The Impact of Arabic Sciences in Europe and Asia* (2014)¹, the International Consortium for Research in the Humanities (IKGF) organized an international Conference on *Longevity and Immortality. Europe-Islam-Asia*, held in Erlangen in 2016 with similar interdisciplinary intentions. Both these events were placed under the patronage of the Union Académique internationale (UAI, Brussels). The Conference was organized by a team comprising Danielle Jacquart (EPHE, Paris), Agostino Paravicini Bagliani (SISMEL, Florence) and Fabrizio Pregadio (IKGF), in collaboration with Jean-Luc De Paepe, Deputy General Secretary of the UAI.

The 2016 Conference aimed to develop a comparative perspective on the traditions and practices associated with longevity and immortality across a wide range of civilizations, regions, and periods, spanning Asia (China, Tibet, Japan), the Islamic World, and Western Europe (Middle Ages, Renaissance), and focussing in particular on up to a dozen themes.

These included: the philosophical and medical background to the metaphors and terminology of longevity; instances of extraordinary longevity; astrology and the prediction of lifespan; elixirs and immortality; literary and spatial myths of longevity; natural death, its prognostics and predispositions; prediction in contemporary genetics; resurrection or regeneration of the body; animals and longevity. Scholars from various disciplines – ranging from alchemy to astrology, and from medical his-

1. *Micrologus. Nature, Sciences and Medieval Societies*, vol. XXIV (2016), VI-504 p. I would like to thank Dr Nicholas Vincent for his careful linguistic review of this paper.

tory and the history of the body to hagiography – entered into dialogue on how theories and practices concerning the prolongation of life have been influenced or restricted at different times by the beliefs of the ancient world, by Christianity, Buddhism, Daoism and Islam, and by a variety of cultural traditions. How has longevity been predicted, theorized, and calculated within such civilizations and traditions? What routes towards immortality or avoidance of death have been elaborated? What was the social diffusion of such theories and practices? In what ways do the theories here, across time and space, differ from one another? Is there a general human impulse to render death predictable and knowable? The organizers were, of course, aware of the need to focus the Conference on a series of «case studies» that could be considered as representative, particularly with respect to literary and scientific texts. They also realized that the Conference would encourage debate, not always easy, between historians and cultural anthropologists familiar with civilizations far distant from one another in time, space and methodology. They also knew that this kind of historical problems should be examined if possible over a long period of time, bypassing academic chronological boundaries. As for the status of «death of old age» or equivalents, for instance, this was a medical category which was used, as Joël Coste explains, for a long time by lay people and physicians before it was challenged from 17th century onwards and progressively marginalised, but not eradicated even in our times².

With regard to the contributions focused upon western medieval culture, what emerged was the existence of a wide and influential debate extending over many centuries and involving disciplines as diverse as theology and medicine, astrology and alchemy. Such a debate, extending from the possible prolongation of life or even rejuvenation to a belief in quasi-immortality, also gave rise to sophisticated reflections on the human body, its physiology and nature³. Other themes brought into debate here included the length of life, the causes of aging and death, and the

2. J. Coste, «La «Mort de Vieillesse» dans les statistiques de mortalité (XVII^e siècle-XXI^e siècle): une catégorie problématique», 169-82.

3. D. Jacquart, *Recherches médiévales sur la nature humaine. Essais sur la réflexion médicale (XII^e-XVI^e s.)*, Firenze 2014 (Micrologus Library, 63).

survival of the body after death, not least in Christian resurrection. This in turn points to the need to rethink the history of the body within the parameters of Christian medieval culture and science, and hence to escape from too simplistic a binary distinction between soul and body. To cite an exemple, as Francesco Santi underlines here, scholastic discussion of the resurrection of the body gave rise to a belief in the almost infinite power of man's body, with authorities such as Albertus Magnus, Thomas Aquinas, Meister Eckhart or Pier Giovanni Olivi keen to stress the resistance of the «the human composition» (*humanum compositum*) to any dissolution in death⁴.

A concern with longevity and immortality did not, however, remain consistent or unchanged across the medieval period. As Chiara Crisciani underlines, in the western Middle Ages there was a «before» and an «after», with the 12th century representing the great watershed here, thanks to the translation of medical texts, both classical and Arabic⁵. After c. 1200, this same watershed encouraged the introduction of the *libri naturales* and the rediscovery of the logic and epistemology of Aristotle. Meanwhile, from the 12th century onwards, an extensive debate over the possibility of prolonging human life engaged not only medical scholars but also theologians, philosophers-physicians, natural philosophers, practicing physicians and alchemists. This in turn fed into the relatively homogenous epistemological structures of scholasticism, from the 12th through to the 16th century.

In one way or another, all the contributions here focused on Western Europe refer to the existence of such debate, itself with at least three defining features:

- the strong influence of ideas of the bodies of the prelapsarian Adam and Eve, who were suspected to have obtained a natural quasi-immortality;
- discussion amongst physicians as to the possibility (or impossibility) of restoring the vital moisture of the body, whose decline otherwise, both in quality and quantity, was considered to

4. F. Santi, «Teologie della resurrezione della carne (Secc. XIII-XIV)», 267-82.

5. C. Crisciani, «Death as a Destiny and the Hope of Long Life the Latin Middle Ages», 5-26.

provoke death: when «the supply of nutrimental and radical moisture fails for some reason [...] the heat is shut off»⁶. In general, Latin physicians taught that natural death was inevitable, offering no real hope of eternal youth. Even so, some (rare) medieval physicians considered the length of life in conjunction with astrology, which itself suggests predetermined yet potentially variable outcomes;

– the progressive rise and development, within medieval western culture, of a medical alchemy that sought to prolong life and stave off old age, either through a rigorous *regimen sanitatis*, or by seeking to recover prelapsarian quasi-immortality.

There were many and varied interconnections between these themes. For example, such Italian physicians of the 14th and 15th centuries as Antonio da Parma, Gentile da Foligno, Giacomo da Forlì and Ugo Benzi focused on the necessity of death in their commentaries on Avicenna's *Canon* dealing with the length of life. As Danielle Jacquart points out, Antonio da Parma had opened new avenues here by suggesting that the proportion between warm and humid humours, determining the length of life, was influenced by the celestial bodies⁷. Even if life's length was obedient to God's will – a point which could not be sidestepped by western christian culture – Antonio suggested that «other intelligences» guide nature towards inevitable death. Other physicians, such as Ugo Benzi, did not hesitate to reopen the question whether the length of life depends uniquely upon complexion and composition, or is also subject to celestial influence inherited from the day of a man's birth.

As Josep Ziegler suggests, prediluvian longevity as reported in the Old Testament constituted a powerful source of inspiration and legitimation for western medieval theologians⁸. They not only considered the relative brevity/longevity of human lifespan but on occasion strove to suggest ways in which prolongation of life might become possible. This interest can be found not only amongst Christian theologians and writers such as Nicholas of

6. *Ibid*, 9.

7. D. Jacquart, «Est-il possible et légitime pour un médecin médiéval de prévoir la longévité d'un patient?», 49-77.

8. J. Ziegler, «Why Did the Patriarchs Live so Long? On the Role of the Bible in the Discourse on Longevity around 1300», 79-112.

Lyra, Konrad von Halberstadt and Bartholomaeus of Lucca, but also amongst Hebrew commentaries on the patriarchs' longevity and its dramatic decline after the flood. A wide-ranging debate on the Biblical longevity of the patriarchs thus extended even into the works of natural philosophers such as Roger Bacon, Peter of Spain, Albertus Magnus or physicians such as Pietro d'Abano. As Josep Ziegler concludes: «the relevant biblical verses infiltrated the philosophical and medical discourses on aging and the means to slow it down».

Debate here was not only intellectual or theoretical. The first Western treatise on how to retard old age – the *De retardatione accidentium senectutis* – was attributed in the English tradition to Roger Bacon, but was in reality the work of an author – *Dominus castri Goet* – who remains obscure⁹. This work, dedicated both to the emperor Frederick II (the long version) and to pope Innocent IV (the short version), introduced its readers to drugs considered capable of prolonging life: «medicines which protect man from the swift onslaught of old age and from the cold and dryness of the members, so that through this the life of man might be lengthened, that is the prevention of putrefaction and the preservation of moisture»¹⁰. As Charles Burnett points out, from the first circulation of this treatise, such drugs were regarded as possessing «occult» qualities, because «they could not be explained in terms of elements»¹¹. In turn, these same drugs became the preserve of an elite, or, as Roger Bacon explicitly stated, of those who had «to govern themselves and others (*regere se et alios*)». This is surely one of the reasons why western elites were so strongly attracted to theories of the prolongation of life. Paradoxical as it may seem, from the 13th to the 16th centuries, the popes were the principal dedicatees of texts of this nature¹².

If Roger Bacon considered that alchemy could transform the body in order to obtain a real prolongation of life – in analogy to the metallurgical alchemy that transmuted substances with the

9. A. Paravicini Bagliani, «The Prolongation of Life and its Limits. Western Europe, XIIIth-XVIth c.», 135-36.

10. Ch. Burnett, «Natural Death and the Alleviation of Old Age in the Middle Ages», 155-68 (166).

11. *Ibid.*, 167.

12. Paravicini Bagliani, «The Prolongation of Life and its Limits», 133-53.

aim of obtaining a perfect metal – no specific elixir of life is recommended in any of the alchemical texts of the 12th century involving translation from Arabic into Latin. As Matthias Heiduk points out, the *Liber Morieni* mentions no such elixir¹³. The *Liber divinitatis de septuaginta* devotes attention to a mixture of animal and human ingredients – possibly blood – but likewise fails to mention any specific cure intended to prolong life. In a single paragraph of the second translation of the *De aluminibus et salibus* by Gerard of Cremona, we are informed of the existence of a *medicina* intended as the starting substance for the transmutation of metals¹⁴, but without any indication that this could also serve as an elixir for medical purposes. The *Turba philosophorum*, one of the most popular texts on alchemy in the medieval West, provides no clear instruction for the fabrication of elixir. Only in the *Septem tractatus Hermetis* is gold described as the king and head of all substances capable of being «the ferment of the elixir: without it nothing could be brought to perfection»¹⁵. This is a shy assertion given the otherwise complex and fascinating development of gold as elixir, as potable or as *limatura* – gold powder filed down from florins – from at least the time of Roger Bacon through to the late 18th century.

In this perspective, it is worth noting that the rise and development of medical alchemy¹⁶ conforms to a more general trend, itself highlighted by the Erlangen Conference on *The Impact of Arabic Sciences*¹⁷: the fact that the penetration of Arabic science in the West – alchemy was unknown in medieval Europe before the 12th century – was not so much a matter of simple transmission but of fundamental transformation.

At the latter end of the timespan considered by the Conference on Longevity and Immortality, as far as western culture is concerned, it is interesting to underline the fact, as Didier Kahn suggests, that in the works of Paracelsus the philosopher's stone disappeared from view after his *Vita longa*, to be replaced by an

13. M. Heiduk, «A Quest for Longevity? A New Approach to the Earliest Testimonies of Medieval Alchemy», 227-54.

14. *Ibid.*, 246.

15. *Ibid.*, 246-47.

16. *Alchimia e medicina nel Medioevo*, C. Crisciani, A. Paravicini Bagliani (ed.), Firenze 2003 (Micrologus Library, 9).

17. See above, note 1.

ontological conception of diseases: each disease being caused by a specific agent or set of causes, no universal remedies being effective so that the remedy itself had to be as specific as the disease it was intended to treat¹⁸. Moreover, in the years immediately before his death in 1541, the famous Swiss physician devoted little or no time to the prolongation of life, advocating no further universal remedy. In his mature years, from 1531-1532 onwards, Paracelsus was, however, increasingly attracted by reflections on the celestial body – the seed of which man received with baptism – as the incorporeal body by which we may ascend into heaven. Thanks to the «true medicine» revealed by God, mankind could hope for stability of health and recovery from disease, through to the hour of each body's predestined death.

Three centuries before, the Franciscan friar, Roger Bacon, had also stressed the close relationship between his conception of perfect health and a quasi-immortality of the terrestrial body, with strong emphasis upon the resurrected body. Bacon asserted that a *corpus equale* obtained by dosing with elixir might approach the perfection of the resurrected body – so that men «achieve incorruption and immortality only through this kind of body»¹⁹. A possible (but controversial) source of inspiration here was proposed by Joseph Needham, who argued that Bacon's quasi identification of the *corpus equale* with the resurrected body was somehow analogous to contemporary Daoism of which Bacon might potentially have learned via Franciscan missionaries travelling in the Mongolian empire²⁰. Even so, if in Daoism the body, treated with the right substances, is thought to be inserted in the celestial hierarchies without discontinuity, Roger Bacon as a Christian thinker could not bypass the inevitability of death. The link between elixir and resurrected body, which is by the way the unique element to be found in all Baconian texts on the *prolongatio vitae*, was in any case a theological justification for elixir practices proposed to a pope (Clement IV)²¹.

18. D. Kahn, «Quintessence and the Prolongation of Life in the Works of Paracelsus», 183-225.

19. Paravicini Bagliani, «The Prolongation of Life and its Limits», 139.

20. J. Needham, «The Elixir Concept and Chemical Medicine in East and West», *Organon*, 11 (1975), 167-92; Id., *Science and Civilisation in China*, V, 2, Cambridge 1974; V, 4, Cambridge 1980, *passim*.

21. Paravicini Bagliani, «The Prolongation of Life and its Limits», 139.

The use of techniques or recipes to prolong life is not, however, considered a necessity in the anonymous Daoist anthology from the second century CE examined here by Barbara Hendrischke²². By contrast, various modes of avoiding death are discussed in the *Scripture on Great Peace*, edited by Daoist adepts in the sixth century CE. All three modes are seen as stages in an ongoing process based on moral conduct and proper social organisation, leading to (1) an intensive meditation practice, or (2) the visualisation of spirits by an adept who has retired from worldly affairs.

By questioning «Which is the Daoist immortal body?», Fabrizio Pregadio also observes that Daoist sources report adepts making use of the physical body with the aim of generating a new person (*shen*) not subject to death²³. In early Daoist works, one way to obtain immortality was to «simulate death» by refining the physical body so that it could serve as a support for adepts to continue their practices. A second way consisted in generating an inner «embryo [...] unaffected by death [...] the seed of one's rebirth as an immortal». Both practices are described in an important text developed from ca. 700 – *Internal Alchemy (Neidhan)* – which confirms that the ordinary body might be used as a support or resource from which to generate the immortal body. The basic components of individual personality, nonetheless, should be refined in a process of generation, gestation and delivery of an embryo, regarded, in certain traditions, as one's «dharma-body» (*fashen*).

In Daoism, immortality may also be obtained through the ingestion of «numinous mushrooms», as Dominic Steavu explains. The close connections existing between *The Secret of Divine Immortals* (7th-8th c.), a text which explains how to harvest numinous mushrooms, with the *Internal Alchemy* suggests, however, that in some instances, the ingestion of mushrooms «may have been a process that was undertaken in the mind's eye in the context of visualization practices»²⁴.

22. B. Hendrischke, «Modes of Avoiding Death in the *Scripture on Great Peace (Taiping Jing)*», 337-52.

23. F. Pregadio, «Which is the Daoist Immortal Body?», 385-407.

24. D. Steavu, «The Marvelous fungus and The Secret of Divine Immortals», 353-83.

The role played by faith and fate in the quest for immortality, and the purpose of longevity in the Tibetan religions traditions, as introduced here by Donatella Rossi, shows also how strongly the Tantric Path is based on meditation, contemplation liturgies, and bio-spiritual praxes, which may vary depending on the teacher or the tradition followed²⁵.

Divinatory practices also play an important role in Tibetan culture, including death predictions that are closely linked to rituals and remedies, some of these considered as effective aids for prolonging life. In the three Tibetan Buddhist divination manuals examined by Rolf Scheuermann, the great majority of predictions are in fact positive, and «those that are not are rather mildly phrased»²⁶. As a result, the divinatory statement «One will quickly die!» carries a strong degree of uncertainty, itself a wider feature of the entire process of divination.

The lack of discontinuity between death and immortality found here can also be discovered in the lore of animals, as in the case of the eagle and the phoenix. In various western medieval bestiaries, described here by Michel Pastoureau, the deer, feeling itself grow old, bathes in a sort of fountain of youth whose location is known to the animal alone²⁷. Numerous recipes, of Arabic origin, appear in medieval falconry treatises with the aim of prolonging the life of falcons. In a more general perspective, western medieval bestiaries and encyclopedical texts on animals, concerned with longevity and immortality, combine literary traditions going back to the Old Testament and to such classical authorities as Aristotle, Pliny and Solin, mostly mediated through the *Etymologiae* of Isidore of Seville. Some traditions were, nonetheless, medieval, as with the legend, satirized by Voltaire, affirming that the donkey which carried Jesus into Jerusalem on Palm Sunday later made its way across the Mediterranean and settled in Verona where it died in the same year, 800, in which Charlemagne travelled to Rome to be crowned as emperor.

25. D. Rossi, «Faith or Fate? The Path towards Immortality according to the Tantric Traditions of Tibet», 27-46.

26. R. Scheuermann, «“One will quickly die!” Predictions of Death in three Tibetan Buddhist Divination Manuals», 113-30.

27. M. Pastoureau, «Longévité et immortalité animales dans les traditions médiévales», 255-65.

In the ancient world immortality and eternal youth were quasi exclusive attributes of the gods, but, as Manuel Förg recalls, one of the few exceptions here is Chiron, of whom it is reported that, although immortal, he relinquished his immortality after Hercules inflicted a wound on him that would not heal²⁸. But how could the divine centaur Chiron relinquish his immortality? As Manuel Förg explains, Chiron's resignation of immortality represents an archetypal case of overcoming the binary distinction between «mortal» and «immortal. Such binary distinctions – should we be surprised? – represent the most important common transcultural theme underlining the contributions to this volume, even if they have to be searched out across so vast a range of variants and differences.

Such binary oversimplifications are regularly confronted and overcome in world literature: for example in classical Arabic, as noted by Basma S. S. Dajani, the «word» itself was an element of eternity²⁹; in the Persian Epic, studied by Anna Caiozzo, the search for immortality led Alexander/Iskandar and his mysterious guide, the Green Man Khadir, to the boundaries of the world and thence to the discovery of the fountain of life³⁰.

28. M. Förg, «The Centaur's Death. The Myth of Chiron and the Transfer of Immortality», 303-20.

29. B. A. S. Dajani, «Immortality through love in Classical Arab Literature», 321-35.

30. A. Caiozzo, «Rêves d'immortalité: trois rois, deux héros, un prophète», 283-301.

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GENERAL PERSPECTIVES