

INTRODUCTORY REMARKS ΕΙΣΑΓΩΓΙΚΑ ΣΧΟΛΙΑ

Introduction (Archaeology's and Nephrology's errata)

In this Introduction to the Proceedings of the Larissa XIth International Congress of the International Association for the History of Nephrology, we present some general thoughts on the errors made by Archaeology and Nephrology and efforts to rectify them. Starting from the claim made by the Organising Committee about Larissa as the place where Hippocrates died, we elaborate on the validity of this claim and the discovery of his tomb there. We then proceed to presenting two other Medieval legendary discoveries of his tomb, the one connected with the Capsula Eburnea and the other with the Holy Grail. Similarities are traced between these tombs and those –equally legendary– of Plato and Hermes Trismegistus. Examples of Nephrology's historical errors presented are those connected with the treatments by bloodletting, cupping, mercury and arsenic administration, treating dialysis water with aluminium and the widespread use of plastic. All these methods and materials had been highly applauded when first introduced and it took many years –even millennia– for their detrimental effects on the kidneys and the environment to be accepted and steps to be taken to eliminate their use. In an apologetic manner, we tried to present some explanation of their proponents' faith in their beneficial effects and to suggest a cautious way when dealing with "miraculous" treatments of the past but also with some modern ones. Intelligence and science are not always infallible. Common sense, art, and in-depth knowledge should be the cornerstone on any Congress on the study of the History of its field.

Following the example of the previous editors of the IAHN Proceedings, chiefly Professors Natale de Santo and Garabet Eknoyan, it is compelling to add some more general thoughts in the Congress Proceedings, this time on Archaeology and Nephrology, as stated in the preceding Prologue. As the subject is vast, we will mention only errors, fake discoveries and the attempts to rectify them.

1. ARCHAEOLOGY'S ERRORS

The term "Archaeology" is used here in its broader sense, including archeology *per se*, history and legend. The starting point this time will be tombs, burials and their contents. This choice is natural for archaeology, which mainly focuses on the dead, their activities and environment. Their last environment is the tomb, which, surprisingly, sometimes moves around. It is fitting for these Proceedings to start the discussion on false discoveries with Hippocrates' tomb(s).

ARCHIVES OF HELLENIC MEDICINE 2020, 37(Suppl 2):12–19
ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2020, 37(Συμπλ 2):12–19

A. Diamandopoulos

*Chairman of the Publishing Committee,
ex IAHN President, ex ISHM President,
Louros Foundation for the History of
Medicine, Athens, Greece*

Εισαγωγή:
Τα λάθη της Αρχαιολογίας
και της Νεφρολογίας

Περίληψη στο τέλος του άρθρου

Key words

Archaeology's errors
Capsula Eburnea
Hippocrates' tomb
Lunar library
Nephrology's errors
Plato's tomb
Smaragdina

1.1. Larissa

The grant claim of the city of Larissa, which hosted the Congress, is that it is "*The place where Asclepios was born and Hippocrates died*". It is worth elaborating on this. The first mention that Hippocrates died in Larissa (where he definitely lived for long and worked) was made 500 years after his death by Soranos of Ephesus.

The information was oft repeated by Byzantine authors and was more or less correct, although several reservations have been expressed. For example, in the 1st century AD, Pausanias when visiting the area and Hippocrates' admirer, Galen, did not mention it while the Thessalians never made any relevant claim in Antiquity.¹

The notion reappeared 200 years ago, first by the Greek intellectual cleric Anthimos Gazes (1758–1828), who claimed to have seen the tomb amongst some Muslim graves outside Larissa. Then, in 1857, local medical doctor S. Samartzides claimed that he had even seen a cover plate, inscribed

with the letters ΙΠΠΟΚ ΚΩ and some others. The plate was supposedly later hung on a wall of the women's bath at the local Turkish Pasha's mansion. A Greek Government investigation at the time did not trace the plate there or anywhere else.² The story about Hippocrates' tomb in Larissa features two interesting details. The first comes from antiquity, in the form of a legend that bees built a beehive on it whose honey treated children mouth's soars.³ The second is a 19th century reference to a golden snake found in the tomb. These details rather than adding they subtract something from the credibility of the tomb's suggested inhabitant. But let us not be pedantic. Hippocrates definitely died and was buried somewhere. Larissa is the most probable place as he stayed there for a long time, when very old. Although written 500 years later, Soranos' reference to the tomb's location cannot be altogether dismissed. No other place had been suggested by then and rarely were famous doctors' tombs the focus of travellers. Indicatively there is no reference to Galen's tomb. Let us not destroy a common belief just because of minor –albeit correct– details. Thus, yes, Hippocrates died in Larissa and the location of his tomb has not been documented yet, but a cenotaph was built instead. This is the most credible hypothesis. However, there have been two other absolutely incredible “tombs” that were considered genuine by many more people and for many more years from the Early Middle Ages onward. The first concerns the Capsula Eburnea [Ivory Casket].

1.2. Capsula Eburnea

The legend, of Byzantine or Islamic origin, started to circulate around the 6th cent AD. According to this, Julius Caesar/the King/Sultan was informed that Hippocrates' tomb existed somewhere, in a derelict state. Galen received permission from the Sultan (sic) and opened the grave. He found only an Ivory Casket and inside it 25 maxims supposedly written by Hippocrates, concerning cutaneous eruptions. Galen offered the manuscript to an Arab savant (sic). It was then extensively copied and consequently translated into Latin. For centuries, it was held at University and Monastic Libraries, helping monks and doctors to predict a patient's forthcoming death based on the signs of eruptions, the *signa mortis*. Hence, the manuscript was also titled “Hippocrates' Prognosticon”.⁴ It was held that the Father of Medicine had instructed the manuscript to be buried with him and kept as a secret.⁵ Its impact on medical education has long ceased to exist.

1.3. Queen Saracynth

The third and most exotic of Hippocrates' tombs is described in the story of the Holy Grail. Skipping even the

briefest presentation of this famous medieval romance, we will focus only on aspects relevant to the “discovery” of his tomb. The names of the people and places involved are an amalgamation of everything and anything from ancient history, oriental legends and Christian religion. It starts with Hippocrates and his retinue leaving Rome to visit Antony, King of Persia. On arrival, they find the King lamenting the death of his son Dardanes. Hippocrates diagnosed that he was not yet dead and managed to revive him. Rich rewards followed but Hippocrates is killed by his wife (!!) who used a poisonous wild boar. Hippocrates begged the King to deliver his body back home to his relatives, presumably somewhere near Persia. The king obliged. After many imaginative adventures, Queen Saracynth, a pagan baptised by a follower of Joseph of Arimathea starts searching for his tomb. Eventually her servants trace it after a long sea voyage. There is an excellent miniature of the scene in the Bibliothèque nationale de France [MS fr. 95 *Estoire del saint Graal*, f. 69v (S I 182.34)] depicting the servants in lamentation, reminiscent of similar scenes around Christ's dead body. Interestingly, the tomb is painted with crosses on it, as Hippocrates was *a posteriori* presumed to be Christian. Justness dictates that we should not finish the trinity of tombs lauding Hippocrates without referring to the tomb of his more ardent enemy, the Methodist medical writer Thesalus of Tralleis (1st cent. AD, Rome). Together with Julian, another founder of the Methodist group, he had written many treatises against Hippocrates, even renouncing his Aphorisms. On his tomb in Appian Way, he asked for an epigram to be written claiming “Thesalus the Conqueror of the Physicians”.⁶

After Hippocrates, we continue with two more tombs, Plato's and Hermes Trismegistus'.

1.4. Plato's tomb

The rationale for including Plato's alleged tomb in this paper is that the philosopher is almost the only ancient source contemporary to Hippocrates who mentions him by name. Similarly to Hippocrates he was also considered a Christian before Christ⁷ and lastly, the legend about an epigram found in his tomb resembles the familiar medieval story of Capsula Eburnea. In spite of the textually well-documented location of his tomb near the namesake Athens Academy, a legend appeared, first in Aquinas's writings in the 13th century.⁸ It was suggested that a tomb was discovered and opened in Constantinople during the reign of Constantinos and Helen (in another version Irene). In it, they found an inscription on a golden plate, writing that “*Christ will be born of a Virgin, and I will believe in Him. Plato*”. The story, though incredible, persisted for centuries

and was the focus of a polemic against Papacy even three centuries later.

1.5. Hermes' Tomb

The last tomb, that of Hermes (!!) was uncovered by Alexander the Great in Hebron. It contained an emerald plaque, *Tabula Smaragdina*, a compact and cryptic piece of the *Hermetica*, claimed to be written by Hermes Trismegistus, a hybrid god between the Greek god Hermes and the Egyptian Toth. In reality, it is believed to be an Arabic work written between the sixth and eighth centuries. In an alternative version, it was found in the hands of a corpse sitting on a golden throne in a crypt under the statue of Hermes in Tyana.⁹ It became the base of Alchemy and cosmology and persisted well into the 16th century.

1.6. Conclusions A / Modern survivals

Concluding the first part of the Introduction, Larissa is the only legitimate candidate as Hippocrates' place of burial although, strictly speaking, there is yet no sound archaeological documentation for this. The rest of the tomb locations presented are obviously fake inventions of the Medieval imagination. But without trying to introduce a neologism, what is wrong with a fake story and or object? There are many pseudo-Hippocratic treatises, apart from the dubious ones in the Corpus Hippocraticus, which give us a good idea about ancient medicine. Even if these were not written by Hippocrates, they could have been written by him and as many people believe that he was the author, we accept them as pseudo-Hippocratic and the matter is settled. Galen himself had the excuse ready. In the preface of the Regimen, discussing the chapter on diet and baths, he admits that its authenticity was reasonably questioned given its literary and theoretical weakness. However, those accepting Hippocrates as the author were not irrational, as it followed the spirit of his writings.¹⁰ The same can be said of other imaginative stories and objects. The fake ones I presented share several characteristics. All of these tombs "belonged" to famous ancient doctors and philosophers. All of them were discovered accidentally by illustrious persons (Julius Caesar, the Sultan, Alexander the Great, Emperor Constantine). All of them conveyed their message with a precious material (gold, ivory, emerald). And the messages *per se* were basically correct (the therapeutic properties of honey, the prognostic value of skin lesions, the principles of alchemy, the combination of ancient wisdom and Christianity). What was really missing from all these texts were the sound facts to support them. Imagination, in a manner of medieval philanthropy trying to "correct the injustice",

supplied in abundance the evidence that "happened" to be missing by creating the "realfake".¹¹

Surprisingly, after the final conquest of reason over imagination these old fairy tales continue to inspire, given humanity's underlying thirst for readymade solutions to its problems with a "magic" parcel delivered like a pizza to us and preserving human knowledge for our descendants. Thus, as late as in the 20th century, C.G. Jung identified *The Emerald Tablet* with a table made of green stone, which he encountered in the first of a set of dreams and visions beginning in late 1912, and culminating in his writing of a collection of seven mystical or "Gnostic" texts, which he published privately in 1916, under the title *Seven Sermons to the Dead* (Latin: *Septem Sermones ad Mortuos*), written by *Basilides of Alexandria, the city where East and West meet*. Jung did not identify himself as the author of the publication, ascribing it to the early Christian Gnostic religious teacher, Basilides (117 to 138 AD). The latter claimed to have inherited his teachings from the Apostle Saint Mathias. A more obscure story indeed than the original Smaragdina!!¹² The Smaragdina is still discussed in popular art and in the 2020 US Black Metal Album "Snare of All Salvation" by Häxanu features the Emerald Tablet as lyrics. The secret treatises of Hippocrates were the subject of the *Perils of Nyoka*, a 1942 Republic serial directed by William Witney. It starred Kay Aldridge as Nyoka the Jungle Girl, who, with help from Larry Grayson, attempts to discover the Golden Tablets of Hippocrates. The tablets contain the medical knowledge of the Ancients – not to mention being buried along with gold and other treasure. Also hunting for the tablets are Queen Vultura ("Ruler of the Arabs") and Cassib. *Perils of Nyoka* was one of 26 Republic serials re-released as a film on television in 1966. The title of the film was changed to *Nyoka and the Lost Secrets of Hippocrates*. Similarly, Capsula Eburnea lent its name to an Italian Medical Journal published recently.¹³ More importantly, a year ago, Israel's Beresheet spacecraft was launched toward the moon carrying a 30-million-page archive of human knowledge etched in a DVD-size metal nickel disc. The Lunar Library, as the archive is known, constitutes a "civilization backup" to help ensure that our distant descendants never lose humanity's collective wisdom. A modern Capsula Nickeliana. The Arch Mission Foundation is building a space-based archive designed to survive for 6 billion years or more – a million times longer than the oldest written records in existence today. The Foundation Chairman Nova Spivack's goal is to flood the solar system with other versions of the Lunar Library in caves and mountains on Earth, on other locations on the moon, on Mars and in deep space.¹⁴ Future archaeologists are in for a treat.

2. NEPHROLOGY'S ERRORS

The second part of the introduction discusses some errors in Nephrology. In contrast to Archaeology, which opens tombs and brings to life their genuine or imaginary inhabitants, Nephrology, exceptionally, with its errors delivers alive people to death.

2.1. Blood letting

We had traced two of Hippocrates' Aphorisms recommending bloodletting for a urinary disorder: [Aphorism 6.36] *Venesection cures dysuria; open the internal veins of the arm.* [7.48] *Strangury and dysuria are cured by drinking pure wine [drunkenness], and venesection; open the vein on the inside.*

These aphorisms are based on the ancient belief that certain veins correspond to certain organs. By cutting a certain vein, the corresponding organ would be relieved by the excretion of extra or toxic fluids that had accumulated in it. The correct principle behind this erroneous practice was the elimination of inflammatory toxins from the blood. In Hippocrates' time, this was sought through bloodletting, whereas nowadays it is attempted through dialysis.¹⁵ This theory was erroneous and had led to horrific cases of bloodletting, especially during the Middle Ages. However, up to the mid-20th century, bloodletting was a common therapeutic intervention despite the fact that as early as the 17th century it was ridiculed by the French playwright, actor and poet Moliere. He accused the widespread doctors' order for any disease "Clysterium donare, Postea seignare, Ensuita purgare" in his theatrical work *"Le malade imaginaire"*.

Venesection was one of two modes for bloodletting, the other being cupping: small conical or roundish vessels made from glass, horn, bamboo, plastic attached on the patient's skin to cause local hyperemia (dry cupping) or blood removal (wet cupping). Cups were an attribute on doctor's graves in Greek Antiquity before being replaced by the matula. [Wet] cupping therapy was popular as *"Al-Hijama"* in Egypt and Arabic countries. It was inserted in Asian medical systems such as Unani, Ayurveda, Chinese, Tibetan, and Oriental Medicine in Asia, the Middle East, and later found its way to European countries up to the 19th century. Then it received harsh criticism from the medical community and declined. In recent decades, it had made a comeback for many ailments. It is used mainly in South East Asia on people with renal failure and/or dialysis, under a strict hospital protocol. Results are claimed to be excellent.^{16–19}

2.2. Mercury

"Mercury in the treatment of syphilis may have been the most colossal hoax ever perpetrated in a profession which have never been free of hoaxes".

Leonard Goldwater in his book:
A History of Quicksilver,
Baltimore, York Press, 1972

Mercury (Hg), a fluid metal, has a long history. Large deposits of Hg are found in the earth as cinnabar, which is a compound of mercury and sulfur, and has been mined by people for thousands of years. It was reputedly found in Egyptian tombs from 1500 BC. In 2nd century China, the study of mercury centred on a search for an elixir of life to confer longevity or immortality.¹⁹ The Mayas, about 500 AD also used it. Aristotle (384–322 BC) remarked on it and coined the name "quicksilver" or liquid silver. Next, Theophrastus of Eresus (371–286 BC), stated that quicksilver *"[...] is made by pounding cinnabar with vinegar in a copper mortar with a copper pestle"*. Pedanius Dioscorides (40–90 AD) writes about making quicksilver by heating cinnabar and condensing the vapour. Plinius The elder (23/24–79 AD) did not call it "quicksilver" but Hydrargyrum, "water silver" [in Greek].²⁰ It is one of the oldest antibacterials. Razes (9th/10th century) recommended it for leprosy and Paracelsus (15th/16th century) for syphilis. It retained its role as the main treatment of venereal diseases, hence the saying *"One night at the arms of Venus leads to a whole life on Mercury"*. In 18th, 19th and first part of the 20th century, mercury was used extensively for an array of diseases but prominently for syphilis.²¹ Despite some grave warnings²² the element was still recommended till the mid-20th century for severe oedema in combination with digitalis.^{23,24} They cause diuresis by reducing the reabsorption of sodium in the ascending loop of Henle, thus causing more water to be delivered to the distal convoluted tubule. The main form of administration was the compound Calomel (from the Greek words *"calo"* meaning beautiful and *"melas"* meaning black) because the substance had been used initially as a cosmetic and its colour is black. It was an all-curing drug with purgative and diuretic effects frequently leading to dehydration. When combined with bloodletting, as was the norm, many died of hypovolemic shock brought on by this "heroic" treatment. One of the most ardent believers in such a treatment was Benjamin Rush in Philadelphia. Utilizing excessive purges with calomel and generous bloodletting, he is believed to have killed thousands during the yellow fever epidemic there in 1793. William Cobbett, a harsh critic of Rush, claimed that Rush's depletion therapy was *"one of those great discoveries which are made from time to time for the depopulation of the earth"*. Rush was so enraged; he sued

Cobbett in civil court for defamation of character and won.²⁵

In 1799, when former President George Washington fell ill with an acute respiratory illness, Rush's use of calomel and bloodletting killed him before the disease could.²⁶ Unfortunately, earlier physicians misconstrued hallmark symptoms of mercury poisoning, such as excessive salivation, as signs of mercury's efficacy.²⁷ In severe cases of inorganic mercury intoxication, the function of the kidneys can be limited and death might occur due to acute kidney failure.²⁸ After understanding the pathogenic mechanism of the "mercurial nephrotic syndrome" the mercurial diuretics were withdrawn from the market by the 1960s. At present, drastic measures are taken to remove all forms of mercury from the EU.²⁹

Nevertheless, the battle against nephrotoxic anti-syphilis medications was not over.

2.3 Arsenic

Simultaneously with the decline of mercury another heavy metal treatment arose: arsenic. Paul Ehrlich's major triumph was the discovery in 1910 of Salvarsan (Compound 606). He screened just over 600 synthetic compounds to discover it. By the end of 1910 – the year the drug was given its trade name *Salvarsan* – some 65,000 doses had been administered to over 20,000 patients, a previously unheard of series before marketing, as was noted at the first presentation of the clinical results in Wiesbaden in 1910. It had such a remarkable effect in treating symptoms and, with time, killing the *Treponema pallidum* that it was acclaimed as the "magic bullet".³¹ These panegyric comments were coming mainly from Germany, the motherland of the Dye Industry that produced Salvarsan. In Britain, the comments were more reserved. Just two years after the triumphant results in Wiesbaden, Dr McDonagh was wondering: "As all of us require an unbiased opinion upon Salvarsan, it would have been better to have given a summary of the whole of the Fifth German Congress of Neurologists held last October in Frankfurt, as then we could have heard both sides. Hearing only one side leaves this side widely open to criticism. In this country more than any other we have heard so much as to what the "great" or "well-known" syphilologists think of Salvarsan. Notice that their greatness has increased since the advent of the drug, although as often as not, they have never given an injection. Why an able clinician or a reader of many books should be able to judge a subject of which his experience is nil must be an enigma for many."³² Over time, more and more side effects were noted, mainly neurological, dermatological, liver and renal symptoms. Eventually, in the mid-20th century the harmless antibiotic penicillin

replaced both mercury and arsenic in the treatment of syphilis, saving many kidneys.

2.4. Aluminium

The discussion on aluminium is justified as it was blamed as the main culprit for Dialysis Encephalopathy.

Aluminium is the most plentiful metal in the earth's crust. It is present in the environment combined with other elements such as oxygen, silicon, and fluorine. Its name was coined in 1812 by the English chemist Sir Humphry Davy (1778–1829) from the mineral alum, descending from the Latin word "alumen" meaning "bitter salt". Aluminium sulphate is used in water treatment for the coagulation of organic and mineral colloids prior to sedimentation and or filtration. It was exactly the substitution of aluminium salts by aluminium and ferrous sulphate in the water-treatment plants in West Scotland that led to the encephalopathy epidemic in home dialysis centres in the late seventies. In the same period, in 1977, a master's thesis was submitted to Durham University containing many historical and social data on the industrial production of aluminium in North England and Scotland.³³ It is an interesting work worth reading by historians of industry. It discusses the question posed by Solla Price "Is technology historically independent of science?"³⁴ Nephrology was established as a separate specialty on the advances of technology and science was added later on the accumulated experience. Kevin Quinn reports in his thesis about the initial conflict between technology and science in 18th century North England and Scotland that George Dodds, the manager of Boulby alum works wrote to one of the partners on 3 March 1786: "I can now tell you that Sir Thomas Dundas is for putting his Scheme in execution [...] and a person at present is learning to make alum with Dr Bark of Edinburgh – what will come of this romantic scheme, I do not know, but it will probably now tried if Chemical Skill will make an improvement in that very nice and essential point of our business".³⁵ The last extract of this book refers to a strange relationship between kidneys and aluminium in 18th century England. While processing shale-containing pyrite and after many manipulations, warming, diluting, brewing with sewage etc., at the final phase: "The liquor is transferred to a wooden cooler leaving the sediment behind and 20 gallons of urine added [...] It is observed that the best urine is that which comes from poor labouring people who drink little strong drink (sic) [...] but sometimes they mingle it with sea water which cannot be discovered by weight".³⁶

By coincidence, I was in that very area, Scotland, completing my PhD Thesis at Glasgow University, when the first

reports on the deleterious impact of aluminium added into water for dialysis were presented.³⁷ Thus, I had the questionable advantage due to my age to witness the initial scorn of the medical establishment when afterwards, in my green age as a young consultant in St. Andrew Hospital, Patras, Greece, I undertook to establish the first dialysis unit there in 1977. Everything was ready at last and I was attending the 15th EDTA Congress in Istanbul in 1978, where I was presenting my first paper at an International Meeting. Unexpectedly, I received a call in my hotel room early in the morning by the then General Secretary of the Ministry of Health, a famous Nephrologist and a very good friend of mine. He angrily demanded to know why I had not started dialysis yet in my hospital. I explained that I could not start it without a water deionizer, being impressed by Dr Alasdair Iain MacDougall's lectures back in Glasgow on the implication of the water's aluminium in Dialysis Encephalopathy. The General Secretary resorted to four-letter words, ordering me to start dialysis *without fancy useless apparatuses*. I refused. Eventually, he had second thoughts and passed a law making the installation of such equipment in every dialysis centre necessary. This was the behind the scenes story of how water purification for dialysis started in Greece.

2.5. Plastic

Plastic has been the cornerstone of modern Nephrology, which started to flourish on the semi-empirical spread of dialysis. William Kolf experimented on haemodialysis in Nazi-occupied Holland using plastic sausage containers as membranes. With the spread of the method everything became plastic. Packages, haemofilters, tubes, bags, syringes everything was and is plastic. This was unavoidable in era when it was believed that *"plastic would create a world brighter and clearer than any previously known. [...] a world free from moth and rust and full of colour [...] a world in which man, like a magician makes what he wants for almost every need, out of what is beneath him and around him: coal, water, and air"*.³⁸ Now we know better. Even 20 years after plastic's laudation the multitalented Norman Mailer (1923–2007), who died from renal failure, went to the extremes, crying: *"I sometimes think there is a malign force loose in the universe that is the social equivalent of cancer, and its plastic. It infiltrates everything. It's a metastasis"*. Plastic production increased exponentially, from 2.3 million tons in 1950 to 448 million tons by 2015 and is expected to double by 2050. More than eight billion tons of plastic have been produced to date, and every year, about 8 million tons of plastic waste escapes into the oceans from coastal nations taking up to 400 years to degrade. The manufacture, use and disposal of various plastics can pose numerous health risks, including

the risk of cancer. Plastics are the culprits for the increase of estrogens in the planet with the consequent effects on males. Apart of their environmental impact, the plastics in dialysis produce polymerizers that circulate in the patient's blood and are to blame for several symptoms. Even when the dialysis waste is burnt, free dioxins are emitted. Industry has responded and more friendly plastics are produced mainly based on plant and non-petroleum by-products. Their real advantage has yet to be proven.³⁹

2.6. Conclusions B

From this discussion, it is evident that both sciences, Archaeology and Nephrology are prone to errors, some of them glaring, against the dictum that *"Intellectus est infalibilis"*. But, so what? The astrophysicist Carl Sagan once said: *"That's perfectly all right: it's the aperture to finding out what's right. Science is a self-correcting process"*. Unfortunately, it does it very slowly sometimes requiring centuries. Science runs forward better than it does backward; thus, it becomes troublesome to detect other scientists' errors.⁴⁰ For lack of time, for emotional persistence in a wrong theory, for lack of knowledge or technical resources or sadly for selfish reasons like building a career, as, Norman Mailer put it nicely: *"The desire for success lubricates secret prostitution in the soul"*. Consequently, it is necessary to be hesitant to accept all the old fancy or scientifically clad theories and treatments and this stands true for many new ones not tested by time. However, it is not scientific to reject a priori on scientific grounds something that we have not tested scientifically. *"It pays to keep an open mind, but not so open your brains fall out."* Carl Sagan again. A middle line of action in scientific research is a wise guideline. However, this may not be feasible in the hot bench of pioneering research where someone has to pursue the goal even in an almost monomaniac way. But Congresses on the History of Science can and should do so. They should resemble post-modern museums. These are not museums which visitors enter like a Temple, to receive a single Truth, Reality, Uniqueness, and accumulation of information for the better identification with an ideal, but museums seen as agoras-places of meeting, discussion and confrontation with different variants of what is perceived as being the truth.⁴¹ In that sense, our XIth IAHN Larissa Congress avoided being purely "scientific". Because, as it has absurdly stated *"Science is the enemy of Truth"* The slogan had been introduced by Paul Feyerabend who attacked science not because he actually believed it was no more valid than astrology or religion; quite the contrary. He attacked science because he recognised science's vast superiority over other modes of knowledge, and he worried that science could become

a totalitarian force. Many people today [increasingly in this COVID-19 era] on hearing that some method is “scientific” do not feel instructed; they feel warned. The term “Scientific” applied to some recommended habit is beginning to have something grotesque about it, as likely to be in opposition to the general conclusions of humankind and our human

common sense. In the philosophical field we reason – in the scientific one we understand.⁴² In an aphoristic way this was interpreted as “*Art lost its forum, science lost its limits*”. In Larissa, we attempted to give a little forum to Art and put a small limit to Science. If we succeeded, the readers of this volume will judge.

ΠΕΡΙΛΗΨΗ

Εισαγωγή: Τα λάθη της Αρχαιολογίας και της Νεφρολογίας

A. ΔΙΑΜΑΝΤΟΠΟΥΛΟΣ

Πρόεδρος της Εκδοτικής Επιτροπής, τ. Πρόεδρος ΙΑΗΝ, τ. Πρόεδρος ISHM, Ίδρυμα Ιστορίας της Ιατρικής Νικολάου Λούρου, Αθήνα

Αρχαία Ελληνικής Ιατρικής 2020, 37(Συμπλ 2):12–19

Σε αυτή την Εισαγωγή των Πρακτικών του 11ου Διεθνούς Συνεδρίου της Διεθνούς Ενώσεως της Ιστορίας της Νεφρολογίας εκτίθενται μερικές γενικότερες σκέψεις που αφορούν στα λάθη της Αρχαιολογίας και της Νεφρολογίας, όπως και των προσπαθειών που έγιναν για να διορθωθούν. Αρχίζοντας από τον ισχυρισμό της Οργανωτικής Επιτροπής ότι η Λάρισα είναι ο τόπος που απέθανε ο Ιπποκράτης και πως εκεί εντοπίστηκε ο τάφος του, επεκτεινόμεθα στον έλεγχο και των δύο αυτών διεκδικήσεων. Παρουσιάζονται στη συνέχεια δύο μεσαιωνικοί μυθικοί τάφοι του Πατέρα της Ιατρικής, ο ένας σχετιζόμενος με την Capsula Eburnea και ο άλλος με τον θρύλο του Ιερού Δισκοπότηρου. Εντοπίζονται ομοιότητες με τους εξ ίσου μυθικούς τάφους του Πλάτωνος και του Ερμή Τρισμέγιστου. Παρουσιάζονται κατόπιν παραδείγματα από τα ιστορικά λάθη της Νεφρολογίας που αφορούν στην αφαίμαξη, την χρήση του υδραργύρου, του αρσενικού και του αλουμινίου, όπως και την εκτεταμένη χρήση πλαστικών. Όλα αυτά τα υλικά και οι μέθοδοι είχαν ζωηρά επευφημηθεί όταν πρωτοπαρουσιάστηκαν και χρειάστηκαν πολλά έτη – μερικές φορές χιλιετίες – ώστε να αναγνωρισθούν οι βλαπτικές επιπτώσεις που είχαν στους νεφρούς και να σημειωθούν βήματα για τον περιορισμό τους. Με μια απολογητική διάθεση προσπαθήσαμε να δικαιολογήσουμε την πίστη των υποστηρικτών τους και να προτείνουμε μια πολύ προσεκτική προσέγγιση των ισχυρισμών για «θαυματουργικές» θεραπείες του παρελθόντος αλλά και του παρόντος. Η ευφυΐα και η επιστήμη δεν είναι πάντα αλάθητες. Η κοινή λογική, η τέχνη και η εν τω βάθει μελέτη θα πρέπει να είναι η λυδία λίθος κάθε Συνεδρίου που ασχολείται με την Ιστορία της Επιστήμης.

Λέξεις ευρητηρίου: Capsula Eburnea, Λάθη Αρχαιολογίας, Λάθη Νεφρολογίας, Σεληνιακή βιβλιοθήκη, Σμαραγδένιοι πίνακες Τρισμέγιστου, Τάφος Ιπποκράτη, Τάφος Πλάτωνος

References

1. PINAULT JR. *Hippocratic lives and legends (Studies in ancient medicine, 4)*. EJ Brill, Leiden, New York, Cologne, 1992
2. ANTONAKOPOULOS G. The discovery of the tomb of Hippocrates in Larissa (1857). *Deltos* 2016, 45:17–33
3. SIGERIST HE. *A history of medicine*. Oxford University Press, New York, Oxford, 1961:270
4. ISKANDAR AZ. Capsula Eburnea: Epistle from Hippocrates's Tomb. In: Wellcome Historical Medical Library, Iksandar AZ (eds) *A catalogue of Arabic manuscripts on medicine and science in the Wellcome Historical Medical Library*. London, 1967
5. WALLIS F. *Medieval medicine: A reader*. University of Toronto Press, Toronto, 2019:43
6. SMITH W (ed). *Dictionary of Greek and Roman biography and mythology*. Volume III. Little Brown & Co, Boston, 1876:1102
7. DIAMANDOPOULOS A. The relation of medicine and religious art. Reading Galen's prophecy. In: Ziroyiannis P, Vogiatzakis E (eds) *Proceedings of the 13th Congress of the Society for Dissemination of the Hippocratic Spirit. The decent and relation of ancient and modern medical science and art*. Technogramma, Athens, 2017:149–168
8. AQUINAST. Summa Theol. In secunde: qua art 7. In: Chistwell R (ed) *The Virgin Mary misrepresented by the Roman Church*. MDCLXXVII, London, 1777:110
9. EBELING F. *The secret history of Hermes Trismegistus: Hermeticism from ancient to modern times*. Cornell University Press, New York, 2007:46–47
10. JACQUES J. *Greek medicine from Hippocrates to Galen: Selected papers*. Brill, Leiden, Boston, 2012:321

11. TAYLOR MC. *Rewiring the real; in conversation with William Gaddis, Richard Powers, Mark Danielewski and Don DeLillo*. Columbia University Press, New York, 2012:152
 12. JUNG CG. *The Seven Sermons to the Dead. Septem Sermones ad Mortuos*. The Gnostic Society Library, 1916. Available at: <http://www.gnosis.org/library/7Sermons.htm>
 13. Capsula Eburnea. Citefactor.org-Journal|Research paper. Available at: [www.citefactor.org > index](http://www.citefactor.org/index) (assessed 28.2.2019)
 14. POWELL CS. A 30-million page library is heading to the moon to help preserve human civilization. NBCnews, 2019. Available at: [www.nbcnews.com > mach](http://www.nbcnews.com/mach)
 15. DIAMANDOPOULOS A, GOUDAS P, ORAEOPOULOS D. Thirty-six Hippocratic Aphorisms with nephrologic interest. *Am J Kidney Dis* 2009, 54:143–153
 16. MEHTA P, DHAPTE V. Cupping therapy: A prudent remedy for a plethora of medical ailments. *J Tradit Complement Med* 2015, 5:127–134
 17. BILAL M, KHAN RA, DANIAL K. Hijama improves overall quality of life in chronic renal failure patients: A pilot study. *Pak J Pharm Sci* 2015, 28:1731–1735
 18. HAIRON SM, AL-SAFI ISMAIL AA, NIK N, HUSAIN NR, ISMAIL MS, ZAIN RM, BAKAR M ET AL. The effect of wet cupping therapy (Bekam) on renal function test in healthy individual. 18th ICMHS, Kelantan, Malaysia, 2013:PM23. Available at: <https://www.researchgate.net/publication/275886813>
 19. NOMURA S, OSAWA G, KARAI M. Treatment of a patient with end-stage renal disease, severe iron overload and ascites by weekly phlebotomy combined with recombinant human erythropoietin. *Nephron* 1990, 55:210–213
 20. EARLY METAL TECHNOLOGY. 4: Mercury. Available at: https://www.tf.uni-kiel.de/matwis/amat/iss/kap_a/illustr/sa_1_1.html#!Gilgamesh
 21. CULVERWELL RJ. *Porneiopathology: A popular treatise on venereal and other diseases of the male and female genital system: with remarks on impotence, onanism, sterility, piles, and gravel, and prescriptions for their treatment*. Redfield, New York, 1844:98–161
 22. HABERSON S. *On the injurious effects of mercury in the treatment of disease*. John Churchill, London, 1860:3
 23. LENEGRE P, MAURICE P, COBLENTZ B, LIMA E. Digitalin and mercurial diuretic therapy of chronic heart failure. *Therapie* 1953, 8:113–139
 24. LEVITT M, GOLDSTEIN M. Mercurial diuretics. *Bull N Y Acad Med* 1962, 38:249–263
 25. SCHNECKE E. Calomel and its critics. Edward Hand Medical Museum. Available at: [edwardhandmedicalmuseum.org > ...](http://edwardhandmedicalmuseum.org)
 26. DAVIES NE, DAVIES GH, SANDERS ED. William Cobbett, Benjamin Rush, and the death of General Washington. *JAMA* 1983, 249:912–915
 27. THORPE R, BURCH GE. Clinical aspects of mercurial diuretics. In: Blumgart HL, Freedberg AS (eds) *Clinical progress. Circulation* 1951, 3:926–937. Available at: www.ahajournals.org
 28. CLARKSON TW, MAGOS L. The toxicology of mercury and its chemical compounds. *Crit Rev Toxicol* 2006, 36:609–662
 29. EUROPEAN COMMISSION. COM (2005) 20: Communication from the Commission to the Council and the European Parliament – Community Strategy Concerning Mercury – {SEC(2005) 101}
 30. KAPP R. Arsenic toxicology. In: Wexler P (ed) *Encyclopedia of toxicology*. 3rd ed. Elsevier, New York, 2014:308–312
 31. WILLIAMS KJ. The introduction of “chemotherapy” using arsenphenamine – the first magic bullet. *JR Soc Med* 2009, 102:343–348
 32. McDONAGH JER. Some toxic effects of Salvarsan. *Br Med J* 1912, 1:272
 33. QUINN K. Some early examples of plant development and process control in the chemical industry. Durham theses. Durham University, Durham, 1977. Available at: <http://etheses.dur.ac.uk/7448/>
 34. DE SOLLÀ-PRICE DJ. Is technology historically independent of science? A study in statistical historiography. *Technol Cult* 1965, 6:553–568
 35. QUINN K. a.a., p. 8
 36. QUINN K. a.a., p. 22
 37. DUNEA G, MAHURKAR SD, MAMDANI B, SMITH EC. Role of aluminium in dialysis dementia. *Ann Intern Med* 1978, 88:502–504
 38. YARSLEY VE, COUZENS EG. *Plastics*. 1st ed. Penguin books, Lane A, London, 1941:57–68
 39. LAMEIRE N, MEHTA RL. *Complications of dialysis*. Marcel Dekker, New York, Basel, 2000:836
 40. ZIMMER C. It's science, but not necessarily right. *New York Times*, 2011. Available at: <http://www.nytimes.com/2011/06/26/opinion/sunday/26ideas>
 41. CRISTEA G, RADU-BUCURENCI S. Raising the cross: Exorcising Romania's communist past in museums, memorials and monuments. In: Sarkisova O, Apor P (eds) *Past for the eyes*. CEU Press, Budapest, 2008:275–305
 42. HORGAN J. Was philosopher Paul Feyerabend really science's “worst enemy”? *Cross-Check*, 2016. Available at: <https://blogs.scientificamerican.com/cross-check/was-philosopher-paul-feyerabend-really-science-s-worst-enemy/>
- Corresponding author:*
- A. Diamandopoulos, Louros Foundation for the History of Medicine, Athens, Greece
e-mail: 1453295@gmail.com