

The Medical Discourse on Greek Spas from the Mid-Nineteenth Century to the Early Twentieth Century

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The 'body', 'cleanliness' and 'dirtiness' - basic social constructions without which the practice of bathing would not have existed - have changed their meaning from the Neolithic period to the present. People had to understand first the difference between the clean and the dirty body in order to adopt bathing as a habit in their lives.² Medicine and chemistry were the two sciences that offered the ideological and scientific validity for the spread of (thermal) baths first in Europe and then in Greece.³ Chemistry could be characterised as a 'modern' science, as opposed to medicine, which goes back to ancient times. The eighteenth century could be called the 'golden age' of chemistry. Enlightenment ideas and laboratory discoveries that took place at that time contributed to the rapid rise of the science. The nineteenth century is equally or perhaps even more important for chemistry, for it was in this century that it became a profession.⁴

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² For the literature on the history of hygiene, see Georges Vigarello, *To katharo kai to vromiko. I somatiki ygieini apo ton Mesaiona mexri simera (The Clean and the Dirty. Physical Hygiene from the Middle Ages until Today)*, Spyros Marketos (trans.), (Athens: Alexandria Publications, 2000), pp. 23-24; Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (New York: Routledge, 2002), pp. 2-4; Alain Corbin, *The Foul and the Fragrant: Odour and the French Social Imagination*, M. Kochan, R. Porter and C. Prendergast (trans.), (Cambridge, MA: Harvard University Press, 1986), pp. 22-26; Virginia Smith, *Clean: A History of Personal Hygiene and Purity* (Oxford: Oxford University Press, 2008), pp. 3-6.

³ Greece was first 'acquainted' with chemistry through thinkers of the Greek Enlightenment such as Daniel Philippidis, Neophytos Doukas, and Konstantinos Koumas. These thinkers had studied physics and chemistry and they wrote or translated physics and chemistry books.³ However, the systematic approach of the principles of modern European thinking about chemistry in Greece was achieved by the publication of nineteenth-century chemistry textbooks and spa treatises which included chemical analyses. Ioannis Kandylis, 'Skapaneis ton thetikon epistimon kata ton 19o aiona' (Pioneers of Science in the 19th Century: Xavier Landerer and Anastasios Christomanos) *Viomixaniki Epitheorisis*, 49 (August, 1981), 565-569. Accessed 11 March 2016 <http://jupiter.chem.uoa.gr/pchem/lab/Landerer-Xrhstomanos.html>

⁴ Henry Leicester, *Istoria tis Ximeias (History of Chemistry)*, George Georgakopoulos (trans.) (Athens: Troxalia Publications, 2003), p. 271 & pp. 278-288; Noel G. Coley, 'Physicians, Chemists, and the Analysis of Mineral waters: The Most Difficult Part of Chemistry', *Medical History*, 34 (1990), 56-66; Christopher Hamlin, 'Chemistry, Medicine, and the Legitimation of English Spas', 1740-1840, *Medical History*, 34 (1990), 67-81.

In the mid-nineteenth century, shortly after the establishment of the Greek state, there appeared a corpus of medical texts (including medical guides and chemical analyses, as well as scientific articles in journals and newspapers), which praised the beneficial properties of thermal springs for the healing of specific diseases. The scientific treatises written by doctors and chemists are important primary sources for medical history scholars because they gave scientific validity to the Greek spas and created an early form of spa tourism in Greece (i.e. a public which visited the Greek spas for treatment upon their doctors' medical recommendation). The medical guides to Greek spas are also especially interesting, because they could be read and be useful by both patients and doctors. They exhibited common features in terms of their structure: the medical discourse on Greek spas was presented in a popularised way; they included chemical analyses, traveller's information, and recorded the appropriate treatments for each disease. Thus, the patients were able to find all the relevant information for the trip, while doctors were able to recommend the proper form of thermal therapy for their patients.

In this article I will present the varied medical discourse on thermal springs from the mid-nineteenth century to the early-twentieth century and its impact on the development of Greek spas. The texts written by doctors and chemists made frequent references to ancient Greek and Roman writers (i.e. extracts from ancient Greek and Roman texts which included information on the history, mythology and geography of Greek baths). Why did they make this choice and how did the principles of Hippocratic medicine influence Greek doctors and chemists in this period? I will try to answer this question in the context of the debate between classical receptions and the rise of science in the Modern Greek state. I will claim that these references to ancient Greek and Roman literature and particularly to Hippocrates' work *Airs, Waters and Places* (translated by the Greek Enlightenment thinker Adamantios Korais), had a paradigmatic value and encouraged the re-use of the thermal springs in the Modern Greek state. This article will further aim to explore the influences and ties of Greek scientists with Europe. How and why European therapies and discoveries in the fields of medicine and chemistry were used by Greek doctors and chemists? In order to answer this question I will study the biographies and publications of prominent Greek doctors and chemists, and will argue that they were aware of the most modern and up-to-date thermal therapies. This is because they had studied in Europe and were in communication with their European colleagues.⁵ They sought the use of modern scientific methods in the Greek spas in order to

⁵ The three chemists who contributed most to the development of chemistry in Greece and the study of thermal springs were: the Bavarian Xavier Landerer (1809-1885), who was the first to do research on Greek mineral springs, Anastasios Christomanos (Vienna, 1841- Athens, 1906), and Anastasios Damvergis (Mykonos, Athens 1857- 1920). These professors with European scientific backgrounds

be able to compete with their European counterparts and increase the number of their visitors. My article will ultimately seek to engage with the existing historiography on hygiene and the comparative history of spas in an effort to contribute to the medical historical research on the development of Greek baths in comparison to European ones, and on the formation of the first form of tourism in Greece.

The Mythological and Ancient Past of Greek Baths in the Nineteenth-Century Medical Textbooks

In ancient Greece the practice of bathing played a very important role in religion and medicine. According to ancient Greek mythology baths purified, healed and offered strength. Hercules took a bath in the springs of Edipsos to regain his lost strength.⁶ Homer's *Iliad* and *Odyssey* contained bath descriptions. The bath in the Homeric epics was often used in religious ceremonies as it offered purification and beauty. In *Iliad's* Rhapsody P, Zeus mourned for the death of his son, Sarpedon and ordered Apollo to wash the bloody and dusty corpse of the young man. Apollo obeyed his father's wishes, and washed Sarpedon's body in the river with water and ambrosia; he dressed him with an immortal gown and gave the body back to Sarpedon's compatriots to be buried. In the *Odyssey*, Odysseus thanks to the magical assistance of his patroness, Athena, gained beauty and youth by taking a bath. In the Rhapsody Z Nausicaa met dirty and shipwrecked Odysseus by the banks of a river and ordered her slaves to wash him before meeting the King of the Phaeacians, Alcinous. Odysseus, out of shame and respect, refused the princess' offer. He took a bath alone, which helped him to recover his beauty and youth. In the Rhapsody Y the hero wanted to take a bath in order to be purified from the blood of Penelope's suitors, because his wife would not be able to recognise him when he was dirty. The bath washed away the murder's miasma so that Odysseus then resembled the immortals. Aeschylus in his tragedy *Agamemnon* placed the murder scene of the king of Mycenae, Agamemnon in the bath. Clytemnestra lured him there with the excuse of taking a bath before the celebration of his

brought systematic research on hot springs to Greece. Their treatises on thermal waters resulted in the proper use of Greek hot waters. The writers of medical and chemical manuals classified thermal springs according to their temperature, their chemical composition and the effects that would have on the human body. One common characteristic of their textbooks was the addition of chemical analyses for each thermal spring they examined. These chemical analyses had been conducted either by these three great chemists or by their European colleagues. Kandyliis, *ibid*.

⁶ Xanthippe Scarpia- Heupel, *Idrotherapeia kai Anapsihi. Istoriki exelixa ton loutron (Hydrotherapy and Leisure. Historical Development of Baths)*, (Thessaloniki: University Studio Press, 1996), p. 13.

return where he was then brutally murdered by his cousin, Aegisthus.⁷ Thus, the bath in this ancient Greek tragedy did not have a purifying value, since it led to the violent murder of the protagonist.

According to Xanthippe Scarpia-Heupel, ancient Greeks took cold baths in seas and rivers for cleanliness; however they preferred hot baths for religious and entertainment purposes. In the fifth century B.C gymnasia (training facilities) had bathing facilities close to water (river or sea) for the training and rest of athletes. Thanks to ancient Greek physicians, historians, and writers thermal baths in antiquity gained popularity over cold ones (which could play only a limited religious and entertaining role). They considered hot water a gift by the gods to humanity and stressed its therapeutic value.⁸ Ancient writers attributed the formation of hot springs to earthquakes and geological changes. In Plato's *Republic* the philosopher advised the weak patients to seek therapy in the baths. Herodotus also made some very interesting points about spa treatment and the duration of each spa season.⁹

In ancient Greece water was used for therapy in Asclepieia, the temples of worship of Asclepius. He was the Greek god of medicine who was honoured and worshiped as a hero-healer. His cult began in Thessaly (the first Asclepieion was that of his birthplace, Ancient Trikke) and then spread to the Mediterranean Sea and Asia Minor. The most important Asclepieia were those of Epidaurus and Kos. Asclepius' life was associated with water, since he was born by the banks of river Lithaios and then he became the student of the healer and centaur Chiron. Asclepieia were always built near a river or spring and they could be compared to modern clinics and hospitals, because the healers-priests of Asclepius offered appropriate treatment to patients.¹⁰

In the sixteenth and seventeenth centuries the travellers of the Grand Tour came to Greece and visited the places that had hot springs. Their travel memoirs are the first testimonies since the Ancient times that certified the re-use of ancient Greek baths. Xavier Landerer used the travel books of Francesco Vincenzo, *Egea rediviva* (Modena, 1688), Earl

⁷ I. Th. Kakridis (ed.), *Elliniki Mythologia: Vol. 5 (Greek Mythology)*, (Athens: Ekdotike Athinon, 2014), p. 79, p. 168, p. 244, & pp. 294-295.

⁸ For the religious and healing use of water in antiquity, see Spyros Marketos 'Arxi ton onton to ydor' (*The Origin of Beings: the Water*), *Iamatika Loutra-Epta Imeres Kathimerinis*, (2001), 2-6; Ralph Jackson 'Waters and Spas in the Classical World', *Medical History*, 34 (1990), 1-13.

⁹ Heupel, p. 14.

¹⁰ Spyros Marketos 'Arxi ton onton to ydor' (*The Origin of Beings: the Water*), *Iamatika Loutra-Epta Imeres Kathimerinis*, (2001), 2-4. Idem, 'Asclipios kai Ygeia' (Asclepius and Health. *Elliniki Iatriki stin arxaioτητα kais to Byzantio-Epta Imeres Kathimerinis* (1997), 2-4; Heupel, p. 14; Georgios Tatanis, *I arxaia Iatriki kai o Ippokratris (Ancient Medicine and Hippocrates)* (Athens, 1916), p. 9-16; Louise Cilliers and François Pieter Retief, 'Healing in Asclepieia in the Mediterranean' in *Dreams, Healing, and Medicine in Greece: From Antiquity to the Present* ed. By Steven M. Oberhelman (New York: Routledge, 2013), p. 69-92.

Pasch de Kriemen, *Breve Descrizione del Archipelago* (Livorno, 1775) as primary sources in his effort to highlight the use of thermal baths during the period of Ottoman domination.¹¹ According to the testimony of Tournefort, which Xavier Landerer cited, the ancient baths of Kythnos had left some remains that certified their limited but existing use. These baths were used by patients of low income who could not afford to seek spa therapy elsewhere.¹²

In the nineteenth century, Greek state doctors and chemists seem to have been influenced by ancient Greek and Roman mythology and literature. They described the use of baths in ancient times in an effort to encourage their contemporaries to follow the example of their ancient ancestors despite the time distance of thousands of years and the intervening period of Ottoman Occupation.¹³ The Bavarian chemist Xavier Landerer referred to ancient writers and historians such as Herodotus, Pausanias, Strabo and Pliny in all of his textbooks on thermal springs. His mythological, historical and geographical references certified the existence and use of Greek baths.¹⁴ His contemporary, the medical philosopher (iatrophilosophos) Ioannis Pyrlas (1817-1906), argued that some baths (for instance Thermopylae, Edipsos and those in the peninsula of Peloponnese) were known for their healing properties in antiquity in Europe and Asia. According to Ioannis Pyrlas, the use of the baths had been known since the time of Homer and Hesiod. The baths had a long presence in Greece which continued during Roman times. This can be proven by the existence of archaeological remains. Herod Atticus built baths in Thermopylae and the Roman general Sulla built baths in Edipsos where he found healing, traces of which existed in the nineteenth-century.¹⁵

Nineteenth-century Greek scientists were also interested in the interplay between baths and religion in ancient Greece and they made references to the worship of gods and heroes. According to Ioannis Pyrlas, in antiquity baths were called *holy* and *Heraclea* (they were named after Hercules) due to the strength and the physical uplift that the patient felt after spa treatment. The Greek doctor and the mineralogist Andreas Kordellas stressed that the

¹¹ Xavier Landerer, *Perigrifi ton en Kythno Aidipso kai Ypati iamatikon ydaton (Description of Kythnos Edipsos Ipati Thermal Waters)* (Athens, 1850), p. 15-17; Idem, *Peri ton en Kythno thermon ydaton (On the Hot Waters of Kythnos)* (Athens, 1835), p. 10-12.

¹² Idem, *Perigrifi ton en Kythno*, p. 17.

¹³ For literature on the classical reception see Lorna Hardwick, *Reception Studies* (Oxford: Oxford University Press, 2003), pp. 2-5; Dimitris Tziouvas, 'Introduction: Decolonising Antiquity, Heritage Politics and Performing the Past' in *Re-imagining the Past: Antiquity and Modern Greek Culture*, ed. By Dimitris Tziouvas (Oxford: Oxford University Press, 2014), p. 1-28.

¹⁴ Landerer, *Perigrifi ton en Kythno*, p. 7-8. Idem, *Peri ton en Santorini iamatikon ydaton (On Santorini Thermal Waters)* (Athens, 1835), p. 7; Idem, *Peri ton tis Ellados iamatikon ydaton (On the Thermal Waters of Greece)* (Athens, 1840).

¹⁵ Ioannis Pyrlas, 'Peri tis therapeutikis dinameos ton autofion iamatikon loutron' ('On the Therapeutic Power of Natural Thermal Baths') *Parafoivos* 7 (June-July 1881), 2.

location of Asclepieia favoured health improvement, due to the surrounding nature and the hot springs that were close to them. In this way, he believed that the location of the modern Greek baths could make them 'comparable and even better to Europeans ones'.¹⁶ Thus, it could be claimed that the remembering of the use of hot baths in antiquity by their ancestors was a systematic effort on behalf of scientists to diffuse the spa culture in Greece and to attract visitors and patients from Greece and Europe.¹⁷

The 'Legacy' of Hippocrates in the Nineteenth-Century Medical Discourse:

The Translation of Adamantios Korais

The 'father of medicine' Hippocrates (460-370 BC) had a teacher-student or rather father-son relationship with Asclepius. He influenced notably medicine, and some of the principles he introduced are still applicable today. He was descended from a family of doctors and according to tradition, Asclepius himself was his ancestor. His life and professional career were directly related to Asclepieia in which he studied medicine and where he was trained, but his moral values and his attitude differentiated him from the priests of Asclepius.¹⁸ During his life, he never sought to mislead his patient and to gain money from him. The doctor, according to Hippocrates, should be close to his patient and try to improve his health problems. If this were not possible, the doctor's intervention should at least not aggravate the patient's health.¹⁹

Hippocrates was the first physician who examined and stressed the therapeutic properties of cold and hot water in his treaty, *On Airs, Waters and Places*.²⁰ His remarks established him as the one who first introduced spa methodology. He pointed out that the choice of a city's location should be made with caution and care, because the place and the

¹⁶ Idem, *Parafoivos pragmateia ton diaforon loutron* (Parafoivos Treatise on the Various Baths) (1880), p. 24; Andreas Kordellas, *Peri ton autofion metallikon ydaton tis Ellados* (On the Natural Mineral Waters of Greece (1877), as cited in Theofylaktos Polizoidis, *Exeiridion peri loutron. Eranisthen pros xrisin ton pollon* (Manual on Baths. Compiled for the Use of the Many) (Athens, 1878), pp. 140-141.

¹⁷ Idem, *Parafoivos pragmateia ton diaforon loutron* (Parafoivos Treatise on the Various Baths) (1880), p. 24; Andreas Kordellas, *Peri ton autofion metallikon ydaton tis Ellados* (On the Natural Mineral Waters of Greece (1877), as cited in Theofylaktos Polizoidis, *Exeiridion peri loutron. Eranisthen pros xrisin ton pollon* (Manual on Baths. Compiled for the Use of the Many) (Athens, 1878), pp. 140-141.

¹⁸ Tatanis, p. 23-42. Adamantios Korais, *Prolegomena stous arxaious siggrafeis* (Prolegomena to Ancient Writers), (Athens: National Bank Cultural Foundation, 2006), vol.2, pp. 325-329.

¹⁹ Spyros Marketos 'Arxi ton onton to ydor', 6. Marketos, 'Ippokratis o Koos' (Hippocrates from Kos), *Elliniki Iatriki stin arxaiotita kai sto Byzantio -Epta Imeres Kathimerinis* (2001), 7-8.

²⁰ Heupel, p. 14-15; Ioannis Pyrlas, *Parafoivos pragmateia ton diaforon loutron*, p. 23.

climatic conditions in which people live can influence their health. Citizens are influenced by the location of their city, its soil composition, its exposure to certain winds, the food they eat and the water they drink and thus, their propensity to develop certain diseases.²¹ The ancient Greek doctor categorised water according to its type and origin and linked its ingestion and use with specific reactions in the human organism. For Hippocrates the best waters, in terms of source, texture, and their effects on humans, were those coming from the east and from high altitudes. These waters are hot in winter and cool in summer and this was evidence that they came from very deep springs. He observed that the spring water could have a positive impact on certain diseases, but only if properly used. On the other hand, he characterised the waters from melting ice and snow 'evil.' He also considered the use of stagnant and marshy waters as inappropriate, as they can cause gastrointestinal and gynecological problems. Finally, he objected to the use of water coming from the earth (hot springs, mineral and rock waters) because they are excreted only with difficulty from the body.²²

The principles of Hippocratic medicine were influential in the nineteenth and early-twentieth century. Neohippocratism, the medical movement that followed the principles of Hippocratic medicine, found supporters in France and especially in the Medical School of Montpellier and Paris.²³ The thinker of the Greek Enlightenment, Adamantios Korais, had been taught the principles of Hippocratic medicine at Montpellier during his studies from 1782 to 1786.²⁴ Having identified the importance of Hippocratic medicine, he expressed his criticism of medical schools that did not teach the Hippocratic method, such as the Medical School of Rome.²⁵

In nineteenth-century Greece Adamantios Korais' translation *On Airs, Waters and Places* contributed to the diffusion of the principles of Hippocratic medicine. The choice of the Greek Enlightenment thinker to translate the work of Hippocrates was life-changing for

²¹ W.S. Jones (ed.), *Hippocrates Collected Works I*. (Harvard and Cambridge, 1868); Ioannis Anagnostou, *Ippokratias kat' eklogin (Hippocrates by Selection)* (Athens, 1926), pp. 68-71.

Marketos 'Arxi ton onton to ydor,' p. 6; Heupel, p. 14-15.

²² Ioannis Anagnostou, *Ippokratias kat' eklogin* (Athens, 1926), p. 73-79.

²³ The physician Marius Piéry (1873-1957) was one the most prominent supporters of Neohippocratism in France. Richard A. Osborne - Richard S. Fogarty, 'Medical Climatology in France: The Persistence of Neo-Hippocratic Ideas in the First Half of the Twentieth Century', *Bulletin of the History of Medicine*, 86 (2012), 543-643; A. P. Cawadias, 'Neohippocratism', *Proceedings of the Royal Society of Medicine*, 31 (1937), 27-38.

²⁴ Paschalis Kitromilidis, *Neoellinikos Diafotismos (Modern Greek Enlightenment)*, (Athens: National Bank Cultural Foundation, 2000), p. 396; Konstantinos Dimaras, *Neoellinikos Diafotismos (Modern Greek Enlightenment)*, (Athens: Hermes Publications, 2002), p. 333.

²⁵ Korais, pp. 362-363.

him, because it was linked to his transition from medicine to Greek literature. Hippocrates and his work was the subject of A. Korais' thesis at Montpellier. The praise he received gave him the moral reward he sought and led him to occupy himself with the history of medicine and the publication and translation of ancient Greek literature until his death.²⁶ According to Paschalis Kitromilidis, the reasons which led him to the publication of Hippocrates' work were his interest in the intellectual legacy of his ancestors and his effort to revive Hippocratic medicine.²⁷ The translation of the Hippocrates' work, *On Airs, Waters and Places*, was a crucial moment in the life and career of Adamantios Korais, since it inaugurated his *Library of Greek Literature*. The thinker of the Greek Enlightenment promoted the interrelated education-freedom relationship in the editions of ancient Greek writers that he published. During his entire life, he believed that the rebirth of the nation could be achieved only by proper education, which would have been based on the principles and values of ancient and enlightenment ideas.²⁸

Adamantios Korais published two editions of Hippocrates' work: the first two-volume publication of 1800 entitled *Peri aeron, ydaton, topon. Traite d' Hippocrate des Airs, des Eaux et des Lieux Traduction Nouvelle* was accompanied by a French translation of the work, while the second edition was published sixteen years later. The second edition he published contained some corrections and additions: *Ippokratous to peri aeron, ydaton, topon. Deuteron ekdothen meta tis Gallikis metafraseos o prosetethi ek tou autou Ippokratou kai o Nomos, Meta tis Gallikis Metafraseos kai to tou Galinou Oti aristos giatros, kai filosofos*.

In the 'Prolegomena' (foreword) of the 1816 edition he expressed his ideas about the necessity of education. As he explained, the reasons that led him to the publication and translation of Hippocrates' work was his concern for future doctors. A. Korais attempted, in his address to the Greek medical students, to introduce them to the principles of Hippocratic Medicine.²⁹ The thinker of the Greek Enlightenment characterised the art of medicine 'sacred'; he deterred them from becoming 'charmners' (goites) and encouraged them to practice medicine with honesty and dignity as their ancestors did. He asked them to choose between becoming 'equal to gods' (isothēoi), that is to have dignity, or to lapse morally. For this reason, they were urged never refuse to offer their medical services whenever they were

²⁶ Korais, p. 32.; Kitromilidis, pp. 396-397; Dimaras, p. 335.

²⁷ Kitromilidis, pp. 396-397.

²⁸ Kitromilidis, pp. 394-39; Dimaras, p. 332-342.

²⁹ Korais, p. 325.

requested to and to feel obliged to provide assistance to poor patients.³⁰ With regard to the contact with their patients, he asked them to construct a relationship of trust with them and to observe carefully their symptoms. Adamantios Korais claimed that the mental illnesses have psychosomatic causes. He believed that when the soul sickens, the body gets sick too and vice versa. Thus, it is the duty of the physician also to heal the passions of the soul.³¹

In the nineteenth-century scientific world Adamantios Korais' translation and his 'Prolegomena' that accompanied the edition became a point of reference for doctors and chemists of this period. The doctor Andreas Zygomalas made reference to the work of the thinker in his *Medical Guide* (1860). Following the example of Adamantios Korais, he addressed medical students and doctors where he included the 'Law of Hippocrates' and 'Galen that excellent physician and philosopher is' from the edition of his compatriot.³² Theophylaktos Polizoidis also referred to the 'Prolegomena' of Korais' edition *On Airs, Waters and Places* in his treatise. Like the enlightenment thinker, he claimed that the Asclepieia offered therapy to patients and particularly to those suffering from mental illnesses. He attributed this success to the careful choice of their location, their proximity to the baths, and the appropriate conditions under which they received care.³³

Nineteenth-Century Chemistry and Medicine in the Service of Greek Spas

Shortly after the liberation and the establishment of the modern Greek state, the first governor of Greece, Ioannis Kapodistrias expressed his interest in spas. Ioannis Kapodistrias, having lived most of his life in Europe, had knowledge of European baths. He also encouraged spa research, because his main aim was to establish a stable health care system that could prevent and treat infectious diseases.³⁴ The first spa research was conducted in 1830 on the island of Kythnos by a committee that was appointed by the governor. The committee consisted of foreign scientists: the Russian doctors Kiber and

³⁰ *Ibid*, p. 362 & pp. 368-369.

³¹ *Ibid*, pp. 363-367.

³² Andreas Zygomalas, *Iatrikos odigos ton metallikon kai thalassion ydaton (Medical Guide to Mineral and Seawaters of Greece)* (Athens, 1860), p. s.

³³ Polizoidis, p. 125.

³⁴ In the nineteenth-century similar concerns about public healthcare were expressed in other European countries, such as Britain. See Sally Sheard, 'Profit is a Dirty Word: The Development of Public Baths and Wash-houses in Britain 1847-1915', *Social History of Medicine*, 13 (2000), 63-85. Christopher Hamlin, 'Predisposing Causes and Public Health in Early Nineteenth-Century Medical Thought', *Social History of Medicine*, 5 (1992), 43-70.

Cabissol, the chief doctor of the Greek army Zuccarini and the chief pharmacist Mahn. The results of this research were published in the *Government Gazette*.³⁵

After the assassination of Ioannis Kapodistrias, the arrival of King Otto in Greece on the 25th of January 1833 sparked both the interest of scientists and the public in Greek spas. The young king who came to Greece was familiar with the world of European spa resorts due to his origin. Born and raised in Bavaria, King Otto knew firsthand the positive effects of the thermal water on health. The doctors of the Bavarian king advised him to seek treatment in the Greek baths. In the 1830s King Otto and his wife Queen Amalia visited Loutraki and Kythnos in the hope of a cure. Their arrival contributed to the development of these spas, making them the first and oldest of Greek spa towns.³⁶ The royal couple was popular and well-respected by Greeks and thus the practice of thermal and seaside baths - which were a European habit - were diffused in Greece. Ioannis Pyrlas characterised the use of seaside baths as an act of mimicry that became a fashion trend.³⁷

Apart from King Otto and Queen Amalia, scientific research promoted the visit to spas in Greece. Professors of the University of Athens, members of the Medical Board (Iatrosynedrio) and doctors of Greek baths produced a very important research work based on chemical analyses and fieldwork. The majority of scientists had studied in Europe and thus they carried with them the European scientific methods, which they later applied in the chemical analyses of the spas and the treatment of their patients. It is worth noting that these scientists (doctors and chemists) who had conducted research on spas, and who had accompanied King Otto to Greece, became the first professors of the University of Athens. However, all of them were fired as foreigners after King Otto's deposition in 1862. Only Xavier Landerer was rehired next year.³⁸ Besides the scientists who came from Europe with King Otto, there were Greek scientists who had studied in European universities and who had brought with them European scientific knowledge after their return and work in Greece.³⁹ A characteristic example is that of the doctor Ioannis Pyrlas, who was appointed lecturer in

³⁵ Landerer, *Perigrafi ton en Kythno*, p. 22-33. Evaggelia A. Varella, 'Oi Ioutropoleis stous neoterous xronous' ('The Spa Towns in Modern Times') *Iamatika Loutra-Epta Imeres Kathimerinis* (2001), 14.

³⁶ Landerer, *Perigrafi ton en Kythno*, p. 50-52; Margarita Dritsas, 'Water, Culture and Leisure: From Spas to Beach Tourism in Greece during the Nineteenth and Twentieth Century' in *Water, Leisure and Culture: European Historical Perspectives* ed. By Susan C. Anderson and Bruce H Tabb (Oxford, New York: Berg Publishers, 2002), p. 200.

³⁷ Pyrlas, *Parafoivos Pragmateia*, p. 76.

³⁸ Kostas Lappas, *Panepistimio kai Foitites stin Ellada kata ton 19o aiona (University and Students in Greece During the 19th Century)*, (Athens: I.A.E.N Publications, 2004), p. 143.

³⁹ Lappas, pp. 149-151.

1875. According to a royal decree, the board of Mantinea approved I. Pyrlas' grant to study medicine in Paris.⁴⁰

At the same time, the spa doctors were the first who examined firsthand the properties of hot water and its effect on patients. They were either appointed spa doctors (balneologists) or they visited their patients there. Both the presence of physicians and their therapy recommendations convinced patients to prefer the Greek baths. Spa doctors also promoted medical research since their medical reports were submitted to the Medical Board for approval and publication.⁴¹ The findings they gathered were often published in medical journals or books. Orestis Dalezios, a doctor who had worked in the spa town Methana for four years published a textbook titled *The Thermal Baths of Greece* (1891). Orestis Dalezios' textbook was the product of fieldwork in Greek baths. It was based on his observations and experience as a spa doctor and on the reports of spa doctors submitted to the Medical Board. The doctor was urged to write this textbook because 'most people are ignorant of their homeland spa water' and because he hoped that his fellow doctors would use it as a point of reference.⁴²

When Science met Travel: The Varied Medical Discourse on Nineteenth-Century Greek Baths

In nineteenth-century Greece the 'encounter' of science and travel played an important role in the medical discourse of texts on thermal springs. These texts (including guidebooks, articles, and advertisements) which had some common features, were addressed either to the scientific community or to a wider audience. The main goal of the writers was none other than the emphasis on the beneficial properties of thermal waters. Another common feature of these medical texts was the chemical analyses and the frequent references to ancient Greek and Roman literature. Greek doctors and chemists made a comparison of spas in Greece and in Europe. The Greek ones were considered to be inferior to the Europeans, not because of their therapeutic properties, but because of their lack of facilities. Another main

⁴⁰ GG 16-10 / 7/1842.

⁴¹ Medical Board's Guidelines to spa doctors. They are asked to record their observations during their stay and service at the Greek spas. General State Archives of Greece (G. S. A), Ministry of Interior, file 7 (1860).

⁴² Orestis Dalezios, *Ta iamatika loutra tis Ellados itoi Topographia, Geologiki katastasis, Ximiki analysis ton ydaton (The Thermal Baths of Greece i.e. Topography, Geological Condition, Chemical Analysis of Water)* (Athens, 1891), pp. 10-12.

'concern' of the writers was to educate the public in terms of correct use of the thermal and seaside baths that had become popular and fashionable in this century.⁴³

Among the most important and perhaps the oldest medical books on thermal springs in Greece are those of Xavier Landerer. His guidebooks to Greek spas influenced the medical discourse of his time and he encouraged imitators. In his guidebooks the scientist became a traveller who was interested in the history, the people and the sights of spa towns. Xavier Landerer was a prolific writer and his publications on Greek spas appeared shortly after his arrival in Greece. In the 'Preface' of his medical guidebook to Greek spa town, Methana, he explained the reasons that prompted him to begin his scientific research. He claimed that it was his duty to teach the proper use of thermal springs and he seemed to know that his reading audience had no previous knowledge of baths.⁴⁴ Xavier Landerer urged the doctors to be responsible by recommending the appropriate treatment for each patient.⁴⁵

His books could be divided into two parts: the first part resembled a travel book, while the second was strictly scientific-medical. In the first part, Landerer's narrative seemed to walk in the footsteps of Grand Tour travellers. It is worth mentioning that in his books on the spas of Kythnos, Santorini, and Milos he described in detail the geography of the islands, their inhabitants, their clothing, and occupations, as well as the products they produced.⁴⁶ In the case study of Kythnos he specifically made detailed reference to women's clothing and customs of the island.⁴⁷ The Bavarian chemist emphasised the historical background of thermal springs by citing the works of Ancient Greek and Roman writers and Grand Tour travellers. He also wished to facilitate the travel and accommodation of patients and thus, he gave 'tourist information' and clear instructions for the proper use of thermal waters.⁴⁸ On the other hand, in the second medical-scientific part of his travel book he recorded chemical analyses, the types of thermal waters and their different effects on the health of patients.⁴⁹

⁴³ G. L. L Lamprinopoulos, *Ta Loutra (The Baths)* (Athens, 1908); Zygomas, pp. 336-352; Polyzoidis, pp. 165-190.

⁴⁴ Xavier Landerer, *Perigrafi ton en Methanois theiouxon iamatikon ydaton kai odigiai peri tis xriseos auton (Description of Sulphurous thermal waters of Methana and Odigiai on Their Use)* (Athens, 1884), pp. 9-13; Idem, *Peri ton en Mylo thermon ydaton (On the Thermal Waters of Mylos)* (Athens, 1850), pp. 5-12.

⁴⁵ Idem, *Peri ton en Mylo thermon ydaton*, p. 4.

⁴⁶ Landerer, *Peri ton en Kythno thermon ydaton* pp. 1-8; Idem, *Peri ton en Santorini iamatikon ydaton*, pp. 9-13; Idem, *Peri ton en Mylo thermon ydaton*, pp. 5-12.

⁴⁷ Idem, *Peri ton en Kythno thermon ydaton*, pp. 7-9.

⁴⁸ Idem, *Perigrafi ton en Kythno, Aidipso*, pp.50-58.

⁴⁹ Idem, *Peri ton en Kythno thermon ydaton* pp. 15-27; Idem, *Peri ton en Santorini iamatikon ydaton*, pp. 13-22; Idem, *Peri ton en Mylo thermon ydaton*, pp. 12-21.

One of Xavier Landerer's primary aims was to attract and increase the number of visitors to Greek spas. He was aware that the Greek spas lacked facilities and therefore, emphasised their natural virtues. He firmly believed that patients who had found healing in Greek baths could contribute to their international fame.⁵⁰ In his guidebooks he also wished to stimulate state interest in the development of the baths and thus, proposed a series of measures that could and should be implemented by the Greek state.⁵¹

The books of the Bavarian chemist had influenced greatly the medical discourse on Greek baths even within several years of their publication. Orestis Dalezios' guidebooks had a similar structure and content, as they included travel and scientific information. The full title of his guidebook was indicative of its content: *The thermal baths of Greece i.e. topography, geological condition, chemical analysis of water, physiological and therapeutic effect on the basis of observations of doctors* (1891). In the first pages of the book he explained the reasons that had urged him to write it. Like Xavier Landerer, he considered the thermal waters extremely beneficial for the human body. The Greek baths, however, were neglected and the Greek public was unable to receive appropriate treatment as it was not suitably informed.⁵²

The style of his book was not a purely scientific one and did not appeal solely to the scientific community. He hoped that it could become a useful guide for any patient seeking thermal treatment.⁵³ The chapters began with the geological and geographical presentation of the baths. Like the Bavarian chemist's guidebooks, this one also made an extensive reference to the use of baths in antiquity. A characteristic example is the description of the baths of Thermopylae in which he referred to the heroic and glorious past of the place. The mention of heroes such as Leonidas aimed to highlight the Greek past of baths and to attach them to the heroic legacy.⁵⁴ The scientific part of his guidebook was addressed primarily to physicians, but it could also be useful to patients. Orestis Dalezios listed the chemical analyses of the thermal springs carried out by eminent Greek and European scientists, such as Anastasios Christomanos, Fischer, and Liebig. He also listed detailed statistics of the patients who had found cure in the Greek spas. These statistics, which came from spa doctors' research, could be used as evidence of the properties of Greek baths. It is worth noting the existence of a kind of 'index' that informed physicians and the public on the types

⁵⁰ Idem, *Perigrifi ton en Kythno, Aidipso*, pp. c-d; Landerer, *Perigrifi ton en Methanois*, p. 4.

⁵¹ Idem, *Perigrifi ton en Methanois*, pp. 33-34.

⁵² Dalezios, *Ta iamatika loutra*, p. 9.

⁵³ *Ibid*, p. 10.

⁵⁴ *Ibid*, p. 107-109.

of treatment each Greek spa offered for a specific disease.⁵⁵ Thus, Orestios Dalezios' guidebook could be used easily by both doctors and patients. Each doctor could make use of the guide and advise his patient on proper spa treatment. On the other hand, the patient found the type of thermal spring that could benefit him and prepare him for the journey. His book, however, was not addressed only to doctors and patients. In the last chapter, Orestios Dalezios was addressed to the Greek state. He requested measures that should be taken regarding the improvement of therapies and the urban space of spa towns.⁵⁶

Apart from medical and chemical treatises on Greek baths, a great number of articles and spa reports were published in the daily and periodical press. They were mainly published in medical journals (such as the medical journals *Asclepios*, *Iatriki Melissa* and *Galinos*) and they were written by chemists and doctors. The articles, in which they published the results of their research, were read by fellow scientists who responded to them either by correspondence or by publishing their own articles. Thus, this kind of scientific dialogue contributed to the progress of spa research.⁵⁷

The publications in medical journals were targeted to the limited audience of the scientific community. However, the publications in the daily press were numerous and directed to the broader and less knowledgeable reading audience of newspapers. These publications (announcements and advertisements) were another form of nineteenth-century medical discourse. On one hand, they aimed to inform the public about the existence and the healing properties of baths and, on the other hand, it attempted to convince them to use them. The spa advertisements, in particular, had certain features and used specific methods of persuasion. The selection of titles, such as 'Baths -The Most Healing of Greece' and 'Loutraki –Equivalent to the Baths of Vichy' was not accidental, but carefully chosen in order to serve specific aims: The owners and renters of bathhouses had to compete with the other Greek baths and they bore the additional difficulty of convincing the public that the Greek baths were equivalent or even better than the European ones. For this reason, they mentioned the names of scientists who had conducted research on the baths that they

⁵⁵ *Ibid*, p. 78, pp. 90-91, pp. 126-127, pp. 132-136.

⁵⁶ *Ibid*, pp. 136-143.

⁵⁷ 'Chimiki Analysis tou en Kythno Oriktou Ydatos tou Kakkavou ypo tou Varonos I. Lievig' (Chemical analysis of Kakkavos mineral waters Kakkavos by Baron I. Liebig) *Asclepius*, vol. A (Athens, 1856); Landerer, 'Paratiriseis tines epi tis analyses tou ydatos tou Kakkavou' (Some remarks on the analysis of water Kakkavos) *Asclepius*, vol. I (Athens 1856), pp. 141-147.

owned or rented and the name of spa doctor who worked in them. Moreover, they attempted to inform the public in detail on the preferable European treatments that they offered.⁵⁸

Conclusion

In this article I have presented the varied medical discourse on Greek spas in the nineteenth century. One important feature of these texts was the attachment of baths to the mythological and ancient past. The references to Greek mythology and to ancient Greek and Roman literature stressed their Greek origin and they facilitated their reuse in the nineteenth-century Greek state.

Europe was another important reference point in almost every text on Greek baths. The people (Grand Tour travellers and scientists) who 'rediscovered' the Greek spas initially came from Europe. Then, there were Greeks with a European education that returned and worked in the Greek state. The European knowledge they possessed gave meaning and validity to the use of baths. They attempted to bring to Greece updated scientific methods that were in accord with European standards. Also, the constant effort to make the Greek spas equivalent to European ones (an effort emphatically expressed by doctors and chemists) stressed the need of the newly established Greek state to have a European orientation.

The basic features of medical texts on thermal springs that I examined highlight the objectives of these texts and their recipients. Although their form differed, all of them were addressed mostly to the state, to the public and to the scientific community. The aim of the various forms of medical discourse was not only to inform. The Greek spas could not exist and develop without the interest of the Greek state, the formation of a public, which would visit them and the scientific knowledge concerning their proper use. Thus, the medical discourse attempted to cultivate a fertile ideological background that would contribute to the effective development of Greek spa resorts. The public would be informed on how to use them and the state policy would take measures to transform them into tourist destinations.

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⁵⁸ *Efymeris (Newspaper)*, 28/6/1890, p. 4, 24/5/1889, p. 4, 8/5/1893.

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