

Toward a Typology of Byzantine and Post-Byzantine Healing Texts

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The subject of my paper is the late Byzantine and post-Byzantine iatrosophion. A iatrosophion is a book-collection of medical recipes taken from classical and Byzantine medical treatises and pharmacological works, as well as from folk medicine and non-traditional medical praxis. The first iatrosophia developed in the environment of the hospitals of the Byzantine Empire where they served as handbooks for the daily medical practice containing recipes and therapeutic advice. The writers of the hospital and medical craft texts distilled what they found useful from the available sources and supplemented it with new information. Later iatrosophia texts originating from the times of the Ottoman Empire, hence from post-Byzantine times, were mainly written in Greek Orthodox monasteries. This development is a consequence of the fact that in Ottoman times, hospitals rooted in the Byzantine tradition were restricted to monasteries. Most of the manuscripts were written by a variety of individuals in an effort to provide practical therapeutic guidance to a community frequently deprived of easy access to academic physicians and lacking the financial means for professional medical treatment. The copyists were interested laymen, professional healers, or clerics with access to existing manuscripts and occasional social contact with practitioners of the healing arts. Gradually iatrosophia became detached from the hospital environment and were more widely disseminated among the general population. Copied and recopied, these handbooks were now used in the community predominately by practical healers and midwives, by priests and monks. The ancient and early Byzantine medical knowledge remained but was increasingly supplemented by popular medicine. I will discuss three texts that exemplify the above types of iatrosophia. One, ascribed to the monk Meletios, is the sort of reference text of later Byzantium which appeared in hospitals and was consulted by physicians and healing professionals working there. Doctors in private practice would have used it as well. A Cretan iatrosophion (dated to c. 1800) typifies the healing manual that practical healers of the post-Byzantium used. The manual contains medical recipes based on a classical and Byzantine pharmacology, but the recipes are supplemented by treatments based in religion, magic and exorcisms, and local healing traditions. The recipes of the monk Gimnasios (died 1937), which were recorded by

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Greek journalists of the 1930s, show a botanist whose knowledge of thousands of plants allowed him to heal people who had no access to professional care. The medicines are composed of local flora and fauna, supplemented by simple ingredients that could be bought in any apothecary of the time.

Introduction

The subject of my paper, and the subject of my current research, is the late Byzantine and post-Byzantine iatrosophion. A iatrosophion is a book-collection of medical recipes taken from classical and Byzantine medical treatises (for example, the writings of Hippocrates and Galen, or the writings of Paul of Aegina and Alexander of Tralles) and from ancient pharmacological works like Dioscorides' massive work on plants. These texts were used both by professional doctors and by non-licensed medical practitioners. Iatrosophia were constantly updated by new medical knowledge and new medical substances. Thus, the texts gradually incorporated discussions of the 'French disease' (that is, syphilis) and new materia medica like coffee, quinine, and tobacco, which took their place alongside rosemary and oregano and other garden herbs that had formed medical recipes for millennia.

The geographic spread and considerable number of iatrosophic texts suggest they were widespread sources of medical knowledge in the Greek communities under Ottoman and Venetian rule. Iatrosophia have been discovered in most of the Ottoman provinces in Europe, the coast of Asia Minor, the Aegean, the Ionian Islands, Crete, and Cyprus. About 150 texts have been catalogued in monasteries, libraries, and private collections. Only a few, however, have been published and studied. My research over the past three years has centered on three iatrosophia.¹

The Iatrosophion of Anagnôstês

In the early nineteenth century, a writer, named Charalampos Christodoulakis, sat down and penned an iatrosophion in western Crete (Papadogiannakēs 2001).² On page 8 on the manuscript, right after the table of contents, the author writes: 'The conclusion of the table. 1826, September 7. Anagnôstês.' We are given a little information about this Anagnôstês in an extra page inserted into the manuscript and written by the grandson of this author. According to the note, Charalampos was the eparch of the district of Apokoronas and lived in the village of Nipos. Apokoronas was the former province under the Turkish occupation of Crete. Located in the northwest section of the Chania Region, it stretches from the White Mountains to the

¹For general introduction to the iatrosophia, see Clark 2011, 1–22; Lardos 2006 and 2012; Oberhelman 2013, 13–21; Papadopoulos 2009; Touwaide 2007; Tselikas 1995.

²See esp. 14–16. For parallels, see Clark 2011, 31–45.

coast. Charalampos was considered, according to the note, the most literate man of his age and so he was given the nickname Anagnôstês. Anagnôstês' exact date of birth is not known. We do know from clues in the codex that in 1826 he was married a second time, that his first wife lived for only a year after their marriage, and that the second marriage happened soon after the first. Putting these facts together we can say that Anagnôstês was born around 1800.

It is not clear whether Anagnôstês was himself a rural practical doctor or was a compiler of medical recipes. The latter, I believe, is more likely. Although it is not improbable that Anagnôstês could have functioned as a practicing practical doctor, it is more likely that he wrote this text for use by family members. Healing during the Turkish occupation of Greece was typically performed by family members or by non-licensed practitioners of herbal medicine and folk medicine whom people consulted (Clark, 2011¹; Blum and Blum, 1965, 1970).

Although it is arguable whether the numerous spelling errors and solecisms reflect a lack of advanced learning, the meticulous arrangement of the recipes, drawn from classical and Hellenistic Greek medicine and from Byzantine sources, prove that the author had a careful eye for detail. The author also is a person of his age and culture in that he combines without reservation the pharmacopoeia of authors like Galen and Dioscorides with folk remedies, magic, and religious rituals. His sole purpose is recovery or preservation of health, and so any effective measure to that end seems to have been worthy of his recording it.

The codex is bound in leather and is remarkably well preserved. It consists of 134 pages, all written in the same hand except for a few later additions here and there in the text and at the end. The Codex consists of thick paper, measuring 195x145 millimeters. The titles of each chapter and the initial letter of the text of each chapter are written in red ink. There are drawings on many pages, either within the body of the text or as marginalia. Many of these drawings are magical characters or diagrams with magical significance, e.g., charts of the zodiac and the stars; drawn also are phylacteries and tables for predicting a sick person's life and death. These have been drawn by another hand, possibly a calligrapher hired by the author.

The medical recipes are grouped by chapter (181 chapters in total) in accordance with the typical *a capite ad calcem* ("from the top of the head to the foot") arrangement of an *iatrosophion*. The chapters may be placed into the following distributive categories: head, ears, face; throat and back; poisonous infections; hands and feet; bites from snakes, scorpions, and dogs; purgatives; heart ailments; diseases of the breast; respiratory problems; viscera (stomach, intestines, liver, kidneys); pleurisy; hemorrhages; traumatic wounds (fractures, contusions, burns); dermatological diseases; hemorrhoids; tumors; malaria and fevers; gynecological matters (barrenness, pregnancy, childbirth, breastfeeding); diseases of the male and female genitalia; preparation of

¹See pp. 23–29. See Lardos 2012 for an in-depth and exhaustive analysis of the ethnopharmacology used by the *iatrosophists* working in the monasteries on Cyprus.

various plant oils; preparation of pills; preparation of salves; and treatment of sick livestock.

For each category of ailment a series of recipes is given. Some recipes, composed of herbs and minerals and animal substances, are drawn from ancient and Byzantine formal medicine, especially Galen and Dioscorides. For example, for heart pain, two recipes are drawn from Galen and one from Dioscorides:

Pestle fresh myrtle leaves and place them over the heart.// Place over the heart a compress of goat fat, rose oil, amaranth juice, woman's milk, and barley flour. // Crush rue and linseed well. [Add] honey and bring to a lukewarm temperature. Smear this over the heart with a dark cloth.

Other recipes include folk medical treatments; the pharmacopoeia, taken from both medical texts and folk healing, are listed in such a way that it is clear that each recipe, regardless of provenance, may be effective. Thus, after the three above recipes from classical sources, we have other recipes that are not to be found in classical or even Byzantine sources:

If someone has pain of the heart, he should drink wine with vetch flour. It helps to put blackberries on [the area of the heart], for he will be healed. // Have [the patient] eat the dried peel of a bitter orange or have him drink it. It helps. // Grind peony into a kind of flour. Mix with olive oil and have [the patient] eat this. // Seethe wormwood and balsam [or costmary] in wine. Give as a drink. // Mix pennyroyal flour with vinegar, and have this drunk.

Sometimes these natural (plant, animal, or mineral) materials may not be effective, and so other measures, preternatural and supranatural, are recommended. Thus, in the face of a stubborn disease, one may resort to magical courses of treatments (e.g., binding spells, theurgic characters on paper) or religious prayers and the use of holy objects like holy water and the Holy Lance. This is not surprising, for in the world of the Greek *iatrosophia*, the supernatural and the natural overlapped and permeated the other. The world of religion and the world of non-sanctioned religious activity could operate within the same medical cure, healing ritual, or spell for protection. The Cretan *iatrosophion* like others of the genre simply reflects the mindset of the Greek during the *Tourkokratia* who used without hesitation any and all supernatural and natural means of achieving or restoring health. So, to continue with cures for heart pain, the writer recommends religion and also the use of *magicae characteres*:

Heat human urine over a fire until red-hot and then inject like an enema. This has been tried and tested. Read him also Psalm 70 and he will be healed. // Write on a cup these ciphers: ξ υ ε ε † ζ. Take bean flour and mix with good wine. This should be drunk [with this

cup] on an empty stomach. // Write the following on a piece of paper and give it [to the patient] for his personal use: ξ ν ζ ε ψ ι ζ. // Write inside an unused cup the troparion and dissolve it in wine or water with a feather. Have [the patient] drink this. The troparion is as follows: ‘Fill my heart with joy, O Virgin, you who received the fullness of joy and caused the pain of sin and the pain of the heart to vanish. *καραήλ. ἔγκλησον. ῥοπεήλ. † ω ρ ε ρ κ τ θ β.*’ // Write these [words] and hang around his neck. (He should take them off, though, when he has sex with his wife.): *βοηροθὰ γουβούμ νουθέμ.* Lord, our God, who bestowed Your grace on Your salve Nehemiah: so too heal NN, Your slave.’

This iatrosophion is unlike the other two under discussion here in that it is concerned not just with medical cures, but with nonmedical like astrology, agronomy, veterinary care, and predicting the future. Thus, the reader is told not only how to cure pleurisy and paralysis of the hands, but also how to discover the identity of a thief or how to cause cattle to conceive. Domestic issues also garner a few chapters in the text, e.g., spells for causing divorce, charms for inciting sexual passion, and methods for determining the sex of an unborn child or the life expectancy of a family member. These items consume only about five (5) percent of the text, but they do reflect the desire of the readers of iatrosophia for controlling and manipulating the world around them.

A final example from this text regarding the easy infusion of religion, magic, folk medicine, and ancient pharmacology. Towards the end of the codex there is a series of passages dealing with gynecological matters. One deals with an act of *similia similibus* magic for the purpose of becoming pregnancy:

For a sterile woman. Take 3 leeches and bind them around the middle of their body. Hang them over smoke so as to dry them out. Turn them into powder and then add to wine. Have the woman drink this, although she is not to know [what you are doing]. While she drinks, you should say: ‘Just as leeches fasten on a person, so may a child fasten on this woman, NN, the slave of God.’ She should drink [the concoction] whenever she goes to lie down with her husband.

This is followed by a passage on expelling a dead fetus. Three recipes are offered, with the main ingredients being castoreum, bay laurel, and mallow. All three are recommended in ancient sources: Pliny, Dioscorides, Soranus, and the Byzantine writers like Paul of Aegina:

When a woman has a dead child in her womb and cannot expel it. Take 1 rupee pennyroyal and a half pitcher water. Boil these and add a half exiguum of castoreum. Have the woman drink this and she will immediately expel the [fetus]. // Pestle laurel leaves or its roots and boil in wine. Give this to the woman to drink. // Pound mallow. Rub the juice on the woman’s head. Bind the mallow itself on her

inner thighs. And when she begins to deliver [the dead fetus], immediately remove the mallow lest it enter her internal organs.

The warning about the mallow entering internally is not because of toxicity but to avoid pieces of the plant being lodged in the cervix. Mallow juice injected or ingested internally has been used for several millennia for treating urinary tract infections, constipation, and lung disorders.

After this comes a section on determining the sex of a child, a matter of concern to farming families. The methods are harmless and would have a success rate of 50 percent; but they do reflect the target audience's desire to have some control over or knowledge of their future. *Iatrosophia* of this sort can offer practical advice:

For a woman to discern what [gender] is the child she is carrying. If the woman's left breast is soft or dark-colored, the child is a girl; if hard or white-colored, a boy. // After a pregnant woman has slept with her husband, have her squeeze from her right breast a drop of milk into a cup filled with water. If the milk does not dissolve in the cup, the child is a boy; if it does dissolve, a girl. // Have the woman squeeze milk from her breast into her palm. Have her make the sign of the cross on the door [with that milk]. If the cross dissolves, it is a girl; but if the cross [slowly] dries and can be seen for a long time, it is a boy. // Yell at a pregnant woman [from behind] so that she jumps sideways. If she jumps to the right, it is a boy; if to the left, a girl.

The Healing Recipes of *Gimnasios Lavriôtis*

Gimnasios Lavriôtis was born Georgios Tzanetes in 1858 in the small mountain village Theologos on the island of Thasos.¹ He pursued botany from an early age. His mother was a practical nurse who practiced herbalism and had notes from her father. The father also was an herbalist who healed local villagers for stomach ailments, wounds, kidney problems, and rheumatism. (These diseases are the ones that *Gimnasios* later focused on too.) The father had a large number of recipes that he had copied from a manuscript he examined at an unnamed monastery of Mount Athos. At the age of 20 he went to England where he served as a nurse for a physician-herbalist named Kazis. Kazis taught *Gimnasios* anatomy and supplemented his knowledge of herbalism. *Gimnasios* later served as an assistant to a doctor who travelled the Greek mainland area around Thessaloniki; his knowledge of herbal medicine increased under this physician too. A few years later, after World War I, he

¹The only discussions of this healing monk are in modern Greek. The most important sources are Primikidê 1930 and Mikhalopoulos 1992. The former is absolutely essential for *Gimnasios's* life up through his return to the island in 1930 after his persecutions and trials. The latter continues the biography down to the monk's death seven years later. This and the next two paragraphs are drawn from these two sources.

became a monk at Mount Athos, adopting the name *Gimnasios Lavriôtis*. He returned to Thasos after the monks expelled him for reputation for healing. He settled in the village of Potamia and became attached to the local church; he resumed healing in the village. After a time, however, the mayor of Theologos pleaded with *Gimnasios* to come home and take up healing, since their local healing doctor had died. *Gimnasios* agreed and became priest at the church of Panagouda in Theologos, where he began to heal. According to newspaper accounts, every day up to 300 people would assemble in the church courtyard or in the streets to seek a cure from the monk. After a while the medical authorities from the mainland came and arrested the monk for healing without a license and had him arrested. He promised not to heal again and was released. *Gimnasios* returned to Theologos and immediately began to heal people yet again. He was arrested again and this time sent to Athens where he was sent to a psychiatric hospital for evaluation. He was soon freed and sent to the Monastery of Saint Meletios in northern Attica. But when over 2,000 people clogged the roads and the villages on a daily basis to seek a cure, *Gimnasios* was sent back to Thasos where he died in 1938, at the age of 77.

Gimnasios had a working knowledge of thousands of plants. He would walk in the countryside, in the hills, along the roads, through the fields, in search of plants. He would collect them and bring them back to his house, where he would test them to see what properties they possessed in relation to different ailments. *Gimnasios* took great pride in claiming all his knowledge did not come from books but from practical experience. *Gimnasios* was reported to say: ‘Botanists learn plants from books, but I learned in the hills and in the villages. I know 2,000 plants and their properties of healing.’ *Gimnasios*’s method of healing was to examine a patient personally and to enquire about his ailment. He then gave oral instructions on the recipe to use. A secretary would write the recipe down (*Gimnasios* did not know how to read and write); the recipe was brief and contained instructions on what plants to use and in what doses.

Two hundred and ninety-three (293) recipes have come down to us, thanks to an Athenian journalist who travelled with *Gimnasios* after his first arrest and until the return to Thasos. This journalist, Ioannou Primikidê, became *Gimnasios*’s closest friend. One day, right before *Gimnasios* was seized by the authorities for a second time, he asked *Gimnasios* to tell him his treatments. Primikidê transcribed them and published them in 1930. The transcriptions are accurate, insofar as the recipes are comparable to those recipes published by other journalists in newspapers in Kavala, Thessaloniki, Epirus, and Athens at the same time.¹

¹The edition of Primikidê, who published the first (and the authoritative) collection of recipes, has ‘300 Authentic Recipes’ in the title. However, because of editorial mistakes in enumeration, there are only 293. Later so-called collections of *Gimnasios*’s recipes are false, containing many recipes that do not belong to him. Some editions have as many as 500 recipes, but since their editors have taken these extra recipes from other folk healing texts, they may be rejected. Primikidê’s 1930, despite misprints and typographical errors should be consulted alone. Mikhalopoulos in his 1992 article offers recipes printed in contemporary newspaper accounts.

The recipes are simple, drawing mostly on local plants. Doses, if specified, are often in multiples of 10 or 50, thus making it easy for memory. Otherwise the amounts are very vague (some, a little, an appropriate amount). Gimnasios did not treat all diseases. He treated primarily skin diseases, wounds, stomach problems, asthma, injuries to joints and limbs, tuberculosis, rheumatism, anemia, and hemorrhages. As an example of Gimnasios's healing, let me cite his six recipes for anemia:

We take 100 drams of cinchona, 100 drams of sugar, 50 drams of cinnamon, 100 drams of the bark of the black tree, and 1 dram of quinine. We boil these in three okas of water. We drink three glasses daily.

Another method. We boil in a half oka of wine 100 drams of couch grass, 100 drams of sugar, 100 drams of cinchona, and 2 handfuls of spleenwort. We drink a glass of this every day.

Another method. We stuff 3 watermelons with 50 drams of cloves and 100 drams of mastic. We bake them well in an oven. After they are baked, we mash them in a vessel and add a proportionate amount of sugar. We then boil until it congeals nicely. The sick person takes 3 small spoonfuls of this each day.

Another method. 100 drams of honey, 50 drams powder of the arkoudopsomo potato, 10 drams of cinchona, 10 drams of rhubarb, 10 drams of iron, 3 drams of Turkish sharbat, half a small bottle of Amsterdam quinine, and the powder of 2 cypress berries. We mix all these with honey. The weak patient takes every day 2 dessert spoonfuls for 10 to 15 days.

Another method. We take a half oka of the bark of the black tree, 100 drams of cinchona, 100 drams of sugar, 2 cypress berries, 100 drams of celery, and 50 drams of cinnamon. We boil all these ingredients and then filter. We drink 3 small glasses of the liquid each day.

Another method. We take 50 drams of absinthe wormwood, 50 drams of cinnamon, and 50 drams of cinchona. We boil these in 2 okas of wine and then drink 2 small wine glasses of the liquid each day.

The ingredients are almost all local flora, beyond spices like cinnamon. The exception is cinchona, which is indigenous to South America. (Quinine occurs naturally in its bark, and as we see above, Amsterdam was widely known as a manufacturer of it. The Dutch had smuggled seeds and established groves of the cinchona tree in java and then dominated the market.)

Gimnasios does recommend changes in diet, bloodletting, steam baths, massages, and other non-invasive measures. For example, for epilepsy, he stresses that 'A total change in diet is required. Meat is completely forbidden. The patient is to eat only Lenten meals, dairy [products], and a little fish.' Phlebotomy at the wrist and cupping at the scapula are also recommended for

15 days. Or, for protein in the urine, Gimnasios writes: ‘We take a half oka of couch grass and four potatoes. We boil these in a proportionate amount of water. We drink a glass of this daily. We also follow a diet of milk, yogurt, potatoes, rice, and leafy vegetables; we eat no bread at all.’

The materia medica is different than what we see in the Cretan iatrosophion. Here plants and herbs predominate. There are 124 flora altogether that I have been able to identify. The most common are Chian mastic (the leaves, bark, and resin); garlic; parsley; couch grass; incense; rhubarb; and the local black tree (leaves and bark). But there is a greater emphasis here on animal substances and minerals. 31 ingredients come from animals, such as dog bones and skulls (9 times), fish glue, and what Gimnasios calls ‘the pulverized bits of fish remains left in trawling nets’. Forty-nine (49) mineral substances are used: pitch (36 times), wax (17), sugar (17, along with seven instances of crystallized rock candy), and alum. The heavy use of such substances may be attributed to the diseases that the monk treated, for example rheumatism and arthritis, and his reliance on poultices and compresses. Gimnasios also used new substances (new in terms of medical texts): chocolate, gunpowder, ouzo, raki, oil used by furniture painters, and pieces of cloths used by pewter smiths.

As I said, the recipes rely on a folk herbal medicine. Unlike classical and Byzantine medicine and unlike the medicine of most iatrosophia, we do not have enemas and purgatives, although bloodletting is used in several recipes. Gimnasios’s recipes do not contain ‘magical’ practices like spells and exorcisms. The healing is achieved mostly through herbs and plants and other natural ingredients. Methods of delivery the medicine are mainly ingestion: drinking (114 times), eating (14), and taking homemade pills (32). Ointments and compresses are the other method (70 ointments and 38 compresses). We also have mention of drops (for the eyes and ears: 10 times), and fumigation through steam or vapor (9 times).

There is one difference between Gimnasios’s recipes and those in the other two texts, namely, the use of animal products. Gimnasios uses many different animals for his treatments. For example,

Difficulty in Breathing. We capture a bat. We cut off the head and then drink the blood that drains from it.

Catarrh of the Eyes. We wash the eyes with cow urine. Immediately we slaughter a chicken. We immediately remove the internal organs and then wear it on our head with the blood warm (as it will be). We leave it there until it cools.

Lupus with Lesions. We bake a piece of a dog’s head in an oven until it becomes charcoal [and we pulverize it]. Take 50 drams incense, 50 drams beeswax, and 50 drams aloes. We take one spoon

of the powder of the dog's head and mix everything together to make an ointment. We place this on the wound/lesion.¹

I recently traveled to the island of Thasos and was able to interview people who had been healed by the monk. I recorded their stories of how they were healed and how others were healed. The monk was remembered in two villages as someone who spent each morning walking the hills and the roads collecting plants. His afternoons were spent in consultation of the many sick patient who came to his house, which still stands next to the church. The stories revealed a man who was willing to go beyond herbal recipes and make minor incisions, cauterized patients, and counteracting the effects of what was described to me as scoliosis on one child; the monk daily stretched him on pine boards and tying heavy weights on his feet and hands.

The Iatrosophion of Meletios

Another iatrosophion is ascribed to Meletios. Meletios was a physician and practiced bleeding and cauterizing. The exact period of his life is unknown; hypothesized dates range from the seventh century to the thirteenth century. The latter serves as the *terminus ante quem*, since there is a manuscript on the eyes ascribed to him from that century. Meletios wrote commentaries on Hippocratic texts, on anatomy and physiology (especially the eyes), the relation between the body and the soul. His work, *On the Nature of Man*, draws on Galen and other medical authors.²

The iatrosophion is preserved in eight manuscripts (Alexopoulou 1998).³ Of these eight, four are connected, giving the text almost completely. They differ in style and language significantly from each other; in content, however, there are only slight differences. The main codex of the four is the *Codex Vindobonensis gr. med. 53* (second half of the sixteenth century) (Hunger 1957).⁴ The codex consists of paper that measures 143x105 millimeters. There are a total of 189 folia, of which four are blank. There are 15 lines of text per page. Initial letters are written in red ink. The codex has drawings of doctors, and red and black line drawings on six pages.

The Codex is a medical manuscript composed of four units. The Meletios iatrosophion is preserved on folia 129–189. The table of contents is given on folia 129r–137v. The iatrosophion begins on folium 137r. The text is written by a single hand. The language and style are a Greek vernacular with many mistakes (Alexopoulou 1998).⁵

¹Gimnasios prefers the heads of dogs. In seven recipes he takes a head and extracts bones from it in order to create a powder. Also extensively used are donkey milk, cow urine, cow dung, and hedgehogs.

²For a good general introduction see Pioreschi 2001, 98–101, with bibliography on modern studies on Meletius's medical writings.

³See pp. 1–35.

⁴See pp. 105–106.

⁵See pp. 7–8.

This iatrosophion is typical of the text that widely used by physicians at Byzantine hospitals. Entries are brief: a header that describes the ailment and then one to four or five therapeutic recipes, mostly drawn from classical and early Byzantine sources. Most commonly used are Dioscorides, Galen's treatise *On the Powers and Mixtures of Simple Remedies*, and Paul of Aegina. The pattern of abbreviation is evident in the iatrosophion. For example, Galen discusses remedies for when a woman's breasts become inflamed or abscessed. He lists six remedies, with additional therapies if complications arise after several medicines are applied. The iatrosophion lists two recipes, one taken from Galen's text and the other from Paul of Aegina. What is interesting is that the iatrosophist takes Galen's recipe and expands upon it in order to explain that the treatment is actually a compress and how this compress should be made:

Galen: Grind dates and bread crumbs with sharp vinegar. Bring to a tepid heat. Apply.

Meletios: Take ground dates and a slice of bread. Boil in wine and vinegar. Knead well. Then smear on a cloth and then spread as a compress on the breasts.

It may be too great a conjecture to say that Galen is writing as an experienced physician who knows that the medical treatment consists of a compress; but it could be that the iatrosophist, knowing that the compound could have been smeared or rubbed onto the skin or daubed externally with a cloth, wanted to specify a compress, not an ointment. An additional tip comes from the iatrosophist in a cure for migraines. Galen writes: 'Boil twigs of ivy in olive oil. Smear it on the head. You will be amazed.' The iatrosophist adds a hint that it is better to drench a handkerchief with the liquid and bind it place: 'Pestle dry ivy and add to olive oil. So that [ointment] does not run off the head, smear it on a handkerchief and then bind it from one temple to the other.'

Another sign of abbreviation and making it easier for a physician to consult this medical compendium is the iatrosophist's tendency to combine recipes from different sources into a single entry. Discussing the ears, he writes: 'Concerning the ears. Pestle caper plant leaves and drop the juice [into the ears]. Or bring to lukewarm temperature human urine and drop in to the ears.' The first part is mentioned by four different Byzantine medical writers: Aëtius, Alexander of Tralles, Oribasius, and Paul of Aegina. The use of human urine is lifted from Dioscorides, who mentions many uses of animal and human urine as well as feces in medical treatments.

Classical medical therapeutics are preserved more in the Meletios iatrosophion than in the Cretan text. We have Hippocratic practices of phlebotomy and the holistic approach to health by recommending diet and exercise. Phlebotomies are performed on various parts of the body. For example,

Concerning the testes. If the testes are swollen and inflamed, phlebotomize him in the ankles of his feet. Take the seeds from raisins and pestle well. Then take flour made from broad beans and boil well in water. Spread all these [ingredients] in a cloth and apply as a poultice onto the testes.

Concerning arthritic hips. Phlebotomize him in the common [iliac] vein. The grind lupines and make a fine flour. Boil in vinegar and then add honey. Spread this on a cloth and then place on the place where it hurts.

How to consider liver fire [= hepatitis]. When a person has this condition, there is pain on the right side which seizes him from the shoulder down to the ribs; he is also very feverish and thirsty, has no appetite, coughs, and vomits bile. Immediately phlebotomize the right ulnar vein.

Concerning kidneys that are inflamed. When the kidneys become inflamed and the patient has much pain and a fever and vomits bile, phlebotomize him. Then take the seeds of fenugreek, rue, and dill. Knead with water. Place on the area of the kidneys.

Meletios considered phlebotomy so important that he provides a list of which days of the lunar month are good or which are bad for performing this procedure. He even warns of possible side-effects, such as migraines and anorexia and sudden death, if a phlebotomy is done despite warnings.

Besides phlebotomy, Hippocratic-styled regimens are strongly recommended at the same time as medicines are administered:

When a person's abdomen and feet and testes are swollen and inflamed. Pestle well dove feces, fine sulfur, ammonia salt, and bay laurel oil and mix. Rub on the head, spleen, and stomach. [The patient] should not drink water or eat prepared foods. Supper should be avoided. Also he should not sit around, but should try to work as much as possible. In the morning he should not eat anything until lunch time. The diet should be minimal: fish, soft-boiled eggs (but only the yolks), and baked mutton—in fact, all his foods should be baked. He should drink a little hot wine. Also, have him drink absinthe in water.

Concerning the spleen. Take the root and buds of the tamarisk and scrub well. Then boil in good wine until a third part remains. Have [the patient] drink this on an empty stomach, for 15 days; he should also avoid all acidic foods.

Concerning someone who is under duress when urinating. When someone begins to urinate but only a few drops come out painfully, take the skin of a hedgehog and put over red-hot coals. Then [have the person sit over the coals and allow] the smoke to cover the testicular region. He will then urinate. Also have him take frequent baths. His diet should be [fish like] mullet, gudgeon, calamari, and crayfish.

Sometimes phlebotomy and regimen are combined:

Concerning sight. When someone has no sight but has no pain or discomfort, a phlebotomy is first in order. Then clean [the eyes] often and give him medication. He should not be exposed to any blast of wind, nor to bright sunlight, dust, and smoke. He should not eat any salted food or legume, unless it has been cooked; he can have egg yolks and a little wine.

The physician-centered focus of this iatrosophion is evident in the fact that we have virtually nothing outside the realm of medicine. There is one recipe on detection of a thief; one on determining whether a wine has been diluted; and three on predicting whether you will win a court case or have a successful business trip. And there is the usual listing of days on the year and of the lunar month are favorable and unfavorable for a person. I say usual, since astrological medicine was a mainstay of Greek medicine since Hippocrates and Galen, especially Galen thanks to his immensely popular lengthy treatise *Critical Days*, and carried through the Byzantine era.

Conclusion

We have therefore three iatrosophic texts or practical healing manuals. One, the *Meletios*, is the sort of reference text of middle and late Byzantium which appeared in hospitals and was consulted by physicians and healing professionals in that kind of environment. Doctors in private practice would have used it as well. The *Cretan iatrosophion* typifies the healing manual that practical healers of the post-Byzantine and early modern Greek period used. The manual contained medical recipes based on a pharmacology that was classical, especially Dioscorides and Galen, and Byzantine, especially Paul of Aegina and Oribasius. These recipes were supplemented by courses of treatment that were based in folk medicine, religion but also magic and exorcisms, and local healing traditions. The manual also contained nonmedical matters that were of concern and interest to villagers, farmers, herdsmen, and individuals seeking help on everyday life. The recipes of *Gimnasios*, as recorded by Greek journalists of the 1930s, show a botanist whose knowledge of thousands of plants allowed him to heal people who had no access to professional care. The medicines are composed of local flora and fauna,

supplemented by simple ingredients that could be bought in any apothecary of the time.

All three iatrosophia had the same purpose, despite their differences in audience, purpose, and even contents, however: that is, to preserve health and to restore it to people, many of whom had limited access to what one would label ‘scientific’ medicine. The texts also reveal that healing was not the ownership of licensed practitioners, but that it was dispensed by monks, family members, and local folk healers, among others. Finally, the texts show that healing could be achieved by a variety of methods: herbal concoctions, dietary and lifestyle changes, religion, magic (even sorcery), and of course the principles of Hippocratic and Galenic medicine. The healer did not matter, the method of healing did not matter; the only thing that mattered to the sufferer was that he was healed.

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