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Yaser H. Akel

From the “Hundred Books on the Skills of Medicine” to “The Canon of Medicine”

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Abstract: The article is devoted to the Arab medical written monument of the Middle Ages — “Hundred Books on the Skills of Medicine” by the physician and polymath Abu Sahl Isa b. Yahya al-Masihi (approx. 970–1010). Of special interest is the first chapter titled “The Book of Introduction to the Art of Healing”. In this “book”, al-Masihi aims to add and correct already known theoretical medical knowledge, and points out the need for a shorter and simpler presentation of the practical part. The article provides historiographic information to show that al-Masihi’s work was the program and the model for “The Canon of Medicine”, the fundamental and basic work of the great Arab-Islamic physician and polymath Abu Ali Ibn Sina. Having compared the structure and content of these two medical encyclopedic works and considering the historical fact that al-Masihi was a teacher of Avicenna in the art of healing, the author of the article arrives at the conclusion that the treatise “Hundred Books on the Skills of Medicine” could become a forerunner of Ibn Sina’s “Canon of Medicine”. It could be the basis on which the great scientist relied in compiling his fundamental work.

Key words: Medical treatise; Arab-Muslim medicine; history of medicine; medieval Arabic manuscripts; Abu Sahl al-Masihi; Ibn-Sina

The Arab medical medieval treatise *Kitāb al-mi’a fi al-ṭibb*¹ “Hundred Books on the Skills of Medicine” (كتاب المائة في الطب) by Abu Sahl Isa b. Yahya al-Masihi (approx. 970–1010), a physician and polymath of the Abbasid Caliphate era, is among the less-studied written monuments in Russian Arab studies.

The manuscript of al-Masihi’s work is kept in the Oriental Department of the M. Gorky Scientific Library of the St. Petersburg State University (SPbSU SL) in St. Petersburg under the shelf mark Ms.O 667. The copy,

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¹ AL-MASIHI 1615.

dated 1615, was brought to the St. Petersburg University from Kazan in the mid — 19th c. as a part of the collection of the first Dean of the Faculty of Oriental Languages A.K. Kazem-bek (1802–1870).²

Ghada Karmi, a researcher at the Institute for the History of Arabic Science at the University of Aleppo, states that al-Masihi's work has been preserved in at least 29 copies. It is believed that the earliest one is dated to 1010, thus the manuscript must have been written either during the author's lifetime or shortly after his death. There are six "early" copies, dated before 1300. Later manuscripts are dated to each subsequent century. In addition, there are many late manuscripts, five of which date between 1818 and 1883, which undoubtedly testify to the popularity and importance of this work.³

Along with the manuscript from the St. Petersburg State University, the author of the article has studied three other copies of the treatise that are digitized and freely accessible on the Web. These are the copy under the shelf mark 2881 from the Arabic collection of the Department of Manuscripts, National Library of France;⁴ the copy under the shelf mark (481–2) 6335/1 from the library of Islamic Consultative Council of Iran;⁵ and the copy under the shelf mark Or 6489 from the British Museum Library⁶ published on the Qatar National Digital Library's website. Comparison of the texts of the abovementioned versions does not reveal any major differences between them, neither in the structure of the treatise nor in the text. Variations mainly consist in different placing of diacritical marks, which is a very common phenomenon in Arabic manuscript practice. Another difference is found in the system of numbering the chapters in the tables of contents. For example, the St. Petersburg and French copies have the alphabetic system of numbering based on the old Arabic alphabet, *abjadiyya* or *hisab al-jummal*. The Iranian and British copies in the table of contents have the numerical decimal numbering of the chapters, which the Arabs introduced at the turn of the 13th and 14th cc.

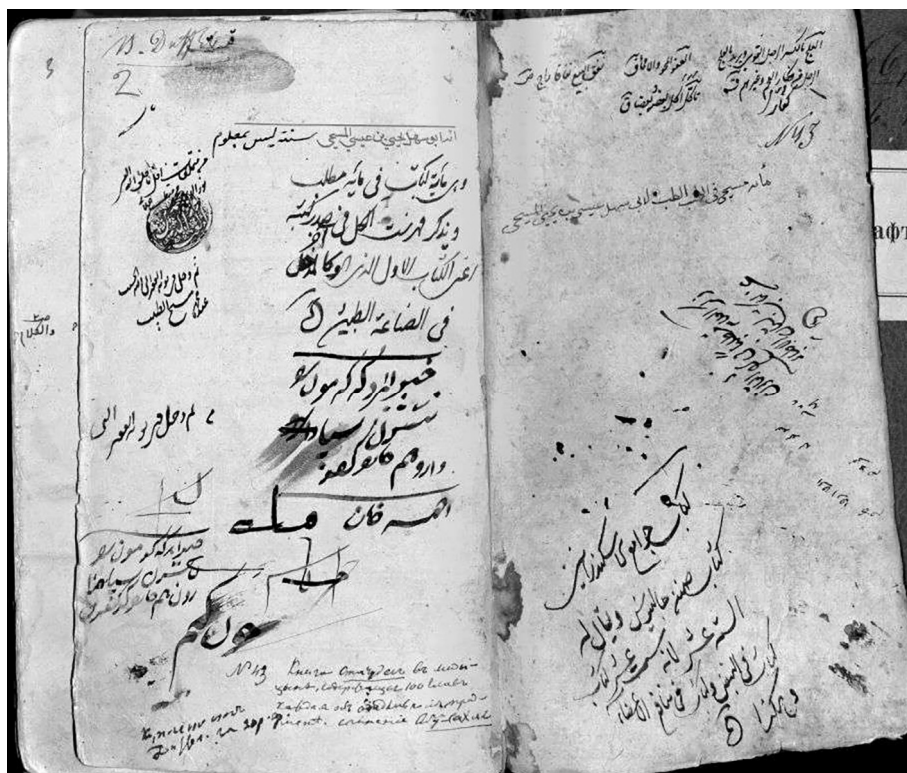
² FROLOVA & DERIAGINA 1996: 253.

³ KARMI 1978:274.

⁴ <https://gallica.bnf.fr/ark:/12148/btv1b11001689v/fl.item> (accessed on 16.04.2022).

⁵ <https://ketabpedia.com/%D8%AA%D8%AD%D9%85%D9%8A%D9%84/%D9%83%D8%AA%D8%A7%D8%A8-%D8%A7%D9%84%D9%85%D8%A7%D8%A6%D9%87-%D9%83%D8%AA%D8%A8-%D8%A7%D9%84%D9%85%D8%A7%D8%A6%D9%87-%D9%81%D9%8A-%D8%A7%D9%84%D8%B5%D9%86%D8%A7%D8%B9%D9%87-%D8%A7%D9%84%D8%B7%D8%A8/> (accessed on 17.04.2022).

⁶ https://www.qdl.qa/%D8%A7%D9%84%D8%B9%D8%B1%D8%A8%D9%8A%D8%A9/archive/81055/vdc_100053339526.0x000002 (accessed on 17.04.2022).



Pl. 1. SPbSU Scientific Library, Ms.O 667, f. 1b-2a

The treatise of al-Masihi was published in typescript more than once. The author is aware of at least three such editions. These are the printed version of the Paris edition published in Tehran by the Iranian University of Medical Sciences;⁷ the edition of the French Institute for Arabic Studies in Damascus;⁸ and the text of the treatise published in Beirut by Biblion.⁹

The treatise “Hundred Books on the Skills of Medicine” is an encyclopedic medical work written in the genre of the *kunnash*, or compendium. A detailed description of the manuscript is given in the article “Medical Terms in the Arabic Tractate Kitāb al-mi’a fi al-ṭibb (Hundred Books on the

⁷ AL-MASIHI 2005.

⁸ AL-MASIHI 2000.

⁹ AL-MASIHI 2004.

Skills of Medicine) by Abū Sahl Isa b. Yahya al-Masihi (11th c.)” by Igor Gerasimov and Yaser Akel.¹⁰

In Arab and European historiography al-Masihi’s work is mentioned repeatedly. According to some Arab and European historiographers, the author of the treatise ranks along with the greatest representatives of the Arab-Muslim scientific and medical thought of the Middle Ages: Abu Bakr al-Razi (865–925) and Abu Ali b. Sina (980–1037). Moreover, they argue that the “Hundred Books on the Skills of Medicine” was a forerunner of Avicenna’s fundamental medical work, “The Canon of Medicine”, and a model that the scholar followed in compiling his great work. Thus, in his famous biographical reference book, “The Sources of Information on the Classes of Physicians” (عيون الأنبياء في طبقات الأطباء) Ibn Abi ‘Usaybi’a writes about the author of the treatise as follows: “Abu Sahl Isa b. Yahya al-Masihi al-Jorjani was a noble physician who skillfully mastered the theory and practice of medicine and composed brilliant works. <...> It is said that al-Masihi taught the art of healing to al-Shaykh ar-ra’is¹¹ himself, although, later on, al-Shaykh ar-ra’is became distinguished, and excelled in the art of healing and the medical sciences. <...> The most famous and one of the best works of Abu Sahl al-Masihi is «Hundred Books on the Skills of Medicine»”.¹² Karl Brokelman, in the article devoted to al-Masihi in his multi-volume work “The History of Arabic Literature”, gives an episode in which he refers to Ibn-Sina as al-Masihi’s pupil: “In the year 1010 Mahmud Ghaznewi, on suspicion of atheism, summoned six scholars from Khorezm to Ghazani, among whom was al-Biruni. [But] Abu Sahl, together with his pupil Ibn-Sina, fled to Mazenderan. However, caught in a sandstorm, [Abu Sahl] died on the way, while Ibn Sina managed to reach Tus”.¹³ In the “Introduction to the History of Science” George Sarton characterizes the treatise “Hundred Books on the Skills of Medicine” as “one of the earliest Arabic works of this kind, and was probably in some respects a model for the creation of the Canon”¹⁴. The author of the “History of the Arab Medicine” Lucien Leclerc writes the following about the work of Abu Sahl: “It is the first work of this kind that we have encountered so far, and the first

¹⁰ GERASIMOV & AKEL 2021.

¹¹ al-Shaykh ar-ra’is (Arabic: الشيخ الرئيس Head of the Sages), a title given to Ibn Sina during his lifetime as a confirmation of his exceptional erudition.

¹² IBN ABI ‘USAIBI’A 1385 H: 436.

¹³ BROKELMAN 1977: 294.

¹⁴ SARTON 1927: 678.

attempt to create a medical encyclopedia undertaken by the Arab school. In a sense, it is a program of the Canon of Avicenna".¹⁵

However, none of the above-mentioned authors gives any reasonable arguments in favor of the expressed assumptions about the primacy of the work of Abu Sahl al-Masihi "Hundred Books on the Art of Medicine" in relation to "The Canon of Medicine" of Ibn Sina. This article intends to confirm or refute the above thesis that the work of al-Masihi is a "program" and a "model for the creation of the Canon". For this purpose, the author will conduct a comparative analysis of the structure of both treatises, including the division into parts, the arrangement order and the titles of the chapters.

The manuscript from the St. Petersburg University collection consists of 377 folios. Abu Sahl al-Masihi divided it into 100 chapters, or "books", the first of which is entitled "The Book of Introduction to the Art of Healing" (f. 2b–11a). At the end of this section there is a table of contents (f. 8b–11a) of the whole work.

At the beginning of the first "book", al-Masihi sets out to "describe what must be given as an introduction to the art of healing before beginning a direct study of this science" (f. 2b). On the role of medicine and other sciences in human life, the scholar writes: "People turn to other sciences to ennoble their heart and improve their existence, but only individuals benefit from them and only occasionally. With medical science, the true is opposite: it helps to lead an appropriate life, to gain and preserve our precious health <...>. Everyone needs medicine at all times" (f. 2b).

Analyzing the previously accumulated knowledge, Abu Sahl writes: "Many works have been written on the art of healing. In them, sections about the practice of healing occupy an extremely large and unnecessary place, while scientific sections lag behind in their volume from what is necessary. [Inaccuracies] are often found in scientific sections, the reason of which may be either the lack of competence of most of those people in the natural sciences (to which this science belongs), or their frivolous attitude, and their preference for unburdensome ways of achieving the goal" (f. 3a).

Further, Al-Masihi summarizes the state of contemporary medicine: "This science is characterized by its haphazardness and chaos, because it is not known which sections it consists of and what is their order <...>. In the state in which this science exists, it needs order and a simpler and shorter presentation" (f. 3a, 3b).

¹⁵ LECLERC 1876: 356.



Pl. 2. SPbSU Scientific Library, Ms.O 667, f. 3b-4a

Following this, the author sets himself the task: “The knowledge contained in the theoretical part of medicine must be supplemented and corrected, and the information constituting its therapeutic part must be rendered in a simpler and more concise form” (f. 3b). The author writes about accomplishing this task: “[In my work] I have accomplished all the tasks listed, making every possible and available effort to do so. As the result, it is more accurate, perfect, simple, and more concise. I [have set apart] in a separate book each of the sections of the art [into which]¹⁶ it is divided, so that it may be used alone and may exist independently and be complete in meaning. I [have arranged]¹⁷ these books one after another in the order in which the sections are arranged in the science itself” (f. 3b).

¹⁶ In the text التتي. The copyist has clearly omitted the letter ت in the relative pronoun التي.

¹⁷ In the text ترتب. The speech is in the first person, so the copyist has clearly omitted the letter ت at the end of the verb ترتبت.

The chapters in the table of contents are numbered from one to one hundred in Arabic letters, following the system of *abjadiyah*.¹⁸

Examining the table of contents and the division of the work into chapters reveals a clear structure of this work. Al-Masihi divided the work into two parts: the “scientific” (theoretical), which included chapters 2–58 (f. 245a–256a), and the “medical” (practical) chapters 59–100 (f. 256a–376a). In doing so, he went from theory to practice, from general to specific.

Based on the contents, the chapters of the treatise can be divided into several groups. The first group consists of chapters 2–9 (f. 11b–51b), and describes the general structure of the human body and its condition. In the next group of chapters 10–23 (f. 52a–110b) the author analyses the factors that affect the human body, defining them as external and internal. Here he includes environment (f. 52a–62b), nutrition (f. 63a–99a), and human living, hygiene, and physical activity (f. 99a–110b). In chapters 24–28, al-Masihi turns to a description of various kinds of human body secretions (f. 110b–129b). The next, chapter 29, is devoted to mental symptoms (f. 129b–131b). Then, in the theoretical part of the tractate, Abu Sahl includes four chapters on medicines (chapters 30–33; f. 131b–162b). The next conditional group of seven chapters (chapters 34–40) contains general physiological and pathophysiological information (f. 162b–199b). The “scientific” part of the treatise concludes with a group of fifteen chapters (chapters 41–55), in which the author discusses both general and specific issues of disease diagnosis and the dynamics of pathological processes in the human body (f. 199b–245a).

A kind of “watershed” in the structure of the treatise is a small group of three chapters (chapters 56–58) that describe general issues concerning human health and its abnormalities (f. 245a–256a).

The second, “therapeutic”, part of the treatise is entirely devoted to the treatment of organ and system diseases. In this part, al-Masihi also goes from general issues to specific ones. Beginning with the general laws of disease treatment (chap. 59; f. 256a–260a), the author continues with a description of how to treat some conditions common to many organs and systems, such as fevers, tumors, and ulcers (chapters 60–62; f. 260b–271b). The author devotes the remaining chapters of this treatise, chapters 63–100 (f. 271b–376a), to the treatment of specific organs and systems of the human body. What is noteworthy here is that the author has placed these chapters in

¹⁸ AKEL 2021.

anatomical order, following a top-down direction, i.e., from the treatment of diseases of the head and organs located in it, he moves down to the treatment of diseases of the thorax, abdomen, etc.

A similar sequence of chapters and sections can be seen in the most famous work of Arab-Muslim medicine, “The Canon of Medicine” by Abu Ali b. Sina. In the first book, the author of the Canon presents general issues of medicine and touches upon the elementary and anatomical structure of the human body, the effect of environmental factors on human health, general diagnostic issues, health and disease, mode of life and everyday life, and general methods of treatment. The second book describes simple medications of plant, animal, and mineral origin and their use in treating both common ailments and specific diseases. In the third book, Ibn Sina gives a detailed description of specific diseases of all organs and systems. The fourth book describes general disease processes and some surgical treatments. The fifth book gives an analysis of complex and combined medicines.¹⁹

The only extant medical encyclopedic work of this scale, written before the “Hundred Books on the Skills of Medicine”, is conventionally called the treatise by Abu Bakr al-Razi: “The Comprehensive Book of Medicine”²⁰ (الحاوي في الطب). However, according to many researchers, this text was compiled by Abu Bakr’s followers after his death. In particular, Carl Brokelman, referring to al-Biruni²¹ writes: “al-Biruni said that al-Razi left behind an unfinished treatise “al-Hawi” and the work itself was compiled from his papers after his death by the order of Muhammad b. al-Amid (محمد بن العميد) (912–970), the vizier of Buid Sultan Ruqn-ud-Dawli. In addition, al-Biruni and Ibn al-Nadim²² combined al-Hawi’s text and “The Great Collective” (الجامع الكبير) into one work. However, Ibn Abi-Usaibi’a denies the latter fact and considers “The Great Collective” treatise as an independent work. Ibn al-Bitar²³ is of the same opinion, insisting that

¹⁹ IBN SINA 1979–1982.

²⁰ AL-RAZI AL-TABIB 2000.

²¹ Muhammad ibn Ahmad al-Biruni (1048–973) (محمد بن أحمد البيروني) was a philosopher, mathematician and historian. He is the author of many works on history, geography and astronomy (AL-ZIRIKLI 1986: V, 314).

²² Muhammad ibn Ishaq ibn al-Nadim (محمد بن إسحاق بن النديم) (died in 1047) is a Baghdad historian. The author of the biographical reference book al-Fahrastr (AL-ZIRIKLI 1986: VI, 29).

²³ Abdullah ibn Ahmad al-Maliki ibn al-Bitar (عبد الله بن أحمد المالقي بن البيطار) (died 1248) is a scholar of pharmacy and phytotherapy. He was born in Malaga. Author of works on medicinal plants (AL-ZIRIKLI 1986: IV, 67).

“The Comprehensive Book of Medicine” (الحاوي في الطب) and “The Great Collective” (الجامع الكبير) are separate and independent works”.²⁴

Considering the above and the similar structure of the two encyclopedic works, the “Hundred Books on the Skills of Medicine” by al-Masihi and “The Canon of Medicine” by Ibn Sina, as well as the frequently repeated chapter titles²⁵ in them, we can agree to a certain extent with the claims of Ibn Abi-Usaibi’a, Brokelman, Sarton, and Leclerc that Abu Sahl al-Masihi was the teacher of al-Shaykh ar-ra’is, and that the latter later relied, partially or fully, on the work of al-Masihi when creating his fundamental “Canon of Medicine”. In the opinion of the author of this article, this fact does not detract from the scale of Avicenna’s personality and the importance of his fundamental “Canon”, but only reveals the role of his predecessor and teacher Abu Sahl al-Masihi and the influence of his “Hundred Books on the Skills of Medicine” on the development of medieval Arab-Islamic medicine.

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²⁴ BROKELMAN 1977: 273.

²⁵ Such chapters include “About Humors”, “About Power and Effect”, “About Dwellings”, “About Air”, “About Fevers”, and more.

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