***Astronomy and Astrology in the Hebrew Encyclopedias of the Thirteenth Century***

The first half of the thirteenth century saw a dramatic increase in demand for scientific and philosophical knowledge among Hebrew-reading Jews living in Latin Europe. This appetite, which could not be satisfied fully by the Hebrew scientific treatises available at the time, led in short order to the composition of Hebrew compendia that, for the first time, provided Hebrew readers with access to the full range of medieval scientific knowledge. These compendia, known as the “Hebrew encyclopedias of science,” have received a certain amount of scholarly attention, mostly during the last two decades. However, until recently, their astronomical and astrological sections had never been studied systematically. My dissertation, supervised by Prof. Shlomo Sela at Bar-Ilan University, is the first comprehensive study of the astronomical and astrological sections of these Hebrew encyclopedias. Based on the available manuscripts, the study summarizes their content, identifies their scientific sources, examines their authors’ use of sources and scientific terminology, places the encyclopedias in the context of other medieval scientific texts, and reveals their cultural significance in providing medieval Hebrew readers with access to scientific knowledge.

The study focuses on the following five encyclopedias: (a) Judah ben Solomon ha-Kohen’s *Midrash ha-ḥokhmah*; (b) Shem-Tov ibn Falaquera’s *De*ʿ*ot ha-filosofim*; (c) Levi ben Abraham’s *Livyat ḥen*; (d) Gershom ben Solomon’s *Sha*ʿ*ar ha-shamayim*; and (e) *Sefer ha-Kolel*, an anonymous encyclopedia devoted exclusively to astronomical and astrological materials, which only partially survived.

The dissertation provides new insights into the overall profile of the encyclopedias and into their authors’ *modi operandi*. Its first chapter is devoted to the historical and social circumstances that led to the composition of the encyclopedias. The dissertation then analyzes each encyclopedia separately, providing information on its unique character and addressing new discoveries relating to its content and sources. For instance, the study reveals the existence of four hitherto unknown chapters of the astronomical section of *Sha*ʿ*ar ha-shamayim*, found hidden in a single manuscript. Another intriguing finding is that two of the encyclopedists acquired scientific knowledge through oral communication, apparently with Christian scholars. Special attention is given to the authors’ critical remarks against consensus scientific notions and authorities; their usage of canonical Jewish texts in astronomical and astrological contexts; and their treatment of specific issues, such as lunar spots, the theory of trepidation, star catalogues, mathematical algorithms, and astrological doctrines. Laying the foundations for the production of critical editions in the future, the dissertation offers a full account of the codicological and paleographical dimensions reflected in the encyclopedias’ extant manuscripts.

The encyclopedists’ scientific terminology is examined thoroughly. The study shows that some encyclopedists adopted the scientific vocabulary coined by Abraham Bar Ḥiyya, Abraham ibn Ezra, and Jacob Anatoli, while others formulated unique scientific terminology. The study then explains the authors’ strategies in coining new Hebrew scientific terms. Among those who relied on Arabic sources, it addresses the methodologies they employed in translating scientific terms from Arabic into Hebrew. Glossaries of technical terms used by all five encyclopedists are included in the dissertation.

The dissertation is the first comprehensive study of the astronomical and astrological sections of the so-called Hebrew encyclopedias of science. It helps us understand how Jewish intellectuals interpreted, employed, and disseminated scientific knowledge in the thirteenth century, and it reveals the encyclopedias’ significant role in satisfying the intellectual needs of the medieval Hebrew reader.