

Philological Research and Linguistic Problems in the Works of Abu Raykhan Biruni

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ABSTRACT

This article examines the linguistic and literary perspectives represented in Abu Rayhan al-Biruni's works. The scholar's insights on the links between Sanskrit, Arabic, and other languages. The article places special emphasis on the scholar's insights regarding the connections between Sanskrit, Arabic, and other languages, as well as the features of his literary studies. The study also investigates Al-Biruni's perspectives on literature contained in his work India, as well as those components of Kitab al-Saydana that serve as vital sources for the development of terminology in numerous domains.

Keywords: Abu Rayhan al-Biruni, *India*, literary studies, linguistics, linguistic views, Indian theory of poetry, Vyakarana, Chandas.

INTRODUCTION

The great encyclopedic scholar Abu Rayhan Biruni (973-1048) possessed profound knowledge in a wide range of disciplines and made a significant contribution to the development of the natural and exact sciences. According to historians, "Abu Rayhan Biruni, as a teacher and mentor to the scholars and students of his time, contributed to the development of several fields of science." He became a distinguished scholar with profound knowledge not only of the exact and natural sciences, including astronomy, geography, botany, mathematics, and geology, but also of history and ethnography, philosophy, and philology.

Al-Biruni's works in the humanities are primarily found within his writings on geography, astronomy, botany, and pharmacology. Among them are such works by the great scholar as *The Chronology of Ancient Nations*, *India*, *Kitab al-Saydana*, *The Mas'udic Canon*, *The Book of the Sun That Heals the Soul*, *On the Necessity of Two Kinds of Motion*, *The Principles of Multiplication*, *Useful Questions and Correct Answers*, *Corrections to al-Farghani's Elements*, *Translation of Information about al-Muqanna*, and *Correspondence with Ibn Sina*. The literary and theoretical views expressed in his scholarly treatises – including his observations on the development of the genres of legend and narrative, questions of rhythm in Arabic and Indian poetics, and the system of imagery in Arabic poetry – reveal another important dimension of Al-Biruni's intellectual legacy, namely his profound engagement with issues of literary theory and criticism.

MATERIALS AND METHODS

This research is based primarily on Biruni's works *Al-Athar al-Baqiya*, *India*, and *Kitab al-Saydana*. The study also draws upon scholarly works devoted to Biruni's literary and scientific heritage.

Historical-literary, comparative, descriptive, and textual analysis methods are employed in the research. Particular attention is given to the identification and classification of literary genres and forms occurring within Biruni's scientific texts.

RESULT AND DISCUSSION

Al-Biruni's philological expertise is demonstrated even more clearly in his work *Kitab al-Saydana fi al-Tibb* (*The Book of Pharmacology*). The work may justifiably be regarded as an explanatory dictionary, since Al-Biruni provides detailed explanations and descriptions of the plants and substances from which various medicinal remedies are derived. In fact, the work can be considered one of the earliest examples of a multilingual

etymological and encyclopedic dictionary in the world. In it, the scholar records the names of more than 1,100 medicinal substances and plants in over 28 languages, including Arabic, Persian, Sogdian, Khwarazmian, Greek, Syriac, Latin, Sanskrit, Turkic, and others.

The scientist opposed the mere word-for-word translation of a scientific concept from one language into another. He emphasized that a term should be assimilated while preserving its semantic core or, when necessary, that its form in the source language should be retained through transliteration. In the introduction to *Saydana*, he highly valued the flexibility of the Arabic language and its scientific and terminological potential; however, he explained the reasons for the phonetic changes undergone by words borrowed from other languages, such as Greek, Syriac, and Sanskrit, in accordance with specific linguistic rules.

Al-Biruni is one of the few scholars whose writings preserve valuable information about the living dialects of ancient Khwarazmian and Sogdian and about the state of these languages in his own time. He identified the distinctive features of the spoken language of Khwarazm, the region where he was born and raised, recorded variant pronunciations of words, and examined their relationship with other Iranian and Turkic languages. Today, his observations constitute an invaluable philological source for the study of the now-extinct ancient Eastern Iranian languages, particularly Khwarazmian and Sogdian, as well as for the study of the history of the Uzbek language.

In modern scholarship, India is often interpreted as an ethnographic, historical, and philosophical source. However, in recent years, literary studies have also focused specifically on the literary and artistic features of the work, including its mode of representation, the presentation of narratives and legends, and the logical and figurative qualities of the author's discourse. Researchers emphasize that Al-Biruni skillfully employed elements of artistic thought within the framework of a scholarly text.

Some scholars regard Al-Biruni's works as early examples of comparative literary studies, as he examines Indian literature and religious texts in relation to Greek, Iranian, and Islamic traditions. This comparative approach demonstrates that Al-Biruni is significant not only as a historian and geographer, but also as a thinker with a broad intellectual outlook and a profound literary and aesthetic sensibility.

Al-Biruni's scholarly legacy has also been systematically studied in Uzbek literary studies. Researchers have paid particular attention to the distinctive features of his scholarly style, linguistic expression, and treatment of genre. In particular, scholars have noted that his works combine elements of the scholarly treatise, historical and literary narration, and philosophical reflection within a single textual framework. This synthesis represents one of the principal features that distinguishes Al-Biruni's writings from conventional scholarly works.

In Al-Biruni's works, the rhythmic units underlying Greek, Arabic, and Indian theories of poetry are examined systematically. In Greek poetics, such a unit is represented by the "metre," in Arabic poetics by the "rukn", and in Indian poetics by the "shloka." As is evident from the quotation above, the relationships among these units are analyzed in a consistent and systematic manner. It is well known among specialists that the poetics of languages belonging to the Indo-European family developed on the basis of the ancient Sanskrit tradition.

In his work *Biruni and Literature*, A. Qayumov recounts Al-Biruni's words as follows: "We cite numerous poetic passages; through them, we present and explain evidence and information that support our ideas... Poetry gives the reader pleasure and enjoyment and, like springs along a long journey, provides an opportunity for rest and recreation."

In *Al-Athar al-Baqiya*, Al-Biruni explains his inclusion of various myths and narratives alongside the presentation of scientific concepts as follows: "Although in some parts of this book we move from one field of knowledge to another and enter into matters only remotely related to our main discussion, our purpose is not to prolong or expand the exposition, but rather to

prevent the reader from becoming weary. Constant attention to the same subject leads to boredom and impatience. When the reader moves from one field of knowledge to another, it is as though he were walking through different gardens: before he has finished observing one, another appears before him, arousing his interest and encouraging him to examine it, just as it is said that ‘there is pleasure in everything new.’

In his view, science and literature are complementary forces that play a fundamental role in shaping human thought. Therefore, he did not regard literary and scientific works as entirely separate from one another, but rather viewed them as a unified spiritual and intellectual heritage. Although literature is not directly addressed as a central theme in Al-Biruni’s scholarly legacy, his works embody numerous important ideas related to literary studies, various means of artistic expression, and cultural and aesthetic perspectives. This, in turn, calls for a more thorough examination of Al-Biruni’s legacy from the perspective of literary scholarship.

The texts of Al-Biruni’s works do not consist merely of a sequence of facts; rather, they combine historical, cultural, philosophical, and literary modes of thought. In *The Monuments of Ancient Peoples*, alongside his discussion of systems of time and calendars, he presents accounts of the festivals, beliefs, and customs of different peoples on the basis of historical narratives and folkloric sources. In order to make his scholarly ideas accessible and comprehensible to a wider readership, Al-Biruni makes use of literary devices, figurative expression, and imaginative modes of thought.

In Al-Biruni’s works, philosophical and theoretical reflection occupies an important place alongside the genre of historical narrative. He presents his ideas clearly and on the basis of evidence, while at the same time striving for a simple, expressive, and figurative style. This reflects his literary taste, sensitivity to language, and intention to provide the reader with aesthetic pleasure. Elements of oral folk tradition – such as myths, legends, poetic passages, and popular expressions – frequently occur in his works. He regarded them not merely as cultural sources, but also as meaningful expressions of the

people's way of thinking. As a result, Al-Biruni's legacy reveals a complex genre structure in which scholarly and literary elements are harmoniously combined. When describing the festivals and customs of ancient peoples, he supports his accounts with historical evidence and presents them in a literary style.

In *India*, Al-Biruni examines the literature, folklore, religious texts, and culture of the Indian people with scholarly objectivity. Through specific examples, he demonstrates the common principles underlying the structure of Indian and Arabic poetry and identifies their role in textual poetics. He entitles Chapter XIII of the work 'An Account of the Indians' Books on Grammar and Poetry' and lists eight Indian works related to the subject of the chapter. He explains that *Vyakarana*, the science of language, deals with grammatical rules and is concerned with speech. He then discusses the science of *Chandas*. This field is directly relevant to literary studies, as it deals with poetic metres. Al-Biruni states that the science of *Chandas* was first developed by Pingala and Chaluṭi and that the best-known work in this field is *Gāyatrī*.

In *Osor ul-Boqiya*, Al-Biruni identifies the distinctive features of the calendars observed by ancient peoples through their myths, legends, narratives, and stories. Through the analysis of myths and legends, he draws astronomical conclusions and regards this interdisciplinary connection as one of the principal directions of his analytical method.

A philological study of Abu Rayhan Beruni's encyclopedic scholarly activity demonstrates that his views on linguistics and literary studies served as a fundamental methodological framework throughout his research. In studying the spiritual, historical, and scholarly heritage of different peoples, Beruni relied primarily on their language, written culture, and literary sources.

In analyzing literary and scholarly sources, he examined linguistic features such as morphology, etymology, and semantics in close connection with literary-stylistic and textual aspects. In such fundamental works as *India*, *Saydana*, and *The Monuments of Ancient Peoples*, Beruni comparatively analyzed

Eastern and Western languages, as well as the oral and written literary traditions of different peoples, thereby laying the foundations for principles associated with modern comparative studies and philological source studies.

CONCLUSIONS

Biruni also made a significant contribution to enriching the scholarly and literary language of his time with new terminology by developing criteria for calquing, transliteration, and semantic adaptation in the assimilation of scientific and literary concepts from foreign languages.

In conclusion, the thinker's views on linguistics and literary studies should not be regarded merely as practical observations; rather, they constitute a coherent system grounded in a profound theoretical and methodological framework. Today, this philological legacy serves as an invaluable source for the study of the history of the Uzbek language and for the development of comparative linguistics and Eastern literary studies.

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