

ENGLISH SUMMARY

This article has been written on the occasion of the nine hundredth anniversary of the death of Al Bîrûnî. The date of his death has been accepted here as 1048 although 1051 or even a later date is also probable. This article is in three sections.

1. Al Bîrûnî's life, nationality, and personality: evidence making it likely that his mother tongue was the Turkish spoken locally in Khwarazm; information about his childhood, his teachers, his friends, his students, his relationship with kings and princes, and a small anecdote concerning the last minutes of his life.

2. His characteristics, his scientific thought and attitude: his powerful and all-embracing intellectual curiosity; intellectual honesty and sincerity; his sense of pursuance; certain examples showing the modern outlook of Al Bîrûnî; his habit of coming in close touch with all details and his ability of making generalizations; Al Bîrûnî and astrology; his attitude towards alchemy, superstition, and magic in general; his ideas about the necessity of method in science and the effect of magic and superstition on science and scientific progress; his interest in questions pertaining to the history of science; Al Bîrûnî and Archimedes.

3. His research work and his contributions to science: the chessboard problem; trisection problem and the other classical problems of geometry; methods of projection; arcs and chords; trigonometry, the acceptance of radius as unity; motion of the earth; Al Bîrûnî's cosmoscope; determination of latitudes and longitudes, geodetic measurements, Al Bîrûnî's original methods; Al Bîrûnî and geography; Al Bîrûnî and geology; the concept of specific gravity; Al Bîrûnî's work on specific gravities; other interesting research and observations by Al Bîrûnî.
