Astronomy in the medieval islamic world

History, Middle Ages

The religious practice of Islam is oriented in a fixed time and space. The faithful will pray in the direction of the Ka'ba five times a day, but how did astronomy take part in determining this?

The Islamic calendar says that the day begins at sunset and the five prayers start from that time. Adjusting times for prayer grew out of observing the heavens, a practice known since the ancient Egyptians and Babylonians. The Arabs, for centuries, studied the sky and examined the groups of stars and phases of the moon on their long desert travels. Thiseducationof space was adapted and developed to conform to the practice of Islam.

During the medieval period of the Islamic world, thescienceof astrology as a branch from astronomy was translated by the Greeks into Arabic, along with Sasanian, Indian and ancient Egyptian influences, allowing more scientific and mathematical development by mathematicians and scientists of the Arab world. The subject came to be a very popular one, as it was taken interest in by scholars such as Abu Ma'shar al-Balkhi, al-Biruni, and Nasir al-Din al-Tusi.

There is evidence of this topic being widespread throughout the Islamic world, such as manuscripts and astrological records found in al-Fustat in Egypt. Since there has proven to be much scientific evidence and involvement in the study of the stars and planets, how did this outbreak of information in the Islamic world affect Islamic Art? And why was it so significant?

There is much architecture, objects and textiles from the Islamic World that express the significance of this topic, such as Qasr al-Amra in Jordan, built by

Umayyad caliph Walid II in the early 8th century, which features a frescoed caldarium ceiling depicting the twelve Zodiac constellations. The exterior of the construction is very minimal; the only ornamentation being small domes and triple arches. Otherwise, the ornamentation becomes servant to the architecture. The techniques that were contributed into constructing Qasr al-Amra references the Roman and Byzantine techniques: predominately limestone and terracotta brick, along with other types of stones.

The frescoed ceilings in the caldarium, or the hot plunge bath, is said to be the earliest depiction of the stars painted on a domed surface. It features 35 recognizable constellations along with, as mentioned previously, twelve zodiacs. There has been reported to be one mistake: the order of the stars in the counterclockwise direction, which tells that it is possible that the fresco was copied from a flat surface. This fresco, however, is not the only one in Qasr al-Amra: there were many brilliant murals in several of the other chambers that suggest that the caliphs of this " pleasure palace" lived a luxurious lifestyle. This luxury tells of an involvement in.

The use of imagery in relation to astrology began in the twelfth century, and eventually taken in for its visual decorative quality, by the Ghaznavids and the Seljuqs among others, and they adopted it with their own meanings and influences. The bowl (figure 1) from central or northern Iran in the late 12th century depicts figures very close to those of the Kashan. The bright hues lend it a quality similar to Persian miniatures. There is Kufic inscriptions around the rim of the bowl as well as naskh script on the secondary

intermediary space but the focal point is the sun-shaped face in the center, with a classical depiction of the planets surrounding it.