

Comparing Two Qibla Theories

Dan Gibson, 2018

Many centuries ago Muslims noted that the earliest mosques did not all point the faithful to pray to Mecca in Saudi Arabia. Some locals claimed their mosques pointed to Jerusalem, while others pointed off in different directions. All of these mosques now have “corrected” this by clearly marking which direction the faithful should face, in order to pray towards Mecca. This direction is known as the “Qibla of the mosque.” Below is a brief summary of the two main “Qibla Theories” being proposed today: a) The more traditional view by David King, and 2) a new revisionist theory by Dan Gibson. This short paper is provided to help readers understand the basic tenants of each position.

David A. King proposes that early Islamic Qiblas were set according to folk astronomy, with different mosques pointing in different directions depending on local understanding of the Qibla. These might have been set according to cardinal directions, solstices, or according to a particular star. In essence, there was no one unifying Qibla direction as there is today. He basis this theory on reports made by Muslim scholars in the Middle Ages giving their opinions on why the early mosques had such a variety of Qiblas.

Gibson disagrees, and believes that originally there was only one distinct Qiblas direction, but during infighting another three Qiblas developed during the opening three centuries of Islam. He claims the first Qibla pointed towards the ancient city of Petra. After a civil war and subsequent earthquake which destroyed much of Petra, new Qiblas were directed towards: Mecca, as well as a spot between Petra and Mecca, and in some cases towards a Qibla that ran parallel to a line drawn between Petra and Mecca. His theory is based on a survey of surviving ancient mosques from the first three centuries of Islam which is then compared to events in Islamic history.

The chart below is provided to help the reader understand the differences between these two theories.

Traditional Folk-Astronomy Theory	Petra, Between, Parallel and Mecca Theory
Main proponent: David A. King	Main Proponent: Dan Gibson
Qualifications: Ph.D. (Near Eastern Languages and Literatures), Yale University, 1972 <ul style="list-style-type: none">• Professor (1979-87) Department of Near Eastern Languages and Literatures, New York University, • Director, Smithsonian Institution Project in Medieval Islamic Astronomy American Research Center in Egypt (72-79)• Teacher of secondary school mathematics for the Sudan Government Ministry of Education 1964-67	Qualifications: Several undergraduate degrees plus 30 years of on-going hands-on research across the Muslim world, some of which was sponsored by local governments. On occasion he is assisted by a small team of fellow researchers with degrees in history, astronomy, engineering, mathematics, and physics. Gibson has spent over 20 years in Jordan plus more than 3 years in Yemen, as well as visits to all of the countries of the Middle East and many outside of the region.

<p>Website: http://www.davidaking.org/</p>	<p>Website: http://thesacredcity.ca</p>
<p>Books Written:</p> <ul style="list-style-type: none"> • Mathematical Astronomy in Medieval Yemen • A Survey of the Scientific Manuscripts in the Egyptian National Library • Islamic Mathematical Astronomy • Islamic Astronomical Instruments • Astronomy in the Service of Islam • World-Maps for Finding the Direction and Distance to Mecca • In <i>Synchrony with the Heavens</i> • <i>The Call of the Muezzin (Studies I-IX)</i> • <i>Instruments of Mass Calculation (Studies X-XVIII)</i> • <i>Astrolabes and Angels, Epigrams and Enigmas</i> • <i>Astrolabes from Medieval Europe</i> • <i>Islamic Astronomy and Geography</i> 	<p>Books Written:</p> <ul style="list-style-type: none"> • <i>The Nabataeans, Builders of Petra</i> • <i>Qur'anic Geography</i>, a survey and evaluation of the geographical references in the Qur'an with suggested solutions for various problems and issues. • <i>Early Islamic Qiblas</i>, A survey of mosques built between 1 AH/622 C.E. and 263 AH/876 C.E. <p>Film: The Sacred City</p>
<p>Location of Data: The <i>Encyclopedia of Islam</i> under <i>Qibla</i> as well as many books and articles on the subject. (also see: http://www.davidaking.org/)</p>	<p>Location of Data: http://thesacredcity.ca plus various books and articles available on the Internet.</p>
<p>Definition of Qibla: "...is according to the knowledge of the time, in the local direction of the Ka'ba." Because the rectangular base of the Ka'ba was astronomically aligned (its major axis towards summer sunrise and winter sunset, and the four corners are roughly aligned towards the four cardinal directions. Therefore early mosques were built using such alignments, even the rising and setting of certain stars. Some mosques were built on top of earlier religious buildings, so those buildings might have been aligned cardinally, solstitially, or towards other places such as Jerusalem, Damascus, Kairouan, Cordoba, Cairo and so forth.</p>	<p>Definition of Qibla: "According to the Qur'an it is towards <i>Masjid al-Haraam</i>, a specific location. This place is known as the "forbidden place" where people gathered to corporately bow down; <i>forbidden</i> because all of the tribes gathered there, and they were forbidden to kill one another or any animals." It has a variety of names in the Qur'an.</p> <p>Gibson believes that early mosques faced one of four different Qiblas. Originally they faced Masjid al-Haraam in Petra (Jordan). Then during a century of disagreement they faced Mecca, as well as a place between Mecca and Petra, and some were aligned to be parallel to a line drawn between Mecca and Petra.</p>
<p>Arguments against Dan: Early builders in Islam did not have the technology to set accurate Qiblas. We know this from Islamic scholars (writing 500 - 1000 years after the early buildings were built.) All of the Qiblas of early mosques can be explained by the somewhat rough measurements of early builders towards a variety of different directions, such as solstices, cardinal directions and various stars.</p>	<p>Arguments against David: Dr. King's theory is based on the reports of medieval Islamic scholars writing some 500 - 1000 years after the original Qiblas were set. It appears as if they were guessing at how the earlier builders set their Qiblas. Gibson's survey of early Islamic buildings tries to demonstrate that they were not only accurate, but there were only four distinct Qiblas that were used.</p>
<p>Protests: Dan Gibson's measurements are not applicable, because he doesn't understand the variety and complexity of explanations given by medieval Islamic writers which explain why there are so many Qiblas.</p>	<p>Protests: Dr. King does not appreciate that all of the Qiblas faced only four places, and they did so quite accurately. There are so many of them, that this cannot be by chance, and seems to fly in the face of the medieval writers.</p>

<p>Explanation of History: Early folk methods (first 200-300 years of Islam) were later replaced by more accurate mathematical solutions. Since the early builders did not have access to the more advanced mathematics used by medieval Islamic mathematicians they could not have set their Qiblas with any accuracy. The answer lies with accepting what the Medieval writers tell us about the first years of Islam.</p>	<p>Explanation of History: The Qibla setting techniques used by early builders has been lost, but many possible explanations have been given. The later medieval writers were simply guessing about early Islamic Qiblas. Therefore we can dismiss many of their ideas when they present their opinions on the ancient past, but we should study them to appreciate the mathematics they were applying during their own lifetimes.</p>
<p>Prime Argument: Early Islamic builders could not set Qiblas towards Petra, or Mecca, or any other location, since they did not have access to the advanced mathematics that were available to medieval Muslims.</p>	<p>Prime Argument: The four qiblas indicate that early Muslims had methods of accurately calculating Qiblas. Just because we do not know for certain what method they used, does not make it impossible or even improbable that they managed to do this.</p>
<p>Favorite Example: Wasit Mosque, based on drawing and descriptions by F. Safar, (excavation 1939-1945, and subsequent writings by K.A. C. Creswell) showing an older mosque with a later mosque on top of it facing a different direction. King tells us that the oldest mosque faced winter sunset.</p>	<p>Argument against King's Favorite Example: I have not been able to visit Wasit due to the war. From Safar's drawing, it seems impossible for his angles to work. Either Safar's north is off, or the angles of his buildings are off. This was the case on the Amman citadel, until it was measured with a GPS and the 1930 drawings were shown as incorrect.</p>
<p>Argument against Dan's Favorite Example: Gibson restricts himself to comparing only four different directions. He does not include solstices, cardinal directions, various stars or possible previous buildings playing a role in how the mosques were built.</p>	<p>Favorite Example: Two Umayyad mosques on the citadel of Amman Jordan. These face two different directions, and were built about 70 years apart demonstrating the change of qibla direction. They are easily accessible, with historical records and dates of construction. When checking these mosques we discover that the archeologists miscalculated due north, thus making their sketches useless for determining the qibla direction. Modern tools are required.</p>
<p>Evidence: King has researched hundreds of medieval documents, whose authenticity has never been questioned. He presents the arguments that Muslims have used for the last thousand years to explain how early Qiblas were set.</p>	<p>Evidence: Gibson has surveyed hundreds of mosques. For example the Yamama Mosque is located between Petra and Mecca yet facing north towards the "between position" rather than towards Mecca. Gibson combines this with many other mosques to demonstrate his point.</p>
<p>Weakness: King has not examined individual mosques nor does he consider Gibson's discovery of four distinct Qiblas to be significant. He seems to consider these to be chance.</p>	<p>Weakness: Gibson fails to provide solid historical evidence that people in the 4th to 6th centuries C.E. could accurately determine where a location was over the distant horizon without the use of mathematics. When faced with King's evidence of astronomical orientations, he considers these to be chance.</p>

Summary: Early Islamic builders could not set Qiblas towards Petra, or Mecca, or any other location, since they did not have access to the advanced mathematics that were available to medieval Muslims.	Summary: The four qiblas indicate that early Muslims had methods of accurately calculating Qiblas. Gibson believes this can be done without the mathematical systems developed later. Just because we do not know for certain what method they used, does not make it impossible that they managed to do this.
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The website: The Sacred City (thesacredcity.ca) was developed to present the finds by Dan Gibson, including his research data. The 85 minute documentary film: The Sacred City is available in over a dozen languages. The best book on the subject is: Early Islamic Qiblas, available in printed form from Amazon, and in PDF format from stpt.ca