

LET THE STONES SPEAK

Archaeology Challenges Islam

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Including content by
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SASKATOON, CANADA

CANBOOKS 2023

LET THE STONES SPEAK

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Library of Congress Cataloging-in-Publication Data

Gibson, Daniel 1956 –

Let the Stones Speak: Archaeology challenges Islam

c. cm. – (Studies in antiquity and early Islam)

Includes bibliographic references and index

ISBN: 978-1-927581-21-6 (2nd E-Book edition)

1. Islamic Empire – History 622-661
2. Islamic Empire – History 661-750 – Historiography
3. Middle East – Civilizations – History 0 – 622 – Historiography

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Acknowledgements

Dan Gibson

I am indebted to the many people who have responded to my YouTube videos, the Nabataea.net website, approached me at speaking engagements, and contacted me through direct emails over the last years. Literally hundreds of people have encouraged me through the research and writing stages of this book. Many helpful comments and suggestions were sent to me, which were always much appreciated, even the not-so-helpful comments.

I would like to thank the handful of scholars who offered help, support, advice, assistance finding sources, or giving their scholarly opinions when I was unsure of direction or techniques. Here Peter Harremoës and Kristofer Damgaard must be specially mentioned.

I am also indebted to my copyeditor, Chad Doell, who re-wrote most everything I wrote in this book, correcting my poor use of English, and making the text more readable and concise. Chad also spent untold hours checking footnotes and references. He insisted on seeing the source materials and often would read much wider to better understand these materials. Sometimes he would reject my sources and make me write a section a second time. His constant insistence on accuracy and attention to detail was often annoying but most welcome at the same time.

In the end, I would also like to thank my wife, my children, and my friends who supported me and offered their insights. My wife was always willing to check Arabic texts and translate or comment on Arabic grammar and the structure of Arabic material, sometimes keeping me from assuming too much from the texts. I would also like to thank two of my sons who were willing to drive all over the Middle East, climb mountains, trek through deserts, and notice things that I missed. Their aptitude in mathematics, statistics, astronomy, and GPS navigation always amazed me. They were never afraid to challenge me, outright disagree, or prove me wrong with ideas I came up with. They accompanied me on many walks where we verbally tossed ideas back and forth, wrestling with concepts or possibilities, and ‘what if’ scenarios. Last, my son Michael who stayed at home but was helpful in managing my schedule, reminding me of things and keeping me organized when there was way too much on my plate.

Funding

I am very grateful to the individuals who donated finances to this writing project. These were received through Patreon, some as direct gifts, and some gifts channeled through charitable organizations. There are too many names to list here, but I appreciate each person and each gift.

Copyright

Every effort has been made to trace copyright holders and acknowledge them. The authors and publisher would like to apologize in advance for any inadvertent use of copyright material and thank the individuals and organizations who have kindly given their permission for us to reproduce copyright material.

Photos and Illustrations

Credit for photographs and illustrations have been added to each image. If no credit is mentioned, then Dan Gibson is the photographer or the illustrator. Once again, we wish to thank each person who allowed their materials to be used, whether acknowledged, or through public domain. Over the years, hundreds of people have shared their photographs as we often had a very poor camera, or no camera at all. Again, if we fail to acknowledge you as the source of a photograph, please accept our apologies. We tried to track down the source of each of the many photos in this publication.



A Note on Transliterations

The authors and publisher have made every effort to transliterate names in a systematic way, allowing the original Arabic form to be accurately rendered. In some cases, the transliterations may vary when quoting a source that uses a different transliteration scheme.

For names common in English usage, we have retained the standard form, and sometimes a partial transliteration in hopes that the term is more clearly understood. It should be noted that the various translations of the Qur'ān and other scriptures used throughout this volume are referenced with each individual quotation.

A word about dating

One does not have to study qiblas very long before it become obvious that using Islamic dates is easier than using western dates. In this book both western (CE; Common Era) and Islamic dating (AH; Anno Hegirae) are used, but on many occasions only AH dates are given. For the uninitiated, it may help to think in terms of year one being the start of formal Islam in Medina. It was preceded by a few years of the prophet Muḥammad's preaching, but nothing formal had been established until the followers of the prophet Muḥammad migrated to Medina and the first mosque was built. So, a mosque dated as 15 AH would have been built about 15 years after the founding of Islam. From a Muslim perspective, saying 15 AH is more useful and meaningful than saying 636 CE.

First, Second, and Third Person

Since there are multiple and various authors to several chapters in this book, the publisher decided that each chapter should be written as much as possible in the third person. However, the authors' names are given under each chapter heading, or at the start of a new section. In several places the first person voice was employed. We apologize in advance for any confusion.

Glossary

Abbreviation for “blessings of God be upon him and grant him peace.”

A.H. Abbreviation for the latin *anno hegirae*, which means Year of the Hijra. A.H. refers to the Muslim migration to Medina in the year 622. The Islamic lunar calendar starts from this historical event.

Allah. God. The term does not refer to a particular deity but is a general term for God.

amīr. Leader or commander of a group of Muslims (in military terms equivalent to ‘General’).

ayah. A verse of the Qur’ān. In literal Arabic, ayah means miracle or sign. The Qur’ān itself is considered a miracle, so each of its verses is called an ayah. The plural is ayat.

azimuth. A horizontal angle or direction. The direction of a celestial object from the observer, expressed as the angular distance from the north or south point of the horizon to the point at which a vertical circle passing through the object intersects the horizon.

C.E. The Common Era. In Islamic texts C.E. is preferred over the term A.D. to refer to the time of the Hijrah, the start of the Muslim calendar.

Dhu-Shara. The main god of the Nabataeans; also Dushara.

fatwā. A legal opinion that is rendered by a person knowledgeable in Islamic jurisprudence.

fitnah. Civil strife, war, riots, any major trial, or tribulation.

hadith. The sayings, actions, and approvals of the prophet; some are considered strong, and some are considered weak.

hajj. One of the five pillars of Islam, the hajj is the pilgrimage to Mecca that Muslims must make at least once during their lifetime.

halāl. Something permitted in Islam.

hanīf. People who, during pre-Islamic days, rejected idolatry in their society. These people were in search of the true religion of Abraham.

harām. Something unlawful or prohibited in Islam. It can be applied to an item, act, or sanctuary or sacred territory.

hātīm wall. A low curved wall near the Ka’ba.

hijr. Stone or rock

hijra. (or hijrah): The Muslim emigration to Medina to escape persecution in 622 C.E.

imam. The leader of the Muslim community (also called amir or khalifah); This term is also used for the leader of the congregational prayers.

Injil. The revelations that were sent down to the prophet Isa. The Muslim concept of Injil is different from the Christian concept of the Gospels.

Isa. Esau – often a term used for Jesus as in Isa al-Masīḥ.

jahaliya. The time of ignorance before the prophet Muḥammad’s revelations.

jihad. Means to strive one’s utmost to achieve something good, even to the point of death.

ka'ba or ka'bah. A cube-shaped structure to which all Muslims turn during their prayers. Known as the first house of worship built for all mankind by Abraham and Ishmael.

masjid. 'Mosque' in English; the Muslim place of prayers and bowing down. The life of the early Muslims revolved around the masjid for prayers, meetings, and discussions.

minbar or mimbar. A raised pulpit from where a sermon or speech is delivered.

muhajirin. (muhajareen) Emigrants: the prophet Muḥammad's companions who migrated to escape persecution.

Muḥammad. The name of the last and final prophet of Islam.

P.B.U.H. Abbreviation for peace be upon him, derived from the Arabic words alaihi salam. Muslims traditionally say this after the name of all prophets to show respect. Similar to the abbreviation S.A.W.

Masjid al-Harām. Literally the Forbidden Place for Bowing Down. Killing was forbidden inside its boundaries. The Qur'ān does not tell us exactly where this place was. This book is all about finding the original location.

miḥrāb. A niche in the wall of a mosque, at the point nearest to Mecca, toward which the congregation faces to pray.

Nabataean. According to Josephus, the people descendant from Nabioth, the eldest son of Ishmael, along with his wider family, including his brothers and their descendants.

qasr. A large, fortified manor house in early Islam; a precursor to a 'castle.'

qibla. The direction one should face when performing Islamic rituals. According to Surah 2 Muslims should face Masjid al-Haram.

Qiblatain. Two qiblas, as in a mosque with two qiblas or directions to pray.

Qur'ān. The Muslim book of revelations, originating from the prophet Muḥammad.

S.A.W.S. Abbreviation for the words sallallahu alaihi wasallam, which means "may the blessing and peace of Allah be upon him." When the name of the prophet Muḥammad is mentioned, Muslims show respect to him by reciting this statement (alternately, SAW, SAAS).

ṣaḥaba. Companions – only used for those who knew the prophet Muḥammad when he was alive.

sheikh. A title or a nickname for an elderly person or one who is knowledgeable in religion. This title is also given to a leader or a wise person.

sunnah. Refers to the prophet Muḥammad's sayings, actions and approvals as authentically recorded by his companions.

surah. A chapter of the Qur'ān. The Qur'ān is composed of 114 chapters. Each surah has both an Arabic name and a number. For example, Surah 2 is known as Al-Baqara or The Cow.

thaniya. A crack in a rock or mountain; a very narrow canyon.

Wad. A pre-Islamic god.

wadi. A dry riverbed or stream that may flood during the rainy season.

wāsiṭ. The middle or between.

Zabur. The Psalms; the revelations that were sent down to the prophet Da'ud (David).

Chapter One

Let the Stones Speak

Dan Gibson with Chad Doell

For a great many people the words ‘Egyptian history’ conjure up images of pyramids, temples, and mummies. The words ‘Assyrian history’ conjure up images of stone lions and maybe great ancient cities with hanging gardens. But mention ‘Islamic history’ and most people do not have vivid images come to mind. Those with some knowledge of Islamic history may conjure up an image of ancient manuscripts.

Over the last several centuries, archaeology was focused on uncovering great civilizations and their striking monuments and relics in order to fill distant museums. People thought in terms of Greece, Rome, Egypt, Babylon, and other great civilizations. This was the sort of material which attracted young people to archaeology. Even in the Middle East, the focus for centuries was on Biblical archaeology, not Islamic sites.

For some time Islamic archaeology was barely even a recognized term, let alone a discipline. Those who studied Islamic history were counted among others known as orientalists. Two centuries ago, orientalism was the study of language, literature, religion, philosophy, history, art, and the law of Asian societies--especially ancient civilizations. Within that discipline there were a handful of folks interested in Islamic history.

While a few large buildings from the Muslim world attracted attention, Islamic architecture did not receive the same consideration as Greek or Roman architecture. Perhaps Islamic art was the first element of the archaeology of Islam to attract worldwide scholarly attention, especially the art of the so-called Golden Age of Islam.

However, the focus for most students of Islamic history is manuscript study. Islam is known for its abundance of historical manuscripts, almost all of them written in the Arabic language of the 8th to 12th centuries, with additional manuscripts from the centuries that followed. Some of these manuscripts are very lengthy. For example, al-Ṭabarī's history of the world comes in 40 volumes! His tafsir, or commentary on the Qur'ān, is almost twice the size of his history! Ṭabarī is just one of many writers. Students of Islam need to study hadiths--but there are over 100 collections of Islamic hadiths! The list of medieval Islamic manuscripts is almost endless. There are also many types of manuscripts, including encyclopedic lists of geographical locations, and even books on flowers, plants, and animals.

The abundance of manuscripts or codices is illustrated by the vast medieval libraries that have been discovered in the last century. The medieval libraries of Timbuktu in Mali are a good example. These libraries contain over 700,000 Arabic manuscripts, which are being preserved and organized with tremendous investment and effort.¹ The manuscripts of this city alone are enough to keep scholars of Islam busy for a very long time.

The study of early Islamic manuscripts comes with its own set of problems. The most glaring issue is the absence of Islamic documents from the first two centuries of Islamic history. Almost everything we know of early Islam comes from manuscripts starting in the third century of Islam.

This absence of early primary accounts, or even secondary accounts, has long plagued Islamic studies. Even Islamic writers in the third and fourth centuries of Islam struggled with identifying authentic stories from hearsay. Eventually they settled on a method of verification known as 'isnad. This was the science of studying the chain of narrators who passed on an account to help them identify which hadiths were more authentic from others, and to classify them as trustworthy or weak.

Up until recently there were few other sources of information to help fill in the missing two hundred years. In 1997 the publication of Robert Hoyland's *Seeing Islam as Others Saw It* provided a glimpse into Islam's opening years from the perspective of the non-Muslim world. While this was refreshing, it was also a part of manuscript studies with little reference to archaeology.

This book presents a different approach, using two themes. The first is the data generated by Gibson's study of Islamic buildings, with special attention to the qibla directions of early Islamic structures. The word qibla comes from the Qur'ān, where in Surah 2:144 God gives the prophet Muḥammad a qibla or sacred direction: "We have seen the turning of thy face unto Heaven, and indeed We will turn thee towards a qibla well pleasing to thee. So turn thy

¹ NMI Goolam, "The Timbuktu Manuscripts – Rediscovering a Written Source of African Law in the Era of the African Renaissance," *Fundamina* 12, no. 2 (January 1, 2006): 43.

face toward [Masjid al-Harām], and wheresoever you are, turn your faces toward it.”² Muslims must face this sacred direction when they pray. One wall in Islamic mosques is the qibla wall, and those lining up in front of that wall face the qibla direction. Gibson studied over 200 mosques from the very inception of Islam through the second century, measuring their qibla walls, and compiling a database which compares the various directions the mosques face.

The second theme of this book is Gibson’s interpretation of that data: how the various qiblas came to be, and what impact they have on our understanding of Islamic history. Gibson insists that these two themes should be viewed separately. Appendix A and B of this book provides the data that was collected from over 200 mosques from the first three centuries of Islam and is based on observable concrete evidence which needs explanation. Few scholars have attempted to explain the qibla phenomena, outside of Dr. David King, who denies that any phenomena exists, in his own elaborate way. One chapter of this book will address Dr. King’s objections. But this second theme is a matter of opinion and speculation. Throughout this book Gibson ventures his own interpretation of that data, fully expecting that in time other scholars will present their own interpretations and challenge both the data and the conclusions Gibson has drawn. This is how any good scholarship functions.

In order to understand Gibson’s approach to Islamic archaeology and architecture, it would be helpful to understand something of the history of the archaeology of Islam, as opposed to the more popular Egyptian, Biblical, or Assyrian studies.

Today, Islamic archaeology is a ‘wide’ study since, as Andrew Peterson explains in the *Encyclopedia for Global Archaeology*, “the religion of Islam is a structuring principle for all aspects of a society and individual’s life. Thus, trade, politics, warfare, and social relations are all within the scope of Muslim religious life. Secondly from its inception in the nineteenth century, Islamic archaeology had not placed particular emphasis on Islam as a religion and has used the adjective ‘Islamic’ as a general term to refer to cultures where Islam was the dominant religion.”³ Islamic archaeology encompasses a broad sweep of cultures and civilizations, unified simply by religion. But as Peterson argues, that religion is a ‘structuring principle’ which forms culture. So it is possible to have Islamic archaeology, encompassing many diverse civilizations around the world, while one would never think of ‘Christian archaeology’ quite the same way.

As mentioned, the specific targeting of Islamic-period sites began in the latter part of the nineteenth century and originally was part of a growing interest in the development of art and architecture. The first use of the term ‘Islamic Archaeology’ was at an 1893 Parisian art ex-

² For all quotations from the Qur’ān we will use: *The Study Quran: A New Translation and Commentary*, ed. Seyyed Hossein Nasr et al. (New York: Harper Collins, 2017).

³ Andrew Peterson, *Encyclopedia of Global Archaeology*, (2014), s.v. “Islamic Archaeology,” 4064.

hibit featuring Islamic antiquities.⁴ This terminology caught on, and colonial powers around the world began to excavate under the umbrella of Islamic Archaeology.⁵

One of the most important figures in the development of Islamic archaeology was K.A.C. Creswell (born 1879). Creswell studied Islamic architecture in Egypt, became a professor at the American University in Cairo, and ultimately his greatest “achievement was to establish a firm chronological base for the development of Islamic architecture and to pioneer a systematic empirical method of recording more akin to archaeology than art history.”⁶ Dan Gibson’s own research has benefited from Creswell’s dedication to Islamic architecture. Creswell remained active in research and writing until his death in 1974.

When the Middle East and North Africa were reorganized after the Second World War, so was archaeology in the region. Instead of being driven by colonial interests where antiquities would be shipped to universities and museums a world away, archaeology became highly nationalistic.⁷ Today Islamic archaeology is influenced by local governments, often to establish a sense of national antiquity or to develop tourism.

The unique feature of Islamic archaeology is that “art history had a formative influence” on it.⁸ Islamic antiquities were sought for their beauty and held in international museums. Because of this genesis, “art history has continued to have considerable influence over the development of Islamic archaeology despite having very different aims and methodologies.”⁹

During his years of research and encountering archaeologists in the field, Gibson developed the impression that some archaeologists had become so focused on their particular excavation that it obscured their wider view of how their excavation fit into the archaeology of the region, and indeed of the whole world. Sometimes this very narrow focus on their excavation seemed to keep them from exploring wider implications. A crucial example of this problem was measuring the qibla direction of mosques and buildings. It was generally assumed that places of prayer had a miḥrāb niche, so buildings without this niche were seldom considered as Muslim places of prayer. The problem is that miḥrāb niches were not introduced until the eighth century, so the earliest mosques did not have them. Because of this oversight, Gibson believes some mosques have been erroneously classified as chapels or as just rooms in a larger structure. In the same way, inexplicably, few archeologists have measured the direction that

⁴ Peterson, *Global Archaeology*, 4065.

⁵ Peterson, *Global Archaeology*, 4065.

⁶ Peterson, *Global Archaeology*, 4066.

⁷ Peterson, *Global Archaeology*, 4067.

⁸ Peterson, *Global Archaeology*, 4069.

⁹ Peterson, *Global Archaeology*, 4069.

places of prayer faced, or the qibla. Few archeological reports before the 21st century contained any measurements of qibla direction at all. Even KAC Creswell, with his mathematical bent and constant reliance on measured dimensions as the foundation of his archaeological and architectural investigation, does not seem to have made any measurements of qibla directions.

Those who did attempt to measure qibla directions often had trouble with the technology. Unless they were experienced mariners with practice using a sextant, establishing directions was fraught with problems. For instance, the Palestine Exploration Fund's survey claimed the Umayyad mosque on the Amman citadel was 20 degrees from Mecca. Then in 1987 Alastair Northedge remeasured the mosque and observed:

there is some reason to believe that the survey's north point was incorrect. Comparison with the modern orientation of buildings also shown on the town plan suggests that the error was 11-12°. The probable qibla was therefore about 173-174°, and inaccurate by 8-9°. The mosque could be described as pointing roughly at Mecca.¹⁰

It was not until the widespread use of global positioning systems, introduced in the year 2000, that it became possible to easily and accurately measure Islamic qiblas. The first hand-held GPS unit used by Gibson had about a five-meter (16 ft) accuracy, which was enough to mark the position of locations in the desert, such as graffiti on a rock. But it was not especially well suited for qibla measurements since early qibla calculations could only be done by marking waypoints and measuring their direction.

Very quickly, as GPS systems improved, Gibson began measuring and remeasuring the qiblas of various mosques. For instance, he measured the qibla direction of the Umayyad Mosque on the Amman citadel and discovered that the Palestine Exploration Survey had indeed been correct. The Amman Umayyad mosque was out 20.7 degrees from facing Mecca. Northedge, measuring as late as 1987, got it wrong. That was the state of qibla measurements up until the year 2000, and this struggle for accuracy is reflected in many archeological reports.

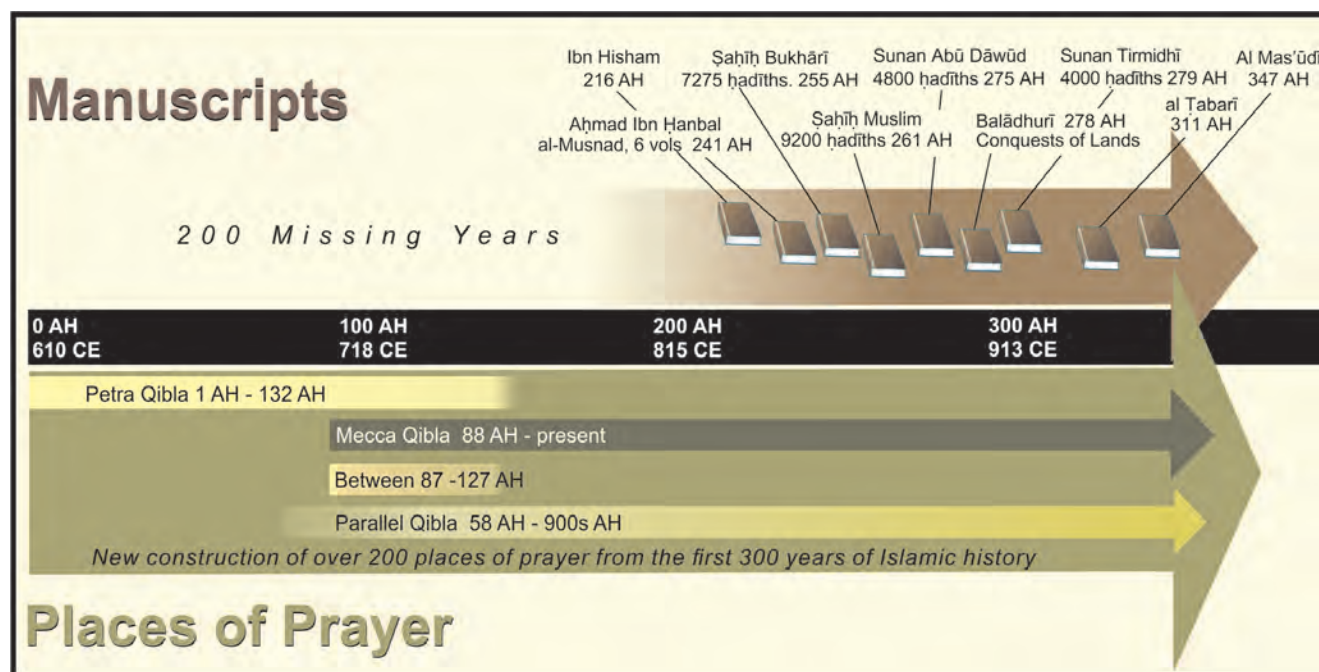
When Gibson released early results of his systematic and worldwide study of Islamic qiblas, some historians balked. This had not been done before, and Gibson was not trained as an archaeologist. Up until that time the general assumption was that the early Muslims did the best they could in establishing qiblas with the tools and techniques available to them. It was generally assumed that whatever techniques they had, those techniques were insufficient to produce accurate results. Some scholars even denied that Gibson's data had any relevance because early Muslims could not have accurately determined any qibla direction. They insisted that anyone who measures mosques with modern tools is in error.¹¹

¹⁰ Alastair Northedge, "The Umayyad Mosque of Amman," *The Fourth International Conference on the History of Bilad Al-Sham During the Umayyad Period*, (1989): 148.

¹¹ David A. King, "Historical mosque orientations: How to interpret & how not, A preliminary study," Aca-

Despite the opposition, Gibson continued to pursue his qibla studies. Gradually it became evident that the mosque qiblas were revealing a different history of early Islam than what was found in later manuscripts. By charting the qiblas in chronological order it became evident that several different qiblas were used in Islam at various times. While this is not mentioned specifically in Islamic manuscripts, there are many tantalizing hints and comments which may align with the archaeological findings.

Unfortunately, because of the absence of early Muslim manuscripts, it is a struggle to find textual corroboration for these important archaeological discoveries. The illustration below demonstrates the literary vacuum from the first two hundred years of Islam. In order to understand the first years of Islam, researchers have had to rely on manuscripts written two and three hundred years after the fact, at the earliest. However, qibla research provides new data from the early years of Islam. When compiled in chronological order, a new understanding of the birth of Islam comes to light.



For instance, the very first mosques and places of prayer in Islam all appear to face Petra in southern Jordan. This is not just some small technical change; it places the prophet Muḥammad in Petra, not in modern Saudi Arabia. This discovery sheds light on the origins of the Qur'ān and the context which gave Islam its shape.

The illustration below demonstrates how Gibson's qibla research on places of prayer helps fill in the missing two hundred years of Islamic history.

demia, accessed October 15, 2022, 29, https://www.academia.edu/87024335/MOSQUE_ORIENTATIONS

As a result of these discoveries, Gibson has had to consult several diverse fields to better understand his findings. It has taken him 12 years of full-time study, plus the help of hundreds of others who have come along side to search for more mosques or help him interpret the data.

This data challenges long-held opinions and theories. Whole careers have been established on certain assumptions that are now up for debate. Long established consensus now needs to be revisited and reweighed. One cannot simply accept the conclusions of secondary materials from the last two centuries--everything must be reconsidered in the light of this new data.

That's why Gibson's philosophy of predominantly relying on primary source material is so important. While secondary sources can be helpful and add some insight in areas outside of Gibson's expertise, early primary Muslim sources are the only documents which can provide context for the changing qibla.

But this book is more than an account of the changing of the qibla. It is also an emerging account of the first great revisionist of Islamic history. Throughout the pages of this book the reader's attention will be drawn again and again to the impact that one man had on early Islamic history, and how he may have changed it completely from what it originally had been. Not only was he instrumental in changing the qibla, he was also involved in changing the language of the early Islamic court from Greek to Arabic. He influenced the production of the first Arabic coins, and in his later days he appears to have changed the very content of the Qur'ān itself. Whenever anyone opposed him or his changes, he had them brutally persecuted or killed, even including the 'ṣaḥaba' or Companions of the Prophet. The influence of general and governor al-Ḥajjāj ibn Yūsuf is woven throughout the pages of this book, and the reader is advised to take note whenever he is mentioned.

Dan Gibson has often been called a revisionist, but his research is not about revising Islamic history. It is about revealing the impact of the first great revisionist in Islamic history and seeking to understand Islam and the Holy City before the sweeping revisions introduced by al-Ḥajjāj ibn Yūsuf.

Chapter Two

The Discovery

Dan Gibson with Chad Doell

There was no sudden eureka moment when the information in this book was discovered. Rather, it was a slow and meticulous process of gathering facts, fitting pieces together, and discovering patterns that were not expected. Some readers have imagined that researchers set out to make great discoveries. This is very seldom the case. Usually, discoveries come from long years of gathering evidence, sifting through data, and trying to make sense of a mass of confusing information. This chapter introduces the process of gathering data on the archaeological record of the mosques of early Islam, and how that data revealed a remarkable pattern.

Historian Dan Gibson moved to the Middle East and began Arabic studies in January 1979 in pursuit of his passion for understanding Middle Eastern culture and history. During his first few years in the Middle East, he visited many archeological sites, including several early mosques. Gibson noticed that some of these early mosques did not face toward Mecca. When he investigated further, Gibson was surprised by the explanation that these mosques faced Jerusalem rather than Mecca in Saudi Arabia. Even more so, it was clearly in plain sight that some mosques faced somewhere else entirely. While this was not Gibson's focus at the time, he created a small list of mosques which had unexpected orientations.

It was not until the year 2000 that Gibson began using GPS technology to plot these unusual mosques which he came across in his desert journeys. This technology allowed him to more accurately plot the directions these mosques faced.

In Islam there is a holy direction called the qibla. This is the direction a mosque 'faces.' This direction not only dictates how the faithful must stand when they pray, it is also in this direction that pilgrimage is to be undertaken, and it is the direction to be faced when an animal is killed according to halal requirements.

Gibson's early findings presented him with a puzzle. There were many more mosques not oriented toward Mecca than he expected. It was obvious that these mosques were not all constructed within the first 16 or 17 months of Islam before the qibla direction toward Mecca

was established. As a result, Gibson sought to chart his data by date to make sense of the surprising number of mosques facing directions other than Mecca.

In time he had added several dozen mosques to his list of mosques built during the first three hundred years of Islam and he confirmed that some of these mosques faced a direction other than Mecca or Jerusalem. He charted the qibla directions on a map and discovered that many of them seemed to face the city of Petra in southern Jordan. In 2010 Gibson self-published the book *Qur'anic Geography*. This early book was intended for a small audience that might be interested in some of the topics he was working on. The main thrust of the book was identifying some of the geographical locations and peoples mentioned in the Qur'ān, especially the people of 'Ad, Thamud, and Midian. In the back of the book Gibson tucked in a section on Mecca, and the issue that some mosques seemed to face Petra. To his surprise the book started to circulate, and he received both positive and negative feedback from readers. Unfortunately, some of Gibson's readers assumed that he was publishing well researched findings, rather than a recent observation or 'discovery.'

Gibson continued his research as time allowed, determined to better understand what he was observing. In 2016 a British film company explored Gibson's data in the 90-minute documentary film *The Sacred City*. The next year Gibson self-published more of his research in the book *Early Islamic Qiblas*. Again, the intended audience was friends and fellow amateur researchers, not the academic world or a broad general audience. Gibson was convinced that he was on to something, but he needed more eyes and ears to help, so that same year he began a YouTube channel and asked his viewers to look for mosques he may have missed. Thousands of viewers responded, eager to help in the research. By the end of 2022 Gibson had over 270 mosques in his database of early mosques.

This chapter explores the various qibla classifications that Gibson observed during the first 300 years of Islamic history. The graphics below were generated in Gibson's Online Qibla Tool, which draws its data directly from Gibson's database. The online tool is the most up to date version of his research.

In this database, Gibson compiled the qibla directions of over 200 mosques from the first three centuries of Islam plus around 50 mosques from the next centuries. These latter mosques are of interest because they do not face Mecca like most mosques do after the 4th century AH. Gibson concluded he could observe five types of qibla directions, which he classified as Petra, Mecca, Between, Parallel, and Jerusalem. He also classified any mosques that were over ten degrees from any of these five qiblas as 'unknown,' as well as any early mosques that had been rebuilt so that there was no physical or manuscript evidence of their early foundations. When classifying these mosques, Gibson chose whichever of the five qiblas was closest, again so long as it was within ten degrees.

At the time of writing, Gibson has classified 65 mosques that appear to face Petra in Jor-

dan. The earliest of these mosques dates from 15 AH until a massive earthquake destroyed an already declining Petra in 130 AH and the building of new mosques facing Petra dropped off significantly. A further 40 mosques have a qibla which Gibson classified as ‘parallel’—where mosques face a direction that is parallel to a line drawn between Petra and Mecca. The earliest parallel mosques appear in 58 AH, with the last ones built in the 900s AH. All of these are in North Africa or Spain. Gibson also classified 60 mosques as ‘Between,’ that is, facing between both Petra and Mecca. Between mosques appear in 87 AH until around 126 AH. He also found 28 early mosques that face Mecca, starting in 70 AH. Finally, he found seven mosques which face Jerusalem. However, five of these could be facing Petra as they are within a few degrees of both locations.

Gibson also listed 77 mosques as ‘unknown,’ as he could not determine their original qibla direction. Usually this was because the mosque had been torn down and rebuilt, often multiple times during the ensuing centuries, leaving no trace of the original building. Sometimes this was due to finding a lone mihrāb stone which might have been moved from its original location. Other times the mosque itself was a rough circle of stones in the desert often known as an ‘open air’ mosque, for which it is very difficult to determine a qibla.

Mosques with Unknown Qiblas

A good example of an unknown qibla is the Qiblatain or Two Qibla mosque in Medina, built in 2 AH (623 CE). This mosque has been rebuilt several times. During a renovation in 1987, excavators discovered evidence of what they thought was the foundation of the original mosque on the site. The esteemed architect ‘Abd el Wahīd el Wakīl diagrammed the original foundation of the building before it was removed for the new construction.

‘Abd el Wahīd el Wakīl discovered, as anticipated, that the original qibla in Qiblatain Mosque was directed north, generally toward Jerusalem. But, from this particular location, it is also oriented toward Petra.

It is possible that, because of mosques like Qiblatain, hadith writer Bukhārī (d. 256 AH) concluded that some mosques were oriented toward Jerusalem.¹ He was writing over 200 years

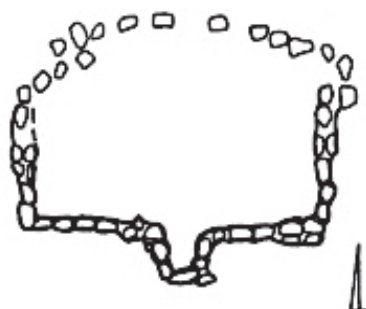


From Medina the direction to Petra or Jerusalem is very close.

¹ Sahih al-Bukhārī 4493 <https://sunnah.com/bukhari:4493>

after the time of the prophet Muḥammad, and from his writings later Muslims may have assumed the original qibla faced Jerusalem. However, Bukhārī also concluded that some mosques appeared to be oriented toward Damascus or ‘Sham’ (north).² When considered in the context of the orientation of other early mosques, it is quite possible the Qiblatain mosque was never intended to be directed toward Jerusalem.³

Another example of unknown mosques are the open-air mosques in the Negev. These mosques are often composed of a loose arrangement of stones, or a cleared area of stones, so measuring the direction of the mosque can be difficult. Also, the qibla of many of the Negev mosques faces too far west to be clearly identified as one of Gibson’s classifications.



Left: The Be’er Karkom 2 Open Air Mosque, Thanks to Gideon Avni, 1994

Petra Facing Mosques

Gibson classified 65 mosques which appear to face Petra. Peter Harremoës tested the intended focus of these mosques using rate-distortion algorithms as mentioned in Appendix C.

Dan Gibson personally visited many of these mosques to take on-the-spot measurements of their qibla directions. He did this over a number of decades. Initially he was only aware of the Petra facing mosques, but later when he noticed the ‘between’ mosque pattern, some of the earlier mosques were reclassified to have a between qibla. This reclassification left 65 Petra facing mosques in the current database as of 2022.

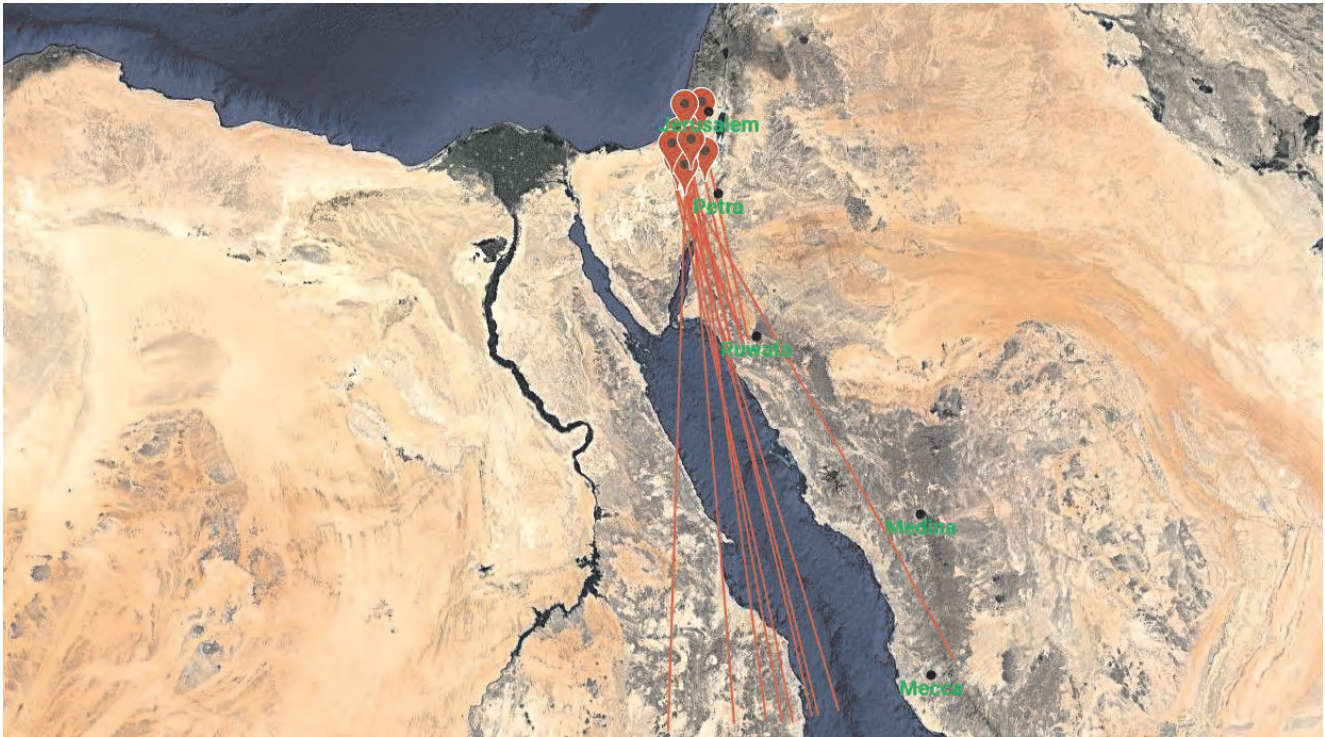
The mosques mentioned below are listed in Appendix A and B of this book. They can also be studied using the Online Qibla Tool. Further information and photos of specific mosques can be checked by clicking ‘More Info’ in the Online Qibla Tool.

The earliest Petra facing mosque Gibson discovered was the Massawa mosque in Eritrea. This mosque was supposedly built soon after the Muslims of the first Hijra arrived in Eritrea. These Muslims were fleeing persecution from the Quraysh and landed in Massawa on their way to Abyssinia.

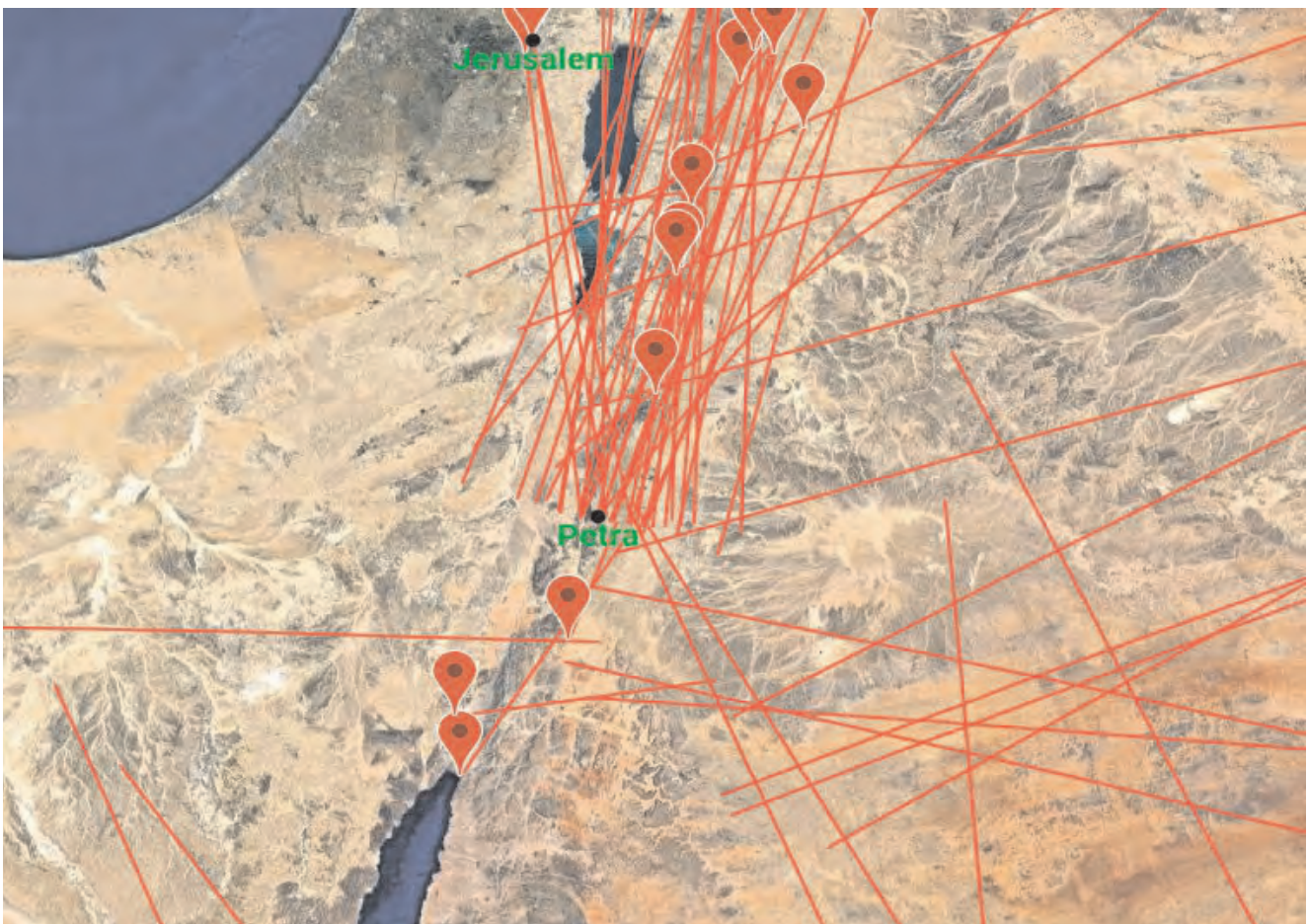
² Sahih al-Bukhārī 403 <https://sunnah.com/bukhari:403> , 4488-4493

³ Tamar Mayer and Suleiman Ali Mourad, *Jerusalem: Idea and Reality* (Philadelphia: Routledge, 2008), 87.

⁴ Gideon Avni, “Early Mosques in the Negev Highlands: New Archaeological Evidence on Islamic Penetration of Southern Palestine,” *Bulletin of the American Schools of Oriental Research* 294 (May 1994): 86, doi:10.2307/1357155



Many open-air mosques in the Negev face too far west.



65 mosques face close to Petras.

Another example of a Petra mosque is the Umayyad mosque in Hama, Syria, which faces almost exactly toward Petra in Jordan. This mosque has been damaged and rebuilt several times, but it has always been built in alignment with the original foundation.

In the ancient city of Hawara, now known as Humeima in southern Jordan, there is a large manor house built by the Abbas family. On the north side of the manor complex Gibson has identified a room that acted as an early Rashidun mosque. This mosque has a qibla direction which faces Petra, northward.

Khirbat al-Minya is an Umayyad palace by the north-eastern corner of the Sea of Galilee. It contains an inscription in the gateway which reads that it was built by al-Walīd, the sixth umayyad caliph. Its qibla is oriented within one degree toward Petra.

The oldest surviving mosque in the Iranian city of Damghan is a considerable distance from Petra. Even so, its qibla faces Petra within 5.5 degrees.

Khirbat al-Mafjar is an Umayyad palace found in Jericho. It is oriented within one degree, nearly perfectly accurate, facing Petra.

In 'Anjar, Lebanon, there is an Umayyad complex containing a mosque. This mosque also faces Petra, only off by 3.6 degrees, using modern GPS equipment.

In Jordan the Mushatta palace, also constructed by the Umayyads, contains a mosque which is only four degrees from facing Petra.

In Oman, the Sayh Ramdah Mosque in Bowshar faces an astounding one degree from Petra. Also in Oman, the Al Midhmar Mosque in Suma'il is oriented within two degrees of Petra.

Even Bibi Samarkand in Uzbekistan, a mosque constructed by Muslim armies far from Arabia, faces Petra with an error of only two degrees.

In the ancient city of Jerash, in Jordan, there is another mosque which faces Petra within five degrees.

Other Umayyad buildings in Jordan face Petra with similar accuracy. Qaṣr Mushash faces four degrees from Petra. Um Walīd East Qasr is 1.2 degrees from Petra.

Al-Aqsa Mosque presents even more interesting possibilities. Al-Aqsa is mentioned in Surah 17 of the Qur'ān. It is described by eighth century Arab historian al-Wāqidī as being in an area known as Jiranah, a few miles outside of the Masjid al-Harām. Al-Wāqidī further tells us this mosque was located on the bank of a wadi—not on top of a mountain in Jerusalem, as one would expect today.⁵

The Al-Aqsa Mosque in Jerusalem does not suit this description. Al-Aqsa in Jerusalem was built 90 years after the Hijra to Medina, so it did not exist while the Qur'ān was being

⁵ Al-Wāqidī, *Kitāb al-Maghāzī*, The Life of Muhammad, Editor: Rizwi Faizer, Routledge Studies in Classical Islam, 2011 ISBN 9780415864855

written. Construction on Al-Aqsa Mosque in Jerusalem was started by the caliph ‘Abd al-Malik (685-705) and completed by his son, al-Walīd.⁶ Further, Al-Aqsa in Jerusalem does not face toward Mecca. Its qibla faces only 3.4 degrees from Petra. Since so many early mosques faced Petra, and the Al-Aqsa of the Qur’ān is described as only a few miles from the Masjid al-Harām, Gibson has explored the possibility that the original Al-Aqsa was originally very close to Petra.

Just outside of ancient Petra is a wadi with a stream and an extant Nabataean artesian well, which suits al-Wāqidī’s description. If this is the location of Al-Aqsa, it would lie eight kilometers outside of the core of ancient Petra and would suit the description as the “farthest mosque,” that is, in the vicinity of the Holy City, as al-Wāqidī described.

Many of the Petrean mosques listed in the database face almost exactly toward Petra, within only two or three degrees of error. None of the mosques are aligned with more than 5.5 degrees of error. These mosques are arrayed from different directions and constructed within the same general time period. One cannot simply conclude that all these mosques ‘missed’ Jerusalem and happened to align with Petra. This data is examined in greater detail by Dr. W. R. Schumm and Zvi Goldstein in the next chapter. In his work “How Accurately Could Early (622-900 C.E.) Muslims Determine the Direction of Prayers (Qibla)?,” Schumm concluded after statistical analysis of the qibla data that “under Gibson’s assumptions, the mosque qiblas appeared to be accurate a majority of the time, within two degrees of azimuth, and nearly always within ten degrees, better than had been expected.”⁷

It appears that early Muslims all prayed toward Masjid al-Harām in the city of Petra. If these early mosques, and by implication the prophet Muḥammad, Abu Bakr, Uthmān, and ‘Umar, all directed their prayers toward Petra, the necessary conclusion which must be explored is that Petra is the ancient city where Islam began. By implication the prophet Muḥammad was raised there and Petra is the place where the original Ka’ba must have been. According to these earliest mosques, Petra is where the original Masjid al-Harām is to be found. Something later must have occurred to change the Petra qibla direction to other qiblas.

The significance of this data cannot be understated. According to Surah 2:144 of the Qur’ān, all Muslims are to pray toward Masjid al-Harām: “We will turn thee toward a qiblah well pleasing to thee. So, turn thy face toward [Masjid al-Harām], and wheresoever you are, turn your faces toward it.” Likewise, the pilgrimage must be made to Masjid al-Harām—not necessarily to the Ka’ba or the Black Stone. As Islam developed, the focus of the pilgrimage shifted to the Black Stone, but in the earliest accounts the emphasis was clearly on Masjid al-

⁶ Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of al-Tabari Volume XII: The Battle of al-Qadisiyyah and the Conquest of Syria and Palestine*, trans. Yohanan Friedmann (Albany: State University of New York Press, 1992), 193.

⁷ Walter R. Schumm, “How Accurately Could Early (622-900 C.E.) Muslims Determine the Direction of Prayers (Qibla)?,” *Religions* 11, 3 (2020): 13, <https://doi.org/10.3390/rel11030102>

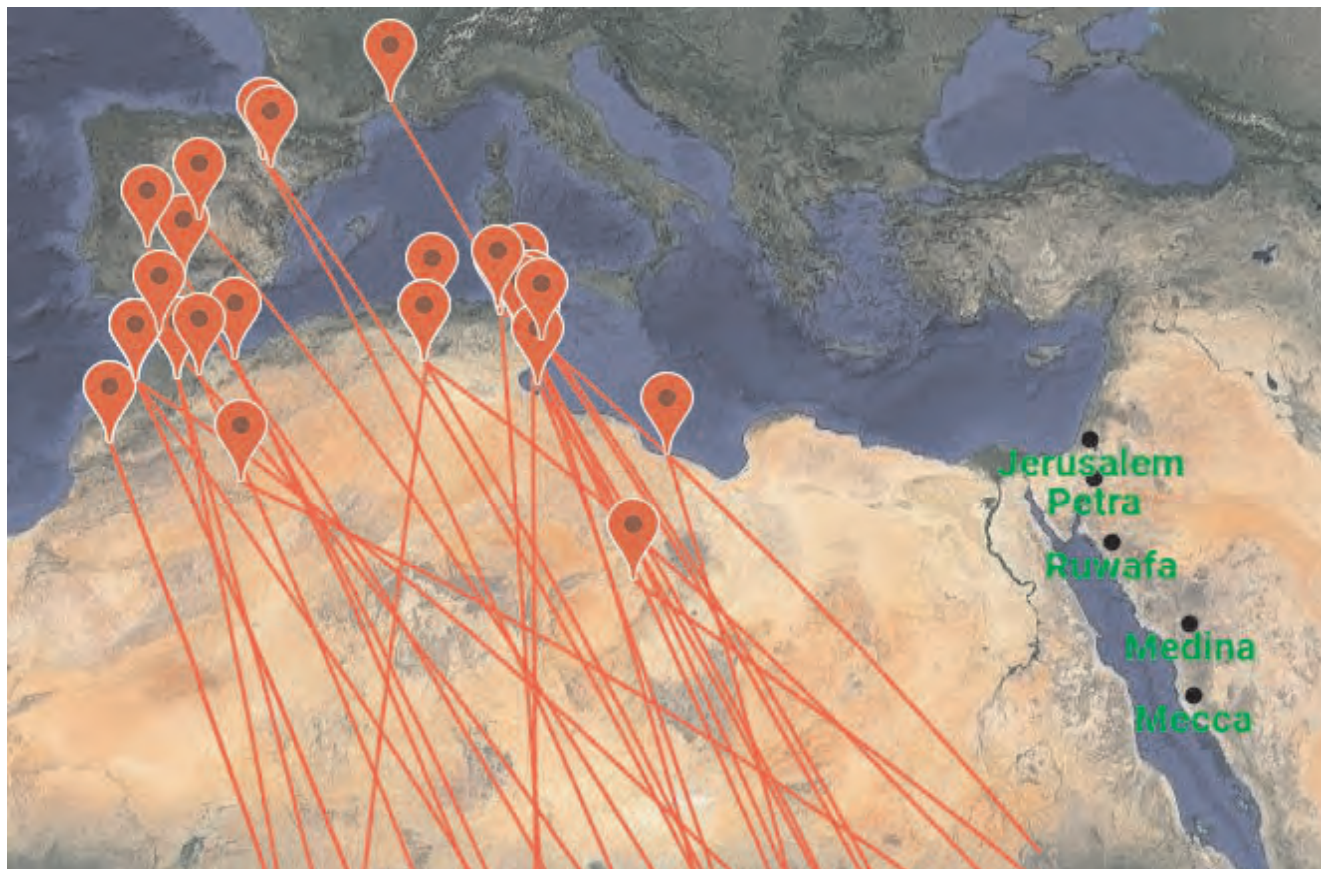
Harām and the great mountain. Likewise, when an animal is killed, to make it halal, one must face Masjid al-Harām.

If the qibla direction has been changed, Islam must seriously address the implications for pilgrimages, halal food, and the validity of prayers. The prophet Muḥammad and the Qur’ān are clear about the importance of the direction of these practices, and as we have found, it is evident that the earliest Muslims fulfilled these requirements in the direction of Petra.

Parallel Facing Mosques

In his research of qibla directions of early mosques, Gibson discovered the early mosques in North Africa and Spain faced a totally different direction. These mosques have qibla directions which seem to face southward into the interior of Africa. Gibson named this qibla ‘parallel,’ as these mosques seem to face a line parallel to a line drawn between Petra and Mecca. As we will see, the earliest North African mosques used a qibla facing more directly south, but eventually the common qibla of North Africa and Spain settled on something close to 155 degrees, very similar to a line drawn between Petra and Mecca.

One of the oldest mosques in North Africa is known as the Sidi Ghanem Mosque. It is about 400 miles east of Algiers in the old city of Mila. The city of Mila was originally a Roman city. The Umayyad Arab armies arrived around 59 AH (679 CE) and shortly thereafter



Starting in 58 AH (679 CE until the 900s) 40 mosques were built with a parallel facing qibla.

they cleared a spot near a Christian basilica to construct a mosque. Salvage from the basilica provided ample building supplies. The new mosque did not align with the Roman basilica, nor the Roman street plan, but ended up with a unique qibla direction used nowhere else in all of Islam. Initially, the mosque was called the Abu al-Muhajir Dinar mosque in honour of a Muslim general, but later the name was stripped away, and the mosque renamed after a rather unknown Fatimid Imam, Sidi Ghanem.

The story of Abu al-Muhajir provides some context for the unique qibla of the mosque (initially) named in his honor. It is challenging to describe Abu al-Muhajir's life, and by extension the mosque built in his honour, because there are competing narratives. Scholars have noticed that sources written before the 11th century differ from those written later.⁸

We will not settle the dispute between these sources in our discussion. Rather, we will try to consult the historical sources to understand how Abu al-Muhajir Dinar influenced the qibla direction used in North Africa.

Abu al-Muhajir was previously a slave owned by Maslama ibn Mukhallad, a respected member of the Ansar, who granted al-Muhajir his freedom. When Ibn Mukhallad was appointed governor of Egypt and Africa, he wanted to make Abu al-Muhajir the Amir (or General) of the Arab forces. There was only one barrier to Abu al-Muhajir's elevation: Uqba ibn Nafi of the Quraysh was already general of the Umayyad forces in North Africa. Under general Uqba's leadership the Muslims had stopped advancing west and were content to make raids into Berber territory.⁹

Abu al-Muhajir was instructed to deal fairly and quietly with general Uqba, but instead al-Muhajir put him in shackles and imprisoned him. Then al-Muhajir established himself in the city of Mila. He first built a headquarters, and then organized the expansion of the Muslim empire further west, taking land from the Berbers. Finally, he started construction of a mosque in Mila to honour himself.

Over in Damascus, caliph Mu'awiya heard about Uqba's imprisonment and requested that he be released and sent back to Damascus. When Uqba left, he vowed to treat Abu al-Muhajir as he had been treated.¹⁰

⁸ See Ahmed Benabbès, "Les premiers raids arabes en Numidie byzantine: questions toponymiques," *Identités et Cultures dans l'Algérie Antique*, ed. Claude Briand-Ponsart (Mont-Saint-Aignan: Presses Universitaires de Rouen et du Havre, 2005)

and Yves Modéran, "Kusayla, l'Afrique et les Arabes," *Identités et Cultures dans l'Algérie Antique*, ed. Claude Briand-Ponsart (Mont-Saint-Aignan: Presses Universitaires de Rouen et du Havre, 2005)

⁹ Hugh Kennedy, *The Great Arab Conquests: How the Spread of Islam Changed the World We Live In*, (Boston: De Capo Press, 2007), 208.

¹⁰ Ibn 'Abd al-Hakam, *The history of the conquest of Egypt, North Africa and Spain: Known as the Futuh Misr of Ibn 'Abd al-Haka*, trans. Charles Cutler Torrey (Dehli: Gyan Books 2018), 321.

While Uqba was in Damascus, Yazid succeeded Mu'awiya as Umayyad caliph. Yazid restored Uqba as general and sent him back to North Africa with additional troops. Uqba returned in 62 AH (682 CE) and, as soon as he was able, arrested Abu al-Muhajir. Rather than condemn al-Muhajir to prison, general Uqba instead put him in chains and forced al-Muhajir to accompany him wherever he went.

Before he was displaced by al-Muhajir, Uqba had established a camp at Qayrawan. It is reported that Abu al-Muhajir abandoned or destroyed this camp and built another settlement two miles away.¹¹ One would assume that these camps had mosques--most likely open-air mosques, which would have consisted of an area of desert cleared of stones and rubble, with one straight wall indicating the qibla direction. In either case, no known early mosque at Qayrawan survives to this day, so it is impossible to determine what qibla direction was used at that time. Today there is a more modern mosque at Qayrawan dating from 221 AH (836 CE) with a qibla direction facing 148 degrees.

Previously it had been custom for the generals of North Africa to return to Egypt between raids. Abu al-Muhajir is said to be the first Amir to stay in northwest Africa permanently. The two different histories on the Umayyads in North Africa disagree on Abu al-Muhajir's accomplishments in the approximate nine years of his command. Earlier histories written in the ninth century credit him with advancing no further west than Mila in Algeria, but those written from the 11th century onward have him capturing Tlemcen in northwestern Algeria.¹²

In 63 AH (683 CE), Uqba's forces were ambushed by the Berber chief Kusaila. Uqba is said to have offered to unchain Abu al-Muhajir so that he might have a better chance to fight, but al-Muhajir said that he would rather die fighting wearing his chains. In the end, both men were killed.

Uqba is buried in Algeria in the al-Shurafa cemetery with 300 other dead from the battle. As such, Gibson had several early North African locations to consider when trying to solve the question of how the parallel qiblas developed. The first was Abu al-Muhajir's mosque in Mila, and the second is the mausoleum for Uqba and, particularly, the al-Shurafa cemetery.

The orientation of Abu al-Muhajir's mosque in Mila is not obvious. Below is the floor plan for the building. Further complicating matters, while it started out as a mosque, it was later converted into a workshop, and still later a hospital.

It is unclear which wall in this mosque is the original qibla wall. If it is the east wall, then this mosque would face Petra: the eastern wall faces 96.65 degrees and a modern GPS measurement to Petra is 97.68. This would be remarkably accurate, especially since the dis-

¹¹ Ibn 'Abd al-Hakam, *Conquest*, 321.

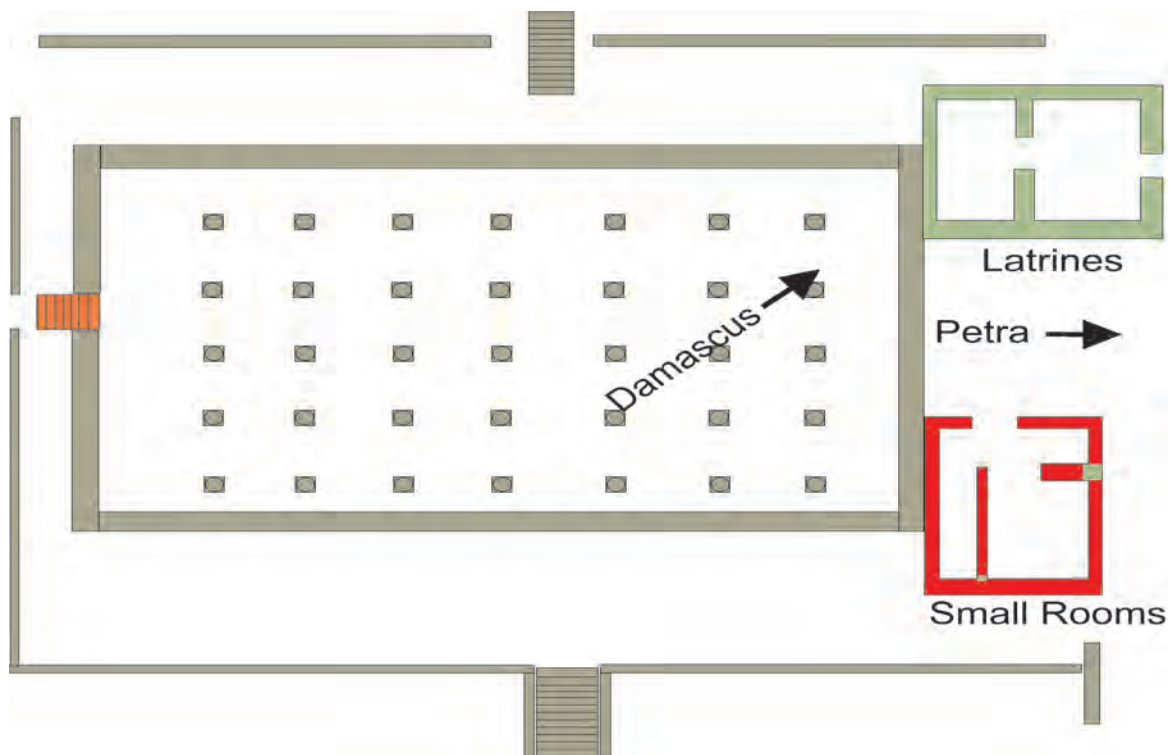
¹² Benabbès and Modéran, *Identités et Cultures*.

¹³ Nawal Benmicia, "The restoration and reuse of historical monuments: Case of the mosque of Sidi Ghanem," *Algerian Journal of Engineering Architecture and Urbanism* 1, no. 3 (2017): 49.

tance between them is over 2,700 kms. For future reference, this mosque predates the Second Islamic Civil War.

Gibson believes that during the construction, the builders of Abu al-Muhajir's mosque changed their plans. Instead of using the east wall for a qibla as planned, they made the mosque longer, and used the south wall as their qibla wall. This wall faces 187.68 degrees south—well away from Petra and Mecca, and toward no discernible specific location.¹³

Consider the diagram below. The orange highlighting indicates the final main entrance. The green is the latrines. It appears that not only did this mosque change its qibla orientation from Petra to a nebulous place in Africa, but Abu al-Muhajir placed the latrines directly between his mosque and the new caliph in Damascus, who would send Uqba back to Africa to displace him.



Above is the general plan of the mosque. The right wall faces Petra.¹⁴

These details could explain why Abu al-Muhajir's name was stripped from this mosque—and why it was later abandoned and used as a workshop.

Next Gibson studied the Sidi Uqba mosque built to honor general Uqba. Today this

¹³ See Peter Harremoës' helpful research on the methods of measuring the reliability of these Qiblas: Peter Harremoës, "Rate Distortion Theory for Descriptive Statistics," *Entropy* 25, no. 3 (2023): 456, doi:10.3390/e25030456

¹⁴ Nawal Benmicia, "The restoration and reuse of historical monuments: Case of the mosque of Sidi Ghanem," *Algerian Journal of Engineering Architecture and Urbanism* 1, no. 3 (2017): 49.

mosque is a very large modern building and, as expected of a modern mosque, it faces Mecca.

Upon General Uqba's death, his successor, general Zuhayr ibn Qays, redeemed several soldiers that had been captured during the battle and sent them back to the battlefield to bury Uqba and build a mosque honoring him. Thus, the original building was very simple, entirely built of mortar.

This mosque was renovated several times. Records of these renovations are incomplete, so it is difficult to assess exact dates and details. One of the renovations was conducted in 416 AH (1025 CE) under the rule of al-Mu'izz ibn Badis. Further renovations occurred in the 800s AH and 1214 AH (1799 CE).

Gibson has not been able to measure the old mosque as it is now inside the new structure. But visitors have made rough measurements indicating that the old mosque faced southeast, like other 'parallel' facing mosques. An accurate measurement would require measuring GPS coordinates outside, and then calculating the qibla direction inside the new structure.

Of particular interest for us is the graveyard where the battle with the Berber leader, Kusaila, took place. According to Muslim tradition, one would expect the graves to face either Petra or Mecca. Muslims are buried on their sides, facing the qibla direction. But these graves face southeast at approximately 128 degrees. They are all aligned and are still visible today—but at the time the qiblas of these graves were unique in the Muslim world.

46 years after Uqba's defeat, as the Muslims pushed further west, a mosque was built in Tunis, known as Jami' al-Zaytuna. It has a qibla of 154.12 degrees. Following this mosque, we surprisingly find a number of mosques with similar southward qiblas.

Next, it is interesting to note that the Ka'ba building in Mecca also seems to have a qibla direction, calculated from the Hatim wall on the northwest side. In this case the Ka'ba faces north toward Petra with a similar angle as the North African and Spanish mosques face south.

While the Second Islamic Civil War (61-73 AH) raged in the Middle East, the African Muslims built two mosques which faced southward. Perhaps the hostile disposition toward changes happening in Damascus caused the African leaders to develop their own parallel qibla tradition as a sort of compromise between the original Holy City of Petra and the emerging new holy site in the Hijaz, which we will explore below.



Gibson has identified seven African mosques which originate from the time before the Muslim armies reached Spain, all of them using the parallel qibla. After the Muslim armies crossed into Spain, and after much of the fighting had settled down, the Muslim rulers set about constructing several magnificent Spanish mosques. True to form, they looked for a location that already had plenty of building materials, quarried and squared. Usually, they used Roman temples or Christian churches or basilicas.

In Cordoba, the new Muslim government found a suitable building site, and set about building a magnificent mosque. They chose a parallel qibla for this mosque just as they had in North Africa. The Cordoba qibla was set at 157.12 degrees, similar to the other qiblas in North Africa.

Once again, the historical sources we have which describe the Umayyad conquest of Spain from North Africa have variances. They originate much later than the events they record and represent the different Islamic factions in Muslim Spain (or Al-Andalus).

In Al-Andalus, histories and genealogies were written in Arabic for the rulers of the new Islamic state. These histories catered to the sensibilities of the current elite, and tended to avoid controversy, especially anything critical of the Islamic government or religion. Thus, there is no suitable written explanation for these unusual qiblas, or the rationale behind the pattern.

Over a 300-year period, from the founding of Abu al-Muhajir's mosque in 59 AH (679 CE) until 367 AH (978 CE), all the qiblas of the mosques in North Africa and Spain face southward at an average of 152.5 degrees. Overall, they vary from 114 to 187 degrees. Some of these include the following:

- 155 AH, Tauste Graveyard Spain
- 168 AH, Cordoba Mosque Spain
- 184 AH, Dougga Mosque, Tunisia
- 213 AH, Moulay Tomb/Mosque, Morocco
- 221 AH, Grand Mosque, Kairouan, Tunisia
- 236 AH, Grand Mosque, Susa, Tunisia
- 236 AH, Great Mosque, Sfax, Tunisia
- 245 AH, University, Fez, Morocco
- 252 AH, 3 Door Mosque, Kairouan, Tunisia
- 287 AH, Nimes Graveyard, France
- 304 AH, Mahdia Great Mosque, Algeria
- 363 AH, Al-Naqah Mosque, Libya
- 537 AH, Great Mosque, Taza, Morocco
- 543 AH, Lasbah Mosque, Marrakech, Morocco
- 546 AH, Citadel Mosque, Udayas, Morocco

- 580 AH, Koutoubia Mosque, Marrakech, Morocco
- 592 AH, Hassan Tower Mosque, Rabat, Morocco
- 592 AH, Grand Mosque, Tangier, Morocco

Altogether Gibson has classified these 40 mosques as parallel, these qiblas are not coincidence, vast incompetence, or an esoteric array of qibla alignments as some may believe. These qiblas are far too close to each other to suggest randomness. It appears that mosque builders thought very carefully about their structures.

It seems evident that amidst the qibla confusion across the Muslim world during and after the Second Islamic Civil War, the mosque builders in North African and Spain innovated their own compromise. The builders did not choose between Petra or Mecca for their qibla, which were both complicated, as we will see later. Rather, the North African and Spanish mosque builders chose an often remarkably accurate parallel, facing south along the same line as the Ka'ba in Mecca which faces north to Petra.

While this data is further evidence of a much more complicated qibla history than later historians acknowledge or remembered, it is also direct evidence of the importance of Petra to the Muslims of North Africa and Spain. This Parallel qibla is recognition of Petra's importance in the founding of Islam, while it is also a compromise with the complicated political realities of the time.

Ultimately, like the Petra qibla, the Parallel qibla was also forgotten and replaced by a qibla facing Mecca. The qibla data of early mosques now available to scholars requires an explanation, which we have sought to provide.

Between Facing Mosques

We have discussed how early mosques faced Petra in southern Jordan, and then how a parallel qibla developed in North Africa. Next, we will consider another unexpected aspect of Islamic archaeology—a group of mosques, which we will refer to as the 'Between mosques,' seem to be intentionally directed between Petra and Mecca.

In 87 AH (706 CE), a mosque was constructed in Wāsiṭ, Iraq which seemed to face an empty, deserted spot in Arabia, located in an area between Petra and Mecca. Over the ensuing decades, a staggering 58 further Umayyad mosques were constructed which also adopted this Between qibla direction. As research is ongoing, perhaps more of these 'Between' mosques will be discovered.

The unusual orientation of the original Wāsiṭ mosque was very much a product of the politics of the Umayyad caliphate. The Second Islamic Civil War created numerous significant shifts in the Muslim world. When caliph Mu'āwiya moved the Islamic capital to Damascus

from Kufa, the governor of the Holy City, Ibn al-Zubayr, protested and his followers swore allegiance to him as the true caliph. Gibson believes that Ibn al-Zubayr was in the Holy City of Petra, since at that time, all mosques faced this city. The caliph in Damascus then sent an army to the Holy City and Ibn al-Zubayr was forced to defend himself. During a major lull in the fighting, Ibn al-Zubayr seems to have moved the Black Stone from Petra to Mecca in the Hijaz.

The great ninth century historian al-Ṭabarī recorded how after the Ka'ba had been devastated by catapult stones during the siege of the Holy City, "Ibn al-Zubayr demolished the sanctuary until he had leveled it to the ground, and he dug out its foundation...he placed the Black Cornerstone by it in an ark (tabut) in a strip of silk."¹⁵

Ibn al-Zubayr not only demolished the damaged Ka'ba, but started to rebuild it to bring fulfillment a saying of the prophet Muḥammad:

Ziyād b. Jiyāl told me he was in Mecca on the day when Ibn al-Zubayr was overcome, and heard him say, "My mother Asma bint Abi Bakr told me that the Messenger of God said to 'Āishah: 'If it were not that your people had only recently been in a state of unbelief, I would restore the Ka'ba on the foundations of Abraham and I would add to the Ka'ba part of the Hījr.' Ibn al-Zubayr gave the order for it, and it was excavated, and they found rocks as big as a camel. They moved a boulder of them, and a bright light flashed out. They re-established it on its foundation and Ibn al-Zubayr rebuilt it, giving it two doors, from one of which it was entered and from the other vacated."¹⁶

The Ka'ba was rebuilt from the ground up, but the question is, where was this Ka'ba rebuilt--in Petra, or in Mecca in Saudi Arabia? The first qibla facing Mecca in Saudi Arabia only appears after the Second Islamic Civil War. According to Gibson's theory for the changing qiblas, it is likely during this period that the Black Stone was moved from Petra to Mecca in the Hijaz to keep it out of the reach of the Umayyads and to prevent it from being damaged by another siege, which would come.

Al-Ṭabarī's history is alarmingly scant when it comes to the year when this would have occurred. He records that in 70 AH Muṣ'ab, a brother of Ibn al-Zubayr, brought horses and camels to the Holy City.¹⁷ Gibson believes that Ibn al-Zubayr took advantage of the Umayyad's withdrawal after the first siege to move women, children, the elderly, and the Black Stone to distant and safe Mecca in the Hijaz, expecting that another siege would occur.

By relocating the Black Stone to Mecca while the Umayyads dealt with instability in

¹⁵ Abu Jafar Muhammad b. Jarir al-Tabari, *The History of al-Tabari Volume XXI: The Victory of the Marwanids*, trans. Michael Fishbein (New York: State University of New York Press, 1990), 169

¹⁶ Al-Ṭabarī, *Volume XX*, 176.

¹⁷ Abu Jafar Muhammad b. Jarir al-Tabari, *The History of al-Tabari Volume XXI: The Victory of the Marwanids*, trans. Michael Fishbein (New York: State University of New York Press, 1990), 169.

Damascus, Ibn al-Zubayr was able to create strategic distance between the sanctuary and his enemies—but he also created a geographic crisis in Islam.

Once the situation in Damascus stabilized, the Umayyads were able to refocus on Ibn al-Zubayr. They sent the infamous general al-Ḥajjāj ibn Yūsuf to put down the rebellion, restore law and order, and regain access to the religious sites in the Holy City. Al-Ḥajjāj was an extremely capable and ruthless statesman, strict in character, but also harsh and demanding. He was widely feared by his contemporaries and became a deeply controversial figure, and later an object of deep-seated enmity due to his contrasting beliefs with the later Abbasid rulers.

Al-Ḥajjāj was born c. 41 AH (661 CE). His ancestry was not particularly distinguished: he came of a poor family whose members had worked as stone carriers and builders. Al-Ḥajjāj was deeply familiar with the Qurʾān as a young man—the great general started his career teaching children to copy and recite the holy book. Al-Ḥajjāj was mocked by his enemies for these humble origins.

Soon after Marwan assumed the throne in 64 AH, al-Ḥajjāj went to Damascus, and joined the caliph's personal guard. There al-Ḥajjāj attracted Abd al-Malik's attention by the way he dealt with a rebellion amongst some soldiers. Al-Ḥajjāj was chosen to accompany the caliph on a campaign in Iraq. There al-Ḥajjāj continued to impress Abd al-Malik until he was finally entrusted to quash the rebellion of Abdallāh ibn al-Zubayr in the Holy City.

The caliph instructed al-Ḥajjāj to first demand Ibn al-Zubayr's surrender with an offer of amnesty. But, if Ibn al-Zubayr refused to surrender, al-Ḥajjāj was permitted to siege the Holy City and starve him out. Al-Ḥajjāj was commanded not to shed blood in the sacred area.

When negotiations failed, al-Ḥajjāj lost patience, and sent a courier to ask for reinforcements and the permission to take the city by force. The caliph granted both requests. Thus, al-Ḥajjāj launched catapult and infantry attacks on the Holy City.

The siege continued for six months and seventeen nights. One witness said: "I saw the manjaniq [trebuchet] with which [stones] were being hurled. The sky was thundering and lightening, and the sound of thunder and lightning rose above that of the stones, so that it masked it. The Ka'ba was so damaged that it looked like the torn bosoms of mourning women."¹⁸

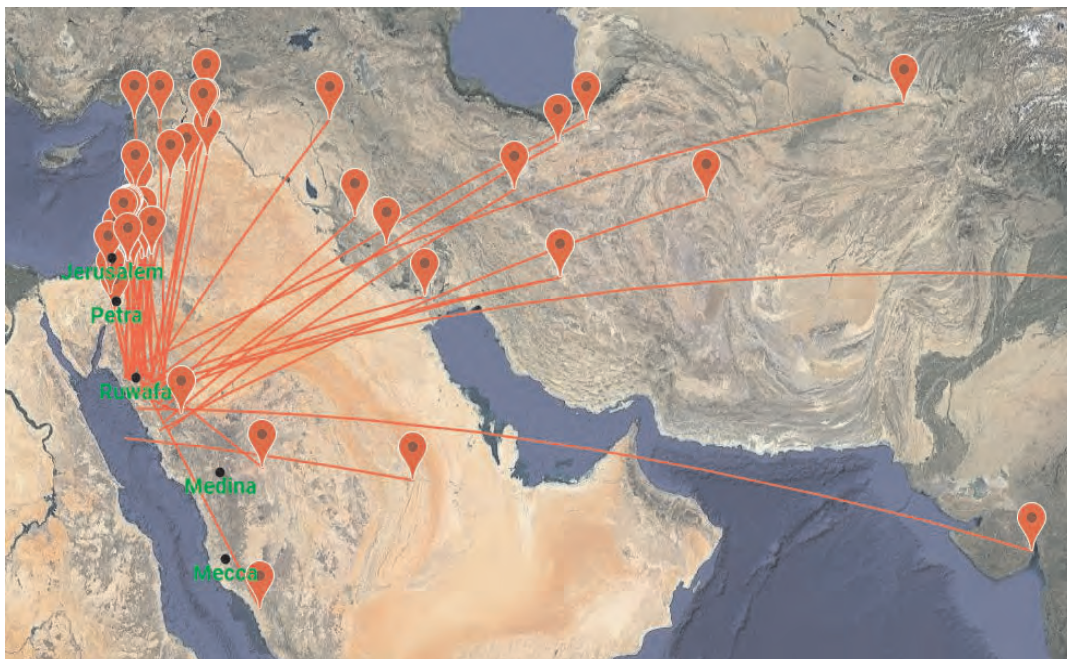
In the end 10,000 men, among them two of Ibn al-Zubayr's sons, had defected to al-Ḥajjāj. Ibn al-Zubayr and his youngest son were killed in the fighting in a ruined building near the ruined Ka'ba. General al-Ḥajjāj won the war. But many people were outraged with how

¹⁸ Ṭabarī, *Volume XXI*, 224.

violent the attack had been, and that blood had been shed in Maṣjid al-Harām--whose very name, ‘The Forbidden Gathering Place,’ meant that shedding blood was forbidden.

As a reward for his victory, the caliph made al-Ḥajjāj the governor of the Hijaz, Yemen, and al-Yamama. It was at this time he began to persecute the Companions of the prophet Muḥammad by making them wear a lead seal around their necks. During his lifetime, al-Ḥajjāj killed four Companions (ṣaḥāba) of the prophet Muḥammad. Furthermore, Mas’udi recorded that al-Hajjaj condemned to death 120,000 men apart from those killed in warfare. 10th century anthologist al-Tha’alibī claimed that altogether al-Ḥajjāj was responsible for the killing of over a million men during his lifetime.¹⁹

Despite these actions, in 75 AH, caliph Abd al-Malik appointed al-Ḥajjāj as governor of Iraq. This placed al-Ḥajjāj in a very powerful position, governing the entire eastern half of the caliphate. The following years were filled with bloody wars, quashing rebellions, with al-Ḥajjāj ruling with an iron fist.



Some of the between mosques

So, we come to the construction of the city of Wāsiṭ in the year 83 AH, and Wāsiṭ al-Qaṣab in 95 AH. As these cities were erected, so were several mosques, and their qibla directions are fascinating.

Al-Ḥajjāj’s mosque in Wāsiṭ faced between Mecca and Petra. In fact, wasat in Arabic means “between” or “middle.” This was followed by other important mosques in Damascus,

¹⁹ Al-Tha’alibī, *The Lata’if al-ma’arif of Tha’alibi*, trans. C. E. Bosworth (Edinburgh: University Press, 1968), 110. For Mas’udi, see footnote page 110.

Boşra, the desert palaces, the city of Ḥarrān, and even the main mosque in the city of Raqqa in Syria facing a similar direction. At the time of writing, Gibson's Qibla Database contains 55 mosques that face the between qibla, most of them built under al-Ḥajjāj's leadership.

It cannot be that this qibla is an accident, coincidence, or that Muslim architects had a sudden, extended lapse in their calculations. Gibson proposes the reasonable solution that al-Ḥajjāj would have disdained the original city of Petra, since he had fought against it and destroyed it—leveling the old temples and destroying any heritage of Ibn al-Zubayr. But likewise, the new location of the Black Stone in Mecca in the Hijaz would have been problematic for al-Ḥajjāj because it was new, and it was also established by Ibn al-Zubayr. Al-Ḥajjāj seems to have never taken the trouble to retrieve the Black Stone. Soon some Muslims were embracing this new location and calling it Masjid al-Harām and the Muslim world fell into confusion. So, al-Ḥajjāj chose his own qibla, halfway between the two. As a great general, and the son in law of the caliph, al-Ḥajjāj appears to have had the power to make this radical decision. He was later criticized for this decision, and this criticism extended to caliph Walid. The 9th century writer al-Jāhiz recorded that among the many misdeeds of caliph Walid I and his family, the setting of the Wāsiṭ qibla was among them.²⁰

These criticisms were not unfounded: disorder regarding the qibla direction of new mosques ensued. Many mosques built under the Umayyads faced this Between qibla. At the very same time, there were mosques built in Africa which faced south, and there were new mosques erected elsewhere which still faced the old qibla of Petra. Finally, to further complicate matters, following the Second Islamic Civil War, some of new mosques were constructed to face Mecca in the Hijaz, where we have suggested Ibn al-Zubayr moved the Black Stone.

The following well-known mosques adopted the between position:

- 87 AH, Wāsiṭ mosque in Iraq
- 91 AH, Umayyad congregational mosque in Damascus, Syria
- 92 AH, Umayyad mosque on Amman citadel, Jordan
- 96 AH, Aleppo Umayyad mosque, Syria
- 102 AH, Mosque of 'Umar in Boşra, Syria
- 105 AH, Palmyra congregational mosque, Syria
- 107 AH, Qasr Hayr al Gharbi in Syria
- 110 AH, Qasr Hayr al Sharqi in Syria
- 122 AH, Baalbek main mosque in Lebanon

²⁰ Al-Jāhiz, *Rasā'il al-Jāhiz*, ed. H. al-Sandubi (Cairo: 1933), 296, quoted in Patricia Crone and Michael Cook, *Hagarism: The Making of the Islamic World* (London: Cambridge University Press, 1977), 173.

- 155 AH, Raqqa main mosque in Syria
- 127 AH, Ḥarrān mosque and university in Turkey
- 81-127 AH, Qaşr Al-Fudayn in Mufrāq Jordan
- 81-133 AH, ‘Azraq fort mosque in Jordan
- 81-183 AH, Yamama Great Mosque in Saudi Arabia
- 190 AH, Qasr Heraqlah in Syria

General al-Ḥajjāj had a remarkable influence on the development of Islam during his lifetime. However, after he died, his influence waned, and the popularity of the new Masjid al-Harām in Mecca grew. Eventually no new mosques faced the Between position--and this compromise was soon forgotten. This entire chapter of qibla history remained forgotten until recently. Now that we are able to determine the qiblas of early mosques with GPS technology, statements like that of al-Jāhiz on Wāsiṭ have regained their long-missing context.

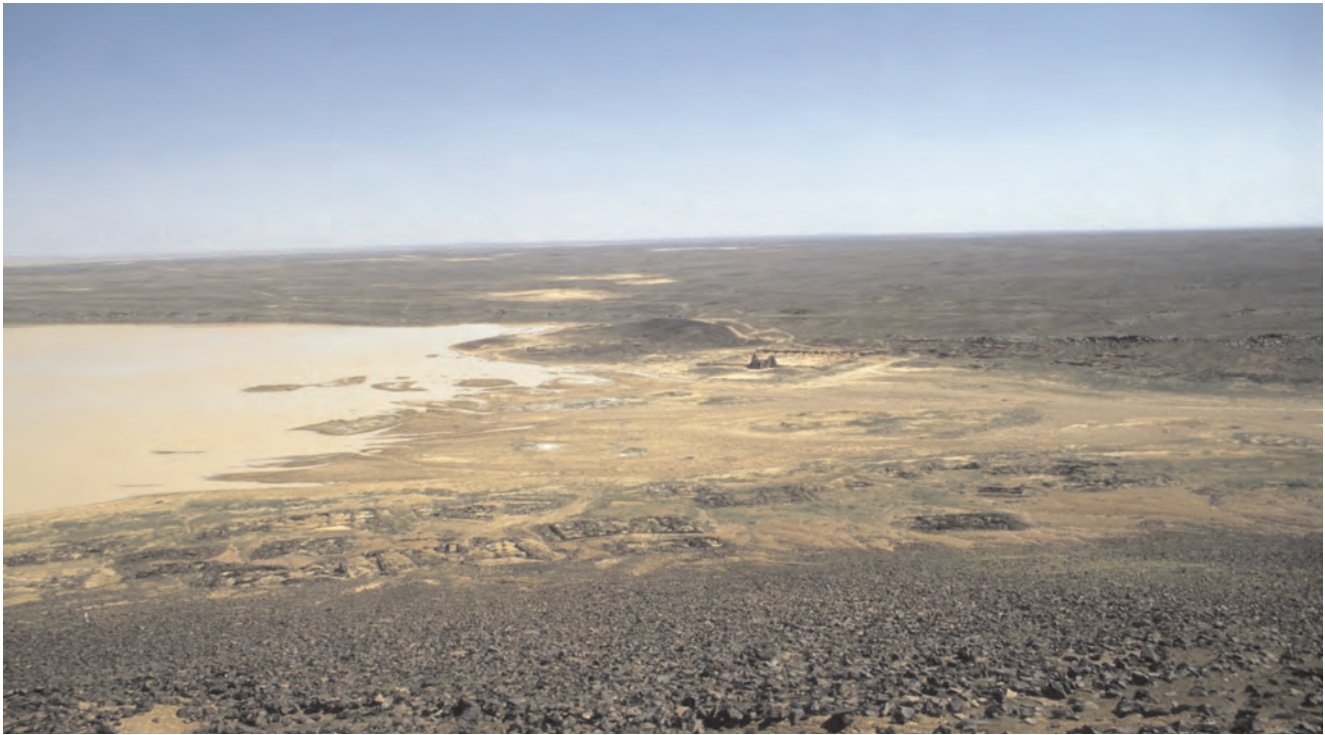
Mecca Facing Mosques

The earliest qibla to face Mecca in the Hijaz which Gibson has located is found at Jebal Says (or Usays). This qibla is inside of a qasr, or fortified manor house, built by caliph Walid. The Mecca qibla seems to first appear around 88 years after the hijra. This fascinating location features two concentric volcanic cones in the desert, about 100 km southeast of Damascus. It is approximately 20 kms northeast of a large area of unbroken lava flows known as Şafā.

The high inner cone of the volcano surrounds a crater that can be entered at ground level on one side. From the upper rim of the volcano, one finds a panoramic view of the surrounding desert.

This magnificent vista, in combination with the presence of water at the top of the volcano, made it a popular location for centuries. The rim of the inner cone is covered in Safaitic, Greek, and Arabic inscriptions, as well as numerous rock-drawings.

At the foot of the volcano are many Umayyad qasrs and earlier manor houses. The earliest large houses here date from 528 CE onward—that is, 42 years before the traditionally accepted birth date of the prophet Muḥammad. As expected, the pre-Islamic structures do not seem to have any clear qibla direction, but the post Islamic structures appear to have qibla directions integrated into their design.



View from the volcano rim. Walid's qasr can be seen in the distance across the delta.



In the above image, Walid's Mecca-facing qasr is 5. Qasr 3 faces the between qibla. Some of the earlier, pre-Islamic qasrs do not seem to have a clear qibla direction.



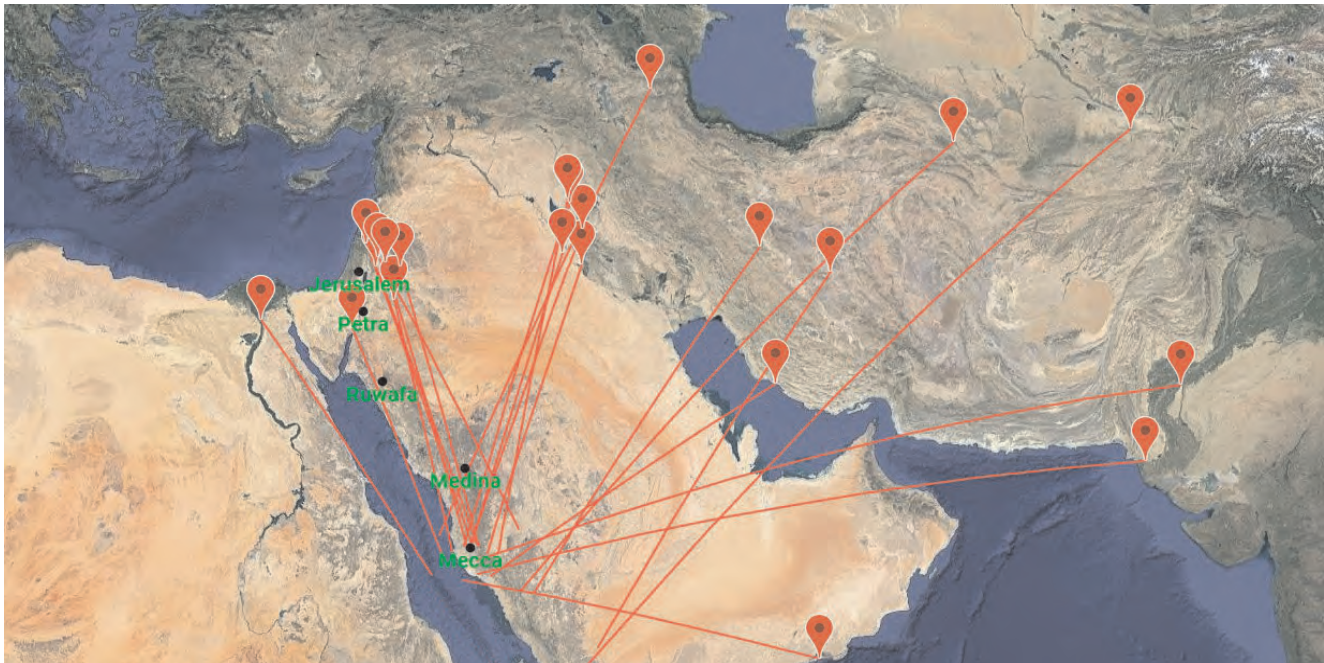
*Many of the qasrs along the eastern edge of the volcano are oriented to face Petra
(as the yellow line illustrates).*

This collection of a dozen large manor houses or qasrs all in close proximity is unique in the Middle East. It appears that once the Umayyads moved their capital to Damascus, this location was a favorite getaway for the Islamic elite. Crucial to our study, we find pre-Islamic qasrs without qiblas, early Islamic qasrs with Petra-facing qiblas, later qasrs with between qiblas, and finally the prominent qasr built by caliph Walid which faces Mecca—the oldest structure we have found thus far with a clear Meccan qibla.

It is surely no coincidence that an inscription was found in Saudi Arabia that informs us that in 78 AH (697 CE) Masjid al-Harām was constructed in Mecca in the Hijaz.²¹ We will look at this in more detail in a later chapter. Such a major construction project would have required the caliph's permission if not his funding. And so, ten years later, we find caliph Walid's new rural manor facing the new Masjid al-Harām in Mecca.

The next surviving Mecca-facing structure was built in 101 AH (720 CE) in Resafa, Syria. Resafa is situated 25 kms from the Euphrates at the edge of the 'Syrian Desert' in northern Syria. This site began as a large Roman fort on the Roman limes, or border fortifications,

²¹ "An Inscription Mentioning the Rebuilding of Al-Masjid Al-Ḥarām, 78 AH / 697-698 CE," *Islamic Awareness*, last modified April 1 2018, <https://www.islamic-awareness.org/history/islam/inscriptions/haram1.html>



Mecca facing mosques of the first three centuries of Islam

across Syria. It was the site of the martyrdom of Saint Sergios, and during the 5th and 6th centuries, grew into one of the most important places of Christian pilgrimage in the eastern Mediterranean region. Under Islamic rule it became the principal residence of caliph Hisham ibn Abd al-Malik (who reigned 105-125 AH) and continued to be of central importance in the early Islamic period. Construction of the Great Mosque began in the second quarter of the eighth century, commissioned by caliph Abd al-Malik.²² Later, the city suffered several major earthquakes, which helps date its various buildings. This location is significant because this is the first large mosque with a Mecca-facing qibla. Before this, the only example of a Meccan qibla is caliph Walid's rural residence described above.

After Rasafa, the next Mecca-facing mosque in the database was built in Banbhore, Pakistan in 109 AH. By this time, it seems that more and more mosques were slowly developing Mecca-facing qiblas. In 112 AH the caliph's new palace in Amman, Jordan adopted the Meccan qibla, and in 122 AH a new Friday Mosque in Tiberias was built, using the Mecca qibla. A few years later, in 131 AH, the Mecca qibla was adopted for the major mosque in Kufa.

It is widely believed that the oldest mosques in the world are in Mecca and Medina. Muslims often refer to the Prophet's Mosque, the Quba Mosque, and the Qiblatain Mosque, all of which face Mecca in the Hijaz, or modern Saudi Arabia. However, upon examination, none of these mosques provide any clear archeological record of their original construction, and so are all classified as unknown in the database.

As we have mentioned previously, when the Qiblatain mosque was rebuilt in 1987, the

²² *Chronique Archéologique en Syrie 4* (Damascus: Ministry of Culture, Directorate-General of Antiquities and Museums, 2010), 299, <http://arks.princeton.edu/ark:/88435/dsp011r66j363w>

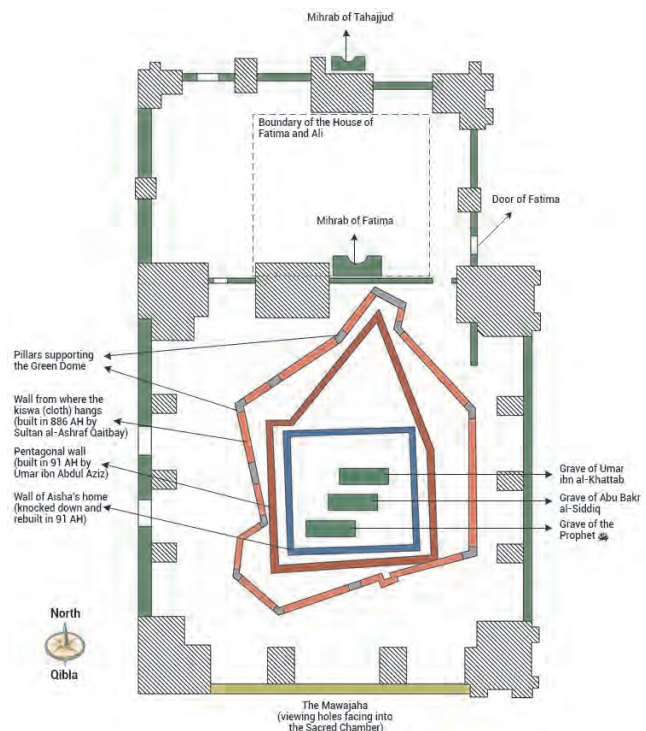
architect 'Abd el Wahid el Wakil had opportunity to observe the foundation, which seemed to have a qibla wall generally facing north toward either Jerusalem or Petra.



Right: The modern Prophet's Mosque in Medina²³

The Prophet's Mosque in Medina covers over 5000 square meters. It is rectangular, oriented along the cardinal directions, with the south wall facing directly south at 180 degrees. A qibla facing Mecca would be 174.8 degrees, which is 5.2 degrees to the south-east. The entire building is out of alignment with Mecca but is still within the ten degrees of error and so the modern building is classified as a Mecca mosque.

The interior of the Prophet's Mosque presents further problems. A section of the mosque built in 1817 contains an even older site with three graves. One of these graves is said to be the grave of the prophet Muhammad. Visitors are restricted to view the graves through several windows known as the mawajaha. There is a wall around the graves visible through the windows. The wall appears to face 20 degrees away from the viewer.



Right: A diagram of the Prophet's Tomb today²⁴

Complicating matters further, it is impossible to say how much the early mosque and tomb structure was changed from its original construction. The many walls and strange angles are especially suspect and would appear to indicate that the building had been adjusted radically.

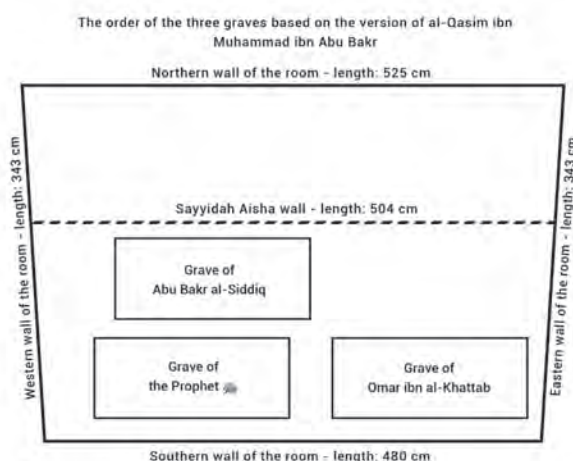
²³ Photo Credit: King Eliot, *Green Dome of Madinah*, photograph, Wikipedia, January 16, 2017, https://commons.wikimedia.org/wiki/File:Green_Dome_of_Madinah.jpg

²⁴ Photo credit: بلال الدويك, *Al-Hujra Drawing*, diagram, Wikimedia, January 7, 2013, https://commons.wikimedia.org/wiki/File:Hujrah_Drawing.jpg

The arrangement of the graves themselves also presents a problem. Today there are three graves, staggered, facing north or south. Muslims are buried on their side facing toward the qibla, so it is not readily apparent whether these graves have a north or south orientation. Contrary to what we see in the Prophet's Mosque today, al-Qasim ibn Muhammad ibn Abu Bakr provides us with this early description of these graves:

narrated Al-Qasim ibn Muhammad ibn Abu Bakr: I said to Aisha! Mother, show me the grave of the Messenger of Allah (ﷺ) and his two Companions (Allah be pleased with them). She showed me three graves which were neither high nor low, but were spread with soft red pebbles in an open space. Abu 'Ali said: It is said that the Messenger of Allah (ﷺ) is forward, Abu Bakr is near his head and 'Umar is near is feet. His head is at the feet of the Messenger of Allah (ﷺ).²⁵

Ibn Abu Bakr's description of these graves does not at all resemble what we find in the Prophet's Mosque. Here is a diagram of what Ibn Abu Bakr described:



Right: Ibn Abu Bakr's description of the three graves²⁶

If Ibn Abu Bakr's account is accurate, then the original tomb may have resembled the drawing above before reconstructions changed the tombs and the structure.

Such an adjustment is disturbing but is not without precedent. For example, al-Baqi is a large graveyard just east of the Prophet's Mosque. Al-Baqi was renovated in April 1926--the builders leveled the graveyard and then rearranged and re-positioned the stone grave markers. These stones were not usually engraved, so the renovators could easily move the stones and align them in straight rows.

²⁵ Sunan Abi Dawud 3220 <https://sunnah.com/abudawud:3220>

²⁶ Hajj & Umrah Planner, "Grave and Tomb of the Prophet Muhammad ﷺ (The Sacred Chamber)," Accessed October 20, 2022, <https://hajjumrahplanner.com/prophet-muhammad-grave/>



Above: The old al-Baqi graveyard before the demolition and renovations in 1926.



The new al-Baqi graveyard. ²⁷

As we can see, the graveyard and its shrines were bulldozed and rearranged to make it look neater and more presentable to the public. If the leaders of Islam could make such drastic changes to Al-Baqi, then there is the possibility that at some point over the centuries the prophet's grave marker was also adjusted.

While we cannot discern the original qibla direction used in Medina, it seems that by 108 AH the Mecca qibla was broadly accepted. Below is a list of 21 of the earliest Mecca facing mosques.

- 88 AH, Jebels Says, Syria
- 101 AH, Rasafa, Syria
- 108 AH, Banbhore, Pakistan
- 112 AH, Amman Palace, Jordan
- 122 AH, Tiberias Friday Mosque
- 125 AH, Qasr Bayir, Jordan
- 131 AH, Kufa Mosque, Iraq
- 145 AH, Mansur Mosque, Baghdad
- 147 AH, Qasr Ukhaydir, Kufa, Iraq

²⁷ Photo Credit: Kerina Yin, *Panorama Perkuburan Baqi' (Maqbaratu al-Baqi')*, photograph, Wikimedia, July 4, 2011, [https://commons.wikimedia.org/wiki/File:Panorama_Perkuburan_Baqi%27_\(Maqbaratu_al-Baqi%27\).jpg](https://commons.wikimedia.org/wiki/File:Panorama_Perkuburan_Baqi%27_(Maqbaratu_al-Baqi%27).jpg)

- 155 AH, Isfan, Iran
- c. 185 AH, Qasim Mosque, Sind, Palistan
- c. 185 AH, Qasr Aseikhin, Jordan
- c. 185 AH, Beni Hasn Mosque, Jordan
- c. 185 AH, Al Baleed Mosque, Oman
- c. 185 AH, Siraf Mosque, Iran
- c. 185 AH, Magokki Attor, Uzbekistan
- c. 185 AH, Beer Ora, Negev
- 202 AH, Imam Riza Shrine, Iran
- 212 AH, Qasr Hallabat, Jordan
- 233 AH, Samarra Great Mosque, Iraq
- 263 AH, Ibn Tulun Mosque, Cairo

According to the data Gibson collected, the evidence suggests that the Mecca qibla was first used around 88 AH and adopted around 100 AH by the caliph. Over time the Mecca qibla has outlasted the other qiblas until it was accepted by Muslims everywhere. In time the other qiblas were forgotten, and never referred to by later historians.

Jerusalem facing mosques

It is commonly believed among Muslims that the prophet Muḥammad first prayed toward Jerusalem, but when he moved to Medina, Allah instructed him to pray toward Masjid al-Harām. There is little historical evidence that the prophet Muḥammad ever faced Jerusalem to pray. Historians tell us that the three original mosques in Medina faced ‘sham.’²⁸ Sham literally means north and was also used as a name for Syria or Damascus. In the context of the qibla, Sham is often interpreted as facing Jerusalem. As mentioned above, the original mosques in Medina have been so radically altered that it is impossible to determine the facing of this ‘sham’ qibla. Clearly the earliest Muslims were praying toward a particular location to the north, but curiously, we are not told what that location was.

Bukhārī, writing over 200 years after the founding of Islam, used the term ‘sham’ to describe the qibla without describing what sham was:

while the people were offering the Fajr prayer at Qubā, someone came to them and said: “It has been revealed to Allah’s Messenger (ﷺ) tonight, and he has been ordered to pray facing the Ka’ba.” So turn your faces to the Ka’ba. Those people were facing Sham so they turned their faces towards Ka’ba.²⁹

²⁸ Joshua Prawer, and Haggai Ben-Shammai, eds., *The History of Jerusalem: The Early Muslim Period (638-1099)*, (New York: NYU Press, 1996), 350.

²⁹ Muḥammad ibn Ismā‘il al-Bukhārī, *Ṣaḥīḥ al-Bukhārī*, 1.397, <https://sunnah.com/bukhari:403>

While it has been commonly assumed that ‘sham’ must have been Jerusalem, the closest approximation to a mention of Jerusalem in this context is in the following hadith:

narrated Al Bara: we prayed along with the Prophet facing [Bayt al Maqḍus, the holy house] for sixteen or seventeen months. Then Allah ordered him to turn his face towards the Qibla: “And from whence-so-ever you start forth (for prayers) turn your face in the direction of al-Masjid al-Harām.”³⁰

Again, Jerusalem is not named directly. Rather, the tradition is to interpret “the holy house” as a reference to Jerusalem. The earliest example of this interpretation appears 300 years after the founding of Islam, in al-Walid b. Hammad al-Ramli’s *Fada’il Bayt al-Muqadis*.³¹

Despite repeated records of this shift in the qibla, we are never presented with any details. We are simply told the direction of prayer changed from ‘sham’ to Masjid-al-Harām. We do not know which cities were involved in this transition, or even the year it happened—only that al-Bara prayed for sixteen months, with the prophet, facing north. We also do not know if these prayers started in the first year of the Muslim calendar, or if the sixteen months started earlier, when the prophet Muḥammad was preaching to the Quraysh.

Despite this scant historical record, there are surprisingly still seven mosques which Gibson has classified as Jerusalem facing:

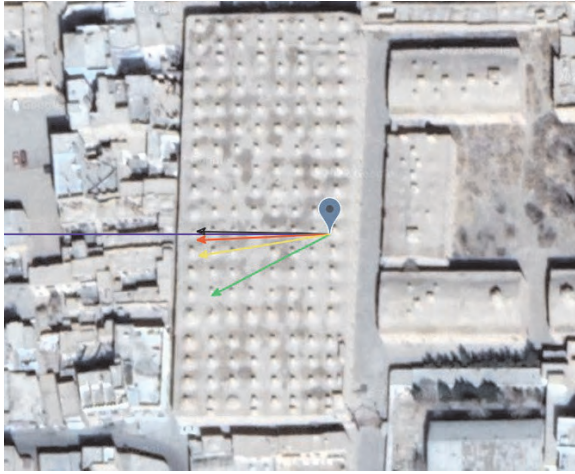
- 93 AH, Kalyan Mosque
- 126 AH, Qasr Tubah
- 257 AH, Shibam Aqyan
- 236-286 AH, Sultan Sanjar
- 552 AH, Sultan Sanjar
- 596 AH, Herat Great Mosque



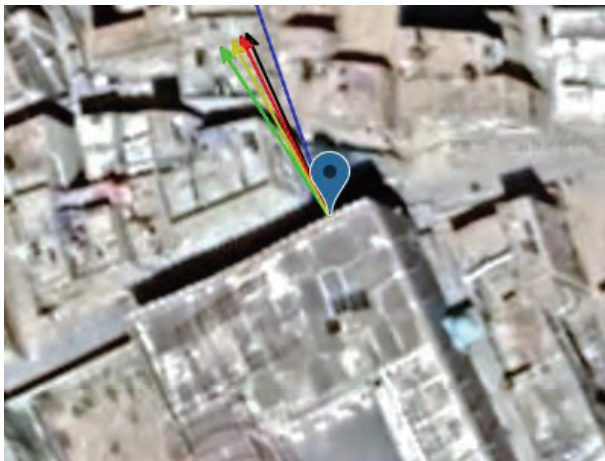
The Kaylan Mosque (blue) in Central Asia faces Jerusalem (black) most closely, just a few degrees of error north, but it is also not far from a Petra qibla (red).

³⁰ Sahih al-Bukhārī 4492 <https://sunnah.com/bukhari:4492>

³¹ Mayer, Tamar and Suleiman Ali Mourad, *Jerusalem: Idea and Reality* (Philadelphia: Routledge, 2008), 87.



The Harrat Great Mosque in Central Asia also faces very close to Jerusalem and Petra. There is only 1.5 degrees between them



The Shibam Aqyan Mosque in Yemen faces too far east, making Jerusalem the closest choice, followed by Petra, and last Mecca. All these mosques are nearly as likely to be oriented toward Petra as Jerusalem



The unfinished Qasr Tuba in Jordan clearly faces Jerusalem. It was built by Walid II, who ruled as caliph for only one year, and the construction stopped as soon as he was murdered.

The entire Qasr Tuba complex has a qibla direction towards Jerusalem. This strange anomaly may be due to Walid II's unusual character.³² Walid ibn Yazid was an Umayyad caliph who reigned for a short period between 125-126 AH. He was the son of Yazid II and grandson of 'Abd al-Malik ibn Marwan. Walid II's birth date is unknown, and sources vary on his age at his time of death. Walid II's brief political career was marked by significant op-

³² Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of al-Tabari Volume XXVI: The Waning of the Umayyad Caliphate*, trans. Carole Hillenbrand (Albany: State University of New York Press, 1989), 126ff.

position from factions within the ruling class, which ultimately lead to his murder in 126 AH. He was remembered by historians as a ruler who was distracted with wine, women, songs, and poetry. The facades attributed to his construction contain semi-nude women and lavish decorations. Some religious rulers claimed he was not a Muslim. Al-Ṭabarī wrote that he had “a flippant and contemptuous attitude toward religion.”³³ Walid II’s strange choice of qibla for his desert castle may be related to these religious issues. His behavior was considered so immoral that he was killed and his uncle Hisham became caliph. His desert castle project was abandoned.³⁴

Conclusion

Manuscript evidence of qibla change is sparse, but there are a few extant passages which may speak to a change in qibla direction amongst some mosques. First, during the Second Islamic Civil War, the people of Kufa changed allegiance and sided with Ibn al-Zubayr in his rebellion against the caliphs in Damascus. Al-Ṭabarī records:

when Bujayr b. ‘Abdallah al-Musli-it is said that he was a mawld of theirs-was brought to Mus‘ab together with many of al-Mukhtar’s men, he said to Mus‘ab, “Praise be to God, who has tested us with shackles, and tested you by your forgiving us. There are two stations: one of them is God’s good pleasure, the other His wrath. Whoever forgives, God forgives him and increases him in might; whoever punishes is not safe from retaliation. Ibn al-Zubayr, we are people who turn to the same qibla as you and hold your creed.”³⁵

Historians have long assumed that this report indicated that the people of Kufa were declaring their shared convictions about the civil war with Ibn al-Zubayr, and that the mention of the qibla was metaphorical. But, when considering the context of the shifts in qibla orientation which occurred at the time, it is much more natural to read al-Ṭabarī’s record as a literal change in qibla direction instigated by moving the Black Stone to the Hijaz.

Al-Ṭabarī also wrote the following about the change of the qibla wall in the Prophet’s Mosque in Medina in 88 AH:

Al-Walīd b. ‘Abd al-Malik ordered the pulling down of the mosque of the Messenger of God, may God bless and preserve him, and the pulling down of the rooms of the wives of the Messenger of God, may God bless and preserve him, and the incorporation of them into the mosque. Muḥammad b. ‘Umar mentioned that Muḥammad b. Ja’far b. Wardan al-Bannas ‘said: I saw the messenger sent by al-Walīd b. ‘Abd al-Malik. He arrived in the month of Rabi’ I in the year 88 [February-March 707 CE] with a turban wound round his head. He entered into the presence

³³ Al-Ṭabarī, *Volume XXVI*, 138.

³⁴ Al-Ṭabarī, *Volume XXVI*, 153-154.

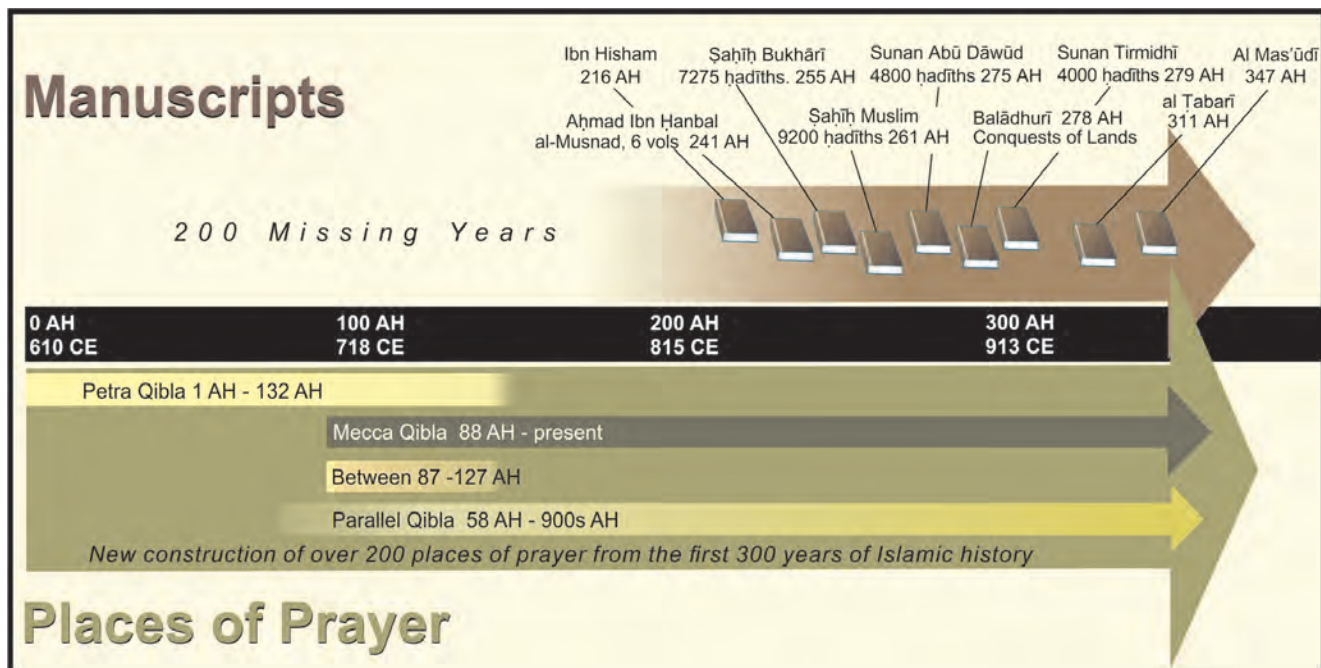
³⁵ Al-Ṭabarī, *Volume XXI*, 107.

of ‘Umar b. ‘Abd al-’Azīz bearing al-Walīd’s letter ordering him to incorporate the rooms of the wives of the Messenger of God, may God bless and preserve him, into the mosque, and to buy (the land) behind it and beside it so that it might [measure] two hundred cubits by two hundred cubits. He also said to him [in the letter]: “Change [move] the qibla if you are able, and you are able, because of the standing of your maternal uncles...”³⁶

Al-Ṭabarī wrote 39 volumes of history, filled with crucial events and the most important figures of Islam. This lengthy description of a mosque renovation seems unusual. Many mosques were torn down and rebuilt over the centuries, but al-Ṭabarī seems particularly concerned with the changes made to the Prophet’s Mosque. Perhaps the last sentence above is especially crucial: the qibla was changed.

Al-Ṭabarī wrote at a time when the Abbāsids dominated the Muslim world. His histories were necessarily written with an Abbāsīd bias. Potentially embarrassing details were sometimes projected backward onto the earlier Umayyads to disparage them, but nothing was ever recorded about Islam which could be embarrassing. Thus, even the great al-Ṭabarī must be treated with some incredulity. Al-Ṭabarī would not be free to elaborate on the meaning of the change of the qibla of the Prophet’s Mosque—especially given the political climate, and the implications for the Abbāsīd version of the history of Islam. So, he mentions this radical change, but does not explain it.

Below is a timeline of new construction of places of prayer from the beginning of the Islamic calendar through 200 years. The remaining archaeological evidence from these two centuries seems to indicate that the original qibla direction was towards Petra. However, by



³⁶ Abu Jafar Muhammad b. Jarir al-Tabari, *The History of al-Tabari Volume XXIII: The Zenith of the Marwanid House*, trans. Martin Hinds (Albany: State University of New York Press, 1990), 141.

88 AH, three other qiblas were also in use: Syrians used Mecca in Arabia, a between qibla used in Iraq and Syria, and the parallel qibla used in North Africa and Spain. From this evidence we can conclude that Mecca in the Hijaz was the last qibla to be developed, and that its supremacy eventually overshadowed and then eclipsed all the others, until all the others were ignored and ultimately forgotten.

For centuries Muslims have been told that the qibla faces Mecca in Saudi Arabia. They have never heard that there were previous qiblas, and they have never heard that Petra was the first qibla direction. These various qiblas need to be explained in a serious and meaningful way—including the transition to the now dominant Mecca qibla.

To understand these highly unusual qiblas, we have found it helpful to place these mosques within the wider qibla controversy at the time. In 83 AH (702 CE) al-Ḥajjāj started to build his Between mosques. A war ravaged Petra was finally destroyed in a powerful earthquake in 130 AH (748 CE) which further undermined the original Petra qibla and helped al-Ḥajjāj promote his Between qibla position. At the time, Mecca was only beginning to be accepted as a place for prayer and pilgrimage.

So, the city of Petra, the between mosques, and even the African qiblas were forgotten. Every Muslim believed that all mosque qiblas always faced Mecca in Saudi Arabia. Yet, the archaeological data demands an explanation, and the conclusions presented here help to make sense of these important discoveries.

Chapter Three

Qibla Data Examined Statistically

Walter Schumm, Zvi Goldstein

Background

For some time, a few scholars (Brubaker, 2019, p. 17; Petersen, 1996; Waugh, 2012, p. 201) have questioned the qiblas of early Islamic sites, but the nature of the problem remained uncertain, and disagreement was intense in defense of Mecca as the first holy city of Islam (see chapter one). Gibson first published his relatively comprehensive (up-to-that time) research on early Islamic qiblas in 2011, followed by a 2017 book, which initiated considerable controversy, discussed in more detail elsewhere (Schumm, 2020; Schumm & Goldstein, 2021). Gibson argued from his data that Petra was the first holy city of Islam, only changed to Mecca many decades after the founding of Islam. Some scholars felt that Gibson's thesis did warrant further serious investigation (Brubaker, 2019; Lecker, 2014, p. 465; Oakes, 2015, p. 426). To summarize arguments against Gibson's thesis, some have claimed that early Islamic architects were incapable of measuring azimuths to distant cities of any type (Ilci et al., 2018; King, 2018-2019, p. 351, 354; Saifullah et al., 2001). Saifullah et al. (2001) went so far as to say that "a small, defiant, and largely discredited group of Orientalists have argued that the early mosques were not oriented toward Makkah...a theory that challenges the Muslim belief that the earliest mosques were directed toward the K'abah" (p. 1). Anderson (2018) noted that if Gibson's critics were correct, then any alignment of qiblas with either Petra or Mecca would be mere (random) coincidence. Of course, if the critics of Gibson's thesis were correct, then Gibson's thesis would be incorrect. Some have accused Gibson of being non-scholarly, if not dangerous (Schumm, 2020, p. 2). However, some scholars, including King (1990, p. 246) and Petersen (1996, p. 240) agreed that many early Islamic structures did not face Mecca

geographically, leaving open the question of where, if anywhere, did they face – and why or why not?

A second related assertion was that early Islamic sites were not aimed geographically, as we would tend to expect, toward distant cities, but rather faced the Ka'ba in Mecca in a variety of other ways, with up to ten different azimuths that might align in some way or another with the shape and angles of the Ka'ba itself (King, 2018-2019). If that thesis was correct, then it might invalidate Gibson's thesis. However, a statistical assessment of the controversy was lacking.

Fortunately, statistics can be used to resolve many controversial issues and have been used to investigate Islamic history and doctrine (Schumm, 2002, 2003, 2004a, b; 2005; Schumm et al., 2005; Schumm and Kohler, 2006) as well as that of other religions (Schumm et al., 2021).

Wanting to add some light to the heat of this qibla controversy, in 2020, Schumm published a report in the journal *Religions* that included 22 sites that appeared to face Petra (since then Cheraman Juma's qibla was changed by Gibson to unknown) and 14 that appeared to face Mecca (since then the Mosque of Mansur has been changed by Gibson to a between qibla), leaving 21 Petran and 13 Meccan sites. The total number of sites, including between, Jerusalem, and parallel sites, reported in Schumm (2020) was 60, although Um Jemal Later Castellum (Gibson changed the name and date to avoid an apparent change in the date of construction to a later date) was listed twice by mistake in Table 2.

The next year, Schumm and Goldstein (2021) reported data from 131 sites overall, including 33 Petran sites (37 if counting sites dated outside 622 to 900 CE, one early, three late) and 16 Meccan sites (with 30 unknown, 32 between, 3 Jerusalem, and 17 parallel). However, since then Gibson has reclassified one Meccan site (Mansur) from Meccan to between; three sites have been reclassified from Petran to unknown (Medina, Mudhmar, Huaisheng), leaving 31 Petran and 15 Meccan sites from the Schumm and Goldstein (2021) report. Since then, as of December 2022, Gibson has added 29 Petran sites and 13 Meccan sites for a total of 60 Petran sites and 28 Meccan sites. Readers may refer to Gibson's Online Qibla Tool for the latest information [https://nabataea.net/explore/founding_of_islam/qibla-tool/] as well as the appendices. That total of 88 sites does not include the Qiblatain Mosque in Medina for which we estimated errors of -5.0 and -177.0 for Petra and Mecca, respectively, an estimate not accepted by Gibson.

There remains a question of how closely ancient qiblas came to ancient sites such as Petra or Mecca, which must involve a type of average distance errors from the actual intended site. That further question will be addressed in later sections of this book.

Research Questions

We had three main research questions, each tested with three to five separate hypotheses. The research questions are dependent on results for previous research questions.

Our first research question was whether most early Islamic architects could measure azimuths to distant cities (e.g., Petra, Mecca) accurately, within plus or minus ten degrees of random error at most. If this research question is answered in the negative, then the second and third research questions would be moot.

There were five hypotheses related to this first research question.

Hypothesis 1. An equal number of positive and negative qibla errors will be found for Petran and Meccan qiblas.

Hypothesis 2. Qibla errors will be centered on an error of zero.

Hypothesis 3. Qibla errors will generally be less than plus or minus five degrees.

Hypothesis 4. Qibla errors will be normally distributed.

Hypothesis 5. Qibla errors will not change over time in magnitude unless either increasing or decreasing (both options might be possible).

Our second research question was whether Qibla accuracy was associated with different qiblas, including whether accuracy differed for different qiblas. If the first research question were answered in the negative, then this second research question would be moot. If the qibla changed from Petra to Mecca, then when we compare errors for Petra vs. Mecca for each type of qibla, the errors should be much smaller and near zero for the Gibson-designated qibla than for the other qibla error if the other qibla had been the “correct” one. In other words, if the qibla is Petra per Gibson and Gibson’s theory is correct, then the error for Petra should be near zero, but the errors for Mecca for those same mosques should be substantially and significantly larger. The reverse should be true for the qiblas designated as Meccan by Gibson. Thus, the second research question included three hypotheses.

Hypothesis 6 Qibla errors will be smaller for designated qiblas compared to alternative qiblas.

Hypothesis 7 Qibla errors for different qiblas will not be different in magnitude.

Hypothesis 8 The qibla errors for the 88 sites, as assigned by Gibson, assuming that the qibla changed from Petra to Mecca will be smaller than the qibla errors if Mecca was the only qibla with no change having occurred.

Our third research question was whether the qibla changed over time between Petra and

Mecca. If the second research question was answered in the negative (i.e., qibla errors were substantially different between qiblas; qibla accuracy did not differ when comparing errors across sites), then this third research question would be moot. The third research question included three hypotheses.

Hypothesis 9. The average date of construction of sites with qiblas will be earlier for Petran sites than for Meccan sites.

Hypothesis 10. Dividing time into early, middle, and later years, Petran qiblas will be more common in the early years while Meccan qiblas will be more common in later years, with a roughly even split in the middle years.

Hypothesis 11. Dates of construction will be positively correlated with Meccan versus Petran qiblas.

Methods

Sample.

Our sample included 60 Petran qiblas and 28 Meccan qiblas dating between 629 CE and 912 CE. We did not include “between” or “parallel” qiblas since the main research question was whether the first holy city of Islam was Petra or Mecca. Sites with unknown qiblas were not included because lacking a date of construction or an original qibla made it impossible to analyze their data statistically. The average date of construction of the 88 sites was 744.32 CE (SD = 69.52). For all 88 sites, the average qibla error was -1.469 (SD = 5.709) with a median of -1.050.

Measures.

Qibla coding was 0 for Petra and 1 for Mecca. Dates of construction were taken from Gibson’s qibla tool; however, dates listed as 600-699 were coded as 665; 700-799 as 750; 800-899 as 850. Qibla errors were also taken from the qibla tool’s data for each mosque or other site.

Analyses.

Our requirement for statistical significance will be an alpha of less than .05. In some cases, we will report non-significant significance levels. We have three reasons: (1) careful readers often wish to know the exact significance level so they can test for research misconduct (uneven levels of significance above and below the .05 level), (2) we expect to find sup-

port for the null hypothesis for some of our hypotheses, that is, we expect the null hypothesis to not be rejected and (3) we anticipate that some readers will not be familiar with critical values of chi-square, t, or other statistical tests and expect to see both test values and significance levels obtained.

The first research question was evaluated with hypotheses one to five. Hypothesis 1 was tested using one-sample chi-square tests with one degree of freedom, comparing the observed data to the null hypothesis of an even split of negative and positive qiblan errors, not including qiblas with zero error. Hypothesis 2 was tested with one-sample t-tests using zero as the comparison value, as well as equivalent nonparametric statistical tests. Hypothesis 3 was demonstrated by percentages of qiblas within one, two, three, five, seven, ten, twelve, and 16 degrees of error. Hypothesis 4 was tested with one-sample Kolmogorov-Smirnov tests against a normal distribution. Hypothesis 5 was tested with zero-order Pearson correlations between date of construction and qibla errors.

The second research question was evaluated with three hypotheses, 6 through 8. Hypothesis 6 was tested with paired samples t-tests, comparing errors for Petra versus errors for Mecca for the 60 Petran qiblas and likewise for the 28 Meccan qiblas. Hypothesis 7 was tested with an independent samples t-test and equivalent nonparametric tests comparing qibla errors for Petran sites vs. Meccan sites ($n = 88$). Hypothesis 8 was tested with a paired samples t-test, comparing qibla errors assuming that the qibla changed from Petra to Mecca versus the errors had Mecca been the only qibla among our 88 sites.

The third research question was evaluated through hypotheses 9, 10, and 11. Hypothesis 9 was evaluated by an independent samples t-test comparing dates of construction with Meccan versus Petran qiblas. Hypothesis 10 was tested comparing type of qibla (Petran vs. Meccan) as a function of early (622 to 722 CE), middle (723 to 772 CE), and late (773 to 912 CE) years of construction, as well as equivalent nonparametric statistical tests. Hypothesis 11 was tested using a zero-order Pearson correlation between dates of construction and Petran vs. Meccan qiblas.

Ethics.

On 29 April 2020, the Committee on Research Involving Human Subjects, the Institutional Review Board (IRB) at Kansas State University, determined that research proposal 10141 “Assessing Early Islamic Qiblas” was a non-research application and did not meet the criteria in 45 CFR 46 for the definition of research involving human subjects, and therefore did not require further review by the committee.

Results

First Research Question

Hypothesis 1.

One sample chi-square tests ($df = 1$) were used to assess whether an equal number of errors were positive or negative, excluding cases where error = 0. For Petran errors, the chi-square value was 1.42 ($p = .233$), for Meccan errors, 2.79 ($p = .095$). The results of hypothesis 1 indicate that there were statistically equivalent number of negative and positive qibla errors for both Petran and Meccan qiblas.

Hypothesis 2.

The results for hypothesis 2 are presented in Table 1. For both Meccan and Petran qiblas the average errors were not significantly different than zero, using either one-sample t-tests or a one-sample Wilcoxon signed rank test. The results for hypothesis 2 indicate that errors for both qiblas were centered around zero.

Hypothesis 3.

The results for hypothesis 3 are presented in Table 2. Visual inspection shows that over two-thirds of the Petran and over half of the Meccan qiblas were within five degrees of error, while about 80% of both were within seven degrees of error. A chi-square test indicated that the percentages of errors did not differ significantly between the Petran and Meccan qiblas.

Hypothesis 4.

Combining the best Petran and Meccan qibla errors for 88 sites, a one-sample Kolmogorov-Smirnov test yielded a non-significant result ($p < .08$). For the 60 Petran qibla errors, the same test was not significant ($p = .064$), although there appeared to be an excess, compared to a normal distribution, of errors just to the right of zero, suggesting that the Petran pattern was more accurate than predicted by a normal distribution. For the 28 Meccan qibla errors, the same test was not significant ($p = .130$) with an apparent excess of errors just to the left of zero, suggesting that the Meccan pattern was more accurate than predicted by a normal distribution.

Table 1. One-Sample t-tests of Meccan/Petran Errors from a Mean of Zero

Qibla Error	Mean	SD	Median	t	df	p	d
Petran Error	-0.949	4.83	-0.600	-1.52	59	.133	-0.197
Meccan Error	-2.582	7.23	-2.050	-1.89	27	.069	-0.357

Two-sided tests of significance used with these one-sample t-tests because we did not have a priori knowledge or theory about which side of zero the results would occur. Cohen's d reported as effect size. Hedges' corrections were -0.194 and -0.347, respectively. Using a one-sample Wilcoxon Signed Rank test to test the medians against a value of 0 yielded non-significant results for Petra ($p = .145$) and for Mecca ($p = .096$).

Table 2. Percent of Qibla Errors within One, Two, Three, Five, Seven, Ten, Twelve, and Sixteen Degrees

Qibla Error	Petra (n = 60)	Mecca (n = 28)
± 1	25.0	10.7
± 2	45.0	28.6
± 3	51.7	32.1
± 5	68.3	53.4
± 7	85.0	78.6
± 10	93.3	85.7
± 12	100.0	89.3
± 16	100.0	92.9

Dividing the qibla error into three categories: 0-3, 3.1-7.0, and 7.1 percent or more, to ensure individual cell sizes of more than five each, a chi-square test ($df = 2$) = 2.94, $p = .230$, indicating that the relative percentages were not significantly different for Petra versus Mecca.

Hypothesis 5.

Correlations were non-significant between errors for all sites ($r = -.156$, $p = .147$, two-tailed), for Petran sites ($r = -.074$, $p = .504$, two-tailed) and for Meccan sites ($r = -.185$, $p = .346$, two-tailed). This indicates that qibla accuracy improved slightly over the years between 629 and 912 CE, a bit more so for the Meccan qiblas.

Second Research Question

Hypothesis 6.

The results for hypothesis 6 are presented in Table 3. The results indicate that while errors were centered on zero for each qibla by itself, when compared to errors for the other qibla for the same sites, differences were substantial.

Table 3. Comparing Qibla Errors Across Different Qiblas

Type of Error	Mean Error	SD	N	t	df	p	d
Qibla: Petra							
Petran	-0.949	4.827	60	4.95	59	< .001	-0.639
Meccan	22.437	34.783	60				
Qibla: Mecca							
Petran	-29.000	41.141	28	3.65	27	.001	-0.689
Meccan	-2.582	7.226	28				

The paired samples t-tests used two-sided tests of significance; Cohen's d was used to measure effect sizes; Hedges' corrections were -0.631 and -0.670, respectively. Using nonparametric tests, the comparison for Petra was also significant by a related-samples Wilcoxon signed rank test (comparing medians, $p < .001$) and a related-samples Friedman's two-way analysis of variance by ranks (comparing distributions, $p < .001$). The comparison for Mecca was also significant by the same nonparametric tests, respectively ($p = .001$, $p < .001$).

Hypothesis 7.

The results for hypothesis 7 are presented in Table 4. The small average errors for each qibla were not significantly different by both parametric and nonparametric tests. There was a nearly significant trend for Meccan qibla errors to include more extreme values compared to Petran qiblas.

Table 4. Qibla Errors As a Function of Apparent Qibla (Petra vs. Mecca)

Qiblas	Mean of Qibla Errors	SD	t	df	p	d
Petra	-0.9488	4.827	1.25	86	.213	0.287
Mecca	-2.5821	7.226				
Difference:		1.633 (95% CI, -0.956 to 4.222)				

Independent samples t-test used here; two-sided significance level reported above. Cohen's d reported for effect size; Hedges' correction was 0.285 while Glass's delta was 0.226. Non-significant results were also obtained using nonparametric tests, including an independent-samples median test ($p = .252$), and independent samples Mann-Whitney U test ($p = .313$), and an independent samples Kolmogorov-Smirnov test ($p = .477$). An independent-samples Moses test of extreme reaction was nearly significant ($p = .051$), suggesting a difference in the extreme ranges across the two qiblas.

Hypothesis 8.

The results for hypothesis 8 are presented in Table 5. The average qibla errors are substantially and significantly lower for the "qibla changed" model compared to the qibla "did not change" model; the standard deviations also appear substantially lower. In other words, in terms of both mean scores and standard deviations, the "change" model seems to fit better to the idea of accurate qiblas with tight patterns around the near-zero mean scores.

Table 5. Comparing Qibla Errors Under Assumption that the Qibla Changed from Petra to Mecca versus the Assumption that the Qibla was to Mecca with No Change

Type of Error	Mean Error	SD	N	t	df	p	d
Petran/Mecca	-1.469	5.709	88	4.67	87	< .001	-0.497
Mecca Only	14.477	31.210	88				

The paired samples t-tests used two-sided tests of significance; Cohen's d was used to measure effect sizes; the Hedges' corrections was -0.493. Using nonparametric tests, the comparison for Petra was also significant by a related-samples Wilcoxon signed rank test (comparing medians, $p < .001$) and a related-samples Friedman's two-way analysis of variance by ranks (comparing distributions, $p < .001$).

Third Research Question

Hypothesis 9.

The results for hypothesis 9 are presented in Table 6. By both parametric and nonparametric tests, dates of construction were substantially earlier for Petran qibla sites than Meccan qibla sites.

Table 6. Average Date of Construction of Mosques/Islamic Sites As a Function of Apparent Qibla (Petra vs. Mecca)

Qiblas	Mean Date of Construction	SD	t	df	p	d
Petra	719.33	60.32	5.78	86	< .001	1.32
Mecca	797.86	57.11				
Difference:		78.53 (95% CI, 51.53 to 105.52)				

Independent samples t-test used here; two-sided significance level reported above. Cohen's d reported for effect size; Hedges' correction was 1.31 while Glass's delta was 1.38. Comparing the median dates of construction (Petra = 714.00, Mecca = 788.00) using an independent-samples median test yielded a significant result ($p < .001$); an independent-samples Mann-Whitney U test was also significant ($p < .001$).

Hypothesis 10.

The results for hypothesis 10 are presented in Table 7. Most early sites have qiblas to Petra while most later sites have Meccan qiblas.

Table 7. Apparent Qiblas as a Function of Date of Construction Categorizations

Apparent Qibla	Categories of Dates of Construction		
	Early (622-722 CE)	Middle (723-772 CE)	Late (773-912 CE)
Petra	32 (94.1%)	19 (65.5%)	9 (36.0%)
Mecca	2 (5.9%)	10 (34.5%)	16 (64.0%)
Totals	34	29	25

Chi-Square test ($df = 2$) = 22.57 ($p < .001$). The proportions in each column are significantly different from the other columns.

Hypothesis 11.

Both a Pearson's zero-order and a Spearman rho correlation ($n = 88$) between Qiblas (Petra = 0; Mecca = 1) and average dates of construction were .506 ($p < .001$), indicating that as dates of construction were later/more recent the qiblas were more often Meccan than Petran, as reflected also in Tables 6 and 7.

Limitations

The results of our analyses are no better than the raw data provided by Dan Gibson. If his data were to be in error, then our analyses would be biased and unreliable. In attempting to present the most accurate data, Gibson has changed parts of his data set several times over the years, which may seem a matter of unreliability in itself to some critics. While early critics might have accurately criticized small sample size for Gibson's data set, his most recent data

includes data from over 200 early Islamic sites or mosques, quite sufficient for detecting small-to-medium effect sizes. King has asserted that our statistical testing is meaningless; should readers accept the conclusion that authors with over 45 years' experience using and teaching about statistics (with over 250 published refereed journal articles) know nothing about research or statistics, then perhaps King's assertions should be taken seriously. Otherwise, they should not be taken seriously. At least one other scholar engaged with Schumm over controversial research has publicly criticized Schumm for knowing nothing about research, so we shall let the reader judge for themselves, based on the statistical results presented here. It might be argued that the authors know little about Islam, but they have published articles on Islam in a variety of journals, including Islamic journals, while Schumm taught an undergraduate/graduate class "Understanding Islam" for several years at Kansas State University as part of its diversity programming. Neither author is a Muslim but perhaps a non-Muslim can assess scientific tests of qiblas with more objectivity and less bias than some Muslim scholars might.

Objections

One limitation was that we did not report results for "between" qiblas. To deal with that objection, we ran similar analyses for the 56 between qiblas reported as constructed before 900 C.E. The azimuth errors remained small (mean = -1.55, median = -1.90, SD = 5.29, although a one-sample $t(55) = 2.19$ ($p < .04$, two-tailed, Cohen's $d = 0.29$, while a median test was not significant). The distribution for the between qibla errors did not differ significantly from a normal distribution by the Kolmogorov-Smirnov one-sample test for normality. The errors fell within the following percentages: one degree (12.50), two degrees (25.00), three degrees (41.07), five degrees (62.50), seven degrees (80.36), ten degrees (92.86), twelve degrees (96.43), and fourteen degrees (100.00). Comparing the errors across the three qiblas, a one-way analysis of variance yielded $F(2, 141) = 0.83$ ($p = .437$); none of the paired post hoc LSD comparisons were significant. A nonparametric Kruskal-Wallis test with two degrees of freedom yielded $H = 1.10$ ($p = .578$), also not significant.

Another objection might be that we did not discuss the parallel qiblas. Using the 25 parallel qiblas from before 900 C.E., we obtained a mean of 154.75, median of 153.00, and standard deviation of 19.16. The azimuth from Petra to Mecca appears to be between 155.00 and 157.00 degrees. Using a one-sample t -test for both of those azimuths yielded non-significant results compared to the mean of 154.75, with Cohen's d 's of .01 and 0.12, respectively. Using an estimated median of 156.00, a one-sample Wilcoxon Signed Rank Test yielded a non-significant result ($p = .468$). A one-sample Kolmogorov-Smirnov Test found that the distribution of azimuths did not deviate significantly from a normal distribution ($p = .107$) with a higher percentage of azimuths near the mean value than would be expected for a normal distribution, implying higher accuracy than would have been expected. However, due to several outliers, including three sites above 177 degrees and three sites below 137 degrees,

the standard deviation (19.16) was significantly higher than for the Petran errors (4.83), using Levene's Test for Equality of Variances [$F(1, 84) = 30.04, p < .001$]; similar results were obtained for Meccan standard deviation (7.23), [$F(1, 52) = 9.48, p = .009$] and the between sites standard deviation (5.29), [$F(1, 80) = 25.09, p < .001$]. In terms of percentages above and below 157 degrees azimuth the results were: ± 3 degrees (4.0%), ± 5 degrees (24.0%), ± 7 degrees (40.0%), ± 10 degrees (56.0%), ± 12 degrees (64.0%), ± 14 degrees (72.0%), and ± 20 degrees (76.0%). Of the four groups, the parallel sites have the greatest dispersion of results, even though the average scores are centered between 155 and 157 degree azimuths. One might have thought that aiming for a specific azimuth would have been easier than aiming for a far away point leading to greater accuracy. Future research might try to explain this greater variance. Perhaps there was confusion about the exact azimuth from Petra to Mecca or perhaps local conditions made it difficult to aim buildings in the desired, correct azimuth (e.g., constrained by earlier foundations or roads surrounding some sites).

It might be argued that we used parametric statistics without validating their assumptions; however, we did use nonparametric statistics for the same tests and obtained similar results. It could be argued that Gibson's data are flawed and therefore our statistics are meaningless; we agree, if Gibson's data were flawed, our statistics would be meaningless. It could be argued that our results discredit the Qur'an, but our view is that only an incorrect interpretation of the Qur'an is discredited, given that any Scripture can be misinterpreted (II Peter 3:16). For that matter, any scientific result can be misinterpreted; we have seen situations where the null hypothesis was accepted but others said it was rejected, and vice versa, even where authors themselves reported one result when their data indicated the opposite. Some may dislike the use of statistical testing of religious issues, but we have applied statistics to improve our understanding of both Islam and Christianity (Schumm, Crawford, et al., 2021; Schumm, Hatch, Hevelone, and Schumm, 1991). Schumm (2006) has taken a public position on equity and social justice for Muslims. Some might hope that the outlier qiblas for Mecca (> 10 degrees of error) might fit King's specified azimuths, but while the azimuth for Qasr Ukhaydir does (close to due south, 182 degrees), the qiblas for the mosque at Fahraj (-213.4), the Nine Domed mosque (230.51), and the mosque at Ishfam (214.7) do not fit his model (Schumm and Goldstein, 2021, pp. 6). Furthermore, there is a great deal of corroborating evidence in favor of Gibson's thesis, which we briefly summarized elsewhere (Schumm and Goldstein, 2021, pp. 8, 19) but is discussed later in this book.

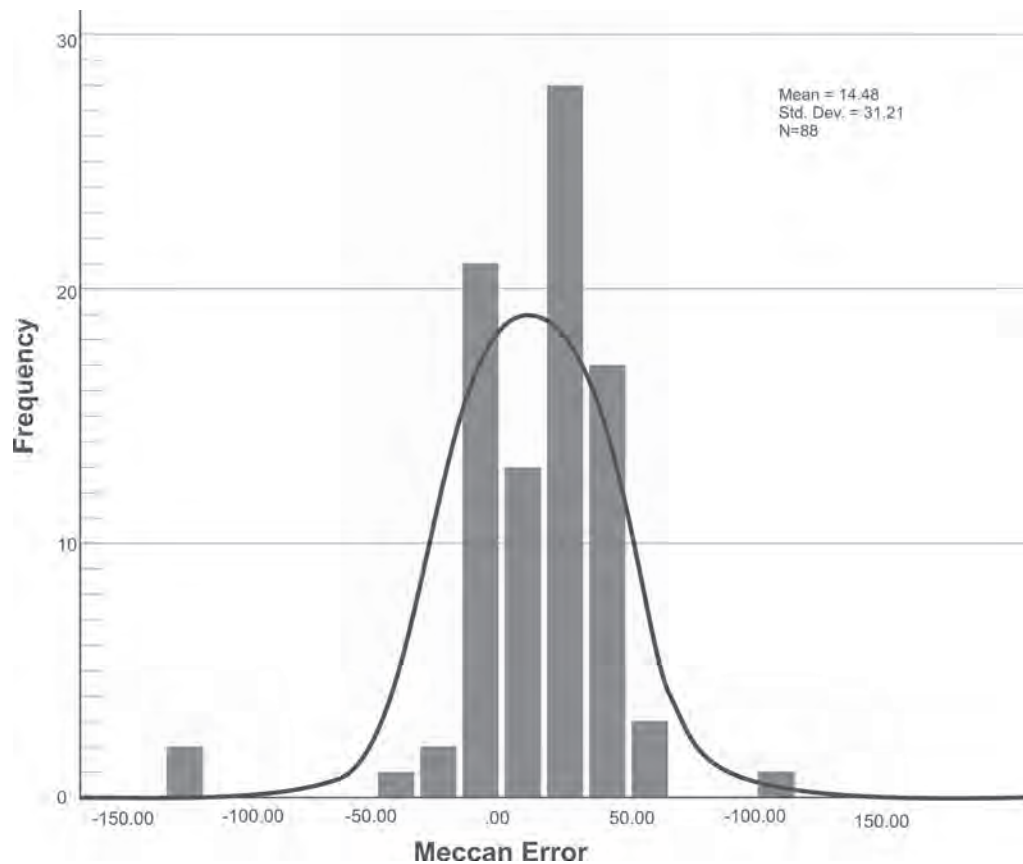
Discussion

Given that the qibla errors were found to be centered on zero, to be approximately distributed normally, and most were within a few degrees of error, the answer to the first research question appears to be that early Islamic architects were able to identify approximately accurate azimuths to different distant cities. Those who assume otherwise have been

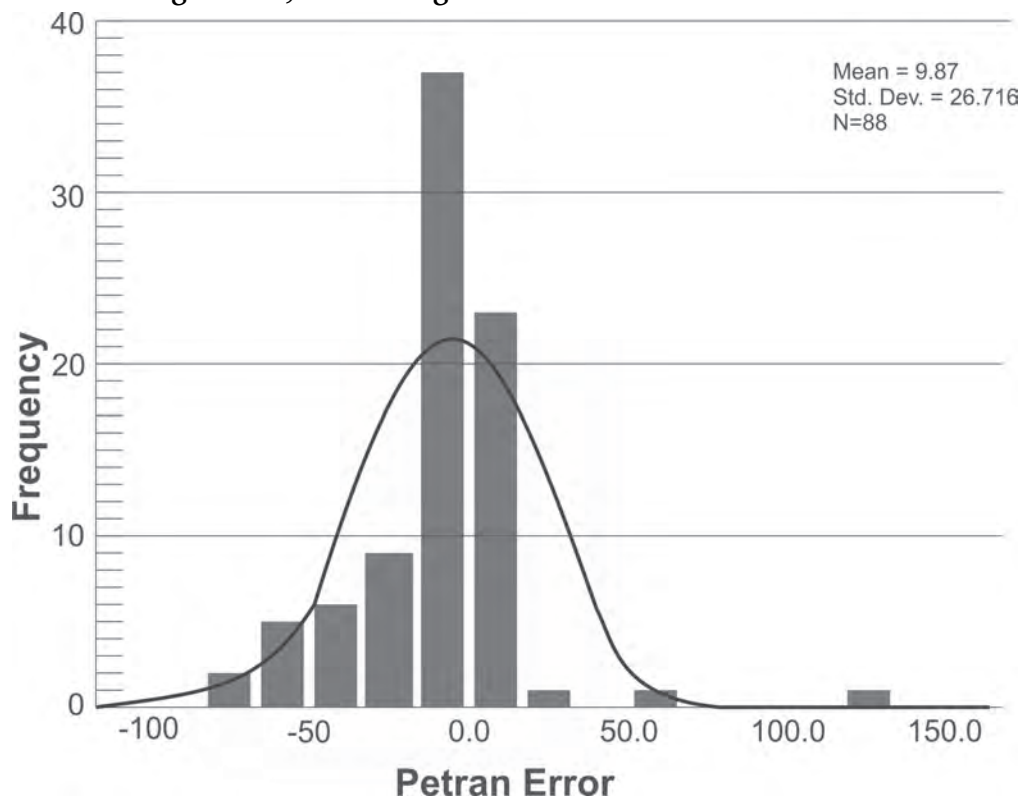
underestimating the capabilities of early Islamic architects. The second research question was answered with the qibla errors for both Mecca and Petra not only being centered on zero but not significantly different from each other, but each qibla was significantly and substantially more accurate for the Gibson-designed qibla than for the other qibla, which would fit Gibson's theory. Furthermore, comparing a "changed qibla" model versus a "no change from Mecca" model, the data supported the former. The third research question did lead to an answer that the relative percentages of Petran versus Meccan qiblas did change over time and the average ages of the mosques/sites involved was much earlier for the Petran sites than the Meccan sites. The results here should be considered in the context of other investigations into the early history of Islam (Brubaker, 2019; Durie, 2018). Taking Petra as the early center of Islamic military action would have provided Islamic armies with a large advantage of interior lines of communications and logistics versus the Romans (Byzantines for some readers) and may help explain how Islam was able to establish an empire from Spain to India in less than a century.

Conclusion

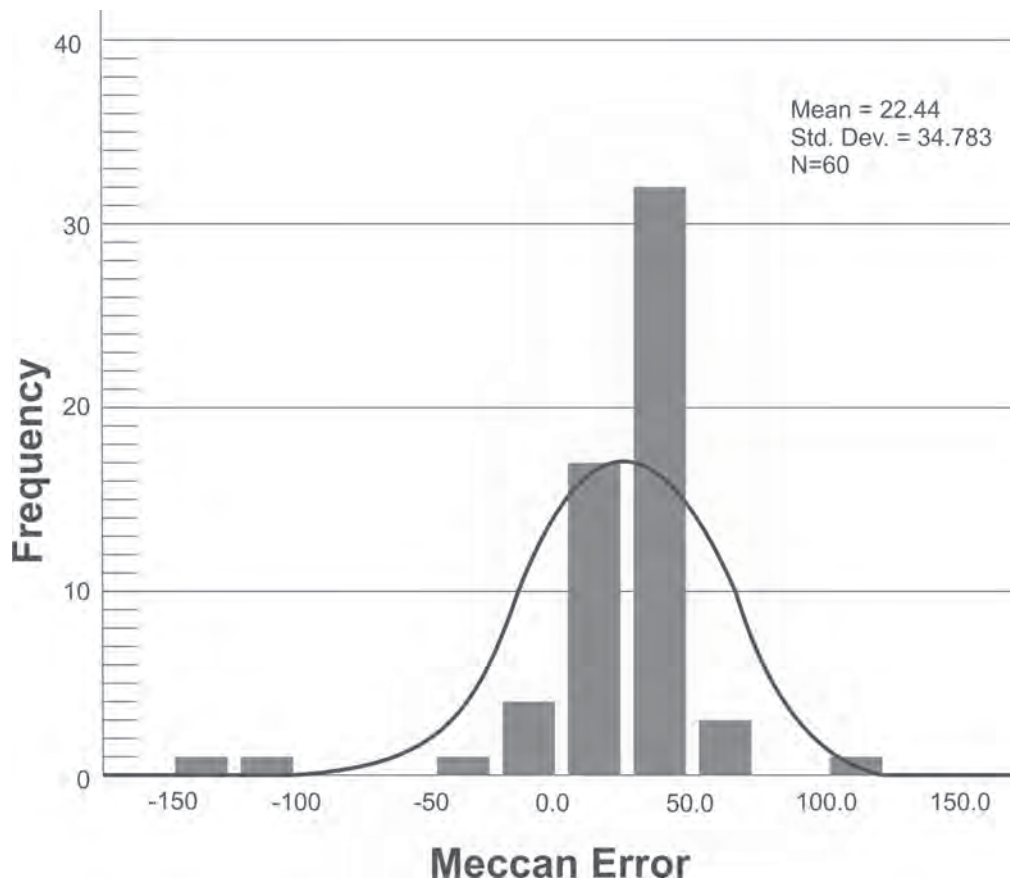
Taking the results here and from Schumm and Goldstein (2021) both Gibson and King appear to be partially correct. King is correct that later mosques may have faced Mecca in ways other than geographically. Gibson is correct that early Islamic mosques/sites did tend to face Petra and did so most often within the first century of Islam's history, even though some sites faced Petra geographically much later than that. Thus, in a sense, both Gibson and King offer correct explanations for Muslim qiblas, just for different times in early Islamic history. Since Gibson's thesis is the more controversial one, those results may be more significant in terms of revising the history of early Islam. As Schumm and Goldstein noted (2021, p. 5), Feras Hamza (2015) reminded us that by the year 711 (CE) "the Islamic state had become an empire stretching from Spain to India, heralding the advent of a major world civilization" (p. 537) and we concluded that "discovering that Islam's empire had expanded tremendously while Petra remained its holiest city would be truly a remarkable finding, so remarkable that some may find it unacceptable, no matter the level of statistical/scientific evidence" (p. 5).



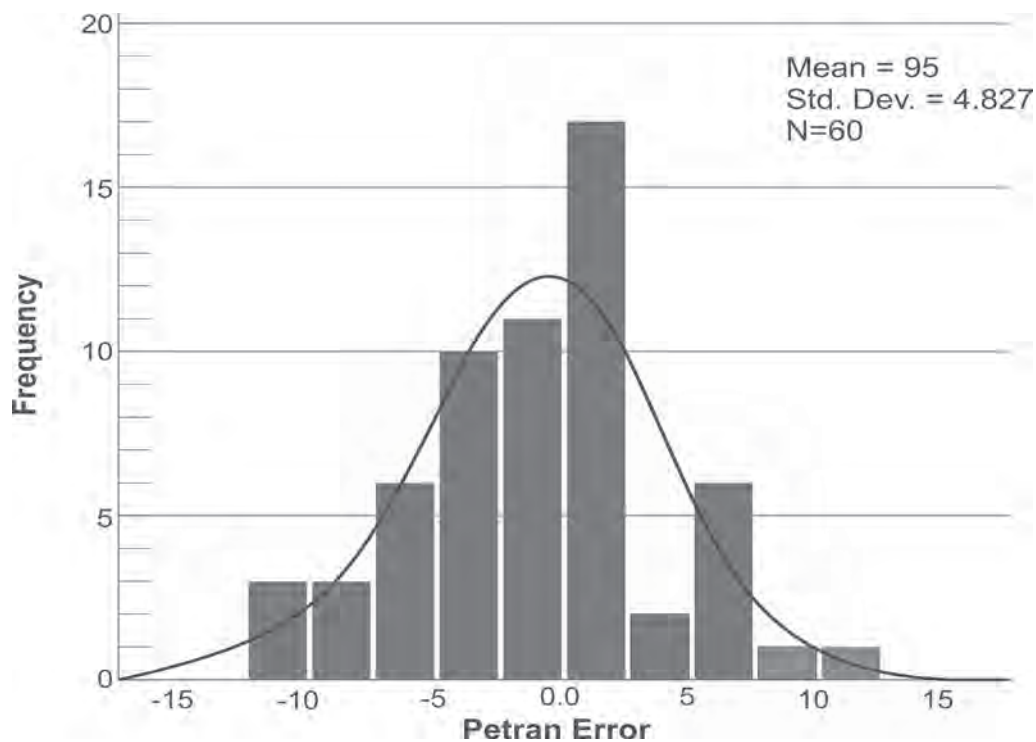
Above: the errors if we expect all mosques to face Mecca. The data vary from the normal curve and there are huge errors, even though the errors are more or less centered on zero.



Above: if we expect all the sites to face Petra, there are still some huge errors.

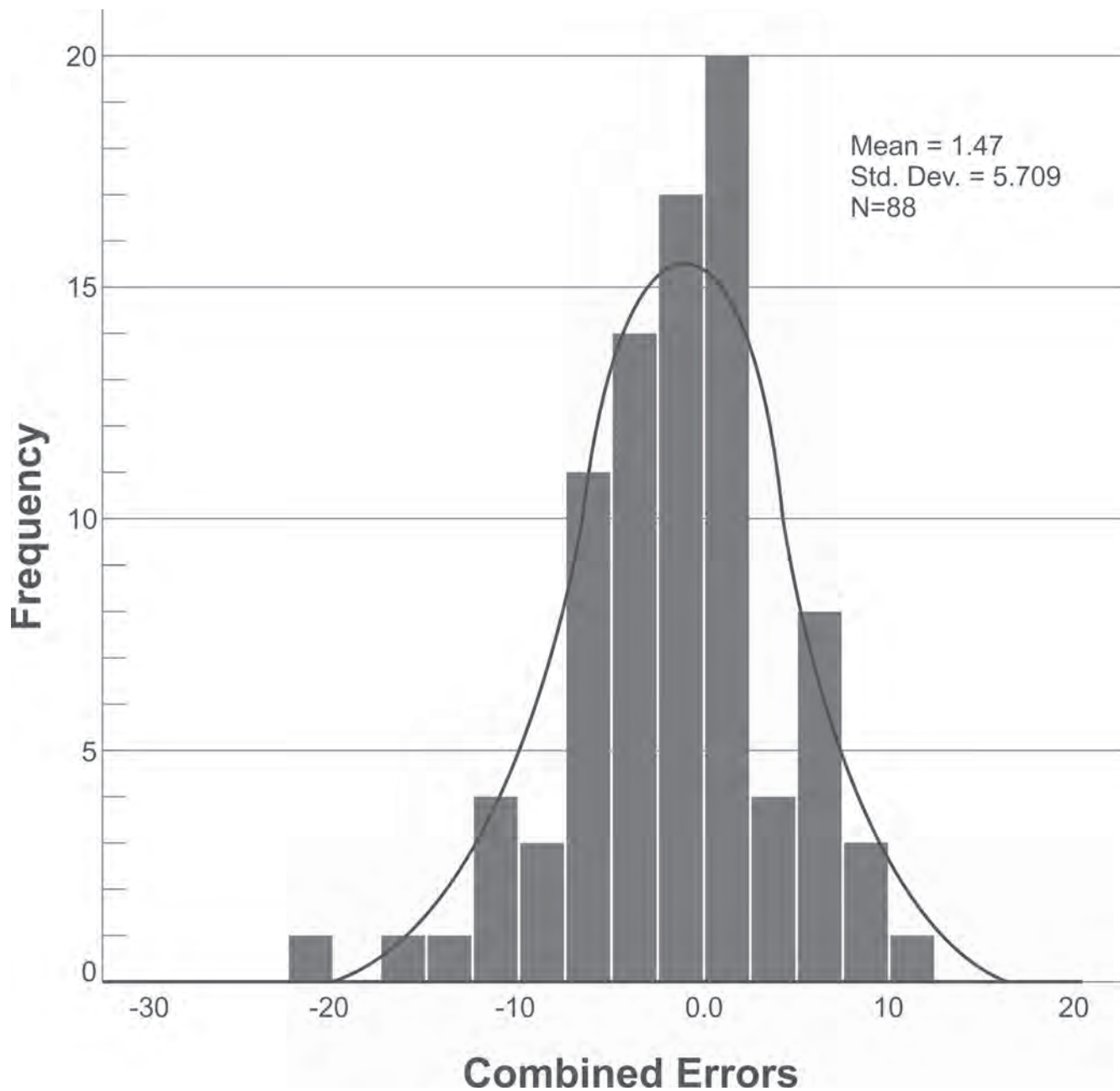


Above: if we expect the 60 Petran mosques to face towards Mecca, we also get huge errors.

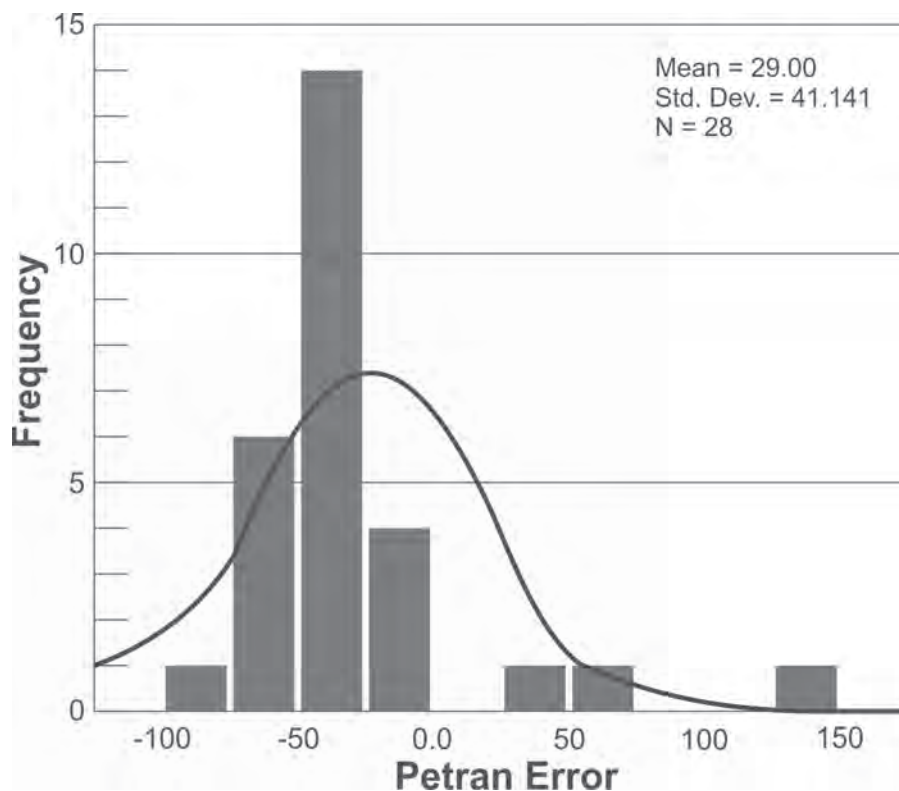


Above: Petran Error alone. Note most error ± 5 degrees. This illustrates the errors for the 60 Petran sites and the scale changes because the errors are so much smaller and the curve is close to normal except there are more small errors near zero than what would be expected.

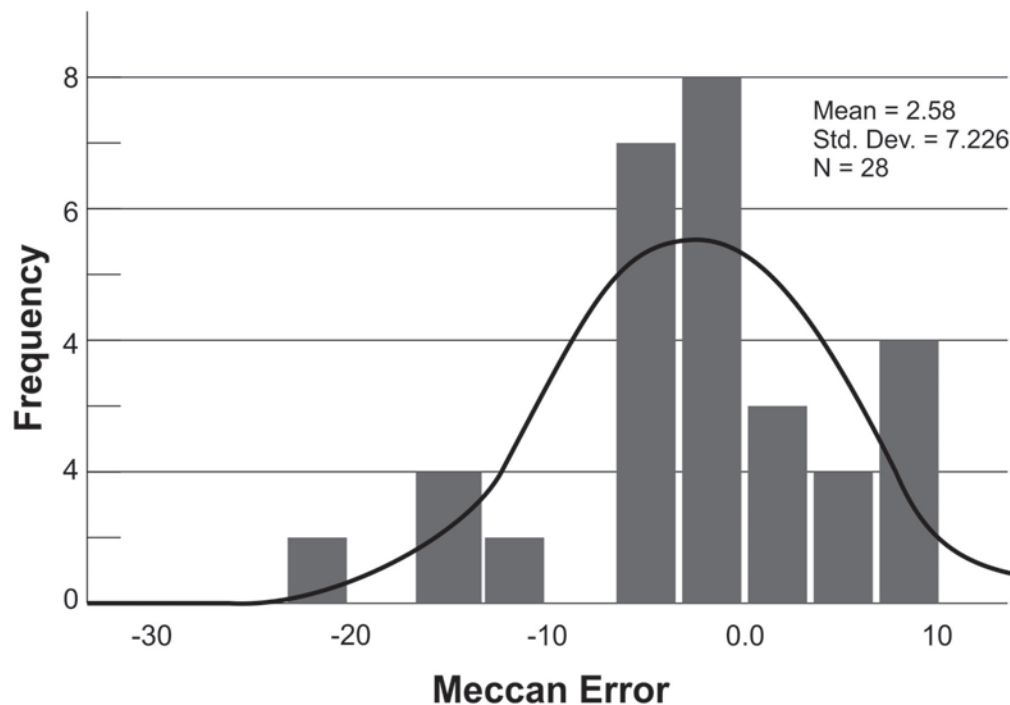
This means a higher accuracy than would be expected if the results were normally distributed. The tallest bars are within plus or minus 2.5 or 3 degrees of error, and nothing appears to exceed 12.5 degrees of error.



Above: this illustrates errors for both qiblas when combined. Shows the error pattern for all 88 sites if we combine the sites' errors for the intended qiblas. The result is very close to a normally distributed pattern, which is what would be expected with random error around a mean/median of zero or close to zero. Most errors are +/- 5 degrees.



Above: demonstrates that Meccan mosques do not face Petra.



Above: Meccan error is worse than the Petran Error. This illustrates what happens if we use the 28 Meccan sites but put Petran error on them and then, below, what happens when we use Meccan error for Meccan sites. The top diagram has errors from -100 to +150 degrees while the bottom chart has errors from -20 to +10 degrees or so. The improvement is dramatic.

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Chapter Four

How Did They Do It?

Dan Gibson with Chad Doell

We have introduced four different qibla directions in early Islam: the Petra qibla, the Between qibla, the Parallel qibla, and the Mecca qibla. As Dr. Schumm presented in the previous chapter, the accuracy and shift from Petra to Mecca is statistically sound. Early mosque builders appear to have been able to accurately direct their mosques toward distant locations.

The accuracy of these mosques demands an explanation. The qibla calculations of the early mosque builders are often shockingly accurate: this despite the absence of sophisticated astronomical and mathematic calculations which would come later to the Muslim world. How did early mosque builders calculate their qiblas so accurately?

In order to address this question, we will introduce the ancient navigational tool of the Indian Circle and describe how it may have been used to calculate early qiblas. The name Indian Circle comes from the adoption of this technique later in India, but its origins seem to stem back to the Arab merchants who could navigate across the Arabian deserts and arrive at their destination, even though they were far beyond the horizon. But first, we need a description of how the mosque builders might have used this technique.

The Four Cardinal Directions

The first requirement when plotting coordinates over any distance is to establish the four cardinal directions. Methods for determining cardinal directions had existed for thousands of years, even when the earliest mosques were built. The Great Pyramid in Egypt is oriented so that the four corners of the monument face north, south, east, and west, with an astonishing error of only 0.067 degrees.¹

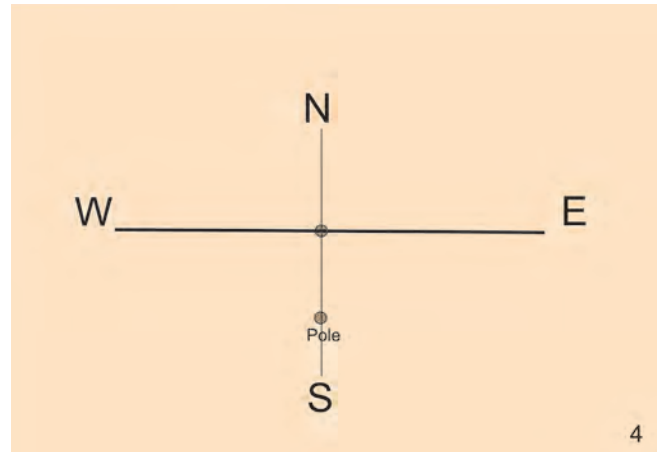
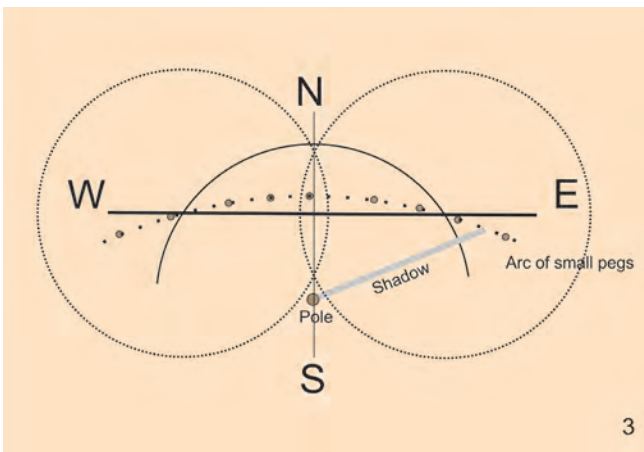
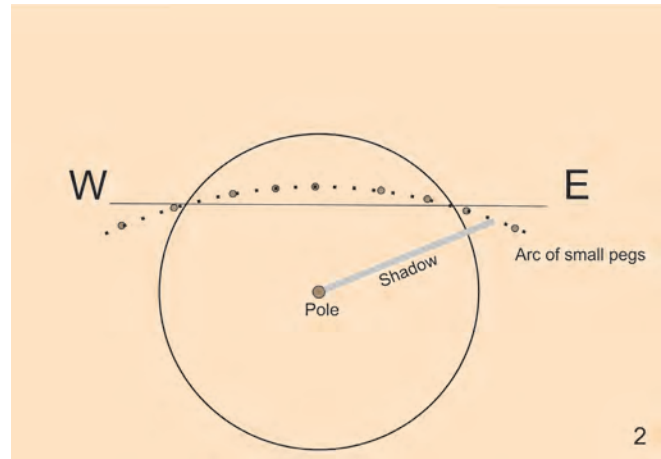
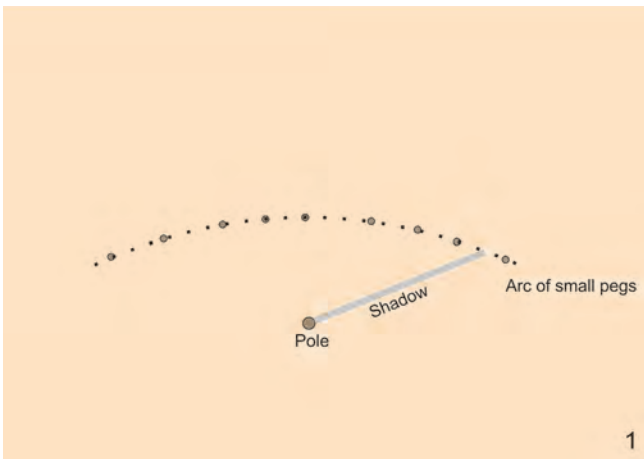
For the past millennium we might simply use a magnetic compass to determine the North

¹ Glen Dash, "Occam's Egyptian razor: the equinox and the alignment of the pyramids," in *The Journal of Ancient Egyptian Architecture* 2 (2017): 1-8.

Pole. This was not possible when the earliest mosques were being constructed for two reasons. First, the Arab world did not have access to this technology until c. 680 AH (c. 1280 CE), so the builders of the first mosques had to use other, well-established means to find true north. Second, the magnetic North Pole is different from the true North Pole. While sufficient for the casual traveler, this difference would affect the nuanced measurements used for directing the qibla.

An excellent method for finding the cardinal directions had been available to Arabic caravans navigating the deserts and plains of Arabia and Syria for centuries. This method would later be called the Indian Circle. It was incredibly simple. The method was as follows:

1. The mosque builder would put a straight pole in the ground and trace the far edge of the shadow it cast with small pegs, as the shadow shifted through the next few hours. These pegs would mark out a large arc on the ground.
2. The mosque builder would then take a length of cord and draw a circle on the ground around the pole. An east-west line could then be marked where the circle intersected the large arc of pegs.
3. Using the string, the mosque builder would measure a point equal distance on the east-west orientation line and then place a small post at these two points. He would then draw two equal circles from these posts.

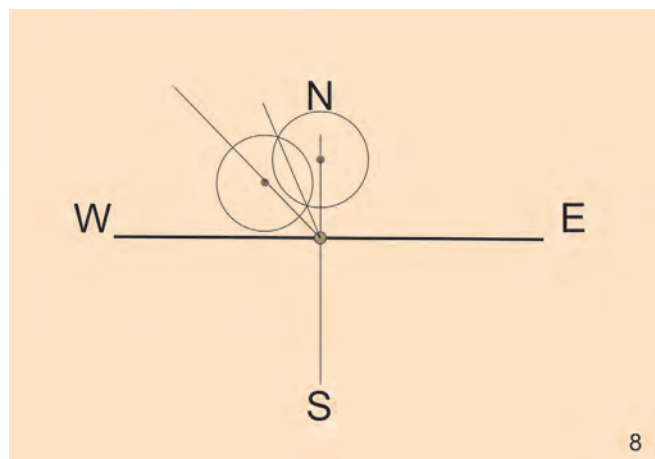
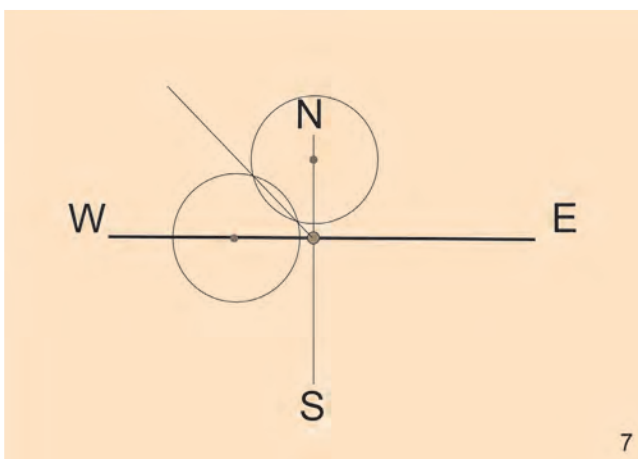
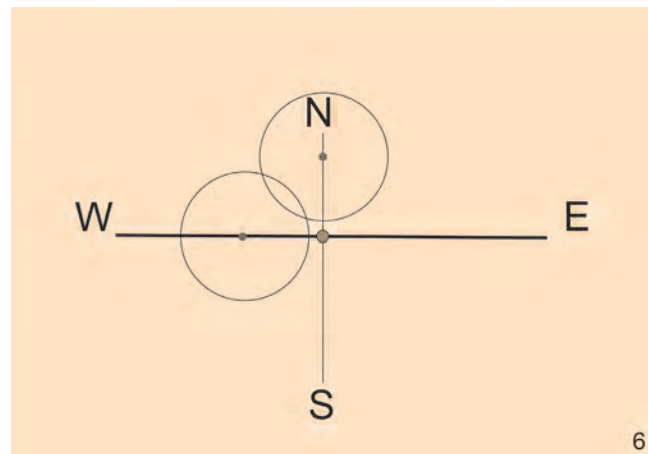
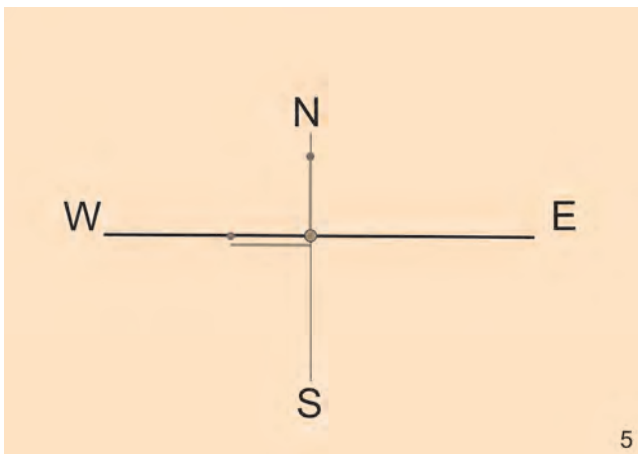


4. The point where the circles intersect would make the north-south line. The mosque builder would then place a pole into the ground where the north-south line and the east-west line intersect. This would represent the spot where he stood, and from where he wanted to calculate the qibla direction. From now on he would measure from this point.²

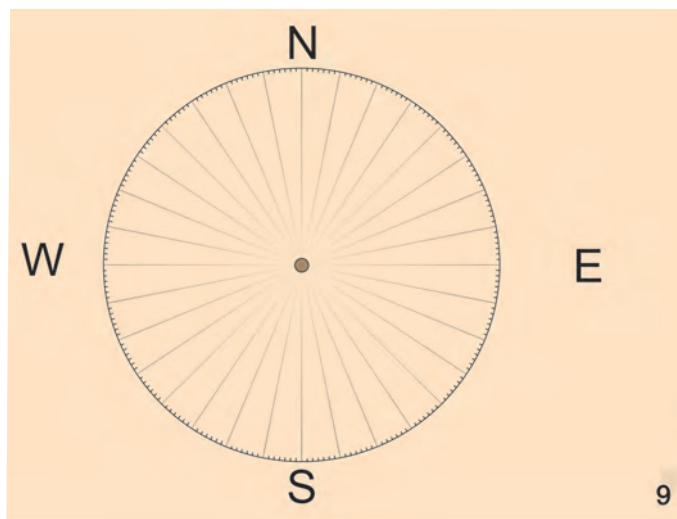
The Windrose Compass

Once the mosque builder had established the four cardinal directions of the Indian Circle, drawn out on the ground, the next task was to plot coordinates and create a compass. In Arabic, these coordinates were known as akhnām (directions). Today we divide a circle into 360 degrees, but according to the Arab manuscripts, they calculated 224 degrees in the circle. These 224 degrees would be plotted by dividing the circle into 32 sections.

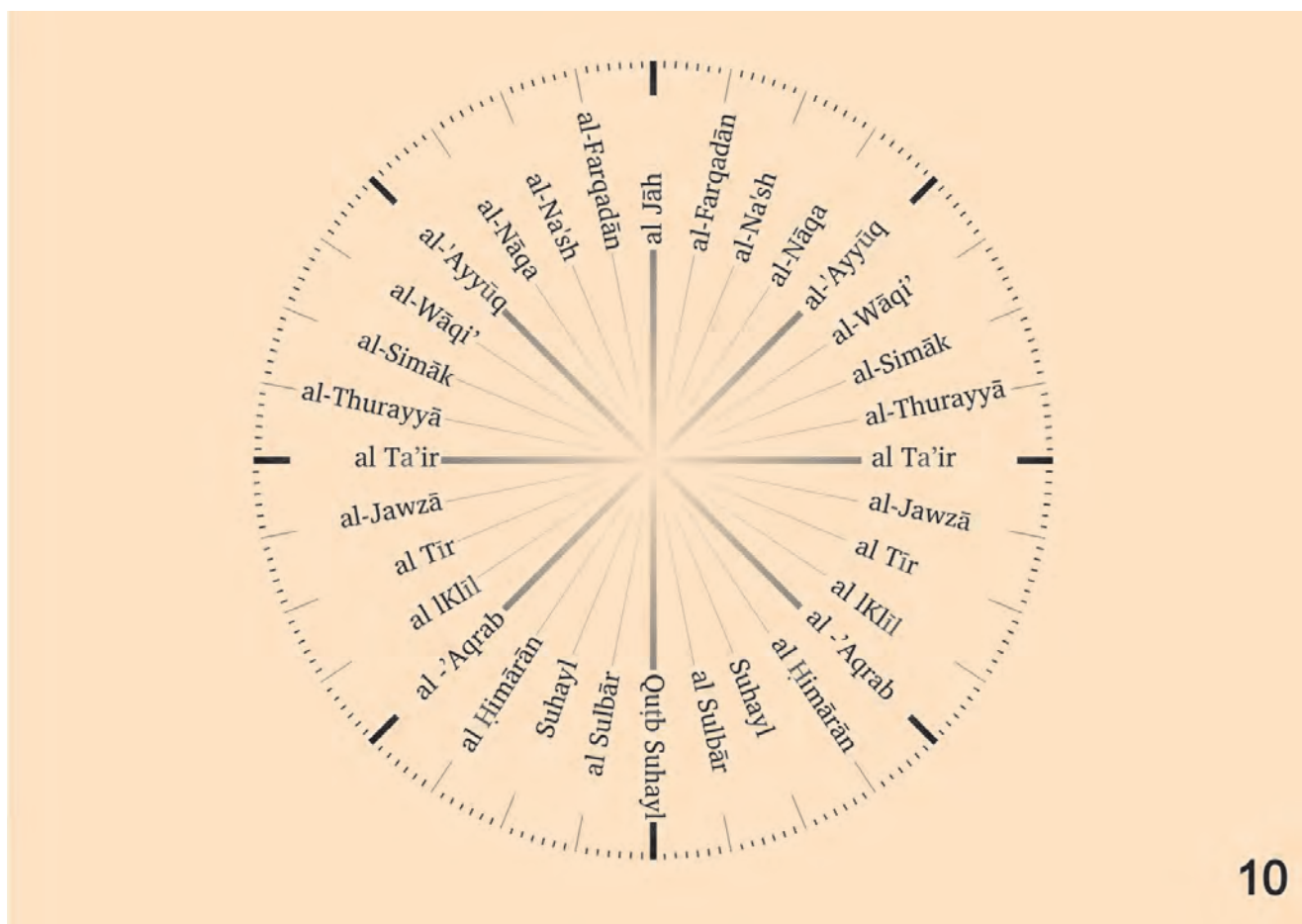
5. To create the compass, the navigator would first measure two equal distance lines at 45 and 90 degrees. Two rods would have been suitable for pre-set measurements.
6. The navigator would then add a small post at the end of each measurement, and from those posts, trace two circles with a string.
7. Where the circles intersected, the navigator would add a new directional line.



² Martin Isler, "An Ancient Method of Finding and Extending Direction," in *Journal of the American Research Center in Egypt* 26 (1989): 191-206.



8. This process would be duplicated until the navigator filled the entire compass with 32 lines. These lines were known as Rhumb lines in Arabic.
9. If it was needed, the mosque builder could add smaller units known as zāms. Seven zāms would constitute one akhnām, and 32 akhnām would complete the circle. This would, of course, total in 224 degrees. This chart is often referred to as a compass rose or a windrose.



10. If the builder stood at the post in the center of the circle, and looked along one of the 32 akhnām rhumb lines at night, he would see a place where a particular star rose or set on the horizon. One of these star names could then be used to communicate one of 32 directions quickly and simply.

Measuring Distance

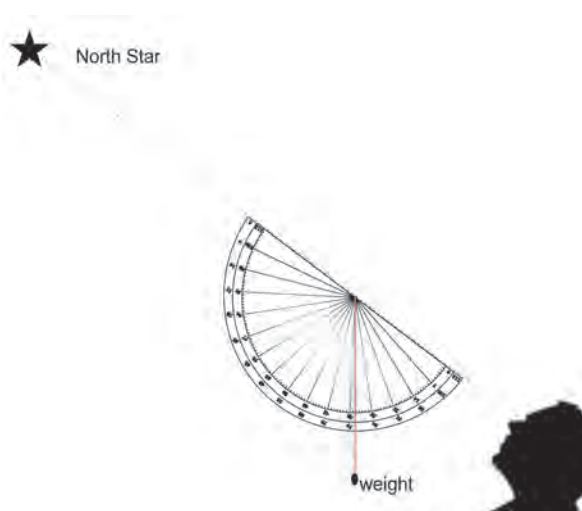
So far, no mathematical calculations were needed to draw the Arab Windrose. A complete windrose was not necessary if the mosque builder knew the general direction that he wanted to face. However, the next step would require some calculations.

Arab caravan masters had long recognized that the North Star was fairly stable in its position in the sky. As a caravan traveled north, the star appeared to rise higher in the sky. So, Arab merchants began to measure the height of the North Star from the horizon. This measurement was quite reliable due to the often-flat topography of the plains of Arabia.

Initially, measuring the height of the North Star was as simple as measuring the number of finger-widths the star was from the horizon, held at arm's length. The width of the finger, or *işba'*, was also divided into *zāms*, or an eighth of a finger width. Eventually, the Arabs began to use small pieces of wood with a string marked with measurements (a *kamal*) to measure the North Star. This system has been used for millennia and is described in many nautical manuals.³ This method was used by Arab dhow captains, who did not have modern instruments, into the 19th century.⁴



Using a Kamal



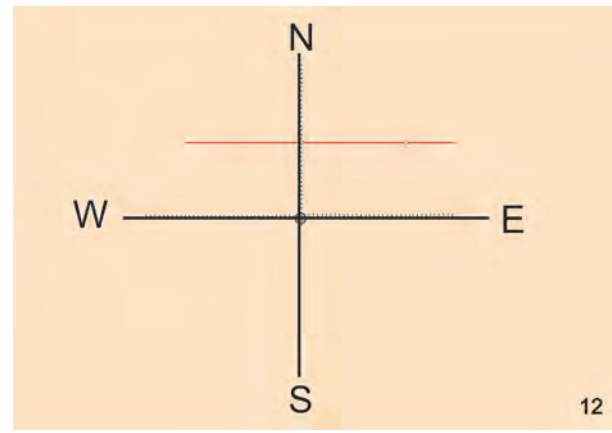
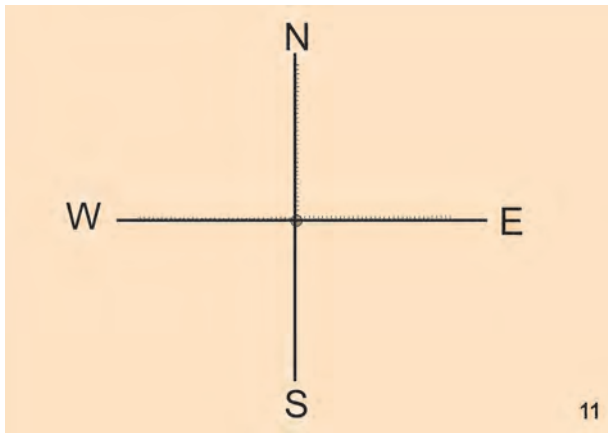
Using a Protractor

To continue the qibla calculation:

11. Next, the mosque builder would mark equal measurements north, south, east, and west onto the chart on the ground. The size of these measurements was not important as long as they were equal in length and would accommodate the number of *zāms* required for the measurement. The mosque builder would measure the height of the North Star from where he wanted to build the mosque and count the *zāms* at the center post equal to the

³ For example: Aḥmad ibn Mājīd al-Najdī, *Arab Navigation in the Indian Ocean Before the Coming of the Portuguese, being a translation of Kitāb al-Fawa'id di usul al-bahr wa'l-qawa'id*, trans. G. R. Tibbetts (London: The Royal Asiatic Society of Great Britain & Ireland, 1971).

⁴ Hasan Salih Shihab, "Stellar Navigation of the Arabs," in *The Principles of Arab Navigation*, ed. Anthony R. Constable and William Facey (Kuwait: Arabian Publishing, 2013), 21.



height of the North Star. For instance, if he measured the North Star as seven zāms high, he would count the zāms starting at number seven at the centre post.

12. The mosque builder would then place another peg onto the Windrose either north or south that represented the Holy City that he wanted to face. For example, if he was measuring for a qibla to the Holy City of Petra in Jordan, he would know to mark the 17th zām north and then place a peg on that spot. He would then measure it again farther east or west and place another peg on that spot. Then he would draw a line between the two. The direction to the Holy City of Petra would be somewhere along that line.

Once the north-south calculation had been made, the mosque builder would need to find the east or west measurement of the city he needed to face (for example, Petra, as above). Obviously, he would know if he was east or west of the Holy City of Petra. But how far? Here the Nabataean Arabs had an advantage over others. Their caravans had been traversing the Middle Eastern deserts for over a thousand years before the founding of Islam. Their caravan masters had perfected a method of charting distance east or west. It was as easy as counting their steps. They knew that if they traveled directly north 168,000 steps or 168 km, the pole star would raise one zām. So they used this measurement to calculate their distance east or west.

The ability of ancient Arabs to count such a staggering number of steps may stretch credulity for the modern reader. But the first century Roman historian Pliny the Elder recorded that the Arab merchants of his time counted their steps as they traveled across the desert. Pliny wrote that a trip from Timna, the capital of the Qataban in Yemen, to Gaza, a port on the Mediterranean Sea, was 2,437,500 steps.⁵ This journey required 65 days of travel by camel.⁶

⁵ Pliny the Elder, *The Natural History*, trans. John Bostock and H.T. Riley (London: Taylor and Francis, 1855), 12.32, <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.02.0137%3Abook%3D12%3Achapter%3D13>. While most translations render the number in this passage in Roman miles, we have confirmed with historian and Latin scholar Bill Thayer that Pliny's text literally reads 2,437,500 passus or paces. Bill Thayer wrote us of the Roman numerals in the passage:

"those are numbers (the bars above them multiply by 1000, the bars to the sides by 100 more): thus (24 * 100,000) + (37 * 1000) + 500 = 2,437,500 passus = 2437.5 Roman miles."

⁶ Pliny the Elder, *The Natural History*, 12.32, <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.02.0137%3Abook%3D12%3Achapter%3D13>. 62

It was a common trait of Arab caravans to recite poetry as they traveled.⁷ The caravan master would walk, stepping according to the meter of the poetry. Each of the lengthy poems had an established number of steps, according to its meter. Thus, by noting which poems had been recited, a caravan master could count his steps through hours, days, and weeks of travel with reasonable accuracy.

In time, caravan masters had established mental tables of distances between cities all over the known world. Thus, each city had a *zām* measurement corresponding to the height of the North Star, and other *zām* measurements corresponding to the distances to other cities. Tables of these city names and measurements were known as *zij*. At first most *zij* were memorized, but later they were recorded in books and nautical manuals. Caravan masters could use *zij* measurements and the Indian Circle method to guide their caravans across the trackless deserts of the Middle East, arriving at destinations that were far over the horizon.

It was especially challenging to make the east-west measurements when building a mosque in a remote location. While the mosque builder would use *zij* numbers available to him to add up the distances between cities, he would also need to calculate angles using Pythagoras' theorem. This simple geometrical tool had been established around 570-495 BCE and was available to every builder and navigator.⁸ But again, once these distances were confirmed by repeated travel, the builder needed only calculate the distance of the proposed mosque to the nearest known city on the *zij* table available to him. By the time of the first mosques, centuries of caravan travel would have made this data readily available to mosque builders, which simplified the qibla process.

Calculating the qibla

We have argued that Nabatean Arab navigators could establish the cardinal directions with the Indian Circle, fill the windrose compass with 32 directions each associated with a star, assign *zām* measurements for the North Star, and calculate distance between distant geographic locations. We will finally describe how these skills could be employed to calculate a qibla direction with remarkable accuracy.

The Syrian astronomer al-Battani, who wrote from Raqqa c. 297 AH (910 CE) described this early method of determining the qibla. His observations are supported by other writers, such as Iranian astronomer Khwarazm Habash al-Hasib who wrote c. 209 AH (825 CE). Historian of astronomy David King summarizes al-Batanni this way:

another method [of calculating the qibla], mentioned by al-Battani, was widely used and remained popular until the nineteenth century. The method could not be simpler. First draw a

%3A1999.02.0137%3Abook%3D12%3Achapter%3D32.

⁷ Henry Baerlein, *The Singing Caravan: Some echoes of Arabian Poetry*, (Godshill: Millersford Books, 1910), 31.

⁸ Alfred Posamentier, *The Pythagorean Theorem: The Story of Its Power and Beauty*, (Amherst: Prometheus Books, 2010), 23.

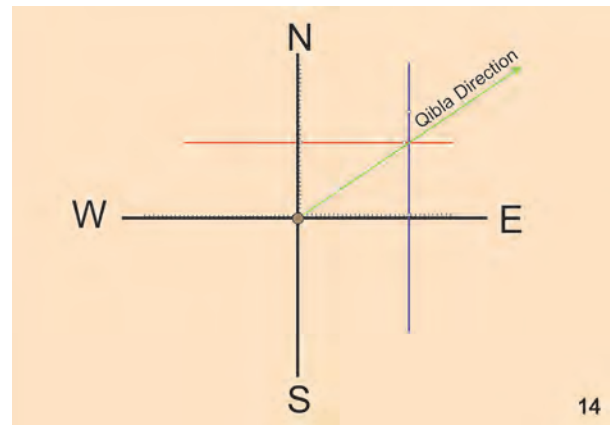
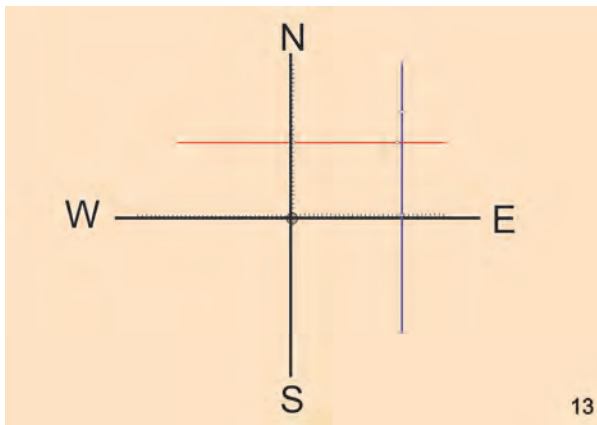
circle on a horizontal plane and mark the cardinal directions. Then draw a line parallel to the north-south line and at an angular distance - measured on the circle - equal to the longitude difference between Masjid al-Haram and the new locality and another line parallel to the east-west line at an angular distance equal to the latitude difference. Then the line joining the centre of the circle to the intersection of these two lines defines the qibla.⁹

In this, Al-Battani was describing the Indian circle method. Later astronomers and mathematicians would develop more sophisticated methods of determining the qibla direction. But, as al-Battani proves, these astronomers acknowledge that the Indian Circle method was used to calculate early qiblas.

To continue our example, in line with al-Battani's recollection:

13. Once the mosque builder knew how many zāms he was east or west of the Holy City, he would plot this line on his diagram.
14. He would then draw a line from the center post out to where the new line intersected with the North Star line. This was the qibla direction from the position where he stood. He could then go about building his mosque with amazing accuracy, which only depended on his ability to calculate the east and west distances.

Many early maps use the city of Alexandria as the focal point for their measurements.

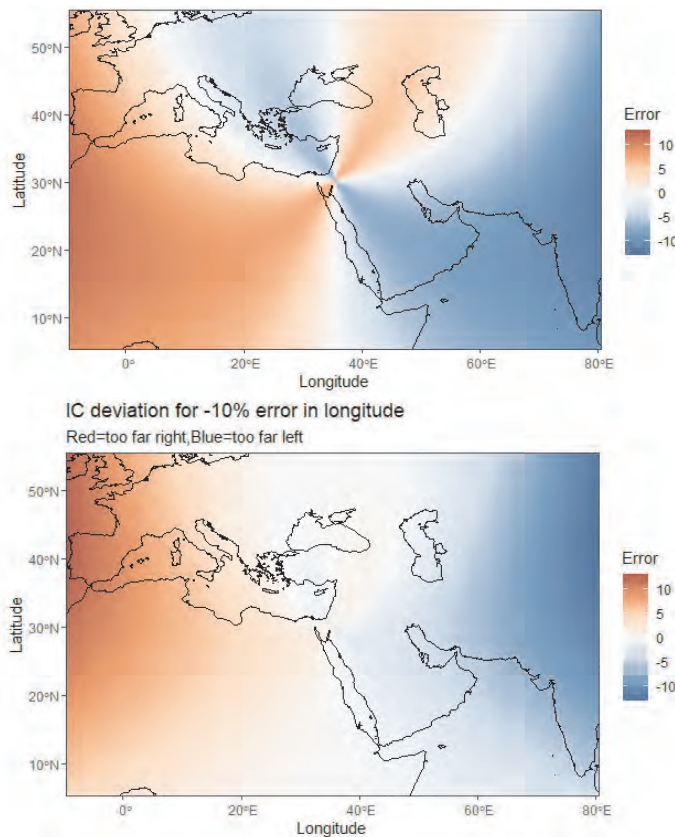


Alexandria was the ancient centre of study and knowledge; it was the location of the original Alexandrian Library established c. 250 BCE. For Nabataean merchants, Alexandria was the closest large port city that dealt directly with Rome, and so Alexandria was a suitable and common reference point long before the advent of Islam.

The Indian Circle did have flaws. If the east-west calculation was inaccurate, the qibla would also be inaccurate. Further, the Indian Circle did not consider the curvature of the

⁹ David A. King, "Astronomy and Islamic Society: Qibla, Gnomonics and Timekeeping," in *Encyclopedia of the History of Arabic Science* 1 (1996), 142.

earth. The result of this error is that the further east or west the qibla calculation, the more inaccurate it was. According to our research in consultation with a mathematician, when the calculation was made as far east as India or west as Morocco, the error could be as much as ten degrees. A well plotted Indian Circle for a qibla in Morocco toward Petra would face 10 degrees further south than intended.



The illustration to the left represents the margin of error when calculating a Petra based qibla using the Indian Circle. The lighter areas are the most accurate, and the darker regions are the most flawed.

If the mosque builders calculated their coordinates using Ptolemy's model, which miscalculated the world as 10% smaller than it is, the margin of error would still be lesser. Left is an illustration of the margin of error when using the size of the earth suggested by Ptolemy Claudius.

On the Nabataea.net website we have added the Indian Circle calculations to the Qibla Tool. These can be toggled on or off, to compare modern calculations with the ancient Indian Circle method. As an example, left are the modern results for the mosque in Anjar, with options to view the results for using the Indian Circle from Petra, Mecca, or the Between location.

Anjar

Classification: Petra

Rebuilt facing Mecca: never

Original bearing: 189°

Location: Anjar, Lebanon

Coord: 33°43'55.23"N,35°56'1.79"E

Year of construction: 714 CE, 95 AH

[More Info](#)

Zoom Out

Compare bearing to:

Jerusalem	<input checked="" type="checkbox"/>	-7.9°
Petra	<input checked="" type="checkbox"/>	+1.9°
Mecca	<input checked="" type="checkbox"/>	+25.6°
Between	<input checked="" type="checkbox"/>	+13.5°
Solstices	<input type="checkbox"/>	
Petra Ind. Cir.	<input type="checkbox"/>	
Mecca Ind. Cir.	<input type="checkbox"/>	
Between Ind. Cir.	<input type="checkbox"/>	

scholars to compare the difference between the old Indian Circle method and modern electronic tools. This data ought to put to rest any superfluous conjecture that the Indian Circle method was wildly inaccurate.

Of course, the Indian Circle did not remain the primary means of making these calculations in the Muslim world. Around 215 AH (830 CE), Abbasid caliph Ma'mun became concerned with the accuracy of these geographic calculations as the Arabs were switching to Greek measurements for their navigation and astronomy. His primary concern was the accuracy

cy of calculations over great distances. Al-Ma'mun discovered that the Greeks had calculated that the equivalent hissa of one degree was five hundred stades. The hissa was the unit which the Arabs used for measuring distances. Al-Ma'mun found that amongst Arab scholars, there was not sufficient knowledge about the length of a hissa compared to other known units. His resulting experiments are well attested by Ibn Yunus (380 AH), al-Biruni (416 AH), Yahya ibn Akthan, (c. 215 AH), and Habash al-Hasib (c. 215 AH). Ibn Yunus recorded:

Ma'mun...asked him to measure the amount of one degree of a great circle on the surface of the earth. He said: "We both set off together for this [purpose]. He ordered Ibn 'Ali Ibn 'Isa al-Aṣṭurlabi and 'Ali ibn Buhturi to do the same and they went off in a different direction. Sanadibn 'Ali said: "Khalid ibn 'Abd al-Malik and I travelled to between W'mah and [Palmyra] and there we measured the amount of a degree of a great circle on the surface of the earth. It was fifty-seven miles [al-mil or Arabic mile]. 'Ali ibn 'Isa and 'Ali ibn al-Buhturi also made measurements and the two of them found the same as this. The two reports from the two directions, the two measurements with the same result arrived at the same time.¹⁰

A second group of scientists, including Habash al-Hasib, headed east of Baghdad. Al-Biruni reported:

At that time - according to what Habash related, a group of scholars of instrument construction and expert constructors from amongst the carpenters and brass-workers - Al-Ma'mun ordered the construction of instruments and the selection of a place for this survey. There was chosen a location in the desert of Sinjar between the area of Mosul and Samarra, where they were satisfied that the ground was level. They transported the instruments there and they selected a place where they observed the solar altitude at midday. Then two groups set forth (in two different directions). Khalid and a group of surveyors and instrument-makers headed in the direction of the northern pole, and 'Ali ibn 'Isa al-Asturlabi and Ahmad ibn al-Buhturi the surveyor with another group towards the south pole. Each of the two groups observed the altitude of the sun at midday until they found that it had changed by one degree, apart from the change that resulted in the solar declination. They measured the track on their way out and set up markers with arrows as they went, and as they returned they investigated the distance for the second time. The two groups met again at the place from which they had set out, and they found that one degree of the terrestrial meridian is equivalent to fifty-six miles. Habash claimed that he had heard Khalid dictating that number to the Qadi Yahya ibn Aktiam.¹¹

¹⁰ The only extant chapters of the Ḥākīmī Zij, by Ibn Yūnus are in two unpublished manuscripts at Leiden and Oxford, comprising about three hundred folios. A manuscript in Paris contains a hundred folios. A manuscript in Paris contains an anonymous abridgment of part of the zij and is a source for some additional chapters up to chapter 57, and chapters 77–81.

This translation came from:

David A. King, "Too Many Cooks...A New Account of the Earliest Muslim Geodetic Measurements," *Suhayl: International Journal for the History of the Exact Natural Sciences in Islamic Civilisation* 1 (2000), 207-241.

¹¹ King, "Too Many Cooks."

Once Greek astronomy and the use of the 360 degree circle became the common practice in Arabia, the use of the old windrose compass with its 224 degrees was ignored by all but dhow navigators.

The Amra Star Chart

An interesting example of the Arabs' ability to chart the stars can be found in an Umayyad bathhouse, dating from 126 AH (743 CE). The painting inside the dome of the Amra bathhouse contains a damaged, but still useful chart of the night sky. Amra is 85 kilometers east of Amman, Jordan.



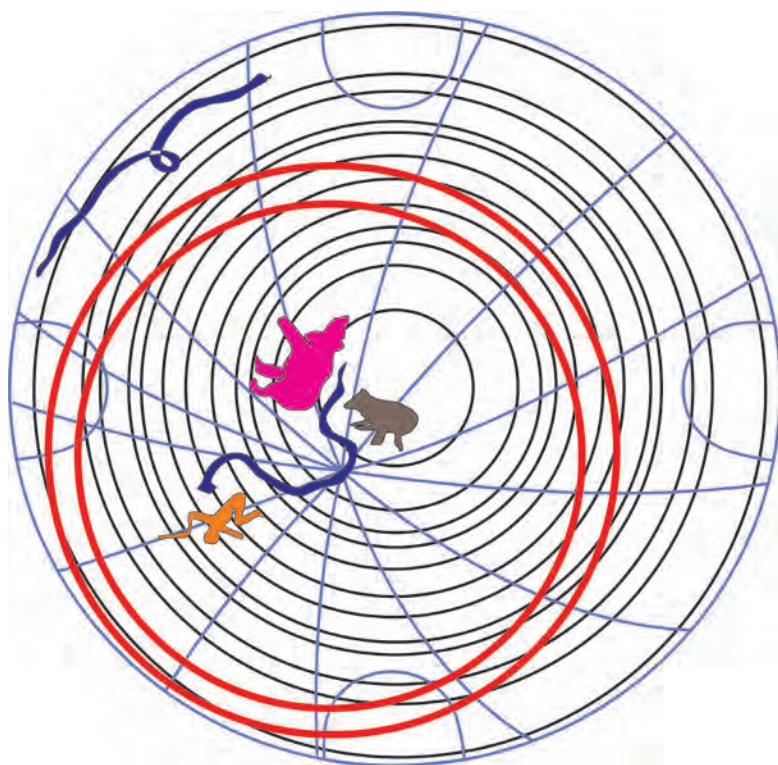
Amra Star Chart

This star chart is unique in that the dome illustrates how the sky would appear if one was standing on the north pole looking upward. It also projects the horizon at about 45 degrees upward, so that the lower part of the dome shows the stars which would be above one, south of the equator. In effect it illustrates the sky from a perspective no one would have seen, with the north pole or pole star directly above. It also removed the horizon of the earth entirely. This demonstrates that not only could early Muslim astronomers think abstractly, but they had a sophisticated understanding of the rotation of the earth and the night sky.

Another fascinating aspect of this drawing is that it contains two pairs of gridlines. The black gridline circles the earth, but the second set of lines are ecliptic, showing the axis of the sun, which is 23.5 degrees from true north, because of the tilt of the earth. The heavy red lines seem to be the region that the sun travels through. They are heavy lines to indicate the difference where the sun moves according to the seasons.



Constalations on the Amra chart without the grid or guidelines allowing the viewer to locate constalations that are on the other side of the earth



The grids: one for the earth, and one for the sun's rotation focusing on Dragon (Draco) constellation at the star Thuban.



Above: Using the 3D planetarium program Stellarium (<https://stellarium.org/>), Josiah Gibson created the exact duplication of the above constellations dated to 740 CE. The blue circles start at the north pole and circle the earth. The orange circles start at the star Thuban (α) in the Dragon constellation.

Conclusion

We have sought to demonstrate that the Arabs of the prophet Muḥammad's time did have the knowledge and tools to accurately determine qibla direction. As the Muslim armies pressed deeper and deeper into Byzantine Roman territory, the use of Roman roads and mile-stones slowly replaced the ancient knowledge of the Indian Circle until, it seems, only a handful of specialists were able to accurately chart new mosque qiblas. Despite the transition toward Western measurements and mathematics, the Indian Circle was a powerful tool in calculating qibla direction. Its reliability confirms our argument that the early qiblas of Islam, while problematic and unexpected, were not an accident of incompetence. These qiblas were directed with intention by competent builders using reliable, testable, ancient knowledge.

Chapter Five

What about Mecca?

Dan Gibson with Chad Doell

Gibson's research in qibla directions has raised a number of objections. Gibson believes that the original Ka'ba was in the city of Petra, and that the Ka'ba in Mecca is not an ancient structure but that it was built after the Second Islamic Civil War. He suggests that there was little in Mecca in the Hijaz, other than a well, when the Black Stone was moved there for safe keeping during the war around 70 AH or 690 CE. Muslims hold the traditional view that Mecca was the 'mother of all settlements' and that it had a long history as a center of trade and commerce.

A short distance east of Mecca in Saudi Arabia is Ḥuma al-Numūr. In the region of Ḥuma al-Numūr are more than 60 early Islamic inscriptions which include prayers and scriptures from the Qur'ān.¹ One of these inscriptions explicitly records the year that Masjid al-Ḥarām was built.

The following is a line-by-line translation of this inscription by Dr. Ilkka Lindstedt, with his parenthetical explanatory notes omitted:

Al-Rayyān ibn 'Abdallāh testifies that there is no god but God and he testifies that Muḥammad is the Messenger of God; and he makes it easy for he who comes to testify that; may God have mercy on al-Rayyān and forgive him; and he seeks guidance through Him to the road or Paradise; and I ask Him for martyrdom in His path, amen; and this inscription was written in the year the Masjid al-Ḥarām was built, year seventy-eight.²

Some have insisted that it would be absurd to say that the Ka'ba was built in 78 AH, and so

¹ Islamic Awareness, "An Inscription Mentioning The Rebuilding Of Al-Masjid Al-Ḥarām, 78 AH / 697-698 CE," last modified april 1, 2018, <https://www.islamic-awareness.org/history/islam/inscriptions/haram1.html>

² Ilkka Lindstedt, "Religious warfare and martyrdom in Arabic graffiti (70s–110s AH/690s–730s CE)," *Academia*, accessed January 23, 2023, 16-17, https://www.academia.edu/35307034/Religious_warfare_and_martyrdom_in_Arabic_graffiti_70s_110s_AH_690s_730s_CE_

the inscription must mean ‘built again’ rather than built. But there is no indication from the text that this is inferred. This inscription dates the building of the Meccan Ka’ba to 78 AH and fits Gibson’s qibla findings perfectly. Before this, mosques in Islam all faced the city of Petra, as demonstrated by Gibson’s data.

Second, Gibson points to the lack of archeological evidence in Mecca for additional support. Over the last several decades there has been intense construction in Mecca near the Ka’ba. Many hotels have been built, walkways and the courtyards have been enlarged, and the world’s largest clock tower erected. The Saudi Heritage Commission carefully monitored the breaking of ground for these structures, hoping to find the ancient city, but the only thing of note was an Ottoman era fortress which was subsequently destroyed.

Traditionally Muslims have always believed that Mecca was a very great and ancient city, so the lack of archeological discoveries was somewhat of a surprise to outside observers. Where were the ancient walls of the city? Certainly, some ancient remains should have been found from the temple of Hubal that stood right beside the Ka’ba. The temples of Allāt and Dushara should have been somewhere in the ancient city. Yet everything has disappeared--or perhaps they were never there, as Gibson believes. He proposes that when the Black Stone was moved to the Mecca valley, a settlement slowly grew around it, and the original holy city of Islam was eventually forgotten.



*Above: Construction in Mecca – no ancient temples or artifacts were found.*³

³ Photo Credit: Islamic Heritage Research Foundation

One of the strongest arguments for the antiquity of the great city of Mecca is Ptolemy's *Geography*. Many believe Mecca is accurately charted in Ptolemy's *Geography*, which predates the time of the prophet Muḥammad by several centuries.

However, one cannot employ Ptolemy's *Geography* without first adjusting for fundamental flaws in Ptolemy's calculations. Below we hope to demonstrate that by using computer modeling it is indeed possible to use Ptolemy's coordinates to locate ancient cities and geographical features, but the city of Mecca does not appear in Ptolemy's work.

In the following discourse, we will use "AP" (After Ptolemy) to distinguish Ptolemy's system from modern coordinates.

It has long been assumed that Mecca can be found in Ptolemy's list of locations in Arabia, but under another name.⁴ Some suggest Centos village (69 20 21 30 AP), some suggest Thebe town (69 40 21 AP), and many believe Macoraba is Mecca (73 20 22 AP). To answer these claims, we will have to understand the system that Ptolemy used and examine his work carefully. Ultimately, we will find these suggested locations flawed.

Three Geographic Systems

Several systems of calculation have been used over the centuries by navigators and geographers to plot cities and geographical locations on maps. While there were early systems developed by Eratosthenes in the 3rd century BCE and Hipparchus in the 2nd century BCE, we will limit our discourse to the following three methods:

- 1) Ptolemy's, based on 81° degrees north and south and 360° degrees east and west (from which he tried to map 180° degrees),
- 2) the Arab system, based on 224° degrees around the world which we described in the previous chapter.
- 3) the modern system, based on 360° degrees.

Moving data between these systems is not a simple endeavour. We will describe the three systems in more detail below.

First, Claudius Ptolemaeus (90 CE-168 CE), or Ptolemy, was a Greek geographer and mathematician who produced *The Geography*, which listed his own new system of latitude and longitude for many cities, mountains, and other geographical features. *The Geography* is composed of eight books or lists. The first volume explains the method behind his system of

⁴ Most of our attention will be on book six, chapter seven of *The Geography*—Location of Arabia Felix. For reference, a digital copy of the chapter may be viewed below.

Centos village and Thebe town: <http://www.heritageinstitute.com/zoroastrianism/reference/ptolemy/ptol137.htm> Macoraba: <http://www.heritageinstitute.com/zoroastrianism/reference/ptolemy/ptol139.htm>

coordinates. Volumes two through seven contain lists of locations and their coordinates. The last volume describes 26 regions known to the Roman world.⁵

Ptolemy wrote in Greek c. 150 CE, when the city of Alexandria was waning as the center of world learning. Apparently Ptolemy did not draw a map, but rather plotted his coordinates on a large physical globe. While his globe did not survive, the record of his coordinates survived in *The Geography*. His writings were later lost to the western world, although they remained known in the Arab world. In the late 13th century, his works were rediscovered by Maximus Planudes, and translated from Greek into Latin, inspiring the idea of a global coordinate system.

Starting in 1477, until as late as 1596, a large number of two-dimensional European maps were drawn in an attempt to plot Ptolemy's lists of coordinates. Starting in 1561, Gastaldi, and then a host of others, began to make corrections to the early maps. Ultimately, maps using Ptolemy's data were replaced by updated maps, based on actual physical observation by European explorers who began to use the British system of latitude and longitude.⁶

Second, the Arabic system of Qiyās used isba' (fingers) and tafīla (paces) to measure distances. Locations were often provided in isba', the number of fingers measured from the desert or ocean horizon to the pole star when held at arms length. This system was the basis for the later kamal and the astrolabe. While Qiyās fell out of favour during the Ottoman period, it continued to be used by some dhow captains until the 19th century.⁷ Most descriptions of the science of Qiyās are found in Arabic nautical manuals known as rahmānis.⁸

One of the better-known manuals is *Kitāb ma'din al-asrār fi 'ilm al-bihār*, or *The Mine of Secrets in the Science of the Seas*, by Shaikh Nasr bin 'Ali al Haduri.



Right: A page from Ptolemy in Latin.⁹

⁵ J. Lennart Berggren and Alexander Jones, *Ptolemy's Geography: An Annotated Translation of the Theoretical Chapters*, (Princeton: Princeton University Press, 200), 32.

⁶ Gerald R. Tibbetts, *Arabia in Early Maps*, (Naples: Falcon – Oleander, 1978), 15-20.

⁷ Hasan Salih Shihab, "Stellar Navigation of the Arabs," in *The Principles of Arab Navigation*, ed. Anthony R. Constable and William Facey (Kuwait: Arabian Publishing, 2013), 21.

⁸ *Oman: a seafaring nation*, (Muscat: Ministry of National Heritage and Culture, Sultanate of Oman, 1991), 96.

⁹ This photo is in the public domain.

Third, the modern system of latitude and longitude was developed by the British in 1714. It is based in the town of Greenwich, using 360° degrees of latitude and longitude. This is the system used in modern maps and global positioning systems.

Rejection of Claudius Ptolemaeus' Geography

Few scholars accept Ptolemy's coordinates as completely accurate. The value of his coordinates has been contested by many scholars, including Heuzey and Daumet,¹⁰ Flensted-Jensen,¹¹ Hatzopoulos and Loukopoulou,¹² and Karl Müller.¹³



*Ptolemy Cosmographia 1467. A later map drawn after Ptolemy.*¹⁴

Ptolemy calculated the circumference of the earth as 28,985 kilometers (18,000 miles), a massive error that offset his calculations by nearly 28 percent. This flawed circumference was used in Europe until the Renaissance. Latitude was measured from the equator, as it is

¹⁰ L. Alexandre Heuzey, *Mission archéologique de Macédoine*, (Paris: 1876), 1832.

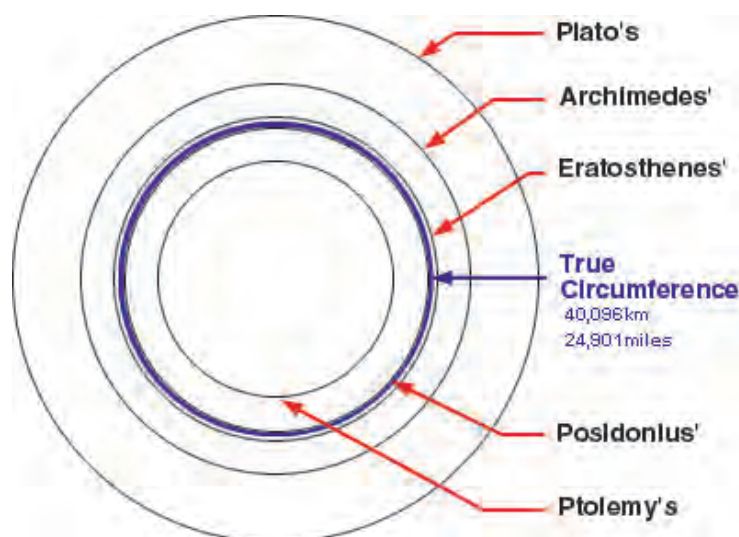
¹¹ Hellenika P. Flensted-Jensen, "The Bottiaians and their Poleis," *Studies in the Ancient Greek Polis* 1, ed. Morgens Herman Hansen and Kurt Raaflaub, (Stuttgart: Franz Steiner Verlag, 1995), 1133.

¹² M.B. Hatzopoulos and L.D. Loukopoulou, *Morrylos, cité de la Crestonie*, (Paris: Athènes, 1989), 85.

¹³ Karl Müller, *Klaudiou Ptolemaiou Geographike hyphegesis - Claudii Ptolemæi Geographia*, ed. Alfredo Firmin Didot (Parisiis 1883), 5184.

¹⁴ This photo is in the public domain.

today, but Ptolemy expressed it as the length of the longest day rather than degrees of an arc. He used the length of the midsummer day which increases from 12 hours to 24 hours as one moves from the equator to the polar circle. His system allowed for 81° degrees from equatorial Africa to the Arctic. He then established the meridian of 0° longitude at the most western land he knew, the Canary Islands, and the farthest east (180° degrees) as “Serica” and “Sinae” or China, “Taprobane” or Sri Lanka, and the “Aurea Chersonesus” or the South-east Asian peninsula. Since Ptolemy’s diameter of the earth was too small, all his positions need to be recalculated. This small circumference of the earth was perhaps one of the major reasons why Columbus thought he could easily sail across the Atlantic to China.



Right: Determining the Earth's Size¹⁵

Ptolemy never visited most of the sites listed in *The Geography*. He likely had some geographic texts available to him in Alexandria, but these were quite likely too out-dated for his project.¹⁶ He had to rely on merchants to provide descriptions of these places. Many of the locations he mentions were plotted poorly because of this, and because he did not know exact locations, he rounded some places to the nearest degree.

Mistakes or inventions told to him by merchants and travelers became standard features on the maps based on Ptolemy. The multiple rivers described in Arabia are an example of such inventions. Ptolemy garnered his information from whomever he could find who had some knowledge of distant places. Sometimes this information was misleading, sometimes fanciful, or simply wrong.

Many of the names Ptolemy lists are obscured because they are written as the Greeks knew them, not as they might have been called in their original language, such as Arabic in the Middle East. Ptolemy’s names are too far removed linguistically from modern names for ‘sounding alike’ to reflect any meaningful correlation. Charles Forster comments:

modulation, for the sake of euphony of some Arabic consonants by the Greeks and Romans, for example, the substitution of the Greek theta for the Arabic Dal, as Thamata for Dama, Thabba

¹⁵ Jochen Albrecht, *Eratosthenes' errors*, photograph, The City University of New York Department of Geography and Environmental Science, <http://www.geo.hunter.cuny.edu/~jochen/gtech201/lectures/lec6concepts/datums/>

¹⁶ Ian D. Morris, “Mecca and Macoroba,” *Al-Uṣūr al-Wuṣṭā* 26, no. 1 (2018): 2, doi:10.7916/alusur.v26i1.6850

for Dahban, Theba for Teba or Deba, Thauane for Doan: of the s, and t, for d, as Saphar for Darar, Tamala for Al Demlou: of the s for z, as Sibi or Sesippi portus for Zebid: of the Greek phi for the Arabic ba, as Sapphar for Sabber: of the n for l, the Arabic termination in for the Hebrew el, is not an unusual change.¹⁷

This linguistic shift forces the reader into a degree of guesswork with Ptolemy's names, which can be difficult if not impossible to verify.¹⁸

Map makers have long had difficulty placing locations on Ptolemy's maps. Each of the maps produced from Ptolemy's coordinates differ considerably. Notice the difference between the maps below, as the mapmakers also incorporated knowledge and perspective common in their own contexts.



Modern scholars who rely on Ptolemy for evidence of Mecca make a similar error. One can look at a 15th century map based on Ptolemy's coordinates and imagine which names match modern names. But, if one does not seriously regard the latitude, longitude, unreliable sources, and language issues described above, such plotting is truly more a work of imagination than study.



Left: Many maps were made based on Ptolemy's coordinates.¹⁹

*Sexta Asiae Tabula Details V*²⁰

¹⁷ Charles Forster, *The Historical Geography of Arabia; Or, the Patriarchal Evidences of Revealed Religion* 1 (Duncan and Malcolm, 1844), lx-lxii.

¹⁸ Tibbetts, *Arabia in Early Maps*, 17.

¹⁹ Qatar Foundation, Heritage Library, *Map of Ancient Arabia*, photograph, Wikipedia, https://en.wikipedia.org/?title=File:Map_of_Ancient_Arabia_-_1720.tif&page=1

²⁰ This photo is in the public domain.



Left: Map after Ptolemy by Martin Wäldseemüller in *Tabula VI Asiae* published by Strassburg, Johannes Grüninger, 1525. (Colored Woodcut)



Left: A 25 x 46 copper-plate engraving from 1478 fashioned after *Geography* by Claudius Ptolemaeus

Despite these shortcomings, one should not regard the whole of Ptolemy's work as inaccurate. Ptolemy was amazingly accurate within the Greek and Roman world, and less accurate when locating places farther away. In this study we will concern ourselves mostly with Ptolemy's maps of Felix Arabi--but to understand his

system we will examine other locations in an attempt to develop a computerized model and mathematical algorithm that will allow us to translate data from Ptolemy's *The Geography* into modern latitude and longitude.

Early in this process, we must understand that Ptolemy's latitude was quite stable and never exceeded -3° to $+2^\circ$ difference. For the territory of Greece, the latitude difference varies only -1° to $+1^\circ$. When we consider his longitudinal data, however, Ptolemy's coordinates show an increasing trend to drift eastward.²¹ This error increases from about 14.5° at the "Columns of Heracles," to about 26.5° at the area of Aegae, to around 32° at the east coast of Cyprus.²² This means that Ptolemy's map steadily 'stretches' toward the east, with greater longitudinal stretching the further east the coordinates.

²¹ Evangelos Livieratos, "On the Study of the Geometric Properties of Historical Cartographic Representations," *Cartographica: The International Journal for Geographic Information and Geovisualization* 41, no. 2 (Summer 2006): 165, doi: 10.3138/RM86-3872-8942-61P4

²² Manolis Manoledakis and Evangelos Livieratos, "On the digital placement of Aegae, the first capital of ancient Macedonia, according to Ptolemy's *Geographia*," *e-Perimetreion* 2, no. 1 (Winter 2007), 31-41.

Ptolemy's Roman View of Arabia

The Romans divided Arabia into three parts: Arabia Petraea (the Roman province ruled from Petra), Arabia Deserta (the desert area of Arabia east and south of the Roman Empire), and Arabia Felix (Happy Arabia). Arabia Felix encompassed the incense producing land of Yemen and Oman and the southern part of Saudi Arabia, such as Najran, Jazzan, and so forth.

This Roman division of Arabia directly impacted the accuracy of Ptolemy's maps of the Arabic peninsula. As we will find, his coordinates within the Roman controlled province of Petraea were fairly accurate, since he reasonably had better access to information about the area. Arabia Felix was also of special interest to Ptolemy because of the Roman affinity for incense and the legendary riches of this region. But, because of this attention, we will find that Ptolemy's map of Arabia Felix was greatly exaggerated in size, while Arabia Deserta was distorted and reduced. In fact, Ptolemy only lists 25 locations on his Arabia Deserta map, and over 200 locations on his Arabia Felix map.

Rivers in Arabia

One of the problems in trying to equate Mecca with Macoraba, Centos, or Thebe, is the existence of the Betius River (69.30-20.40 AP). In *The Geography*, Ptolemy clearly described several large rivers in Arabia--an obvious problem as no such rivers exist today in the Arabian Peninsula. Even so, Ptolemy located the mouth of Betius River on the Arabian coast, just south of a place called Thebe. He also plotted rivers running into the Indian Ocean and one running into the Persian Gulf. The inclusion of these rivers has cast doubt on the accuracy of Ptolemy's maps. But, when reconstructing and testing Ptolemy's coordinates, these 'rivers' become increasingly important.

Cities are destroyed, abandoned, and disappear. But river courses, though they may change with time, are comparatively quite static, and leave dry river beds behind. Though certain streams may not flow year-round, and in some cases not at all, even the remnants of ancient water courses help to provide us with reliable coordinates we can use to bridge Ptolemy's coordinates and the world as we understand it today.

Ptolemy provided two lists of locations in Arabia Felix in his *Geography*, those on the coast and those inland. Ptolemy plotted the locations of Centos and Thebe just south of the Betius River, on the coast—Macoraba alone was listed as in-land. Thus, if we are to accurately locate Centos and Thebe, we must ascertain where the dubious Betius river is located.

Proponents of the argument that Macoraba, Centos, or Thebe are ancient Mecca have suggested the possibility that a river did exist there in antiquity. But ancient documents, such as the *Periplus Maris Erythraei*, which described the ports which traded with Roman Egypt,

made absolutely no mention of any river or port along the central Arabian coast. The *Erythraei* reads:

directly below this place is the adjoining country of Arabia, in its length bordering a great distance on the Erythraean Sea. Different tribes inhabit the country, differing in their speech, some partially, and some altogether. The land next to the sea is similarly dotted here and there with caves of the Fish-Eaters, but the country inland is peopled by rascally men speaking two languages, who live in villages and nomadic camps, by whom those sailing off the middle course are plundered, and those surviving shipwrecks are taken for slaves. And so they too are continually taken prisoners by the chiefs and kings of Arabia; and they are called Carnaites. Navigation is dangerous along this whole coast of Arabia, which is without harbors, with bad anchorages, foul, inaccessible because of breakers and rocks, and terrible in every way.²³

This account of the central Arabian coast was written in the 1st century CE, shortly before Ptolemy. No river was mentioned, even as the writer continued to describe navigational aids all the way to the port at Muza to the south.



Left: Betius River showing Thebe, Centos Village and Macoraba

²³ Wilfred H. Schoff, *The Periplus of the Erythraean Sea: Travel and Trade in the Indian Ocean by a Merchant of the First Century* (New York: Longmans, Green, and Co., 1912), 29.

Ptolemy's Four Rivers

Next we will describe the four Arabian rivers described in Ptolemy's *The Geography*:



River 1: Ptolemy placed the mouth of the Prionis River at 85. 13.30 AP. This river flowed into the Indian Ocean. The Prionis may have been Wadi Hajr, close to Ptolemy's city of Mepha, which has been identified as ruins near the modern town of Mayfa'ah. A wadi is simply a ravine or channel which is typically dry and floods during the rainy season.

Above: River 1: Wadi Hajr or Ptolemy's Prionis River

River 2: Ptolemy recorded that the Hormanus River also flowed into the Indian Ocean (89.30 20.30 AP). Today, this river would most probably correspond to Wadi Bani Khalid, which flows through the mountains and eventually into the Red Sea near Al Jumaylah in Oman (22° 0'2.35"N and 59°39'19.39"E).



River 2: Ptolemy's Hormanus or Wadi Bani Khalid



Left: the remains of the Laris River known as Wadi Batha in the United Arab Emirates

River 3: Ptolemy identified the mouth of the Laris River on the north side of Arabia flowing into the Persian Gulf (86.30 23.30 AP). Today, this ‘river’ is likely known as Wadi Baṭḥa, but upstream it is known as Wadi Lamḥah.

River 4: The Betius River appeared on all the maps based on Ptolemy’s *Geography* until modern map makers realized that the river does not exist as Ptolemy described it. While the existence of this river is contested, we believe it is much farther south than Ptolemy realized.

For many centuries, map makers in Europe charted Arabia Deserta as a very small place, and Arabia Felix as a very large place. In the map right, Arabia Felix (pink) dwarfs Arabia Petrea (orange) and Deserta (green).



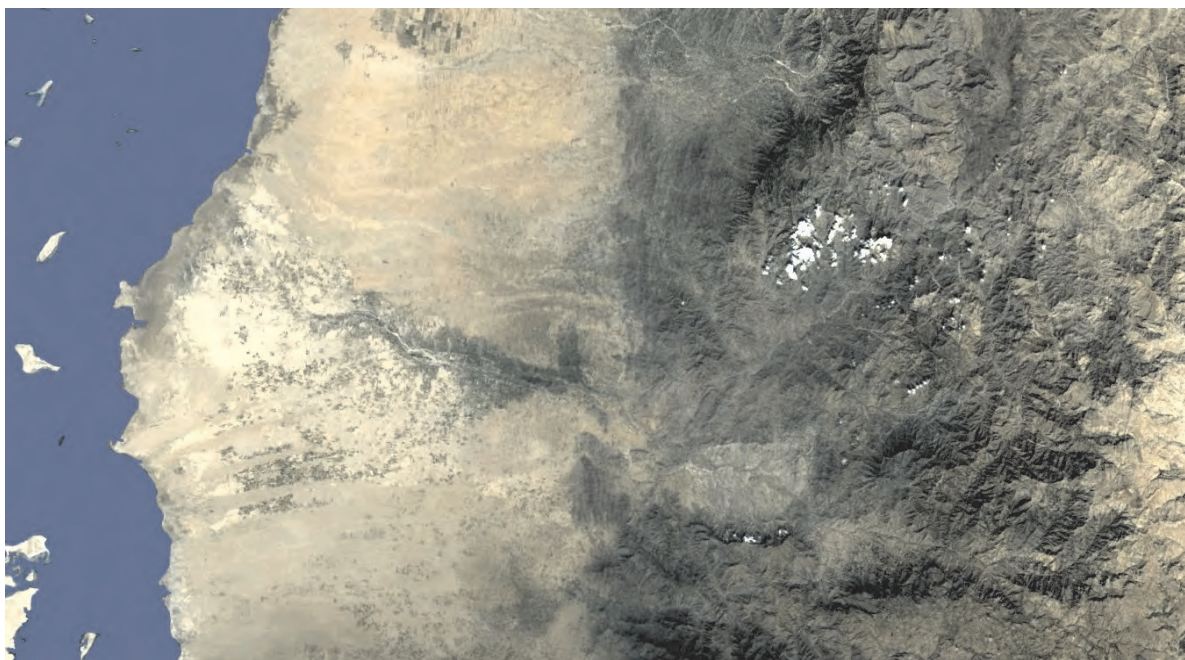
Above: Map from 1720²⁴

²⁴ Qatar Foundation, Heritage Library, *Map of Ancient Arabia*, photograph, Wikipedia, https://en.wikipedia.org/?title=File:Map_of_Ancient_Arabia_-_1720.tif&page=1

It is Gibson's belief that Ptolemy located the border between Arabia Deserta and Arabia Felix much too far north, thus misleading mapmakers for centuries to follow. As we will see in a later chapter, Arabia experienced significant desertification during the century before the founding of Islam, which continued for several centuries after the founding of Islam. So indeed, earlier the name Arabia Deserta may have been ascribed to a much smaller place, and was later applied to a larger part of an increasingly arid Arabia.

In any case if Ptolemy's coordinates are adjusted to allow for a large desert in Arabia, then the places listed in Arabia Felix, such as Macoraba and the Betius River, can be found northern Yemen and not in Saudi Arabia.

In 2013, Dan Gibson released a paper where he argued that Ptolemy's Betius River is Wadi Mawr, which descends from the mountains of Yemen to Al Luhayyah on the Red Sea coast (15°42'21.99"N and 42°58'24.74"E).

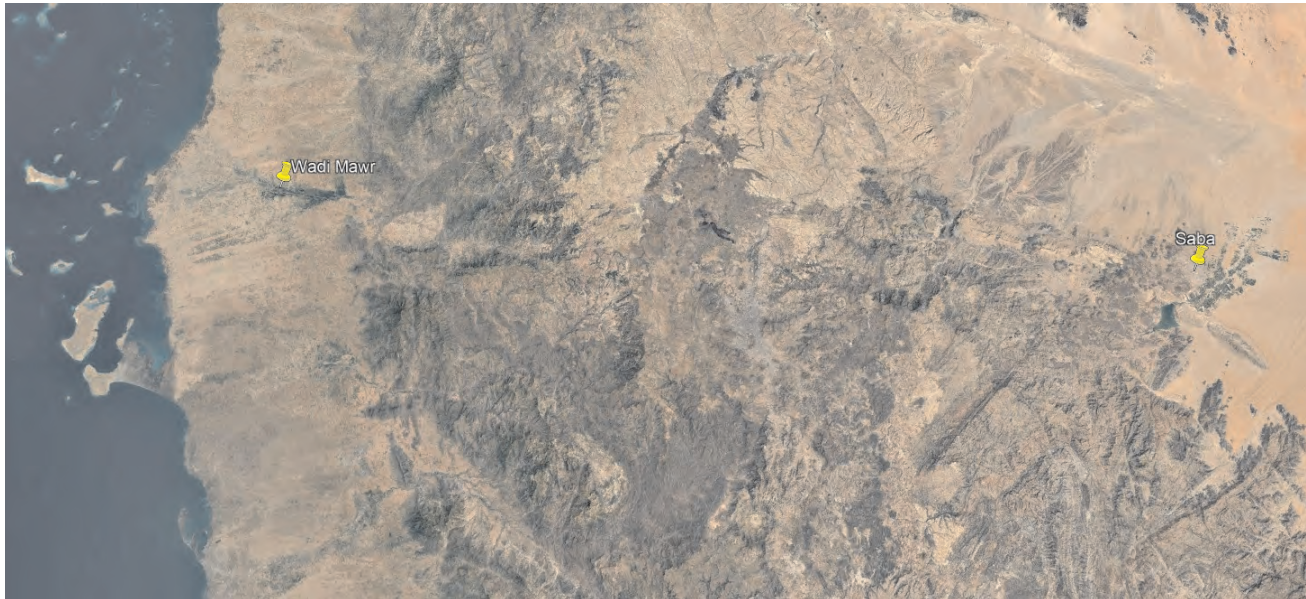


The satellite photo above shows the flow of water from the mountains towards the coast.

The Tihama is the broad, flat expanse of sand that separates the mountains of Arabia from the seacoast all along the eastern shores of the Red Sea. Wadi Mawr flows through a clearly identified riverbed across the Tihama and empties into the Red Sea near the ancient town of Al Luhayyah.



Right: After rain, water flows from Wadi Mawr to the ocean making it appear as if it is a river.



Above: Map showing Wadi Mawr on the left, Saba on the right.

One of the strongest pieces of evidence in support of this reading of Ptolemy is that he reported that inland from this river was the region Sabaei or Saba. This description clearly ties the Beitus River with Wadi Mawr because the wadi is indeed located directly west of the Saba region.

Furthermore, Ptolemy described several islands near the mouth of the Beitus. There are no such islands on the coast of Saudi Arabia west of Mecca. But as can be seen in the image above, the major islands of Jazirat Hamar, Al Murk, and Jazirat Antufash, and so on, are found exactly where Wadi Mawr empties into the Red Sea. It is most likely that the 'Zabram' region of Ptolemy's map, which included the Beitus River, is in fact the Tihama region. If so, Thebe town could be identified as modern Al Luhayyah.

Finding Modern Locations on Ptolemy's Map

Since Ptolemy used a graduated set of measurements based on the length of days, Ptolemaic degrees are different from modern degrees. Today, we start at 0 degrees at the equator and 90 degrees at the pole. The Arctic Circle is 66.5622 degrees. Ptolemy started at 0 degrees at the equator and 81 degrees at the Arctic Circle: thus, he had more degrees in his arc than our modern reckoning.

To compare locations on Ptolemy's map with modern maps, we must calculate latitude and longitude separately. Ptolemy's latitude and longitude are on two separate scales--one with 81 degrees and the other with 180 degrees with an increasing longitude eastward.

For the purposes of our study, Gibson developed a simple formula which allowed him to convert modern latitude and longitude coordinates into Ptolemy's system, allowing easy comparison between the coordinates on Ptolemy's Arabian maps with modern ones.

To make the conversion, he used two formulae--one for latitude and one for longitude.

Latitude: $Ep = 24.9198 + 1.183E$

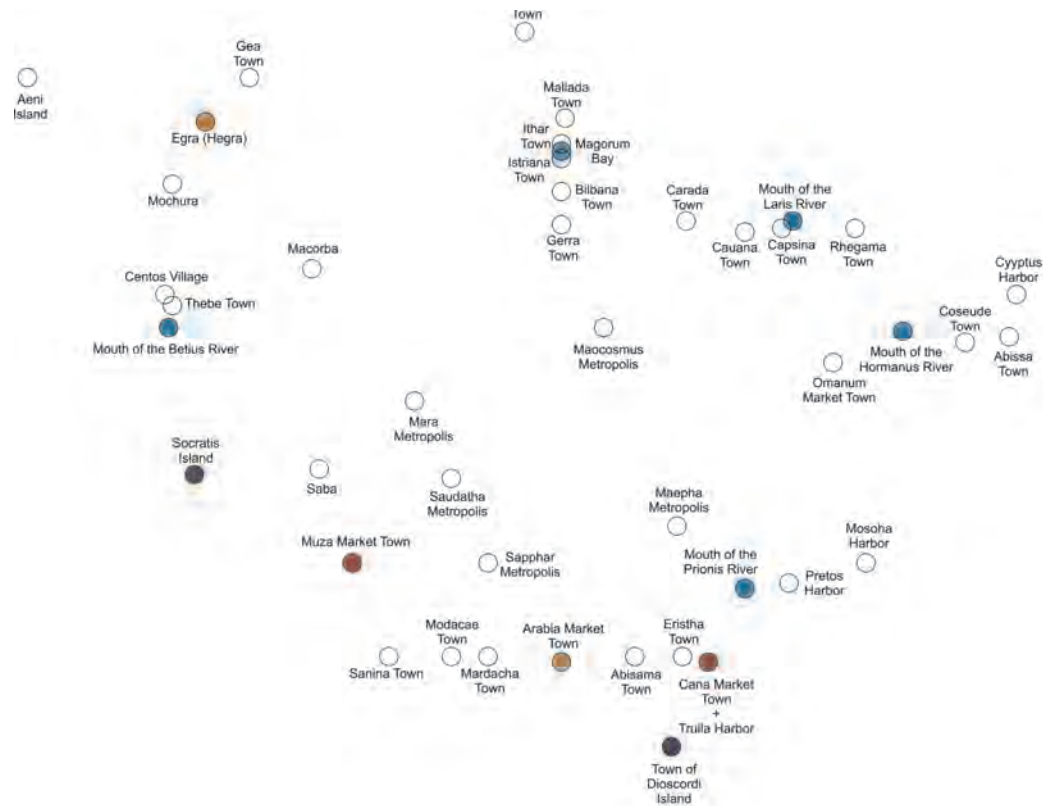
Longitude: $Np = -1.43284 + 1.04134N$

Gibson then linked up well known locations on Ptolemy's map with modern locations to check his formulas. Notice in the chart below that Ptolemy provides his longitude first, and then his latitude all in one number sequence.

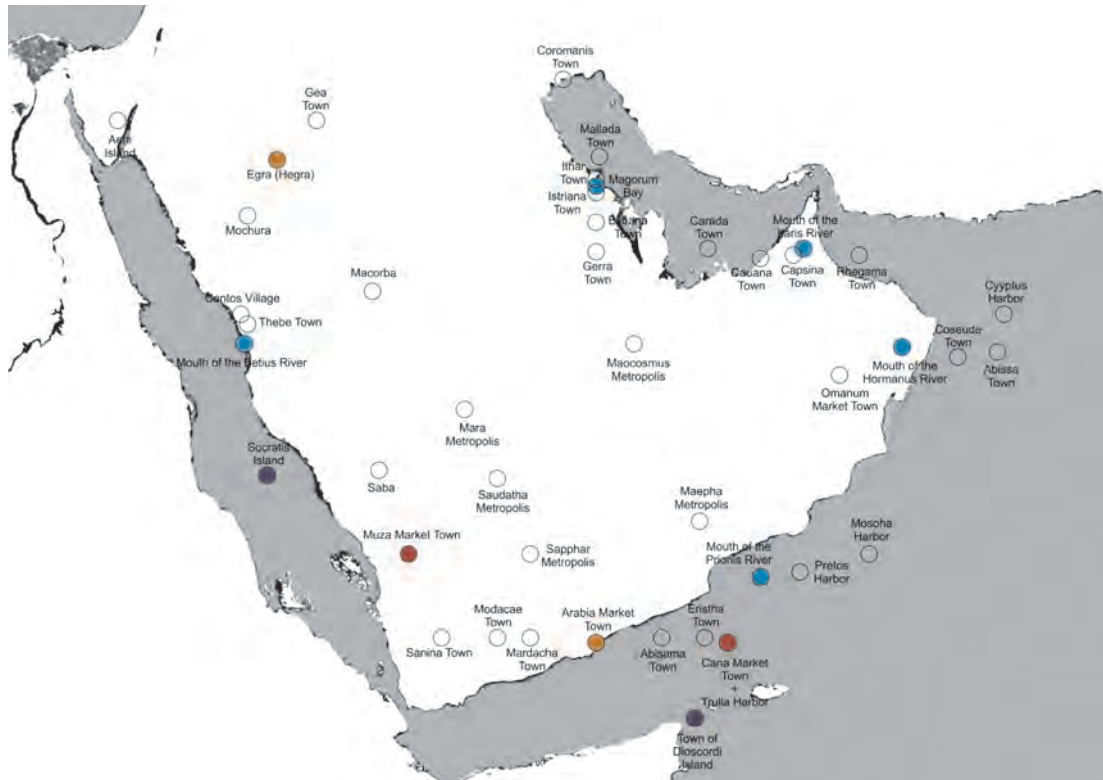
Place Name	Ptolemy	Longitude	Latitude
Gaza	65 25 31 45 AP	31°31'31.36"N	34°25'54.97"E
Berenice	64 5 23 50 AP	23°56'46.39"N	35°29'39.26"E
Myoshormus	64 15 26 45 AP	26° 5'58.45"N	34°17'6.05"E
Babylon	62 15 30 AP	32°32' 11 "N	44°25'15 " E
Heliopolis	62 30 29 50 AP	30°07' 46.3 "N	31°17'20 " E
Ephesus	57 10 37 40 AP	37°57' 6.11"N	27°22'28.93"E
Sidon	67 10 33 20 AP	33°33'50.01"N	35°22'6.83"E
Damascus	69 - 33 - AP	33°30'56.85"	36°18'7.91"E
Palmyra	71 30 24 - AP	34°33' 36 "N	38°16' 2 " E
Petra	66 45 30 20 AP	30°19'35.69"N	35°26'2.52"E
Muza	74 30 14 - AP	13°19'21.49"N	43°15'2.72"E
Cana	84 - 11 30 AP	14°31'59.32"N	49° 7'31.62"E
Derbe	64 20 38 15 AP	37°26'20 "N	33°09' 50 " E
Tarsus	67 40 36 50 AP	36°55'00 " N	34°53' 44 " E
Caesarea	68 30 37 - AP	32°30'08.08"N	34°54'30.33"E
Salamis, Cyprus	66 40 35 20 AP	35°11' - - N	33°54 E
Laodicea	68 30 35 5 AP	37° 50' 9" N	29° 6' 27" E
Ascalon	65 - 31 40 AP	31° 40' 0" N	34° 34' 0" E
Elusa	65 10 30 50 AP	31° 5' 49.2" N	34° 39' 7.2" E
Madaba	68 30 30 45 AP	31° 43' 0" N	35° 48' 0" E

While this was a working solution for the Roman regions of Ptolemy's map, Gibson struggled to match locations throughout Arabia Felix. He then decided to place Ptolemy's co-ordinates on a grid without any reference to any maps.

When he attempted to overlay these coordinates over a modern map there were numerous problems.



Locations in Arabia Felix according to Ptolemy's coordinates without any underlying map



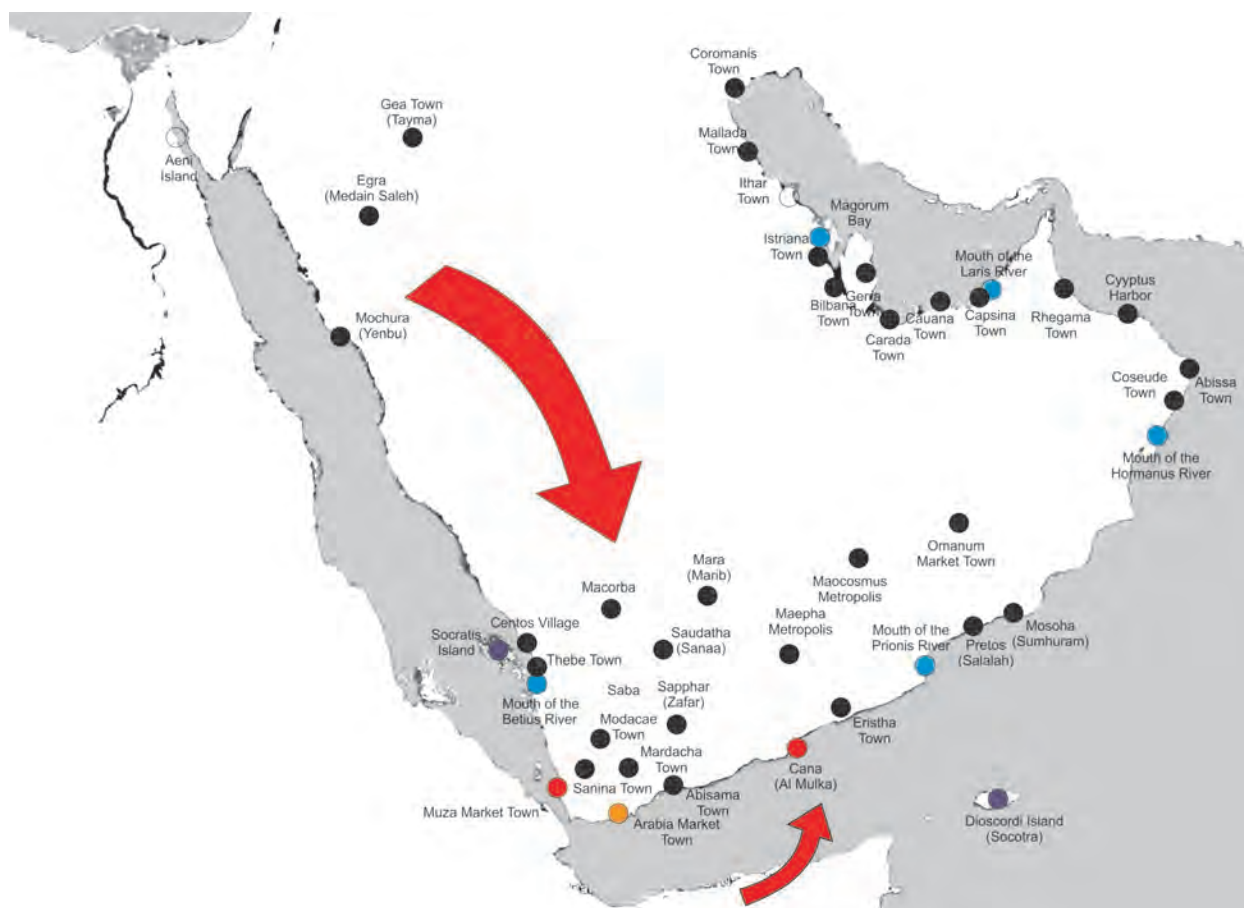
Ptolemy's After matching the city of Egra with modern Hegra, Ptolemy's locations do not fit on a modern map. The locations in Arabia Felix extend far into the Red Sea, the Indian Ocean, and the Arabian Gulf.

It appears that Arabia Deserta was far too small in Ptolemy's mind. He knew a desert separated Arabia Petrea from Arabia Felix, but he never imagined it was so expansive. He also may not have imagined that cities in Arabia Felix would border right onto the sand facing the desert, waiting for camel caravans to arrive and pick up incense.

Gibson felt the obvious solution to this problem was to manipulate the maps until the rivers/wadis aligned. To do this, he separated three locations on Ptolemy's map in the north: Egra (Hegra) or Mada'in Saleh today, Gea Town or Tayma today, and Iambia village or Yenbu today.

He then lined up the rivers on the Indian Ocean and the Arabian Gulf, reducing the size of Arabia Felix.

There was still a problem with cities being too far north so he moved the Beitius River and the other locations near to it southward to match the Betius River with Wadi Mawr. When he did this, many of the interior locations suddenly became apparent. From this exercise of matching Ptolemy's Rivers to wadis, he confirmed that Ptolemy was not aware of the vastness of the deserts in Arabia's interior, and that he plotted his locations in Yemen too far north.



Ptolemy's coordinates fit better when lining up the rivers on the Indian Ocean, and squeezing the cities in Arabia Felix farther south, making the desert much larger.

When he used computer modeling to move these locations southward (with a small adjustment to correct Ptolemy's angle) many of the locations on Ptolemy's map suddenly seemed to fit. Ptolemy's Centros Village becomes modern day Jazan, Thebe Town becomes Al Luhayyah, and Macoraba becomes modern Al-Mahabishah. Mara is positioned above Ma'rib and Saudatha and becomes modern day Sana'a. Sapphar then fits over Zafar, and so on. On the Indian Ocean coast, Petros becomes modern day Salalah and Mosoha is what we know today as ancient Sumhuram.

How can we find Mecca on Ptolemy's Maps?

According to Gibson's argument, in Ptolemy's mind, Arabia Felix was much larger than we know it today. This same error occurred with his map of Sri Lanka, where the island was much larger than it should be. This exaggerated size may have been caused by the Roman and Arab relationship with Sri Lanka: Roman and Arab ships traveled to Palk Bay on the north side of Sri Lanka to trade with the Chinese and other Asians. Thus, Sri Lanka was of major importance, and so it grew in Ptolemy's mind and on his maps as well.²⁵



Above: Ptolemy's maps show Sri Lanka much larger than it really is.²⁶

When he enlarged the size of the Arabian deserts on Ptolemy's maps, Ptolemy's coordinates suddenly made more sense. Further, by using the rivers, Gibson could more accurately discern what Ptolemy intended, and so he could also be quite safe in concluding that Mecca

²⁵ H.J. Wesshaar, H. Roth and W. Wijeyapala, *Ancient Ruhuna. Sri Lankan-German archaeological project in the southern province*, (Mainz am Rhein: von Zabern, 2001), 3.

²⁶ This photo is in the public domain.

and Medina did not appear on Ptolemy's maps. This would be in keeping with the archeological records that shows that Medina was not settled as an urban area until the break of the Ma'rib Dam between 542 and 570 CE and that Mecca was not settled as a city until c. 900 CE.²⁷

G.R. Tibbetts has argued that while Ptolemy knew that the entrances to the Arabian Gulf and the Red Sea were narrow, he had exaggerated the width of the land mass: "this influenced the maps of Asia for another two hundred years. It was first corrected by De l'Isle in his *Maps of the World and the Four Continents* published in 1700."²⁸ Once Ptolemy's enlargement of Arabia Felix was corrected, it became apparent to Gibson that Macoraba was in Yemen (Arabia Felix) and not in Arabia Deserta. This argument formed the basis of Dan Gibson's declaration in the film *The Sacred City* in 2016 that Mecca did not appear on any early maps.

Morris Drives Another Nail in the Mecca Coffin.

Historian Ian Morris outlined the long development of the Mecca and Macoraba connection in his paper "Mecca and Macoraba." Morris located the genesis of this idea with Samuel Bochart in 1646, based on a fanciful theory of Hebrew-Phoenician settlement in the Hijaz, in order to provide ancient Mecca with a Hebrew name—*Mecca Rabbah*, which Ptolemy supposedly recorded as Macoraba.²⁹

The problem is this theory is patently ridiculous, but as Morris explains at length, Bochart's conclusion was so often repeated without its dubious founding argument that it became something of a false truism. Macoraba was clearly Mecca, never mind the etymological gymnastics which birthed that conclusion.

Mecca and Macoraba are different words: "if we see Mecca in the first half of Macoraba, then we need to explain the second half; if Mecca is an abbreviation of Macoraba, then we should ideally want to explain how that came about."³⁰ Though many have attempted to provide this explanation over the last four centuries, Morris does not find the results of these attempts compelling:

the remarkable plasticity of Macoraba speaks not to the strength of its central claim, but to its extreme weakness. These derivations are often adduced to show that Mecca was a prominent site for religion or trade long before Islam. In practice, though, scholars have assumed that Mecca had such a history, they have assumed that Mecca was Macoraba, and they have gone

²⁷ Gibson, *Qur'anic Geography*, 216.

²⁸ Tibbetts, *Arabia in Early Maps*, 19.

²⁹ Morris, "Mecca and Macoraba," 12-13.

³⁰ Morris, "Mecca and Macoraba," 5.

looking for etymologies to cohere with those assumptions. It is telling that after 370 years of experimentation we now have a range of incompatible derivations, none of which fits.³¹

In Morris' opinion, there is such an utter lack of evidence for the connection between Macoraba and Mecca linguistically that this consensus should be "abandoned or more rigorously defended."³²

Macoraba does not appear in medieval European geography.³³ Macoraba is never mentioned by pre-Islamic Arabic sources.³⁴ Essentially, Macoraba is listed by Ptolemy in his *The Geography* and vanishes from the record—until 1646. As Morris concludes sharply:

it is not clear that Mecca was known and venerated across the Peninsula, even during Muḥammad's lifetime. The town came to prominence only after the rise of Islam, and even then its two most conspicuous markers, the direction of prayer and the rites of pilgrimage, were negotiated with other sites during the seventh century. Mecca's place in Arabian sacred geography was neither ancient nor immutable.³⁵

When Morris' conclusions from his investigation into the etymology of Macoraba are combined with our geographic study of Ptolemy, we find no compelling reason to believe Macoraba is in any way connected to Mecca. As Morris argues above, scholars have long assumed that Mecca had a long history and have thus attempted to create historical narratives to support those assumptions. Under the pressure of any scrutiny, those assumptions fail.

We have argued that due to fundamental flaws in Ptolemy's coordinates in Arabia, particularly the exaggeration of Arabia Felix and diminishing of Arabia Deserta, Ptolemy's maps of Arabia are extremely unreliable without adjustments. When adjustments are made to account for his longitudinal and latitudinal errors, and his geographic errors corrected by lining up his 'rivers' with prominent wadis, Ptolemy's maps can be very useful and illuminating. Yet, ultimately, Mecca is nowhere to be found.

If Mecca was not founded until the end of the first century of Islam, as our study of early qiblas indicates, then it comes as no surprise that Mecca is not mentioned in Ptolemy's maps. Efforts to find Mecca in Ptolemy's world are simply an act of wishful revisionism based on unproven assumptions.

³¹ Morris, "Mecca and Macoraba," 41.

³² Morris, "Mecca and Macoraba," 1.

³³ Morris, "Mecca and Macoraba," 6.

³⁴ Morris, "Mecca and Macoraba," 36.

³⁵ Morris, "Mecca and Macoraba," 43.

Chapter Six

Umayyad Qasrs

Dan Gibson with Chad Doell

So far in our discourse we have outlined the qibla directions of many early Islamic mosques. We have found that Umayyad mosques used several different qiblas, depending on the religious and political context of their construction. To add to this body of evidence, we will next consider the qiblas of other Umayyad structures, particular the Umayyad manor houses or qasrs.

Muslim armies entered Jordan in 7 AH (629 CE). The invaders met an overwhelming Roman (Byzantine) force at the Battle of Mu'ta in southern Jordan, about 100 kilometers north of Petra. Seven years later, at the Battle of Yarmouk, the Muslim armies took control of Palestine, Jordan, and Syria. The Umayyad caliphs inherited this territory from the Rashidun caliphs before them and, in total, the Umayyads controlled this area for around 120 years. During this time, extensive building projects took place, many of them surviving in some form until this day. These buildings were generally left to ruin after the Abbasids seized power—and, because of this neglect, we have access to the original foundations of many of these structures. Unlike so many mosques, most of the qasrs, or manor houses, were never replaced by newer structures.

Many of these Umayyad qasrs were noted by Gibson during his qibla research. Often these buildings were visited by Gibson or one of his associates. Where this was not possible, or where further illustration was needed, we have used archaeologists' sketches and satellite imagery.

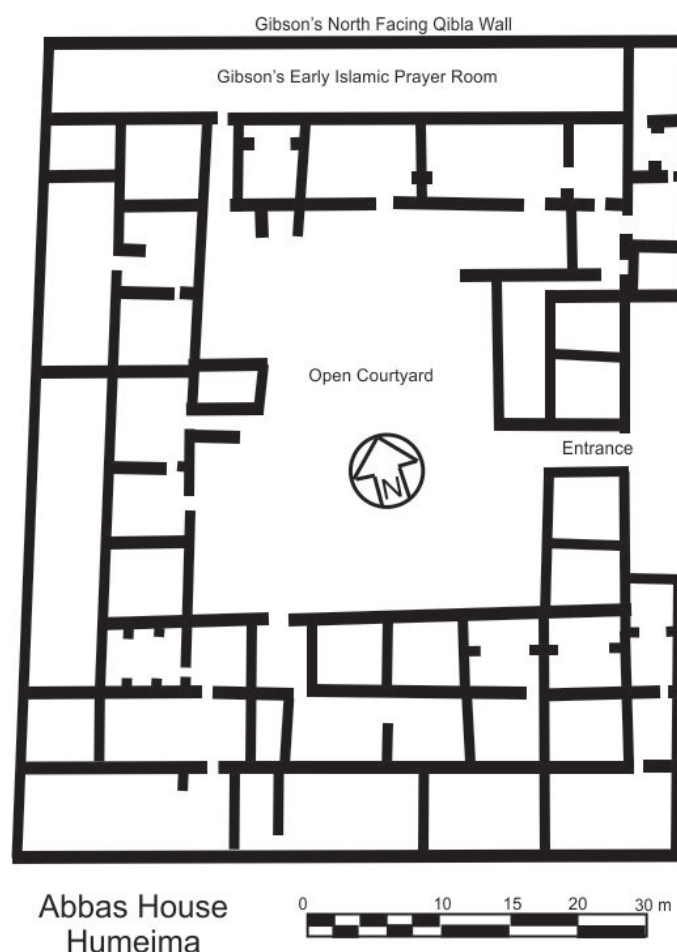
With each of these structures we have sought to identify the qibla direction of the entire structure and compare its qibla with the four qiblas: Petra, Mecca, Between, and Parallel.¹

¹ Note that the Online Qibla Tool also compares these qiblas with summer and winter solstices as well as other directions: https://nabataea.net/explore/founding_of_islam/qibla-tool/

The obvious objection to this research is that these buildings are not mosques, and many do not have miḥrāb niches, so the orientation of these buildings is irrelevant to the qibla discussion. This objection is short sighted: if these buildings do appear to face a qibla direction, they are as relevant to charting the changing qibla of early Islam as the mosques. We have found that most of the great qasrs had prayer rooms, and quite often the whole qasr itself had a qibla wall. It is our proposal that the qasrs were built with the same intentionality as the mosques, using the same methods, to communicate the same religious and political realities.

While early mosques had a dedicated wall to indicate their qibla, most were not perfectly square. The same is true of the qasrs. Dan Gibson has found in his qibla research that most qasrs had a dedicated qibla wall built with much greater care and accuracy than the other walls. One example of this qibla wall can be found in the Humeima qasr, where the side and south walls of the building have different orientations and angles, but the north wall is straight and carefully aligned so it could act as a qibla wall. In this case the qibla faces north towards the city of Petra. The long wide prayer room in the north of the qasr is immediately accessible to everyone via a hallway from the centre courtyard. Even visitors could easily enter the prayer room without needing access to the rest of the qasr.

In his studies, Gibson found over 20 major mosques and qasrs that were constructed before the miḥrāb was introduced. Unfortunately, most Muslims and historians will only consider structures with a miḥrāb niche a place of prayer. This disposition limits their sample set, as they are often reluctant to identify any mosques or places of prayer prior to the appearance of the miḥrāb in 90 AH (709 CE)—that is, after almost 100 years of Islamic history.



Right: Humeima qasr floor plan.²

² Adapted from figure F103 in John Peter Oleson, Khairieh 'Amr, Rebecca Foote, and Robert Schick, "Preliminary Report of the Humeima Excavation Project, 1993," *Echos du monde Classique: Classical Views* 38, no. 2 (1994): 166.

The Nabataean Manor Houses

The qasrs were an Umayyad development of the earlier Nabatean manor houses. The first point of commonality is that both were very large. There are several surviving Nabatean manor houses in the city of Mampsis, in the Negev. A small private dwelling in Mampsis covered 700 square meters (7,535 square feet). The largest was over 2,000 square meters (21,528 square feet). One such manor house, designated by archaeologists as a 'palace,' extended beyond 1,000 square meters and included a massive watch tower. All of these houses were two and sometimes three stories high, further extending their size. These buildings seemed to serve as the dwellings of especially wealthy extended families.³ Dwellings of this size were unique in Palestine at the time.

These villas could be lavishly decorated and were well constructed. Each manor house in Mampsis had only one entrance and featured rooms facing a central courtyard. What's more, there were no outside windows save narrow slits on the second story; these manor houses served as both mansions and fortresses.

Below are some examples of the impressive size of these manor houses. These measurements were recorded by Dan Gibson and are approximate to within half a meter:

Nabataean Qasrs

1. Khirbet Dharih Mansion VI: 26 x 26 meters or 676 square meters (85' x 85' or 7,225 sq. ft.)⁴
2. Nabataean Mampsis House: 30 x 35.5 meters or 1,065 square meters (123' x 128' or 15,750 sq. ft.)
3. North of Mampsis was a 'Caravan Inn': 23.5 x 52 meters or 1,222 square meters (80' x 170' or 13,600 sq. ft.)
4. Petra Manor House: 33 x 36 meters or 1,188 square meters (104' x 116' or 12,064 sq. ft.)

Now, consider the Umayyad qasrs, build several centuries later:

Umayyad Qasrs

1. Humeima House: 50 x 61 meters or 3,050 square meters (164' x 200' or 32,800 sq. ft.)⁵
2. Um Walid Eastern Qasr: 70.5 x 70 meters or 4,935 square meters (230' x 228' or 52,440 sq. ft.)
3. Um Walid Western Qasr: 48 x 46.5 meters or 2,232 square meters (155' x 150' or 23,250 sq. ft.)
4. Qasr Qastal: 70 x 68.5 meters or 4,795 square meters (230' x 225' or 51,750 sq. ft.)

³ For further data, see: Avraham Negev, "The Architecture of Mampsis: Final Report: Volume II: The Late Roman and Byzantine Periods," *Qedem* 27 (1988).

⁴ Measurements are based on a diagram found in: Zeidoun Al-Muheisen and Pauline Piraud-Fournet, "A large Nabataean-Roman period house at adh-Dharih," *Studies in the history and archaeology of Jordan* 11 (2013): 4.

⁵ Oleson, "Humeima Excavation Project," 166.

The qasrs all retain the same basic shape as the earlier Nabataean mansions. They also had one entrance which led to an inner court; the living accommodations were on the second floor with storage and other utility rooms on the main floor. Clearly the Umayyad Qasrs were also built by powerful families who had considerable influence.

One important difference between the Umayyad qasrs and the Nabatean manor houses was that the Umayyads oriented their qasrs toward a qibla direction. Qasrs all faced one of three different qiblas: Petra, Mecca, or the Between position. Gibson charted the earlier Nabataean manor houses but failed to find any indication of a qibla, even with consideration of major Nabataean religious sites. So let us consider the Umayyad qasrs in greater detail. The qasr compounds were built in a large square shape. They had one primary entrance which was flanked by guard rooms. This entrance opened to a large open courtyard. All the rooms around the courtyard opened into the central court, with few windows facing outward. These details give the qasr the appearance of a military structure.

Indeed, these structures were often built at the intersection of local trade routes. Sometimes qasrs were built within view of each other, to provide a line of structures that could signal and support one another. Another consideration was access to a ready water supply—often there were previous structures at such locations. Some of these structures began as Roman buildings, then perhaps were converted into Christian monasteries, and later were totally rebuilt as Umayyad qasrs. Each of these transitions usually entailed the builders tearing down the previous structure, setting a new foundation, and then using the older building materials in the new structure. There were more benefits to building qasrs over previous structures than access to water. Roman buildings were often built on strategic locations, and at the least, they provided an ample supply of building materials.

Many qasrs had external gardens, orchards, and agricultural land around them. Sometimes we find small residential buildings for the agricultural workers outside of the qasr, such as at Qasr al-Hayar-al Gharbi, and Humeima. Some qasrs even had bathhouses for the wealthy.⁶

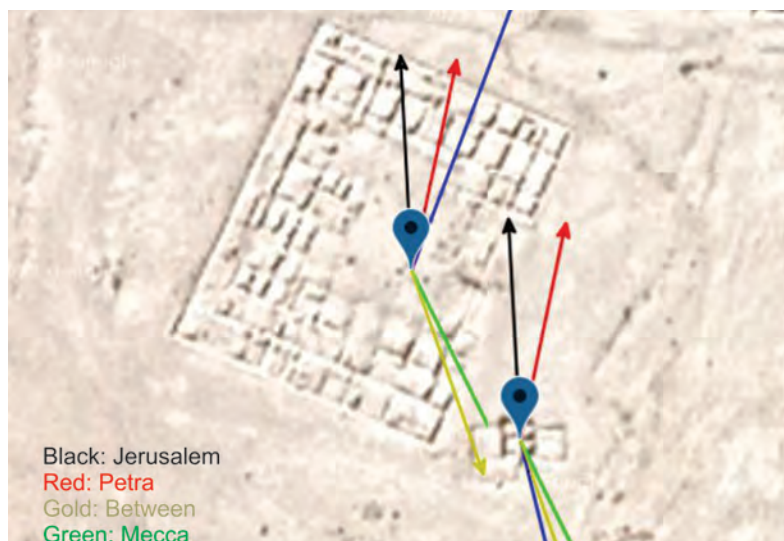
In the case of Humeima, archaeologists excavating the site were aware of accounts that the qasr was the home of the famous Abbas family.⁷ When they excavated the manor house, they did not find a mihrāb niche. Because the archaeologists were unaware of the possibility of a Petra qibla, they resolved to look further afield for a mosque.

Initially, archaeologists had disregarded a series of small buildings to the east of the qasr, because it was obvious to them that these buildings were the homes of the agricultural

⁶ Renate Rosenthal-Heginbottom, "A Forgotten Treasure: The Secrets of the Mampsis Hoard," *Hecht Museum, University of Haifa* 33 (2013): 50.

⁷ Hugh Kennedy, *When Baghdad Ruled the Muslim World: The Rise and Fall of Islam's Greatest Dynasty*, (Cambridge: De Capo Press, 2005): 2.

workers who worked the fields and orchards that were watered by the nearby wadi. However, on the last day of their dig, the archaeologists examined the small outer buildings and discovered a small room in this complex that had a mihrāb niche.⁸ Problematically, the mihrāb was marked by only a single layer of stones in the ground. The rest of the building was missing and had likely been reused for some other construction over the centuries.

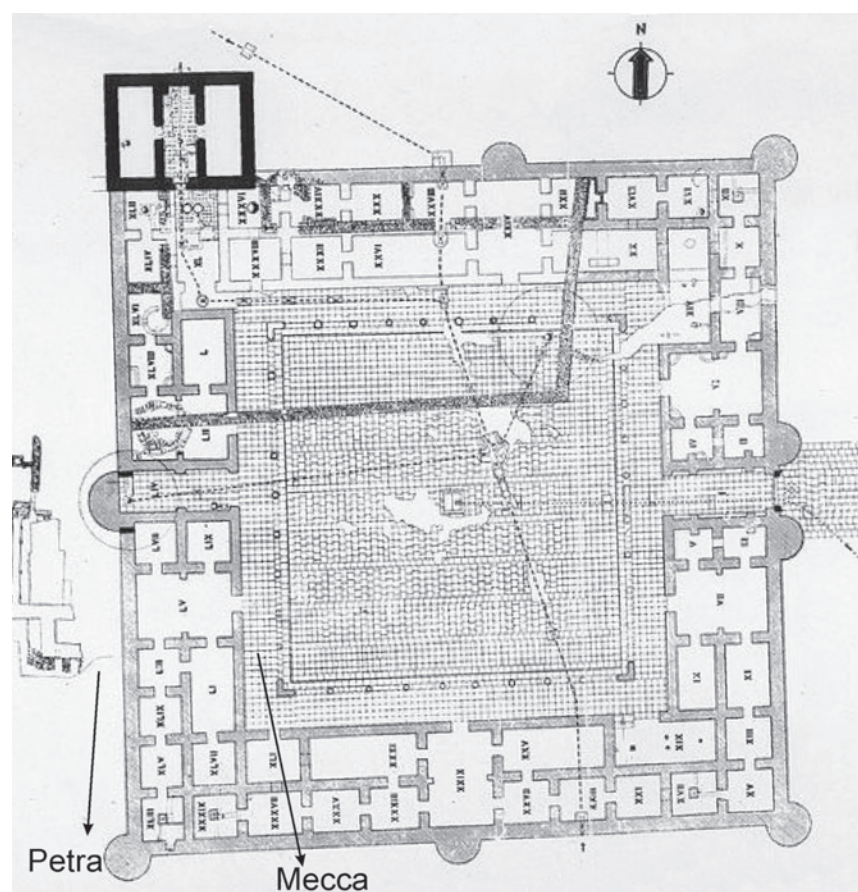


Humeima Qasr

Qasr Life

Life in the Qasr was focused on the central courtyard. The courtyard was the means of moving from one part of the qasr to the other. As mentioned, many of qasrs also had a second story, usually with a balcony facing the central courtyard. Some qasrs had roof access

so that the building could be defended from above. These central courtyards were places where people gathered, animals were handled, grain and fruit supplies were brought in, and large celebrations and cooking events took place.



*Left: Qasr al-Hayr al-Gharbi.*⁹

⁸ Oleson, "Humeima Excavation Project," 167, 169.

⁹ Adapted from: Oleg Grabar, *Floor plan of the palace of Qasr al-Hayr al-Gharbi*, photograph, Fine Arts Library, Harvard College Library, <https://archeologie.culture.gouv.fr/mosquee-omeyyades/en/media/view/8575>

It appears that the very first qasrs had no additional mosques outside of the structure. This absence is evident at Khirbat al Minya and Al-Kharana, as well as other early qasrs. Since the mihrāb niche had not yet been invented, there was no marking on any walls to indicate that they were specially designated as a place of prayer. Instead, it appears that the central courtyard was used as a place of prayer, or that a special room was used that was immediately behind the large straight wall which was deemed the qibla wall.

Qasr al-Hayr al-Gharbi is oriented towards the Between qibla. Archaeologists discovered a very small room (pictured on the lower left) with a small mihrāb. Because this was the only room with a mihrāb, only this room was considered a mosque. But this room was not accessible from the main courtyard, and so it may have been a personal prayer room or designated to be used by women. The most obvious prayer room was the one in the very center of the south wall, accessible to the main courtyard, with doors leading to the right and the left. Any of the other rooms, or even the south end of the courtyard, could have been used for prayer, as the entire building was constructed so that the rooms were aligned to the Between qibla.

The Change of Qibla

As we have already mentioned, the mihrāb niche was developed around 89 AH when there were three different qiblas in use in the Muslim world. Amidst this religious and political confusion, older mosques were often adjusted. Because they also had qiblas, qasrs needed to be changed as well, especially if the leading families had now agreed to change their direction of prayer.

We can see this qasr qibla change in the town of al-Walid. Al-Walid has two qasrs and an external mosque, with three different qiblas between them. The first, or eastern qasr, faces Petra like all of the earliest qasrs. The second, western qasr has a Between qibla. Whether this indicates two families disagreed over politics and the qibla in al-Walid we cannot be sure. Qibla direction seemed to be both a political and a religious decision: but it certainly was quite intentional that these two important buildings in the same community chose different qiblas.

When the Mecca qibla began to replace the previous qiblas, the family in the eastern qasr built an external mosque to accommodate prayer toward Mecca. And so in one town we have evidence of three different qiblas.

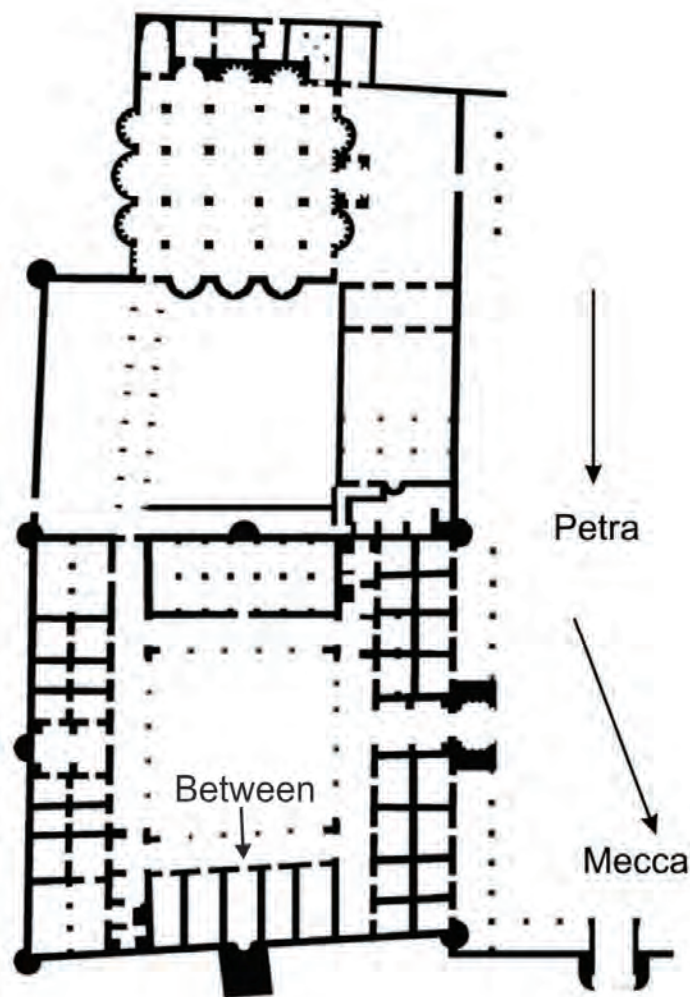
Some qasrs never received external mosques and, as the dominant qibla changed, an attempt was made to change the qasr itself. An example of this adjustment can be found at Khirbit al-Mufhar.

The original qasr interior courtyard in the north part of the qasr faced south toward Petra. Later, a southern extension was built with a Between qibla. It appears that later, in the very center of south qasr wall, a hole was knocked into the wall to incorporate a mihrāb that



Above: Satellite photo of the town of Walid with two Qasrs and a mosque.

Below: Three qiblas at Khirbat al-Mafjar.¹⁰



was closer to Mecca. It seems that this adjustment weakened the structure, and the mihrāb wall needed reinforcement with a large external buttress. As a result, this qasr demonstrates an attempted transition from a Petra qibla to a Between qibla to a Mecca qibla.

A List of Qasrs

There are Umayyad structures that were not constructed as mosques but are included in the Qibla Tool database. We believe this list demonstrates that these buildings were all constructed with qibla direction as a fundamental part of the structure. On the website, each structure is addressed individually.

The table below lists these qasrs in chronological order. We can see that there are ten of these structures with no accom-

¹⁰ Adapted from Hamilton, 1959.

panying mosque. In each of these cases, the structure itself is oriented towards a qibla, as indeed are 20 of the 22 Qasrs in total.

Year AH	Name	GPS	Orientation	Internal Mosque & Orientation	External Mosque & Orientation
68 AH	Humeima Qasr	29°56'59.64"N,35°20'45.33"E	Petra		Between
87 AH	Khirbat al Minya	GPS: 32°51'56.40"N 35°32'11.72"E	Petra		
92 AH	Al-Kharana	31°43'44.34"N,36°27'46.06"E	Between		
93 AH	Um Al-Walid E.	31.645127° 35.893746°	Petra		Between
93 AH	Um Al-Walid W.	31.646762° 35.898635°	Between		
93 AH	Khann al-Zabib	31°30'47.86"N,36°6'3.30"E	Between		Unknown
94 AH	Anjar	33°43'55.23"N,35°56'1.79"E	Petra	Petra	
95 AH	Khirbit al Mufjar	31°53'9.86"N 35°27'32.56"E	Petra	Between	
101 AH	Qastal	31°44'45.92"N,35°56'23.55"E	Petra	Petra	Petra
104 AH	Mawaqqar	31°48'45.39"N,36°6'13.50"E	Unknown		
110 AH	Hayr al Gharbi	34°20'39.77"N 37°35'3.67"E	Between	Between	
110 AH	Hayr al Sharqi	35°4'25.52"N 39°4'14.92"E	Between		Between
112 AH	Amman Palace	31°57'19.86"N,35°56'2.89"E	Mecca		
125 AH	Bayir	30°45'42.49"N,36°40'45.44"E	Mecca		
126 AH	Mushatta	31°44'17.42"N,36°0'35.95"E	Petra	Petra	
126 AH	Tubah	31°19'32.83"N,36°34'16.64"E	Jerusalem		
146 AH	Ukhaydir	32°26'25.91"N,43°36'13.39"E	Mecca		Mecca
80-180 AH	Fudayn	32°20'42.66"N,36°12'2.46"E	Between		Between
80-180 AH	Ain asSil	31°53'39.13"N,36°50'45.16"E	Between		
80-180 AH	Aseikhin	31°56'46.14"N,36°57'6.91"E	Mecca		Mecca
80-180 AH	Mushash	31°48'47.42"N,36°18'56.59"E	Petra		
212 AH	Hallabat	32°5'34.53"N,36°19'40.77"E	Unknown		Mecca

Chart of qasr qiblas and accompanying mosques.

The earliest qasrs did not have separate mosques. Many never had a mosque at all. Some qasrs developed internal prayer areas, but in nine instances, an external mosque was built later, sometimes with a different “updated” qibla from the original qasr qibla. The earliest qasrs were oriented so that they had a qibla wall facing Petra. Later, some Umayyad qasrs were constructed with a qibla wall facing the Between position, and finally, four of the later qasrs had a Meccan qibla. Save two unknown qiblas, in every case, the qasrs were oriented towards one of these the qibla directions.

The Umayyad qasrs are an important facet of qibla history which often go overlooked. As interest in the early qiblas of Islam increases, and more scholars are beginning to seriously address the data, we believe the orientation of qasrs will be an important facet of the discourse.

Chapter Seven

A Case for Petra

Dan Gibson with Chad Doell

Below we will present a linguistic argument for the legitimacy of Petra as the birthplace of Islam. A full linguistic study is outside of our depth, but given the convincing qibla data, our task is to demonstrate that it is linguistically plausible for Petra to be the original Holy City. We will make our case by considering the parallel names of Petra and Mecca, the influence of Nabataean language on the Qur’ān, and how the Nabataean Aramaic of the Qur’ān was eventually obscured in a recension of the text.

The names of Petra and Mecca

Gibson & Harremoës have observed that one common objection to the Petra theory is that neither the Qur’ān nor later Islamic traditions mention the city of Petra.¹ The objection follows that if Petra was the birthplace and Holy City of Islam, one would expect it to be mentioned in Islamic sources. ‘Petra’ does not appear in the Qur’ān, which is unsurprising because ‘Petra’ is a Greek name, not an Arabic name. Below we will explore some of the names and titles of Petra—and note how these names relate to the names for Mecca in the Hijaz. We will find that Petra and Mecca in the Hijaz have frequently been called by the same name or title, which makes it quite plausible that the names and traditions of Petra, the original Holy City of Islam, were transplanted to the Hijaz.

Scholar Mehdy Shaddel has recently argued that the Nabataean name for the Petra valley was Raqīm.² He traced the name ‘RQM’ through funerary inscriptions, rabbinic writings, a letter attributed to Cyril of Jerusalem, Syriac texts, a homily attributed to Eusebius of Caesarea, The Book of the Laws of Countries by Bardaiṣān of Edessa, the writings of Flavius Josephus, Biblical texts, and Arab writers such as Yāqūt. This argument is especially crucial because

¹ The following section is adapted from: Daniel Gibson, Peter Harremoës, “The names of Petra as synonyms and epithets of Mecca,” (unpublished manuscript, January 20, 2023), Microsoft Word.

² Mehdy Shaddel, “Studia Onomastica Coranica: AL-Raqīm, Caput Nabataeae,” *Journal of Semitic Studies* 62, no. 2 (October 2017): 303-318, doi:10.1093/jss/fgx022

when we discuss the names of Petra, we should give special consideration to the name used by the people who founded the city and lived there, the Nabataeans.

The first century Jewish historian Josephus had access not only to the Jewish Scriptures, but he also acquired manuscripts from the Romans, taken from the destruction of Jerusalem in 70 CE. In his *Antiquities of the Jews*, Josephus writes: “...when he came to a place which the Arabians esteem their metropolis, which was formerly called Arce, but has now the name of Petra: at this place, which was encompassed with high mountains, Aaron went up one of them, in the sight of the whole army.”³ Gibson & Harremoës argue that the word ‘Arce’ may have been Josephus’ Greek adaptation of Raqīm. At least this passage illustrates that the area of Petra was known by different names by different people who occupied the Petra mountains at different times in its history. Petra was known to have other Semitic names, such as Arach.⁴

Gibson & Harremoës observe that although it was not a traditional name for the Holy City of Islam, ‘Raqīm’ is mentioned in the Qur’ān: “dost thou reckon that the Companions of the cave and [al-Raqīm] are a marvel among Our signs?” (Qur’ān 18:9). Shaddel argues that this verse in the Qur’ān is alluding to two different wondrous signs from God.⁵ The first sign was the companions of the cave (the seven sleepers), and the second sign was the great city of al-Raqīm, the Nabataean name for Petra. Shaddel further argues that many commentators on the Qur’ān did not understand that al-Raqīm was the name of a city, likely a toponym for Petra itself, and so some concluded al-Raqīm was simply the name of a dog belonging to one of the seven sleepers.

If Shaddel is correct and this verse does refer to the Nabataean city of al-Raqīm, then we may put to rest the argument that Petra does not appear in the Qur’ān. It is sensible that the Qur’ān would use Petra’s Arabic name. It is also quite believable that the magnificent Nabataean city would be held up as a marvel.

Gibson & Harremoës also noticed a connection between the Hebrew and Samaritan scriptures and the Qur’ān regarding the names of Petra. Psalm 84:6 describes a place called the Bacca Valley as a place of pilgrimage: “Blessed the man who finds refuge in you, / in their hearts are pilgrim roads. / As they pass through the Baca valley, / they find spring water to drink” (Psalm 84:6-7 NABRE). Chapter 8:3 of the Samaritan Asatir reads as follows: “all the children of Ishmael who are of the seed of his first born, Nebut [the father of the Nabataeans]...ruled...from the River of Egypt to the great river, the river Euphrates, and they built

³ Flavius Josephus, *Antiquities of the Jews* trans. Willian Whiston (London: University of Cambridge, 1737), 4:7.

⁴ Joh. Henrico Hottingero, *HISTORIA ORIENTALIS: QUAE EX VARIIS ORIENTALUM MONUMENTIS COLLECTA*, (Zurich: Bodmeri, 1651), 139; see also Mohammaed Alal Khan, *The Unveiling Origin of Mecca*, (Bloomington: AuthorHouse, 2021), 394-396.

⁵ Shaddel, *Onomastica*, 304.

Bakh.”⁶ If the name ‘Bakh’ in this Aramaic text is the Bacca or ‘Baca’ from Psalm 84, then we can conclude that the Bacca Valley in the Psalm is the location of the later Nabataean city. It is provocative that the Bacca Valley is described as a place of pilgrimage in the psalm—so much so that various Bible translations, including the ESV, NRSV, NLT, and others insert ‘Zion’ or ‘Jerusalem’ as the place of pilgrimage to avoid any embarrassment. But, given that Bacca/Raqīm/Petra was the place where Aaron was thought to be buried, it quite likely was a pilgrimage site.

The Qur’ān refers to the city of Mecca as Bacca in Surah Al Imran 3:96: “truly the first house established for mankind was that at Bakkah, full of blessing and a guidance for the worlds.” Bacca is commonly accepted by Muslims to be another name for Mecca. The Samaritans locate Bacca in the fertile crescent, founded by the Nabataeans. The Psalmist describes it as a place of pilgrimage for Hebrews. The Qur’ān describes it as the place where Abraham built his altar, the Ka’ba. When connected, these names suggest that Bacca was one of the names of the Holy City founded by the Nabataeans, Petra.

Gibson & Harremoës have described how the name ‘Petra’ itself was a foreign name for the Nabataean capital—but one that took on prominence when the Romans annexed the Nabataean kingdom. The name Petra appears first in Greek. The Greek word ΠΕΤΡΑ, or ‘Petra,’ refers to a large mass of rock—this name can simply be translated as ‘the rock.’ This Greek name for the city was adopted by the Romans. Pliny the Elder, writing around 70 CE, mentioned the city as ‘PETRA,’ the capital of the Nabataei and the center of their caravan trade, which stretched from Aleppo (Syria) in the north to as far south as Yathrib (Medina) in the central Hijaz.⁷

Surah 15 of the Qur’ān is called al-Hijr, which like Petra, means ‘the rock.’ Most commentators on the Qur’ān associate Surah 15 with al-Ḥegrā in northern Hijaz. There is nothing explicit in the Qur’ān to connect it with this location; al-Hijr could apply to any location known as ‘the rock.’ Al-Ḥegrā in Hijaz has never suffered a major earthquake as mentioned in this Surah, but Petra has a history of catastrophic earthquakes making it a better candidate for the Qur’ānic al-Ḥijr.

Gibson & Harremoës have drawn important conclusions based on the honorific titles granted to Petra. Petra had numerous such Roman names and titles such as Imperial Colony Antoniana, as attested in the Petra papyri discovered in 1993 in a Roman (Byzantine) church in Petra.⁸ The papyri were the archives of a certain Theodoros son of Obodianos and his

⁶ Moses Gaster, trans. *The Asatir: The Samaritan Book of the ‘Secrets of Moses,’* (London: The Royal Asiatic Society, 1927), 243.

⁷ Pliny the Elder, *The Natural History*, trans. John Bostock and H.T. Riley (London: Taylor and Francis, 1855), 6:32.

⁸ Mohammed Nasarat and Sa’ad A. Twissi, “The titles of Petra in the sixth century: the evidence from the Petra papyri,” *Arabian Archaeology and Epigraphy* 27, no. 2 (November 2016): 208. <https://doi.org/10.1111/aae.12079>

family who lived in Petra and its vicinity between 537 and 593 CE. This was the period just before the prophet Muḥammad was born, up until his twenties. The records mostly contain economic and legal documents illustrating the life of a Nabataean Christian family in Petra and the neighboring areas.⁹

As a provincial capital city, Petra received numerous other honorific titles from the Romans. Josephus described Petra as a ‘metropolis.’ The original meaning of μητρόπολις is ‘mother of settlements’ and was used for a city that established other cities or colonies. This was a practice that the ancient Greek cities initiated, settling regions of Asia Minor and the Crimea from cities like Athens and Corinth. Later, it became an honorific title of a large city in general. The Roman emperor Hadrianus, who visited Petra in 130 CE on his grand tour of the eastern Roman Empire, gave the city the name ΑΔΡΙΑΝΗ ΠΕΤΡΑ ΜΗΤΡΟΠΟΛΙΣ which means ‘Hadrianic Petra Metropolis.’¹⁰ This name appears on many coins but it only appears in a single papyrus dated July 9, 131 CE, which may indicate it was a recently bestowed honor on the occasion of the visit of the emperor.¹¹

There is also a ‘mother of settlements’ in the Qur’ān. Surah 6:92 reads: “this is a blessed book that We have sent down, confirming that which came before it, that thou mayest warn the Mother of Cities and those around her. Those who believe in the Hereafter believe in it, and they are mindful of their prayers.” Muslim scholars believe that the ‘Mother of Cities’ (Um al-Qura) in this passage refers to Mecca. If this is an Arabic equivalent of the Greek metropolis, we may find it sensible to locate the city in Surah 6:92 much closer to the Greek world.

Gibson & Harremoës have observed that by the third century, the full official title of Petra was the verbose AUGUSTA COLONIA ANTONIANA NOBILIS INGENUA MATER COLONIARUM HADRIANA PETRA METROPOLIS ARABIA.¹² The name NOBILIS means noble, but the term INGENUA is more ambiguous. ‘Ingenua’ is related to birth and genus. This word was used for freeborn people, but it may also mean honorable. In this context it may mean that Petra was populated by indigenous people rather than settlers. Cities designated a ‘colonia’ or colony were commonly settled cities, but in later periods the term ‘colonia’ was used to elevate the status of an existing city.

As Greek became the dominant official language of the Byzantine Roman empire it also became the dominant language in Petra. The Latin titles of the city were translated into Greek and these Greek official titles of the city appear in the Petra papyri. The full translated title ap-

⁹ Jaakko Frösén, “The Petra papyri: Information and significance,” in *Petra: a city forgotten and rediscovered*, ed. Jaakko Frösén and Zbigniew Fiema (Helsinki: Amos Anderson Arts Museum, 2002), 18-22; Nasarat, “titles of Petra,” 208-209.

¹⁰ Naphtali Lewis, Yigael Yadin, and Jonas C. Greenfield, *Documents from the Bar Kokhba Period in the Cave of Letters : Greek Papyri*, (Jerusalem: Israel Exploration Society, 1989), 489, 519.

¹¹ See Lewis, *Documents*, Papyrus 25.

¹² Zbigniew T. Fiema, Ahmad al-Jallad, Michael C. A. MacDonald, and Laila Nehmé, “Provincia Arabia: Nabataea, the Emergence of Arabic as a Written Language, and Graeco-Arabica,” in *Arabs and Empires before Islam* ed. Greg Fisher (Oxford: Oxford University Press, 2015), 378.

pears in these papyri as Imperial Colony Antoniana Distinguished Holy Mother of the Colonies Hadriana Petra Metropolis of Tertia Palaestina Salutaris.¹³

Gibson, Harremoës, and Hannon continue that the only major change in the transition from Latin to Greek is that the province had changed its name from Arabia to Tertia Palaestina Salutaris. The term in front of Mother of the Colonies is the Greek word ΕΝΓΕΝΗΣ. ΕΝΓΕΝΗΣ is related to the Latin word INGENUA and it appears to be a translation of that word. In the sixth century, ΕΝΓΕΝΗΣ was usually understood as ‘blessed,’ ‘noble,’ or ‘holy.’ Before the fifth century, ‘holy’ could mean something like ‘conspicuous.’ After the fifth century, during the Christian epoch, ΕΝΓΕΝΗΣ is usually assumed to mean ‘holy.’ In the Petra papyri and elsewhere, the Greek term ΕΝΓΕΝΗΣ was associated with great churches, tombs, and great civic buildings and structures. As such, the exact meaning of the epithet ΕΝΓΕΝΗΣ in this period remains uncertain. Neither ‘holy’ nor ‘noble’ nor ‘blessed’ would have been expected for a city,¹⁴ and it is a very rare epithet for a Roman city.¹⁵ Due to the religious nature of Petra, the name Blessed Mother of Colonies seems to be appropriate.

Surah 3:96 once again reads: “truly the first house established for mankind was that at Bakkah, full of blessing and a guidance for the worlds.” The description of Bakkah as ‘full of blessing’ has led to the common title for Mecca as ‘Mecca the blessed.’ The Arabic term in the Surah is al-Mukarramah (مكة المكرمة), which means blessed or noble. Recall that one of the more unusual parts of the Greek name of Petra was ΕΝΓΕΝΗΣ, or blessed or noble. Thus both Petra and the Holy City were known as ‘blessed.’

Gibson & Harremoës have found that the 9th century Armenian historian Thomas Artsruni included another interesting name for Petra in his History of the House of Artsrunik. In book two, chapter four of his History, Artsruni provided a brief description of the birth of the prophet Muḥammad: “at this time there were some despotic brothers in the regions of Arabia Petraea in the place [called] P’aran, which is now called Mak’a - warlike chieftains, worshippers of the temple of the image of the Ammonite temple called Samam and K’abar. It happened that one of them, called Abdla, died leaving a son of tender age called Mahmet.”¹⁶ In this account Artsruni records that the prophet Muḥammad was born and raised in Mak’a (or Mecca) in the part of Arabia Petraea called P’aran. Arabia Petraea was the early name of the Roman province which was the former Nabataean Kingdom. The capital of Arabia Petraea

13 Nasarat, “titles of Petra,” 209; Augustus Spijkerman, *The coins of the Decapolis and Provincia Arabia*, (Jerusalem: Franciscan Printing Press, 1978), 240; Traianos Gagos and Jaakko Frösén, “Petra Papyri,” *Annual of the Department of Antiquities of Jordan* 42 (1998): 476.

14 Frösén, “Petra papyri: Information and significance,” 30.

15 Ludwig Koenen, “The carbonized archive from Petra,” *Journal of Roman Archaeology* 9 (1996): 184, doi:10.1017/S104775940001655X

16 Thomas Artsruni, *History of the Artsrunik*, trans. Robert W. Thompson (Detroit: Wayne State University Press, 1985), 165.

was Petra, and that seems to be the city Artsruni referred to. It is noteworthy that Artsruni included “which is now called Mak’a,” an indication that he is talking about a place which was previously known by another name. Note also Artsruni’s description of a prominent pagan temple in the city—quite likely the pre-Islamic Ka’ba.

Artsruni elsewhere described the region of Paran this way: “the Jews joined with the Ismaelites, forming a large army. Attacking P’ařan they inflicted a great defeat on their opponents, killed Apljehr and many of the Ammonite and Moabite troops.”¹⁷ The old kingdoms Ammon and Moab were situated just north of Edom and the territories of these ancient kingdoms were all incorporated into later Arabia Petraea. This description supports the idea that Paran was part of Arabia Petraea. His use of these people groups also explains why Artsruni seems to describe the Ka’ba as an Ammonite temple in the previous passage.

Gibson & Harremoës have found only one clear reference to Mecca in the Qur’ān. In Surah 48:24, Mecca is referred to as a valley, and not explicitly as a city: “He it is Who restrained their hands from you and your hands from them in the valley of Makkah, after having made you victorious over them. And God sees whatsoever you do.” Although the lack of references to Mecca in the Qur’ān may surprise non-Muslim readers, Muslim scholars insist Mecca is mentioned elsewhere in the Qur’ān by other names, which we have explored above. Even in this case, one should note that in Aramaic, a common vernacular language in Petra, the word “Makkah” meant valley, which is another suitable toponym for Petra.¹⁸

The etymology of the word ‘Mecca’ in Arabic is obscure and unsettled. Gibson & Harremoës have found that this ambiguity leaves open another intriguing possibility that the name for the Holy City may be derived from the Greek word ‘Makarios’ (Μακάριος) which is another word for ‘blessed,’ derived from the root ‘Makar’ (μάκαρ). This adoption of a Greek word would not be uncommon considering that other place names in Arabic, such as the West Bank town of Nablus, was derived from the Greek ‘Neapolis’ meaning ‘new city.’ As such, if Artsruni’s geography is correct, it is conceivable that the Arabs of Petra in the region of Paran adopted the Greek word ‘Makar’ as the name of their blessed city.

Gibson & Harremoës conclude that it could be argued that one or two of the names above may be shared through coincidence, but not several. That Petra was called Mecca can also not be easily dismissed. Up to the 18th century Mecca in the Hijaz was just a small settlement—a mosque surrounded by relatively few dwellings. There is no evidence that it was a major trading center dating back to late antiquity. Mecca in the Hijaz was both geographically and culturally removed from the world that the Qur’ān describes; Nabataean Petra was at the very heart of it. Petra would have been a bustling trade city during the establishment of the Islamic

¹⁷ Artsruni, *History*, 167.

¹⁸ Christoph Luxenberg, *The Syro-Aramaic Reading of the Koran: A Contribution to the Decoding of the Language of the Koran* (Berlin: Verlag Hans Schiler, 2007), 327.

narrative, even if it did not enjoy the prominence it once had as the Nabataean capital. Before the advent of Islam, Petra and its surroundings were important for polytheists, Christians, and Jews. Petra also more closely matches the physical landscape of Mecca described in the Qur'ān than Mecca in the Hijaz.

If Petra was the original holy city of Islam, then after the catastrophies of al-Ḥajjāj's siege and the city's final destruction by a horrific earthquake in January 748 CE (130 AH)¹⁹ the connections between Petra and the new holy site in Hijaz were forgotten, and all references to the Holy City of Islam, including many of its names, became the names of Mecca in Hijaz.

The Arabic of the Nabataeans²⁰

If the birthplace of Islam was the city of Petra and not far south in the Hijaz, then we should find this reflected in the language of early Islam. The dialect of Arabic spoken by the settled peoples in the former Nabataean capital of Petra was quite different than that of the nomads and semi-nomads in the Hijaz wilderness. The Qur'ān was written and recited in a common language understood by the locals of the Holy City (Surah 14:4). So, if the Qur'ān did come from Petra, we should expect it to have a distinctly northern Arabian vocabulary and structure.

Mark Durie's self published work "On the Origin of Qur'anic Arabic" explores exactly that issue, and helpfully demonstrates that Qur'anic Arabic "developed directly from the Arabic of the Nabataeans."²¹ Durie makes the case that this argument solves two problems which have plagued the search for the original dialect of the Qur'ān: first, medieval Muslim philologists were unable to find an extant dialect which closely matched the language of the Qur'ān, and second, of the many pre-Islamic inscriptions surviving on the rocks and walls of Arabia, very few "reflect a precursor to Qur'anic Arabic."²²

The first problem has gone unresolved because the medieval Muslim philologists seeking the origins of the Qur'ān were focused on the language of Bedouin tribes, believing that they would best represent the language of the Hijaz. The belief was that the Bedouin spoke a 'pure' Arabic, and so a Bedouin dialect must have provided the language of the Qur'ān. This search proved fruitless because, as we believe, the Bedouin origin of the Qur'ān was a false assumption.

¹⁹ Kenneth W. Russell, "The Earthquake Chronology of Palestine and Northwest Arabia from the 2nd Through the Mid-8th Century A.D.," *Bulletin of the American Schools of Oriental Research* 260 (1985): 47-49.

²⁰ We have relied heavily on Mark Durie's self-published paper "On the Origin of Qur'anic Arabic (Draft Nov. 2018)" for the following chapter. While many write about Qur'anic philology, it seems Durie is the only one who has explicitly made the connection with Nabataean Arabic. Because this is an area outside of our expertise, we are profoundly grateful to Durie for his work.

²¹ Mark Durie, "On the Origin of Qur'anic Arabic," Academia, accessed September 11, 2022, 1. https://www.academia.edu/37743814/On_the_Origin_of_Qur%CA%BE%C4%81nic_Arabic

²² Durie, "Origin of Qur'anic Arabic," 1.

As for the second problem, Nabataean inscriptions are plentiful among the pre-Islamic inscriptions in Arabia, but they are in the Nabataean's preferred written language Aramaic. As such these inscriptions have been left out of the search for the Arabic of the Qur'ān in favour of inscriptions written in Arabic. The Nabataeans used Aramaic and later Greek as written languages, while their "mother-tongue" was Arabic.²³ So, as philologist and historian of language Ahmad al-Jallad notices, the Aramaic script of the Nabataeans "casts a clear Arabic shadow."²⁴

In fact, written Arabic developed out of the Nabataean's form of cursive Aramaic script.²⁵ As time went on, the need to write in the spoken language Arabic became more necessary, so a Nabataean-Arabic script was developed for government administration and to record texts regarding "the religion of Islam."²⁶

Drawing from the breakthrough 2017 study "Graeco-Arabica I: The Southern Levant" by Ahmad al-Jallad, Durie has been able to argue that the consonantal structure of Nabataean Arabic convincingly matches the Qur'ān. Durie observes that one of the most important elements of Qur'ānic Arabic is the definite article 'l-.²⁷ Of the many pre-Islamic inscriptions available to us, very few ever use the definite article 'l-. The solution to this problem is that "Nabataean Arabic, in which the 'l- article had become standard, was the precursor to Qur'anic Arabic, and the Nabataeans were so accustomed to writing in Aramaic that they used this script and language when they left graffiti behind them, rather than their spoken Arabic vernacular."²⁸ Of those inscriptions which do use 'l-, a significant number of them are in Nabataean script.²⁹ Drawing from al-Jallad's research mentioned above, Durie provides a thorough, helpful description on the similarities between Nabataean Arabic and the Qur'ān through pages 10-16 of his work. Of special note are two high-level forms of evidence of the link between Nabataean Arabic and the Qur'ān which Durie finds convincing: the development of Arabic script from Nabataean Aramaic necessarily links the Nabataeans to the Qur'ān since the Qur'ān needed 'Nabataean' script; further, the Nabataean rasm (or consonantal structure) frequently and convincingly agrees with the Qur'ān.³⁰

As mentioned, both medieval Muslim philologists and modern scholars have been un-

²³ Durie, "Origin of Qur'anic Arabic," 4; Ahmad Al-Jallad, "The Linguistic Landscape of Pre-Islamic Arabic: Context for the Qur'an," Academia, accessed September 20, 2022, 117-118. https://www.academia.edu/43141064/Al_Jallad_2020_The_Linguistic_Landscape_of_pre_Islamic_Arabia_Context_for_the_Qur_an

²⁴ Ahmad Al-Jallad, "Graeco-Arabica I: The Southern Levant," *Arabic in Context* (Leiden: Brill, 2017): 100, doi:10.1163/9789004343047_006

²⁵ Durie, "Origin of Qur'anic Arabic," 6.

²⁶ Durie, "Origin of Qur'anic Arabic," 6.

²⁷ Durie, "Origin of Qur'anic Arabic," 1. The definite article is the equivalent of 'the' in English.

²⁸ Durie, "Origin of Qur'anic Arabic," 2.

²⁹ Durie, "Origin of Qur'anic Arabic," 3.

³⁰ Durie, "Origin of Qur'anic Arabic," 10.

able to find a Meccan, Bedouin source for the Arabic of the Qurʾān.³¹ While Durie connects the birth of Qurʾānic Arabic to the former Nabataean Kingdom, this poses a problem. Why is Nabataean Arabic the preferred language of Mecca in the Hijaz, which spoke a very different Arabic dialect from the Nabataeans? Durie's solution is "the far-reaching Nabataean trade network, established for centuries" which through regular contact with the peoples of the south, allowed for the development of a common *lingua franca* Arabic.³²

But that solution may not hold fast. Durie remarks on Surah 14:4 which reads: "We have sent no messenger, save in the language of his people, that he might make clear unto them." If the prophet Muḥammad was speaking the language of his own people, and the language of the Qurʾān is Nabataean in nature, then, Durie concludes, "it is hard to see how this could have been Mecca."³³ Despite his earlier suggestion, Durie ultimately decides it is also unlikely that by the 600s CE the Bedouin of the Hijaz would be speaking Nabataean Arabic.³⁴

Of course Gibson believes there is a solution to this problem. According to the archaeological record, over 60 of the earliest extant mosques took Petra, the former Nabataean capital, as the qibla direction. The language of the Qurʾān, a mix of Arabic and Aramaic, suits the linguistic context of Petra, which we will explore below. Gibson believes the prophet Muḥammad was indeed able to speak the language of his own people clearly because they all spoke the dominant Nabataean Aramaic and Arabic dialects of the southern Levant.

In 2020, al-Jallad concluded his paper "The Linguistic Landscape of Pre-Islamic Arabia" by expressing the need for "an independent linguistic study of the consonantal skeleton of the Qurʾān in light of the pre-Islamic epigraphy and a lexical study of Qurʾānic vocabulary in light of the North Arabian inscriptions."³⁵ It appears that al-Jallad has noticed the same pattern Durie has articulated—and we hope that in time the Nabataean origins of the Qurʾān may be more widely explored.

Philologists have made many efforts to find the language of the Qurʾān around Mecca in the Hijaz and have failed because it seems the Qurʾān did not come from Mecca in the Hijaz. The first mosques were built to face Petra in obedience to the Qurʾān and in recognition of Petra's esteem as the genesis city of Islam. It is only natural that we should begin to uncover the Qurʾānic linguistic links which have so eluded philologists in the place from which the archaeology attests Islam originated.

³¹ Durie, "Origin of Qurʾānic Arabic," 8.

³² Durie, "Origin of Qurʾānic Arabic," 9.

³³ Durie, "Origin of Qurʾānic Arabic," 18.

³⁴ Durie, "Origin of Qurʾānic Arabic," 18.

³⁵ Al-Jallad, "Linguistic Landscape," 125.

The Aramaic of the Qur'ān

In 2000 the German scholar of ancient languages Christoph Luxenberg (pseudonym) published the book *The Syro-Aramaic Reading of the Koran: A Contribution to the Decoding of the Language of the Koran*. Four years later Luxenberg was interviewed by Alfred Hackensberger; the interview was published in Germany in the newspaper *Süddeutsche Zeitung* and in Italy in *L'Espresso*. When asked about the Qur'ān as the first book written in Arabic, Luxenberg responded:

according to Islamic tradition, the Koran dates back to the 7th century, while the first examples of Arabic literature in the full sense of the phrase are found only two centuries later, at the time of the 'Biography of the Prophet'; that is, of the life of Mohammed as written by Ibn Hisham, who died in 828. We may thus establish that post-Koranic Arabic literature developed by degrees, in the period following the work of al-Khalil bin Ahmad, who died in 786, the founder of Arabic lexicography (*kitab al-ayn*), and of Sibawayh, who died in 796, to whom the grammar of classical Arabic is due. Now, if we assume that the composition of the Koran was brought to an end in the year of the Prophet Mohammed's death, in 632, we find before us an interval of 150 years, during which there is no trace of Arabic literature worthy of note.³⁶

This literary gap identified by Luxenberg leaves one to wonder which other languages filled the space which would later be occupied by written Arabic, and how it is that the Qur'ān was compiled as a completely Arabic document well over a century before we find other examples of Arabic literature, as Luxenberg puts it, "in the full sense."

Hackensberger further asked Luxenberg how the Qur'ān came to be written if Arabic was not used for written communication. Luxenberg responded that

at that time, there were no Arab schools - except, perhaps, for the Christian centers of al-Anbar and al-Hira, in southern Mesopotamia, or what is now Iraq. The Arabs of that region had been Christianized and instructed by Syrian Christians. Their liturgical language was Syro-Aramaic. And this was the vehicle of their culture, and more generally the language of written communication.³⁷

Aramaic served as the written language for those living in northern Arabia, including southern Mesopotamia and the Jordanian plateau. Luxenberg explains elsewhere "that for more than a millennium Aramaic was the lingua franca in the entire Middle Eastern region before being gradually displaced by Arabic beginning in the 7th century."³⁸

This is the linguistic situation we find in the Petra Scrolls, written from 513 to 592 CE.

³⁶ Sandro Magister, "The Virgins and the Grapes: the Christian Origins of the Koran," *Chiesa Espresso Online*, captured April 17, 2009, <https://swap.stanford.edu/was/20090417191145/http://chiesa.espresso.repubblica.it/articolo/7025?eng=y>

³⁷ Sandro Magister, "The Virgins and the Grapes."

³⁸ Luxenberg, *The Syro-Aramaic Reading*, 9.

The official written language of the Roman (Byzantine) Empire at the time was Greek, but the spoken and written language of Christian Arabs at the time was Syro-Aramaic, while the wider Arab community in the region spoke an early form of Arabic and used Aramaic for writing.³⁹ Aramaic was a dominant language across the Christian Levant and had been the liturgical language of the church for many years.⁴⁰ Today Aramaic is still the liturgical language used in the Syriac Orthodox churches, as well as the Maronite Churches, the Syriac Catholic churches, and various Malankara churches.⁴¹ Early Arabic was the spoken language for the Arabs around Petra, as it had developed from Nabataean vernacular Arabic.⁴² However, we have no surviving examples of written Arabic until a century after the Petra scrolls. During that century Arabic developed from a spoken language to a written language.

When the new Islamic government was set up in Damascus in 65 AH, the written language of the court was Greek, while Persian was used in Iraq and Iran. The Arabization of court documents began in Kufa in 78 AH. According to the 9th century historian al-Baladhuri⁴³ the clerk's assistant, Salih b. Abdurrahman, offered to the governor of the eastern half of the Muslim world, al-Ḥajjāj ibn Yūsuf, to keep the court register in Arabic rather than in Persian.⁴⁴ Even though the scribes had some trouble expressing fractions in Arabic, this transition was ultimately successful, and the Arabization of records continued in the eastern caliphate until it ultimately influenced Damascus. This process is important, as al-Ḥajjāj's efforts to change the court language in the east ultimately lead to the Arabization of the Islamic world.

Caliph Abd al-Malik changed the court language in Damascus to Arabic around 81 AH. Up until that time court records were recorded in Greek by Christian civil servants who were fluent in several languages.⁴⁵ Again, for centuries Aramaic had been the 'lingua franca' of the ancient Near East, even though Latin and Greek were the official languages of the Roman Empire.

Not only did the early caliphate use Greek as a written language, recorded by Aramaic speaking Christians, but the caliphate also used Greek (Roman) coins. Ultimately the use of the Roman gold solidus (and the Sasanian silver coin) was discontinued in the Muslim world.

³⁹ Luxenberg, *The Syro-Aramaic Reading*, 10-11.

⁴⁰ Chul-hyun Bae, "Aramaic as a Lingua Franca During the Persian Empire (538-333 B.C.E.)," *Journal of Universal Language* 5 (2004): 4.

⁴¹ Sebastian Brock, "An Introduction to Syriac Studies," in *Horizons in Semitic Studies: Articles for the Students*, ed. J. H. Eaton (Birmingham: University of Birmingham, 1980), 1.

⁴² Ahmad Al-Jallad, "The Arabic of Petra," Academia, accessed November 23, 2022, 35, https://www.academia.edu/37215697/Al_Jallad_2018_The_Arabic_of_Petra

⁴³ Abdul 'Abbās Aḥmad Ibn Jābir al-Balādhuri, *The Origins of the Islamic State: Kitāb Futūḥ al-Buldān*, trans. Philip Khuri Hitti (London: Columbia University, 1916), 456-466.

⁴⁴ Julius Wellhausen, *The Arab Kingdom and its Fall*, trans. Margaret Graham Weir (Calcutta: University of Calcutta, 1927), 219-220.

⁴⁵ Wellhausen, *The Arab Kingdom*, 219-220.

To replace the Roman coins, caliph Abd al-Malik introduced an Islamic gold currency known as the dinar in 74 AH.⁴⁶ Initially, the new coinage depicted an image of a standing caliph, but images were not popular among Muslim religious leaders, and these coins were replaced in 77 AH.⁴⁷ In 79 AH similar changes were made to the silver dirhams. The new coins featured Arabic inscriptions.⁴⁸

Because there are so few examples of written Arabic prior to this period, and the Qur'ān is so intimately associated with Arabic, some have come to believe that Islam itself was created when the Umayyad courts were Arabizing. However, Luxenberg and others⁴⁹ support the theory that once caliph Abd al-Malik declared that the official language of the court was to be both spoken and written Arabic, a concerted effort was made to Arabize the many Aramaic words used in the already-existing Qur'ān. Recall that Aramaic was commonly the written language for Nabataean Arabic speakers. If their Aramaic inscriptions cast 'a clear Arabic shadow,' then perhaps the Arabic of the Qur'ān casts a clear Aramaic shadow.

In sum, al-Ḥajjāj initiated the Arabization of the Persian court in 78 AH and three years later the Arabization of the caliph's court in Damascus was complete, including changing the coinage to bear Arabic inscriptions. Despite this major transition, Greek and Persian speakers in the court were able to maintain their positions, so long as they also spoke Arabic.⁵⁰

Crucially, we argue that just as caliph Abd al-Malik gave edicts to Arabize the courts, we believe al-Ḥajjāj also began his Arabization of the Qur'ān.

It is broadly accepted that al-Ḥajjāj made adjustments to the Qur'ān, though there are differing accounts on the degree of these adjustments. Today, the traditional understanding is that he only added a few points or dots to the text to clarify its meaning. Others believe that al-Ḥajjāj considerably reworked the Qur'ān and not only added vowel points but also edited and updated many Aramaic names and terms to Arabic.

Arthur Jeffery, a professor of Semitic languages, wrote in his 1952 book *The Qur'ān as Scripture*:

that the practice of pointing came to be generally accepted and consistently carried through the whole of a Codex is said to be due to the activity of the famous official al-Ḥajjāj b. Yūsuf who was perhaps the most remarkable figure in Islam during the Caliphate of 'Abd al-Malik.

⁴⁶ Al-Ṭabarī, Abu Jafar Muhammad b. Jarir, *The History of al-Tabari Volume XXII: The Marwanid Restoration*, trans. Everett K. Rowson (Albany: State University of New York Press, 1989), 90-91.

⁴⁷ Hugh Kennedy, *The Prophet and the Age of the Caliphates: The Islamic Near East from the Sixth to Eleventh Century*, 3 ed. (New York: Routledge, 2016), 85.

⁴⁸ Kennedy, *The Age of the Caliphates*, 85.

⁴⁹ Luxenberg lists the following scholars as also having identified Syro-Aramaic in the Qur'ān: Siegmund Fränkel (1855-1909), Alfons Mingana (1881-1921), and Arthur Jeffery (1893-1959). Luxenberg, *The Syro-Aramaic Reading*, 13-19.

⁵⁰ Kennedy, *The Age of the Caliphates*, 85.

When we come to examine the accounts of the activity of al-Ḥajjāj in this matter, however, we discover to our surprise that the evidence points strongly to the fact that his work was not confined to fixing more precisely the text of the Qur’ān by a set of points showing how it was to be read, but he seems to have made an entirely new Recension of the Qur’ān, having copies of his new text sent to the great metropolitan centres, and ordering the destruction of earlier copies in existence there, much as ‘Uthman had done earlier. Moreover, this new text promulgated by al-Ḥajjāj seems to have undergone more or less extensive alterations.⁵¹

To understand how this was done, we need to divide the Qur’ānic text into three layers. The base layer contained the Arabic characters with no dots, or diacritics—excluding not only vowel dots, but rather every dot, even those that distinguish one consonant from another. The undotted text is known as *rasm* in Arabic. Early Arabic writing often made use of the *rasm* layer only. Samples of this writing have been found in various places, and we display several samples below:



*An Early Qur’anic Manuscript (1st century Hegira). From end of verse 49 of Surah al-Shura to verse 31 of Surah al-Zukhruf and part of 32.*⁵²

⁵¹ Arthur Jeffrey, *The Qur’ān as Scripture*, (New York: Russel F. Moor Company, 1952), 98-99.

⁵² Manuscript is in Maktabat al-Jami‘ al-Kabir, Sanaa (Yemen). This photo is in the public domain.



Left: Qur'anic rasm text with no vowels and no dots above or below letters.⁵³

The second layer contains dots under and above letters to distinguish between letters. For example, b, n, t, and ya are indistinguishable without dots above or below. When the second layer is added to the rasm, it creates what is commonly called 'unvowelled' text. Finally, the third layer contains the vowel symbols, as they appear in modern Arabic vowelled Qur'āns.⁵⁴

When al-Ḥajjāj edited the text of the Qur'ān, he made very few changes to the rasm text. Recall that written Arabic developed from the cursive Aramaic of northern Arabia. Many Aramaic words could be changed to Arabic words simply by adding dots to the original text. Adding dots to clarify Arabic text was already a common practice at this time, often done by adding small red symbols. However, al-Ḥajjāj went further and made the Qur'ān simpler to read for Arabs by changing the meaning of the original Aramaic words.

One example of how Aramaic text was changed to Arabic in the Qur'ān can be found in Surah 2:259, which describes a man who doubts in God's power to resurrect the dead.⁵⁵ The passage reads:

or the like of him who passed by a town as it lay fallen upon its roofs. He said, "How shall God give life to this after its death?" So God caused him to die for a hundred years, then raised him up. He said, "How long hast thou tarried?" He said, "I tarried a day or part of a day." He said, "Nay, thou has tarried a hundred years. Look, then, at thy food and thy drink—they have not spoiled. And look at thy donkey.

⁵³ Surat al Tawba 129 with three and part of four from Surat Yunus.

⁵⁴ Günter Lüling, *A challenge to Islam for Reformation*, (New Delhi: Motilal Banarsidass Publishing House, 2022), 1-5.

⁵⁵ Luxenberg, *The Syro-Aramaic Reading*, 191-197.

And that we may make thee a sign for mankind. And look at the bones, how We set them up, then clothe them with flesh.” When it became clear to him he said, “I know that God has power over all things.”⁵⁶

Below is the Arabic reading of the above text using the standard Hafs version of the Qur’ān:

أَوْ كَالَّذِي مَرَّ عَلَى قَرْيَةٍ وَهِيَ خَاوِيَةٌ عَلَى عُرُوشِهَا قَالَ أَنَّى يُحْيِي هَذِهِ اللَّهُ بَعْدَ مَوْتِهَا فَأَمَاتَهُ
 اللَّهُ مِائَةَ عَامٍ ثُمَّ بَعَثَهُ قَالَ كَمْ لَبِثْتَ قَالَ لَبِثْتُ يَوْمًا أَوْ بَعْضَ يَوْمٍ قَالَ بَلْ لَبِثْتَ مِائَةَ عَامٍ
 فَانْظُرْ إِلَى طَعَامِكَ وَشَرَابِكَ لَمْ يَتَسَنَّهْ وَانْظُرْ إِلَى جَمْرِكَ وَلِنَجْعَلَكَ آيَةً لِلنَّاسِ وَانْظُرْ إِلَى
 الْعِظَامِ كَيْفَ نُنشِزُهَا ثُمَّ نَكْسُوهَا لَحْمًا فَلَمَّا تَبَيَّنَ لَهُ قَالَ أَعْلَمُ أَنَّ اللَّهَ عَلَى كُلِّ شَيْءٍ قَدِيرٌ⁵⁷

This text contains many dots and vowels to help the reader understand the passage. But if all the dots indicating the consonants and vowels are removed from the text, then someone who speaks Aramaic would read the text differently. Again, we have described how Arabic was developed from cursive Aramaic. So, without the consonant or vowel markings, we are left with plain Aramaic characters. This is how part of the same passage reads in Aramaic: “yet behold your condition, and your state: It has not changed. Behold your perfection! And wherewith we make you an example for the people, behold how we restore your bones and cover them anew with flesh.”⁵⁸

Christoph Luxenberg studied in detail how the shift from Aramaic to Arabic made significant changes to this passage of the Qur’ān and resulted in the confusing text as it is today.

“Condition” becomes “food.” Aramaic ʿamṭā becomes Arabic ṭa’ām.

“State” becomes “drink.” Aramaic šarbāk becomes Arabic šarābika.

“Perfection” becomes “donkey.” Aramaic gmāraḵ becomes Arabic ḥimārika.⁵⁹

This same passage, Surah 2:259, is also mentioned by Ibn Abu Dawud (c. 275 AH) who was the son of the famous hadith collector Abu Dawud. Ibn Abu Dawud writes: “there was a man in the book of my father who said this, so I asked my father who is he? He said: Abbad Ibn Suhaib told us on the authority of Awf Ibn Abi Jamila...of verses that al-Ḥajjāj bin Yusuf changed in Othman’s Qur’an.”⁶⁰ Ibn Abu Dawud continued to provide a sample list of passages that al-Ḥajjāj altered, among them the later part of Surah 2:259. While some Muslims argue that al-Ḥajjāj only added vowels to clarify the text, there are those who accuse him of adding dots to the rasm to Arabize words without much regard for any change in meaning.

⁵⁶ 2:259 in *The Study Quran*, textual insertions omitted

⁵⁷ Quran.com <https://quran.com/2?startingVerse=259>

⁵⁸ Luxenberg, *The Syro-Aramaic Reading*, 197.

⁵⁹ Luxenberg, *The Syro-Aramaic Reading*, 191-197.

⁶⁰ Ibn Abu Dawud, *Kitab Al-Masahif*, ed. Arthur Jeffrey (<http://www.muhammadanism.org/>, 2011), 130. <https://archive.org/details/kitab-al-masahif-ibn-abu-dawud-with-introcuuction-of-arthur-jeffrey-arabic-text/mode/2up>

This account of al-Ḥajjāj b. Yūsuf changing the text of the Qurʾān only makes sense if the Qurʾān was written down in a location where Syro-Aramaic was used alongside of Arabic. And this is exactly the situation we see in Petra and in the Petra Scrolls. The Petra Scrolls describe a city where Christians and pagans lived side by side. The Christians wrote officially in Greek, but Aramaic was still used by Christians and in the liturgy of the church. From the Petra scrolls we can determine that Arabic was spoken in the city by many people as well. As linguist and historian Ahmad al-Jallad notes,

one of the most significant features of the Petra papyri is the evidence it provides for Arabic-Aramaic bilingualism. The same term is sometimes found in its Arabic form, sometimes in Aramaic, suggesting that both languages were used as vernaculars and speakers were aware of the grammatical equivalences between the two.⁶¹

So, not only do the mosques of the first century of Islam face towards Petra, Petra was the perfect milieu for the formation of the language of Qurʾān.

The changes that al-Ḥajjāj ibn Yusuf made to the Qurʾān come up again in the correspondence between Roman emperor Leo III (r. 99-124 AH / 717-741 CE) and caliph ʿUmar ibn ʿAbd al-ʿAziz (r. 99-101 AH / 717-720 CE). ʿUmar had considerable success in converting Christians in his realm to Islam, and so the tradition is that he began correspondence with Leo, hoping to convert the emperor.⁶² Numerous copies of this correspondence have come down to us, including manuscripts found in the monastery of St. Catherine's in Sinai.⁶³ Over the years this correspondence has been translated into other languages, and today manuscripts have been found in Arabic, Armenian, Latin, and Aljamiado.⁶⁴

While many believe these letters are an apologetic work of an anonymous Christian author, Arthur Jeffrey suggested that there is “no a priori ground” to doubt their authenticity.⁶⁵ In the letters, emperor Leo levies the following accusation against the caliph:

as for your (book), you have already given us examples of such falsifications, and one knows, among others, of a certain Ḥajjāj, named by you as Governor of Persia, who had men gather up your ancient books, which he replaced by others composed by himself, according to his taste, and which he propagated everywhere in your nation, because it

⁶¹ Ahmad Al-Jallad, “The Arabic of Petra,” Academia, accessed December 5, 2022. https://www.academia.edu/37215697/Al_Jallad_2018_The_Arabic_of_Petra

⁶² Arthur Jeffrey, “Ghevond’s Text of the Correspondence between ʿUmar II and Leo III,” *The Harvard Theological Review* 37, no. 4 (October 1944): 269.

⁶³ Seonyoung Kim, “The Arabic Letters of the Byzantine Emperor Leo III to the Caliph ʿUmar Ibn ʿAbd al-ʿAziz: an Edition, Translation, and Commentary,” PhD diss., (The Catholic University of America, 2017), 4.

⁶⁴ Kim, “The Arabic Letters,” 1.

⁶⁵ Jeffrey, “Ghevond’s Text,” 270.

was easier by far to undertake such a task among a people speaking a single language. From this destruction, nevertheless, there escaped a few of the works of Abu Turab, for Ḥajjāj could not make them disappear completely.⁶⁶

Note that the writer makes the case that al-Ḥajjāj had made a major recension of the Qurʾān and destroyed the existing competing copies. Whether or not this argument truly was presented by Leo III, we know that some Christians in the first centuries of Islam believed al-Ḥajjāj had changed the Qurʾān.

This exchange between the Christian and Muslim rulers supposedly took place around 99 AH, approximately 20 years after Abd al-Malik's Arabization of the Muslim world, and perhaps as little as 17 years after al-Ḥajjāj introduced his revised Arabic Qurʾān. Al-Ḥajjāj died in 96 AH, only three years earlier. During this time two caliphs had come and gone, and 'Umar ibn 'Abd al-'Aziz himself would fall ill and die in 101 AH. He would be followed by Yazid II, who was much more aggressive against Christians within the Muslim realm.

Initially Yazid II struggled to control the empire, as several powerful groups were incensed by the late al-Ḥajjāj and they became even more dangerous after his death.⁶⁷ In 103 AH Yazid II issued an edict ordering the destruction of all images and icons in Christian churches across the caliphate. It seems that this was carried out with zeal, and that many images and icons were destroyed or covered over.⁶⁸ This move against Christian churches seems to have put an abrupt end to any Christian/Muslim debates or correspondence.

There is a pertinent extant passage from a manuscript supposedly written in the Court of al-Ma'mun around 215 AH. Note this was approximately 40 years before al-Bukhārī compiled his hadith collection. The writer, called al-Kindi, addressed the complicated manuscript history of the Qurʾān. After his description of the controversies caused by Ali's version of the text, al-Kindi described:

then followed the business of Ḥajjāj ibn Yusuf, who gathered together every single copy [of the Qurʾān] he could lay hold of and caused to be omitted from the text a great many passages. Among these, they say, were verses revealed concerning the House of the Omeyya with the names of certain [sic], and concerning the House of Abbas also with names. Six copies of the text thus revised were distributed to Egypt, Syria, Medina, Mecca, Kufa, and Bussora. After that he called in and destroyed all the preceding copies, even as Othman had done before him.

And the result of all this is patent to thee who hast read the Scriptures, and seest how in thy book histories are all jumbled together and intermingled; an evidence that many different

⁶⁶ Jeffrey, "Ghevond's Text," 297-298.

⁶⁷ Julius Wellhausen, *The Arab Kingdom and its Fall*, trans. Margaret Graham Weir (Calcutta: University of Calcutta, 1927), 321-322.

⁶⁸ A. A. Vasiliev, "The Iconoclastic Edict of the Caliph Yazid II, A. D. 721," *Dumbarton Oaks Papers* 9/10 (1956): 31-32.

hands have been at work therein, and caused discrepancies, adding or cutting out whatever they liked or disliked...

Thou knowest the enmity subsisting between Aly and Abu Bekr, Omar and Othman; and each of these entered in the text whatever favoured his own claims, and left out what was otherwise. How, then, can we distinguish between the genuine and the counterfeit? And how about the losses caused by Ḥajjāj? Thou well knowest the kind of faith that that tyrant held in other matters; how canst thou make him an arbiter as to the Book of God,--a man who never ceased play into the hands of the Omeyyads whenever he found opportunity.⁶⁹

Al-Kindi argued that the collection, revision, distribution, and destruction of Qur'āns happened not only under 'Uthman, but also under al-Ḥajjāj b. Yūsuf. Gibson believes al-Ḥajjāj's changes were designed to improve the Qur'ān and update archaic Aramaic language that was not familiar to Arabic readers. However, in doing so, Luxenberg and several other Aramaic scholars note that the meaning of many of the original words was lost.

According to al-Kindi, al-Ḥajjāj repeated what 'Uthman had done. He had existing copies of the Qur'ān destroyed and distributed his own version to major centers throughout the Muslim world. We will discuss al-Ḥajjāj and his impact on early Islam again in chapter ten, noting how the surviving companions of the prophet argued against al-Ḥajjāj's changes to Islam, and how al-Ḥajjāj responded to silence them.

Luxenberg concludes that, based on the Qur'ān, the language of Mecca must have been "an Aramaic-Arabic hybrid language" which "would lead one to assume that Mecca was originally an Aramean settlement."⁷⁰ This is what al-Jallad found in the Petra papyri; again, the reader will not be surprised that this hypothesis suits Petra, the object of the first qibla, much better than Mecca in the Hijaz.

⁶⁹ Al Kindy, *The Apology of Al Kindy: Written in the Court of Al Mamun* (A.H. 215; A.D. 830), trans. Sir William Muir (London: Smith, Elder & Co., 1882), 30.

⁷⁰ Luxenberg, *The Syro-Aramaic Reading*, 327.

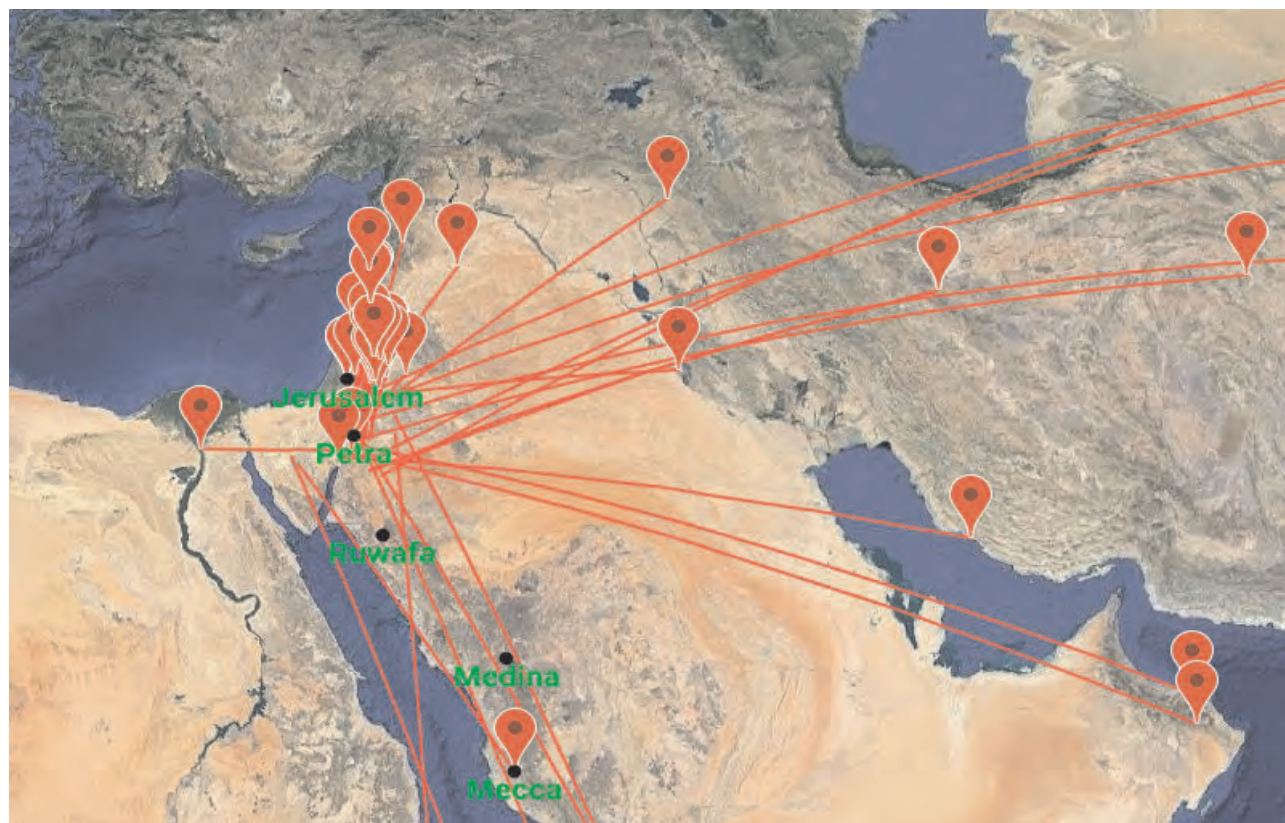
Chapter Eight

The Ka'ba in Petra

Dan Gibson with Chad Doell

The holiest site in Islam is the Ka'ba, a rectangular building covered in a black cloth in the Masjid al-Ḥarām in Mecca, Saudi Arabia. Millions of Muslims visit the Ka'ba each year and pray as they circle around it. Hundreds of millions more make their daily prayers facing the Ka'ba, from every corner of the earth. The Ka'ba also contains the Black Stone, a sacred object set into a corner of the Ka'ba by the prophet Muḥammad himself.

In this chapter we will explore the four times the Ka'ba was rebuilt, especially as these phases of the Ka'ba relate to our arguments regarding the Petra qibla. We will consider the following four iterations of the Ka'ba: first, the pre-Islamic Ka'ba which existed when



Dan Gibson discovered 65 early qiblas facing Petra.

the prophet Muḥammad was born in 570 CE; second, the Ka'ba which was rebuilt by the Quraysh during the prophet Muḥammad's lifetime in 605 CE; third, the Ka'ba rebuilt by Ibn al-Zubayr c. 73 AH (693 CE); and fourth, the Ka'ba built by 'Abd al-Malik in Mecca, Saudi Arabia in 78 AH (697 CE). We will find that not only does the centrality of Petra suit the first three Ka'ba reconstructions, but that Petra today contains a site which matches the description of the earliest iterations of the Ka'ba.

The Pre-Islamic Ka'ba and the Petra Ka'ba

Very little is known about the first, pre-Islamic Ka'ba. However, it seems evident that the original Ka'ba must have been built in the city of Petra because all the earliest extant mosques face Petra from every direction. It seems Petra was regarded as the Holy City in the dawning decades of Islam. It follows that if Petra is the original Holy City of Islam, we should be able to find the Ka'ba in Petra.

First, we need to consider the history of the Ka'ba. Islamic sources attest that the history of the Ka'ba reaches back to the time of Abraham (Ibrahim) and Ishmael (Isma'il):

Allah revealed to Ibrahim, may peace be on him, to erect the Ka'ba when he was one hundred years old and Isma'il was thirty years old, so he built it with him. Isma'il died after his father and was interred inside al-Ḥijr close to the Ka'ba by the side of his mother Hajar.¹

Muslims believe that the original Ka'ba was built by Abraham and Ishmael, and further, that the graves of Hagar and her son are located there, near the Ka'ba.

We also have historical descriptions of the pre-Islamic Ka'ba. Early Islamic scholar Ibn Ishaq tells us the Quraysh:

decided to rebuild the Ka'ba when the apostle was thirty-five years of age...They were planning to roof it and feared to demolish it, for it was made of loose stones above a man's height, and they wanted to raise it and roof it because men had stolen part of the treasure of the Ka'ba which used to be in a well [or cistern] in the middle of it.²

From this passage we learn that the original Ka'ba was in a small, roofless enclosure, with walls a little higher than a man. There also seems to be a possible reference to Zamzam being inside the original Ka'ba.

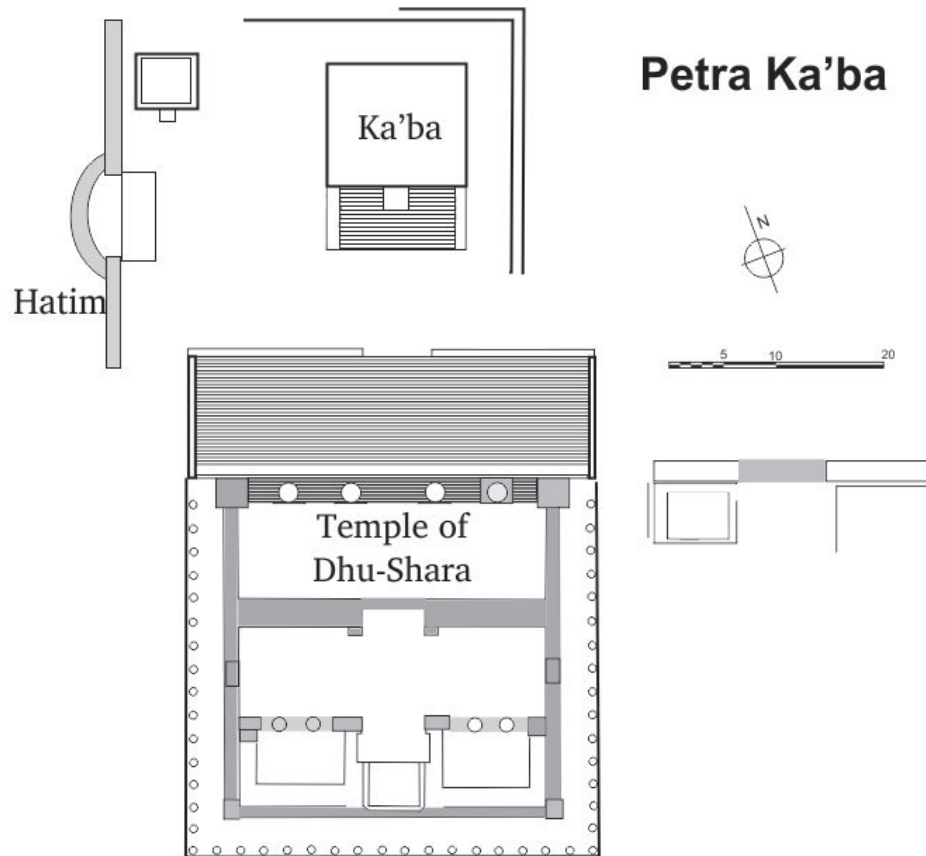
Dan Gibson lived near Petra for several years and made many trips into the city and surrounding area. During his visits, he thought to compare this description of the Ka'ba with a particular site in Petra: an unexplained, ancient structure located in front of the Dhu-Shara

¹ Abu 'Abd Allah Muhammad Ibn Sa'd Ibn Mani' al-Zuhri al-Basri, *KITAB AL-TABAQAT AL-KABIR*, trans. Ha-roen Soebratie (Netherlands: 2012), 52.

² Ibn Ishaq, *The Life of Muhammad: A Translation of Ibn Ishaq's Sirat Rasul Allah*, trans. A. Guillaume (New York: Oxford University Press, 2006), 84.

temple known today as Qasr al-Bint. Scholars believe the structure to be a large, once lavishly decorated altar, with a sophisticated drainage system.³

Gibson believes that this altar may have originated as the altar built by Abraham for Ishmael and Hagar. Its location in Wadi Mousa would match the Biblical record that Hagar and Ishmael settled in Paran. The location of Paran will be discussed in depth in chapter 13. Gibson believes that the original Ka'ba remained the focal point for the children of Ishmael for many centuries. Thus, it pre-dates the later Temple of Dhu-Shara which stands beside it and faces it.



*The foundation of the Ka'ba lies near the temple of Dhu-Shara in Petra. The Hatim wall is on the west wall of the Ka'ba courtyard.*⁴

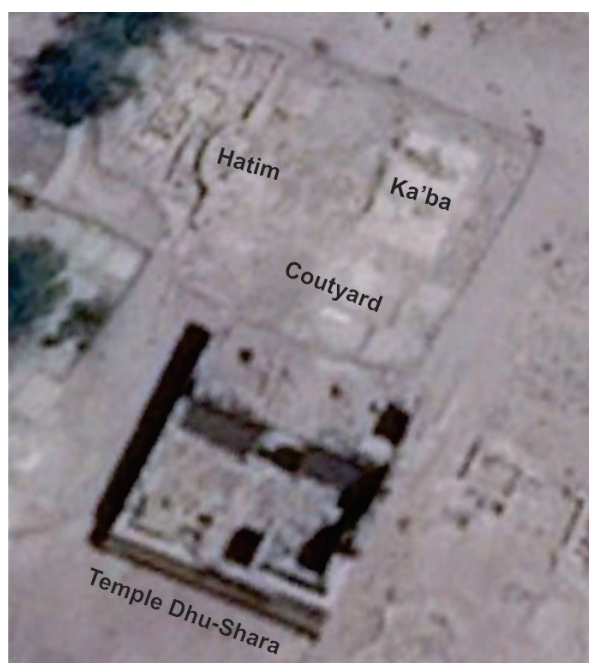
Notice that the wall around the Ka'ba altar does not match the width of the neighbouring temple, demonstrating that they were not built at the same time. Also notice that the Hatim wall and the graves they contained are not attached to the Ka'ba building but are separate structures. For simplicity, from here on the altar in front of Dhu-Shara's temple will be referred to as the Petra Ka'ba.

³ Christian Augé, François Renel, Laurent Borel, and Chrystelle March, "New Excavations in Qasr al-Bint at Petra," *Annual of the Department of Antiquities in Jordan (ADAJ)* (2002): 309-313.

⁴ Graphic based on the ground plan presented in: Augé et al., "Qasr al-Bint," 312.

Ninth century Muslim historian al-Balādhurī wrote that the buildings near the first Ka’ba had to be demolished to make more room.⁵ The proposed site in Petra suits this description of surrounding buildings, as seen by the foundations of other buildings below.

Further, another ninth century historian al-Azraqī wrote that the early Ka’ba was made of rough stone laid dry.⁶ Crucially, al-Azraqī recorded the dimensions of the pre-Islamic Ka’ba. He documented the sides of the Ka’ba as: north-east, 32 cubits; north-west, 22 cubits; south-west, 31 cubits; and south-east, 20 cubits. The proportions of this early Ka’ba were roughly 3:2. If we calculate a cubit as 0.53 meters, then the dimensions would have been 17 meters x 11.6 meters x 16.4 meters x 10.6 meters. Notice that the earliest Ka’ba was not perfectly rectangular but had an irregular shape which will prove crucial in identifying its remaining foundation.



Using the measurements recorded by al-Azraqī, we have illustrated the length of the north-eastern wall on the two figures below. We have imposed a red line measuring 17 meters on satellite photos of the current Ka’ba in Mecca, and the proposed Petra Ka’ba.

Left: A satellite photo showing the Ka’ba area in Petra.

By al-Azraqī’s description, the original Ka’ba was much longer than the Ka’ba in Mecca today. But the Petra Ka’ba suits al-Azraqī’s measurements perfectly.

Right: The red line, 17 meters, matches the length of the first Ka’ba which includes the steps.

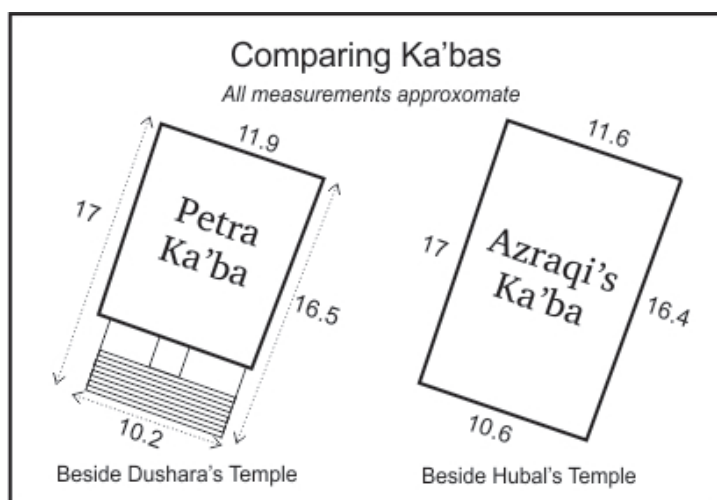


⁵ Aḥmad ibn Yaḥyā al-Balādhurī, *The Origins of the Islamic State: Being a Translation from the Arabic Accompanied with Annotations, Geographic and Historic Notes of the Kitāb Futūḥ al-Buldān*, trans. Philip Khuri Hitti (New York: Cosimo Classics, 2011), 73-74.

⁶ Muhammad ibn ‘Abd Allah Al-Azraqī, *Kitab Akhbar Mecca*, (Giza: Maktaba Alnafahezah, 2013), 27.



Left and Below: The Petra Ka'ba's measurements compared with al-Azraqi's description of the Ka'ba from the time of the prophet Muḥammad. Remember, the Petra Ka'ba is in ruins, so obtaining exact measurements is difficult. Note the irregular length of the sides.



There are several things to notice about the Ka'ba in Petra. As mentioned previously, on the left side of the Petra Ka'ba there is a curved spot in the courtyard wall which corresponds to the hatīm in Mecca. In Mecca, a low curved wall is very near but not attached to the Meccan Ka'ba (see the image above). Some believe the graves of Ishmael and Hagar lie under this wall, which curves

around their burial site. In ancient times, Islamic sources report that a gravestone stood there, known as Ḥijr Isma'il or the Rock of Ishmael.⁷

Notice that the stairs allow access to the top of the Ka'ba. 'Ātikah, a daughter of Abdul Muṭṭalib once had a dream in which she saw a man ride his camel to the top of the Ka'ba, shouting to the people.⁸ Al-'Abbās heard the story but did not question the camel's ability to walk to the top of the Ka'ba. This makes no sense in Mecca, but the Ka'ba in Petra has steps to the top, making it accessible for a camel.

Notice that the Petra Ka'ba stood more toward one corner of the walled area than the center. This significant feature must have been recreated when the Ka'ba was built years later in Mecca in Hijaz, because it is specifically mentioned by al-Azraqī. Al-Azraqī describes that when the third Abbasid caliph, al-Mahdī, visited the Ka'ba in Mecca in Hijaz in 163-164

⁷ Ibn Ishaq, *The Life of Muhammad*, 4.

⁸ Al-Ṭabarī, VII, 36.

AH, he saw that “the Ka’ba was on one side (fi shiqq) of the mosque; he did not like that and wished that it be in the middle (mutawassat) of the mosque.”⁹ Subsequently, the Mecca mosque was changed so that the Ka’ba was in the centre. French historian of Islamic architecture Oleg Grabar noted:

it is not an accident that the patron of Baghdad, with its palace complex in the center of an urban ring, also transformed the sanctuary of Mecca into a large space around a holy place. But it is curious to note that both al-Manṣūr and al-Mahdī had traveled to Jerusalem, had seen there a vast and only partially rebuilt esplanade with a stunning Umayyad monument in its psychological, if not actual, center, and then made major contributions to its monuments.¹⁰

It is possible that when the new Ka’ba was built in the Hijaz, it was built in the corner of the complex to resemble the Ka’ba in Petra. If so, this effort to maintain resemblance to the original Ka’ba did not survive the tastes of later Abbāsīd rulers.

Another unique feature of the Petra Ka’ba is its proximity to the great pagan temple Qasr al-Bint, also known as the temple of Dhu-Shara. Dhu-Shara is an interesting name because it is not the name of a pagan deity. The Arabic ذو الشراة Ḍu-al-Ŝarā means “the one (Lord) of the Ŝarā mountains.”¹¹ Historian and linguist John Healey noticed that we are not told the actual name of this deity, and as a result scholars have been “much concerned with trying to find the true name of this supreme god.”¹² When we consider the proximity of this temple to the Ka’ba, and that the steps of this temple actually form part of the border around the Ka’ba enclosure, we may be able to glean the identity of this deity from Islamic reports on pre-Islamic history.

In the *Book of Idols (Kitabl al-Asnam)* by eighth century Muslim historian Hisham ibn al-Kalbi, we read:

the Quraysh had also several idols in and around the Ka’ba. The greatest of these was Hubal. It was, as I was told, of red agate, in the form of a man with the right hand broken off. It came into the possession of the Quraysh in this condition, and they, therefore, made for it a hand of gold. The first to set it up was Khuzaymah ibn-Mudrikah ibn-al-Ya’s’ ibn-Mudar. Consequently it used to be called Khuzaymah’s Hubal. It stood inside the Ka’ba. In front of it were seven divination arrows (aqduh). On one of these arrows was written “pure” (sarih), and on another “consolated alien” (mulsag).¹³

⁹ Al-Azraqī, *Kitab Akhbar Mecca*, 267.

¹⁰ Oleg Grabar, “Upon Reading Al-Azraqī,” *Muqarnas* 3 (1985): 5, doi:10.2307/1523080

¹¹ J.F. Healey, *The Religion of the Nabataeans: A Conspectus*, (Leiden: Brill, 2001), 87.

¹² Healey, *Religion of the Nabataeans*, 85.

¹³ Hisham Ibn Al-Kalbi, *The Book of Idols*, trans. Nabih Amin Faris (Princeton: Princeton University Press, 1952), 34. Dr. Ahmad al-Jallad has noted that Ibn al-Kalbi is not always reliable and has misidentified some places of worship. Despite the caution, Ibn al-Kalbi’s comments on the Ka’ba are considered reliable. For more information, see Dr. al-Jallad’s video here: www.youtube.com/watch?v=08m6AZ8Eg14

Consider again the satellite photos above. The Dhu-Shara temple is the largest free-standing structure in Petra, and it was the closest major structure to the Ka'ba. Al-Kalbi describes Hubal as the “greatest” idol around the Ka'ba. Therefore, it is possible that Hubal's statue resided in the temple of Dhu-Shara.

There are several Arabian inscriptions that mention the god Hubal. In almost all cases, these inscriptions are directly related to the ancient Nabataean people. The inscription on tomb 39 in the ancient city of Meda'in Salih describes which family the tomb was intended for. If the tomb was sold, given in a pledge or as a gift, or if bodies or parts are removed, then they “shall be liable to Dushara Hubalu and also to Manatu in the sum of 5 shamads and to the exorcist-priest for a fine of a thousand Haretite selas...”¹⁴ This inscription provides two options for paying the fine to the deities: Dushara/Hubalu, and then second to Manotu. Dushara and Hubalu (Hubal) are listed as the same entity. Healey notes that there is no definite article “I” before Hubal's name, which doubly enforces the idea that they are identified together.¹⁵ If Dhu-Shara and Hubal are so closely associated, it appears the impressive temple of Dhu-Shara next to the Ka'ba in Petra exactly aligns with al-Kalbi's record that Hubal was the greatest idol kept at the pre-Islamic Ka'ba.

Furthermore, there is a fascinating note in the tenth century late Roman (Byzantine) Suda lexicon. This lexicon includes an entry on Dhu-Shara, who was associated with Ares by the Romans.¹⁶ The entry reads of Dhu-Shara:

Namely the god Ares, in Petra in Arabia. The god Ares is revered amongst them; for this one they especially honor. The statue is a black stone, square in shape, unchiseled, four feet tall, two wide: it is mounted on a plinth of beaten gold. To this they offer sacrifice and pour forth the blood of the sacrificial animals; and this is their libation. And the whole house is rich in gold, and [contains] many votive offerings.¹⁷

The Suda confirms the presence of a temple to Dhu-Shara in Petra, and that Dhu-Shara had a special esteem amongst the Nabataean Arabs. But what's more, the idol to Dhu-Shara was a black stone, unchiselled.

When this information is combined with Al-Kalbi's report that Dushara/Hubal's temple was the greatest near the Ka'ba, we are confronted with a critical possibility. The relics around the earliest Ka'ba were gathered into the Ka'ba to better protect them. In the Roman record is a memory of Dhu-Shara being worshipped in a lavish temple, with the object of worship a

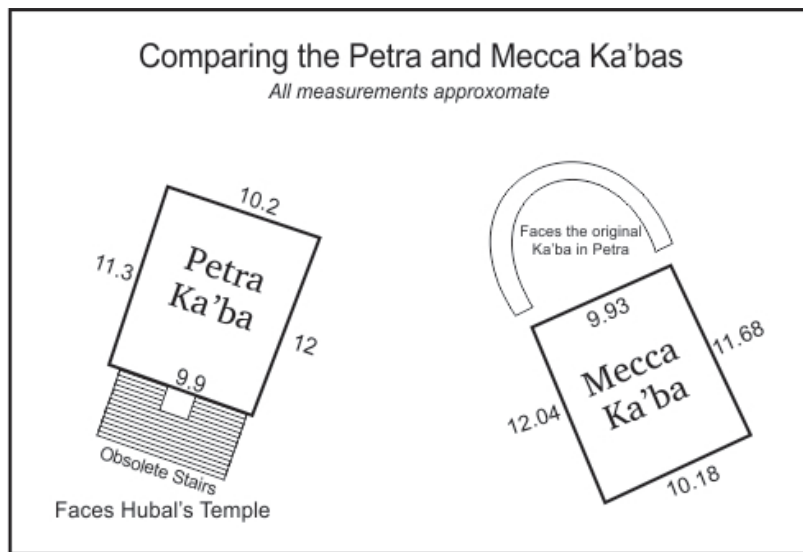
¹⁴ Healey, *Religion of the Nabataeans*, 128.

¹⁵ Healey, *Religion of the Nabataeans*, 85.

¹⁶ Fr. Buhl, *The Encyclopaedia of Islam*, 2nd ed. (1965), s.v. “Dhu 'l-Shara.”

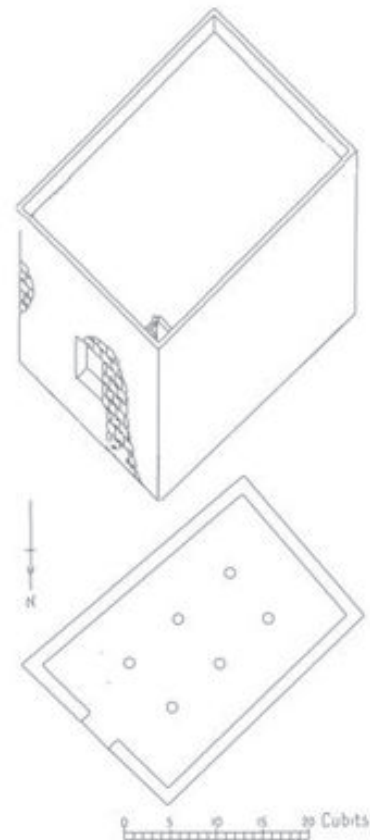
¹⁷ *The Suda On Line*, s.v. “Θεὸς Ἄρης, (theus Ares, Dusares, Dushara)” last updated November 24, 2018, <http://www.cs.uky.edu/~raphael/sol/sol-entries/theta/302>

black stone. Dushara and Hubal are directly related, and al-Kalbi confirms that a temple to this god dominated the Ka'ba precinct. The proposed Ka'ba in Petra exactly matches these parameters, in addition to the dimensions described by al-Azraqi.



The original altar in Petra had stairs leading up to it, so animals could be sacrificed on it. Later a structure was built on top of the altar, making the stairs obsolete. It seems that Azraqi included the stairs in his measurements, but the Petra altar is in a state of ruin so it is difficult to be precise. The size of the altar (without the steps) in Petra is very similar to the size of the Ka'ba building in Mecca.

And so, it appears the black stone was originally an idol to Dhu-Shara in Petra. The stone was removed from the temple and placed into the nearby Ka'ba—a repository of the relics of Petra. Ultimately, when the Ka'ba was rebuilt by the Quraysh, it was the prophet Muḥammad who was chosen to re-set the idol of Dhu-Shara, the black stone, into the Ka'ba wall in Petra, as we will see below.



Bāqūm's Ka'ba—diagram by Creswell.¹⁸ Note the six pillars.

¹⁸ K.A.C. Creswell, *The Ka'ba in A.D. 608*, (Oxford: The Society of Antiquities in London, 1951), 99.

The Ka'ba Built During the Prophet Muḥammad's Lifetime

When the prophet Muḥammad was 35 years old the Ka'ba was in ill repair, so it was rebuilt by the Quraysh.¹⁹ At this time a ship was wrecked on some reefs on the Red Sea.²⁰ Muslim scholar Ibn Sa'ad, writing 200 years later, assumed that the shipwreck occurred close to Mecca. He proposed modern Jeddah for the wreck, and this proposal was copied by other writers following him. Yet, the earliest accounts simply say "reefs" (shu'aibiya) and provide no location for the wreck. A builder named Bāqūm was on board this ship, and it was he who helped the Quraysh rebuild the Ka'ba. This story was repeated by most of the early writers because it was during this reconstruction of the Ka'ba that the prophet Muḥammad was chosen to place the Black Stone into the Ka'ba wall. According to al-Ṭabarī, the old Ka'ba was leveled to the foundation and totally rebuilt.²¹

Al-Azraqī described the type of architecture used in the building of the Ka'ba, both during the reconstruction and later when the Ka'ba was burned in c. 64 AH. He recorded that the door which had been previously at ground level was placed high on the side of the structure—thus the reconstructed Ka'ba was built on a raised stone platform.²²

Al-Balādhurī added that during the reconstruction a certain Abū Ḥadhaifa ibn al-Mughīra said, "raise, people, the door of the Ka'ba so that no one may enter without a ladder. Then would no man whom you do not want to enter be able to do so. In case someone you hate should come, you may throw him down."²³ Bāqūm asked what sort of roof the Quraysh wanted, and they replied a flat one. This roof rested on six pillars (sawāri) arranged in two rows of three each. The foundation followed that of the original Ka'ba, but the height of the new structure was 18 cubits (8.23 meters or 27 feet) instead of nine cubits. "Then they constructed it," recorded Ibn Sa'd, "till they reached the place of logs. There were fifteen girders on which they put its roof and there were six pillars on which they constructed it."²⁴

Al-Azraqī also described the interior of this new Ka'ba. It had a decorated ceiling, and decorated walls and columns.²⁵ On the columns artisans made pictures (ṣuwar) of the prophets, trees, and angels. Among the pictures was one of Abraham as an old man practicing divination with arrows, as well as a picture of ʾIsā ibn Maryam (Jesus) and his mother. These images were later erased at the prophet Muḥammad's command during his conquest of the Holy City.

¹⁹ Ibn Ishaq, *The Life of Muhammad*, 84.

²⁰ Ibn Sa'd, *Kitab al-Tabaqat al-Kabir*, 38.

²¹ Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of Al-Ṭabarī Volume VI: Muḥammad at Mecca*, trans. W. Montgomery Watt and M. V. McDonald (Albany: State University of New York Press, 1988), 58.

²² Al-Azraqī, *Kitab Akhbar Mecca*, 95.

²³ Al-Balādhurī, *Kitāb Futūḥ al-Buldān*, 74.

²⁴ Ibn Sa'd, *Kitab al-Tabaqat al-Kabir*, 165.

²⁵ Al-Azraqī *Kitab Akhbar Mecca*, 191.



The Debre-Damo monastery in Ethiopia was built during the sixth century with layers of stone and wood very similar to how the Ka'ba construction is described.



From a distance the foundation appears closer to Qasr al-Bint than it really is. You can see the stone platform on which the Ka'ba stood was raised with stones so that the door would be higher up. The Ka'ba building is gone, but at least five courses of the stone platform remain.

Al-Azraqī wrote that the new Ka'ba was built with a course of stone alternating with a course of wood, up to the roof.²⁶ There were 16 courses of stone, and 15 of wood, altogether 31 courses beginning and ending with stone. Between every two courses of stone was a layer of ṣāsam wood, with round heads the thickness of a man's chest projecting from the surface. Since so much wood was involved, one would presume this form of construction was only possible in places where large quantities of wood were available.

The Ibn al-Zubayr Ka'ba

Al-Azraqī recorded that when Abdallāh ibn al-Zubayr ruled over the Holy City from 60-73 AH he acquired several buildings, including one belonging to an ancestor of al-Azraqī.²⁷ Ibn al-Zubayr then demolished multiple buildings to enlarge the sacred space around the Ka'ba, without altering the simple character of the Ka'ba itself.

When Ibn al-Zubayr and the caliph in Damascus came into conflict, Ibn al-Zubayr barricaded himself in the Holy City (Petra). The Umayyad army laid siege and deployed trebuchets (manjaniq) to throw stones into the city to degrade Ibn al-Zubayr's fortifications.

During the first siege in 64 AH the Ka'ba was set on fire.²⁸ Other sources describe that the fire came from a firebrand on the end of a spear that struck the veil of the Ka'ba and set it on fire, which resulted in the wood burning.²⁹ One would assume that after the fire the Ka'ba

²⁶ Al-Azraqī *Kitab Akhbar Mecca*, 90.

²⁷ Al-Azraqī *Kitab Akhbar Mecca*, 260.

²⁸ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XIX: The Caliphate of Yazid b. Mu'awiyah*, trans. I.K.A. Howard (Albany: State University of New York Press, 1990), 223.

²⁹ Al-Balādhurī, *Kitāb Futūḥ al-Buldān*, 75; Ṭabarī, XIX, 225.

building was in a precarious state, as the fire would have seriously weakened the wood beams. Al-Ṭabarī recorded that Ibn al-Zubayr removed the Black Stone and placed it in a stand (tābūt) on a strip of silk.³⁰ The people prayed toward the ruined Ka'ba until Ibn al-Zubayr demolished the structure so that he could later rebuild it.

During this time caliph Yazid in Damascus died. As a result, his army lifted the siege of Petra after several weeks of fighting and returned to Damascus. The succession of the Umayyad empire was thrown into chaos and the campaign against Ibn al-Zubayr came to a complete stop. Umayyad power temporarily collapsed until Marwan I took control.

Dan Gibson has argued in his book *Early Islamic Qiblas* that it was during this pause in the conflict that the Black Stone must have been moved to Mecca in Saudi Arabia to keep it far from the Umayyad armies.³¹ An indication that a major transition was taking place is that Mus'ab ibn al-Zubayr brought Abdallāh ibn al-Zubayr a great deal of money, horses, camels and much baggage in 70 AH.³² Moreover, the Black Stone is not mentioned again in historical records until the construction of a new Ka'ba in Mecca in Hijaz. It would seem the Black Stone was no longer present in Petra.

It is at this time that al-Ṭabarī first mentions Abdallāh ibn al-Zubayr's qibla.³³ As we have explored previously, this mention of a qibla distinct to Ibn al-Zubayr has traditionally been interpreted as a metaphor for a shift of allegiance—but we believe that this language may also be an echo of acknowledgement that the Black Stone had been moved to a more secure location. That is, there was now literally a qibla unique to Abdallāh ibn al-Zubayr, who had moved the Black Stone from Petra to Mecca in modern Saudi Arabia.

Al-Ṭabarī also reported that in 66 AH (685 CE), Abū 'Abdallāh al Jadālī swore an oath “by the Lord of the Corner and the Station,” but did not mention the Black Stone which would have been in the corner.³⁴ This omission is highly unusual and may suggest that the Black Stone was no longer in the Ka'ba wall at that time.

Ultimately, the new caliph Marwan I sent his army back to the Holy City in 72 AH, this time led by al-Ḥajjāj.³⁵ It is notable that, once fighting had ceased, al-Ḥajjāj led the pilgrimage

³⁰ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XX: The Collapse of Sufyanid Authority and the Coming of the Marwanids*, trans. G. R. Hawting (Albany: State University of New York Press, 1989), 123.

³¹ Dan Gibson, *Early Islamic Qiblas: A survey of mosques built between 1 AH/622 C.E. and 263 AH/876 C.E.* (Saskatoon: Independent Scholar's Press, 2017), 172.

³² Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XXI: The Victory of the Marwanids*, trans. Michael Fishbein (Albany: State University of New York Press, 1990), 169.

³³ Al-Ṭabarī, XXI, 107.

³⁴ Al-Ṭabarī, XXI, 61; Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XXIII: The Zenith of the Marwanid House*, trans. Martin Hinds (Albany: State University of New York Press, 1990), 222.

³⁵ Al-Ṭabarī, XXI, 206.

that year but did not circumambulate the Ka’ba, nor did he go to it in pilgrim’s garb (iḥrām).³⁶ He also rode a horse up ‘Arafat mountain in full armor rather than travel as a pilgrim.³⁷ This extreme disregard toward the pilgrimage by al-Ḥajjāj could indeed have been inspired by the missing Black Stone. If so, with a Ka’ba without the Black Stone, the prayers suffered a pall and the often irreverent al-Ḥajjāj treated the pilgrimage with derision.

During the last months of the civil war Abdallāh ibn al-Zubayr and his followers barricaded themselves in the very center (baṭn, or stomach) of the city, near the Ka’ba.³⁸ Al-Ḥajjāj then used trebuchets to hurl stones at Ibn al-Zubayr as he made his last stand. When archeologists from Brown University uncovered the ruins of what they called “The Great Temple” in Petra, they discovered that the doors and gaps in the building had been barricaded for defense. Gibson believes that this was one of the buildings that Ibn al-Zubayr and his followers chose for their last stand. This final siege lasted eight months and seventeen days.³⁹ Ultimately, Ibn al-Zubayr and his sons were killed, and hostilities ceased. The trebuchet stones used in the siege were gathered up and placed in storerooms near the Ka’ba in Petra, where they remain to this day.



Above: Catapult stones found near the gate of the Colonnaded Street in Petra and the Great Temple.



Right: Area around the Petra Ka’ba

Al-Ṭabarī added that when Ibn al-Zubayr started to rebuild the Ka’ba, he included the hijr inside (attached to) the Ka’ba and gave the Ka’ba two doors.⁴⁰ The fact that al-Ṭabarī

³⁶ Al-Ṭabarī, XXI, 208.

³⁷ Al-Ṭabarī, XXI, 209.

³⁸ Al-Ṭabarī, XXI, 224.

³⁹ Al-Ṭabarī, XXI, 225.

⁴⁰ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XXII: The Marwanid Restoration*, trans. Everett K. Rowson (Albany: State University of New York Press, 1989), 1.

found the decision to incorporate the hijr notable indicates that the hijr was not attached to the Ka'ba previously (just as we find in Petra). Today the Petra Ka'ba ruins show no sign of an incorporated hijr. The hijr wall is incorporated with the Ka'ba in Mecca, but the Ka'ba in Mecca was built in 78 AH, after the war and Ibn al-Zubayr's death, as we argue below. One possible explanation is that al-Ṭabarī is describing the new Ka'ba in Mecca in the Hijaz, which was built with an incorporated hijr, which perhaps Ibn al-Zubayr started as a second Ka'ba. Another possibility is that Ibn al-Zubayr did indeed start construction of a Ka'ba with an incorporated hijr in Petra, but it was totally destroyed by al-Ḥajjāj. Soon after the fighting ended in 74 AH, al-Ḥajjāj is said to have removed any changes that Ibn al-Zubayr made to the Ka'ba and attempted to start rebuilding the Ka'ba himself. Very little is known of al-Ḥajjāj's reconstruction of the Ka'ba or if it was completed or even started.⁴¹

Following his victory over Ibn al-Zubayr in Petra, al-Ḥajjāj took his army south to Medina. While in Medina he treated the people harshly, and he even forced the Companions of the Prophet to wear seals around their necks. This act showed outright contempt for anyone who was able to oppose him. In the months and years that followed, al-Ḥajjāj continually expressed this contempt for traditional Islam and sought to introduce new reforms. As we have explored previously, the innovation of the Between qibla may be a profound example of al-Ḥajjāj's recklessness and contempt toward the traditions of Islam.

The Ka'ba in Saudi Arabia

If the Black Stone was moved to Saudi Arabia around 65-70 AH to keep the Umayyad armies from taking it, when was the Ka'ba structure completed and the rest of Masjid al-Ḥarām built around it? In a previous chapter we mentioned the inscriptions near Ḥuma al-Numūr, northwest of Ṭā'if (about 60 km from Mecca). The inscription that is most important to us includes the full shahādah and reads that it "was written in the year the Masjid al-Ḥarām was built, year seventy-eight."⁴² This inscription was made only 60 km from Mecca in the Hijaz and over a thousand kilometers from Petra. There is no doubt that this inscription records the completion of the construction of the Masjid al-Ḥarām in Mecca, over a decade after we believe the Black Stone was moved there.

From this inscription, we can deduce that in 78 AH the buildings were completed, and people identified the location as Masjid al-Ḥarām. A quick study of the political situation at that time further illuminates the religious situation in Mecca.

⁴¹ Al-Ṭabarī, *XXII*, 1.

⁴² Ilkka Lindstedt, "Religious warfare and martyrdom in Arabic graffiti (70s–110s AH/690s–730s CE)," *Academia*, accessed January 23, 2023, 16-17, https://www.academia.edu/35307034/Religious_warfare_and_martyrdom_in_Arabic_graffiti_70s_110s_AH_690s_730s_CE

Caliph ‘Abd al-Malik b. Marwān (عبد الملك ابن مروان 647–705 CE) made many important changes to the Muslim world during his reign. The Islamic world was going through a time of turmoil, suffering repeated rebellions and divisions. To deal with the insecurity, the caliph used general al-Ḥajjāj as his strongman, putting down military rebellions. Notably, Abd al-Malik urged al-Ḥajjāj to use less force, and not to disturb the Islamic religion—certainly because al-Ḥajjāj had a propensity for violence and irreverence.

Abd al-Malik also made remarkable efforts to unify his Muslim empire. As we discussed in the previous chapter, he made Arabic the official language of the Islamic world and had all the important records translated into Arabic. Further, he attempted to unite the various mints across the empire to produce one common currency. He also introduced many reforms related to agriculture and commerce. It is during the reign of caliph Abd al-Malik ibn Marwān that we first hear of the existence of al-barid, or the post office, and postal roads.⁴³

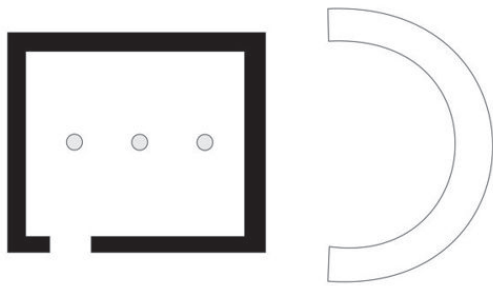
By the time of the construction of Masjid al-Ḥarām in Mecca in 78 AH, al-Ḥajjāj was fully involved in quelling rebellions while caliph Abd al-Malik was deeply involved in his statecraft. It appears that both were content to allow the Black Stone to remain in Mecca. In fact, the caliph seemed to endorse this new location, allowing the construction of the new Masjid al-Ḥarām and initiating the tradition of covering the Ka’ba building in a large silk cover, created by skilled workers from Damascus.

The Dome of the Rock in Jerusalem was also built by caliph Abd al-Malik at this time. Perhaps this new monument was also intended to unite the Muslim world as Islam was struggling through what Gibson calls ‘The Time of Confusion.’ Many still regarded the original Petra qibla; al-Ḥajjāj would soon institute his controversial Between qibla; qiblas in North Africa would strike a similarly indecisive parallel between Petra and Mecca; and, finally, after the loss of the Ka’ba in Petra, and as the site of the new pilgrimage to the Black Stone, the Meccan qibla would become dominant.

During the reign of ‘Abd al-Malik, the outer walls of the Mecca Ka’ba were constructed, and a covered area was built, consisting of a portico with a wooden ceiling; the capitals of the supports were gilt. Al-Mas’ūdī tells us that glass mosaics (fusaifisā) and three marble columns were taken from the church that Abraha built in Yemen.⁴⁴ The figure below demonstrates that three columns are still in the Ka’ba in Saudi Arabia. This is a very strong indicator that ‘Abd al-Malik built his Ka’ba in Mecca and not in Petra.

⁴³ Al-Ṭabarī, XXII, 109.

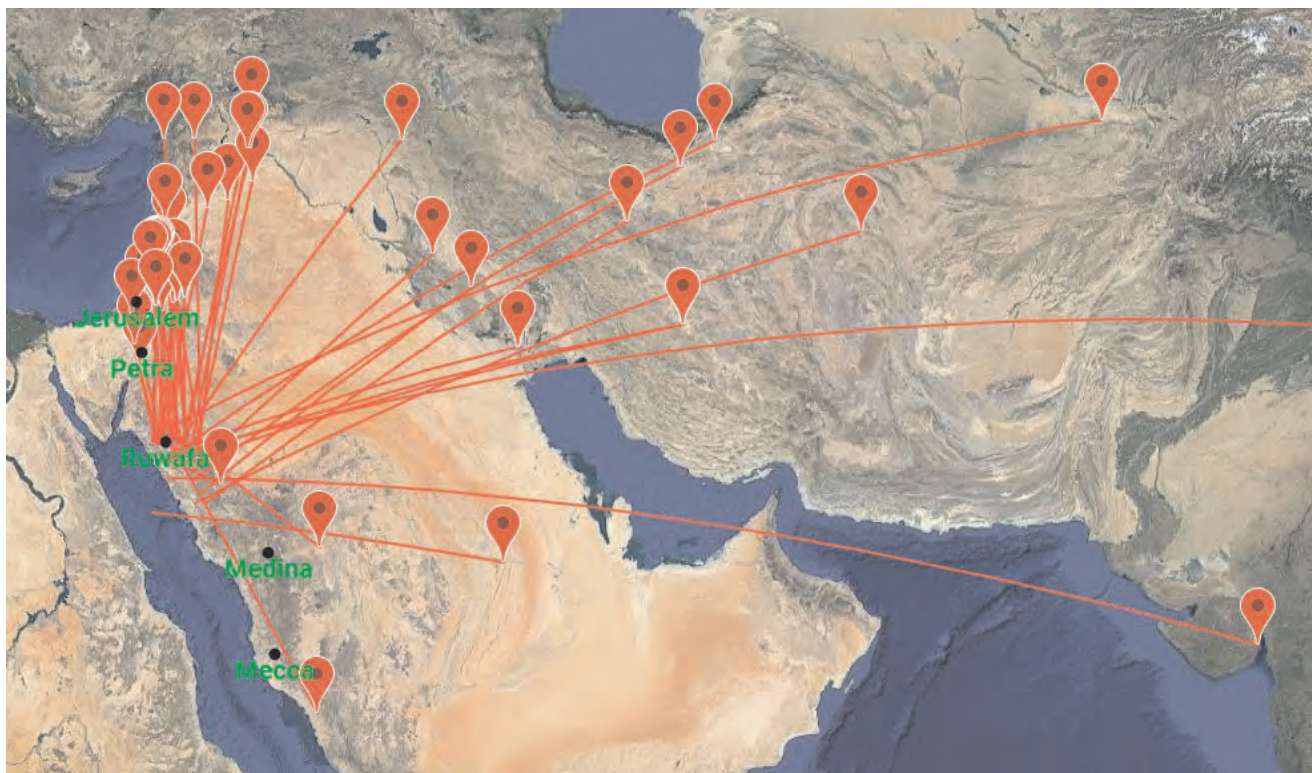
⁴⁴ Alī Ibn al-Ḥusain al-Mas’ūdī, *Les Prairies D’or*, vol. 5, trans. C. Barbier de Meynard (Paris: Societe Asiatique, 1869), 192-193.



The Ka'ba in Mecca with the three pillars from Yemen, not the six pillars described by Bāqūm.

When his father died, 'Abd al-Malik's son al-Walid I (who reigned 86-96 AH / 705-715 CE) became caliph. While the new caliph was still solidifying his control, general al-Ḥajjāj again broke with Islamic tradition. It would seem that at this point there were two places called Masjid al-Ḥarām, and al-Ḥajjāj seemed to be pleased with neither of them. So al-Ḥajjāj ignored al-Walid I and directed the qibla of his new mosque in Wāsiṭ to a neutral place between Petra and Mecca.⁴⁵ This practice, which Gibson calls the Between (wāsiṭ) qibla, was followed by a further 58 mosques over the next 40 years. The Between qibla only ended when, as mentioned, an earthquake destroyed what remained of the city of Petra in 130 AH (745 CE). After this loss, all Middle Eastern qiblas faced Mecca in Saudi Arabia.

Al-Walid continued to make improvements in Mecca and is remembered for having covered the supports of the Mecca Ka'ba with marble and its soffits or spandrels with mosaics.



59 mosques face between Petra and Mecca.

⁴⁵ Gibson, *Early Islamic Qiblas*, 41.

The Abbāsids

When the Abbāsids took control of the Islamic Empire, during the reign of al-Manṣūr (136–158 AH / 754-775 CE), they proclaimed the unique holiness of the Ka’ba in Mecca.⁴⁶ In 136 and 140 AH the Abbāsids began a major program of construction in Mecca, ordered by the caliph.⁴⁷

The next caliph, al-Mahdī (who reigned 158-168 AH / 775-785 CE), went on a pilgrimage in 159-160 AH and immediately undertook another program of repairs and modifications to the Ka’ba.⁴⁸ Al-Azraqi described this project in detail, especially the main gates, vaulted arcades, and open spaces.⁴⁹

Now there was one Ka’ba in the Muslim world, and according to the Abbāsids, one direction for prayer: Mecca in the Hijaz.

Conclusion

The archeological evidence uncovered by Gibson indicates that Petra was the original holy city of Islam, and that it contained the original Ka’ba. Due to political strife, the Black Stone was moved from the Ka’ba in Petra to Mecca in Saudi Arabia. Several other qiblas developed as a consequence of this confusion until the earthquake of 130 AH destroyed the city of Petra. After the loss of the original Holy City, Mecca quickly emerged as the centre of Islam and would become the one surviving qibla of the Muslim world. All this has been born out of the emerging qibla data Gibson gathered from mosques across the Muslim world—and is supported by the archaeological record in Petra, and scattered references to the Ka’ba in manuscripts.

Alternative theories to the one presented here need to acknowledge the qibla data. Whether one is pleased with the fact that early mosques faced Petra or not, any explanation of what happened during the opening centuries of Islam must take this data into consideration. The archaeological suitability of Petra as the original Holy City of Islam also cannot be disregarded on the basis that it is simply outside of the consensus. If the presented arguments are fallacious, they can be disproven. If the data is sound, it deserves to be explained.

⁴⁶ Grabar, “Upon Reading Al-Azraqi,” 5.

⁴⁷ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XXVIII: Abbasid Authority Affirmed*, trans. Jane Dammen McAuliffe (Albany: State University of New York Press, 1995), 55.

⁴⁸ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XXIX: Al-Mansur and al-Madi*, trans. Hugh Kennedy (Albany: State University of New York Press, 1990), 195.

⁴⁹ Al-Azraqī, *Kitab Akhbar Mecca*, 263-266.

Chapter Nine

The Religion of Abraham

Dan Gibson with Chad Doell

There is a term in Islam which was a fundamental part of the religion in its dawning years, and which is seldom used today—Ḥanīfiyyah. The word hanīf (Arabic: حنيف) means to renunciate, refuse, or to turn one’s back on something. Ḥanīfiyyah is a concept which helps us to consider both what the first Muslims were turning from, as well as what they were turning toward: the Religion of Abraham. In the early Islamic records, the religion of Abraham is always associated with the term Ḥanīfiyyah. In fact, Abraham’s story encapsulates what it means to hanīf, or renunciate one religion for another.

Abraham was born and raised in Mesopotamia, in an area that was later called Ur of the Chaldees.¹ Early Assyriologist Henry Rawlinson identified Tel el-Muqayyar in southern Iraq as the site of Ur of the Chaldees.² Like all great pagan cities, Ur had developed a sophisticated pantheon of gods—and so Abraham, despite his esteem as the patriarch of ‘Abrahamic’ monotheism, was born and raised in a deeply polytheistic, pagan religious world.

According to the Biblical narrative, Abraham left Ur of the Chaldees with his father Terah on a journey to Canaan. But rather than complete the journey to Canaan, Terah settled

¹ Ur of the Chaldees (אֵוֶר כַּשְׁדִּים) appears three times in the Torah—each time related to Abraham (Gen. 11:28, 11:31, 15:7). This name is commonly regarded as an anachronism, as the Chaldean civilization likely did not exist in the time of Abraham. Like the Torah’s frequent references to ‘Philistines’ in the early or middle bronze age (Gen. 10:14; 21:32; 26:1-18), we contend that the writer of the Torah has made simple geographic updates for the benefit of a later audience. This ought not be alarming or distracting for the reader, as these geographic updates and references for a later audience are common and explicit in the Torah: Gen. 14:7, 22:11, 23:2, 23:19, 26:33, 35:20, 35:27; Deut. 3:14, 34:6.

² Henry Rawlinson, “Biblical Geography,” *The Athenaeum Journal of Literature, Science, and the Fine Arts* (January-June 1862): 531.

roughly half-way, in Haran.³ Haran was established as a trading outpost of Ur, and so the two were culturally connected despite the distance between them.⁴ Haran was also a center of worship for the Assyrian god Sin, and prominently featured Sin's temple, called Ehulhul, which had been restored several times over its long history by Assyrian emperors.⁵ Haran was an important pagan religious city from as early as the second millennium BCE to as late as the histories of early Islam.⁶ This rather surprising cultic longevity and reputation is perhaps the reason Terah is thought to have been a wicked pagan priest in Rabbinic Judaism.⁷

According to the Biblical story, Abraham ultimately completed Terah's journey in his stead and left Mesopotamia. Abraham rejected the worship of multiple gods in favor of the worship of one God. Islam echoes this story. This process of forsaking the old gods for the one true God is one of the fundamental reasons why the early Muslims identified with Abraham—and it is the essence of the term Ḥanīfiyyah. Abraham renounced the pagan gods of his father for the one God.

Early Islamic records tell us that the religion of Abraham was known to the first Muslims as 'Ḥanīfiyyah.' Muslim historians Ibn Ishaq and Ibn Hisham recorded a story of four men who had decided that their people, the Quraysh, had corrupted the religion of their father Abraham.⁸ Ibn Ishaq described that the men were

of the opinion that their people had corrupted the religion of their father Abraham, and that the stone they went round was of no account; it could neither hear, nor see, nor hurt, nor help. 'Find for yourselves a religion,' they said; 'for by God you have none.' So, they went their several ways in the lands, seeking the Hanifiya, the religion of Abraham.⁹

The men dispersed to seek the religion of Abraham. Ibn Ishaq mentions Ḥanīfiyyah seven times in the story. For our purposes, it is interesting to note that there was a desire, perhaps before the prophet Muḥammad and certainly in Ibn Ishaq's time, that the religion of Abraham should be rediscovered and re-established.

In the narrative one of these men called Waraqa ibn Naufal ibn Asad ibn `Abdu'l-`Uzza, the uncle of the prophet Muḥammad's first wife Khadijah, investigated whether Christianity were the true religion of Abraham. Eventually he converted to Christianity. Ibn Ishaq recorded that Waraqa would "thoroughly master" the Christian scriptures.¹⁰

³ Genesis 11:31.

⁴ Tamara M. Green, *The City of the Moon God: Religious Traditions in Harran*, (Boston: Brill Academic Publishers, 1992), 19.

⁵ Green, *The City of the Moon God*, 21.

⁶ Green, *The City of the Moon God*, 19.

⁷ Numbers Rabbah 19:1; 19:33.

⁸ Ishaq, *The Life of Muhammad: A Translation of Ishaq's Sirat Rasul Allah*, trans. A. Guillaume (Karachi: Oxford University Press, 2004), 99.

⁹ Ishaq, *The Life of Muhammad*, 99.

¹⁰ Ishaq, *The Life of Muhammad*, 99.

The second man on the search for Ḥanīfiyyah, Ubaydullah “went on searching until Islam came” only to later renounce Islam and become a Christian.¹¹

The third man, Uthman, went to Constantinople, where he was given a high office by the emperor, presumably becoming a Christian as well.¹²

The fourth man, Zayd, simply abandoned the religion of the Quraysh and lived in longing for the true religion of Abraham. Though he never found what he searched for, he did receive a prediction from a learned Christian monk. Ibn Ishaq recounted Zayd’s search as follows:

then he went forth seeking the religion of Abraham, questioning monks and rabbis until he had traversed al-Mausil and the whole of Mesopotamia; then he went through the whole of Syria until he came to a monk in the high ground of Balqa. This man, it is alleged, was well instructed in Christianity. He asked him about the Hanifiya, the religion of Abraham, and the monk replied, ‘You are seeking a religion to which no one today can guide you, but the time of a prophet who will come forth from your own country which you have just left has drawn near. He will be sent with the Hanifiya, the religion of Abraham, so stick to it, for he is about to be sent now and this is his time.’¹³

Zayd did not live to see this promise fulfilled and died at the hands of bandits as an old man. These four men searched for the true faith—the Ḥanīfiyyah. If this story of a pre-Islamic quest for the Ḥanīfiyyah is historical, or at least reflective of a true early desire to re-establish the religion of Abraham, we must consider the impetus of such a desire. At least Ibn Ishaq has provided us with an illustration of a fundamental Muslim belief: Islam began with a desire to recapture the true, ancient faith of Abraham.

Ibn Ishaq placed the story of these men in the context of the Holy City, the pilgrimage, and the Ka’ba. Given this framework, these elements are worth our further consideration in relation to the Religion of Abraham and the genesis of what would later come to be known as Islam. We will find that Petra provides the necessary geographic and archaeological framework to understand the quest for Ḥanīfiyyah.

Father Abraham

In the previous chapter we introduced the tradition of Abraham building an altar for his son Ishmael, which would become the focal point of Islam. Gibson believes this altar was built in Petra.

According to the Islamic account, before he died, Abraham visited Hagar and her son sev-

¹¹ Ishaq, *The Life of Muhammad*, 99.

¹² Ishaq, *The Life of Muhammad*, 99.

¹³ Ishaq, *The Life of Muhammad*, 103.

eral times. It would seem appropriate that Abraham would build an altar with Ishmael and teach him how to worship the one true God. While the Biblical narrative focuses on the story of Isaac and his son Jacob, there is plenty of room in the Biblical narrative for this story to have happened.

In the centuries that followed, the descendants of Ishmael slowly embraced paganism, and the worship of the one true God of Abraham was lost. And so, with the rise of Christianity among the Arabs, there was an interest among some of the descendants of Ishmael to return to the original religion which Abraham had established when he and Ishmael built an altar in the Petra valley. Thus, the quest for Ḥanīfiyyah: the Arabs had an Abrahamic spiritual heritage, and Abraham's altar was still the focal point of their worship. The spread of Christianity made this return to Abrahamic faith a possibility, as three of the four seekers would find. But, a Ḥanīfiyyah centered on the Ka'ba in Petra was yet to emerge. Unfortunately, unraveling pagan practices from the practices of Abraham would prove challenging.

The Pilgrimage

Historical records tell us that the pilgrimage was practiced long before the prophet Muḥammad's time. The Quraysh were responsible for looking after the pilgrims that came to the Holy City.¹⁴ People would travel from all over Arabia to the Holy City for this pilgrimage. The pilgrimage was such a widely regarded event that Abraha, the sixth century ruler of Yemen, became jealous and wanted to create a similar pilgrimage in his kingdom.¹⁵ Surah 105 is thought to be a memory of an attack Abraha made on the Ka'ba after he failed to divert its pilgrims to his lavish church in Sana'a.¹⁶

Ibn Ishaq believed the pilgrimage originated with Abraham, including a greater and lesser pilgrimage. Abraham is also said to have instituted "honoring the [Ka'ba] and going round it...and standing on 'Arafat and Muzdalifa, sacrificing the victims [animal sacrifice], and the pilgrim cry at the great and little pilgrimage."¹⁷ These are the elements of the religion of the sons of Ishmael which Ibn Ishaq believed survived from Abraham. Aside from these, the sons of Ishmael introduced "elements which had no place in the religion of Abraham" and became

¹⁴ Ishaq, *The Life of Muhammad*, 87-88.

¹⁵ Ishaq, *The Life of Muhammad*, 21.

Walter W. Muller, "Outline of the History of Ancient Southern Arabia," Yemenweb, archived March 3, 2016, https://web.archive.org/web/20160303170557/http://www.yemenweb.com/info/_disc/0000002c.htm

¹⁶ Mustansir Mir and مستنصر مير, "Elephants, Birds of Prey, and Heaps of Pebbles: Farāhī's Interpretation of *Sūrat al-Fīl* / أفيال وطيور جارحت وأكوا من الحصى: تفسير فراهي لسورة الفيل," *Journal of Qur'anic Studies* 7, no. 1 (2005): 33.

¹⁷ Ishaq, *The Life of Muhammad*, 36. Note: Gibson believes this all took place in Petra.

idol worshippers.¹⁸ It was this straying from the religion of Abraham, while maintaining elements of it like the pilgrimages, which fed into this sense of Ḥanīfiyyah. Ibn Ishaq believed the sons of Ishmael once had the true religion of Abraham, but lost it.

In the 5th century the Quraysh took control of the Holy City and the pilgrimages. The conquering leader of the Quraysh, Qusayy,

held the keys of the [Ka'ba], the right to water the pilgrims from the well of Zamzam, to feed the pilgrims, to preside at assemblies, and to hand out the war banners. In his hands lay all the dignities of Mecca; he divided the town into quarters among his people and he settled all the Quraysh into their houses in Mecca which they held.¹⁹

Qusayy's control over the Ka'ba and the food and water of the pilgrims clearly indicates that the Quraysh came to dominate the pilgrimage itself. But this power extended beyond the religious rites of Petra: the Quraysh held political power as well and were able to divide the city into quarters as they saw fit.

Ibn Ishaq thoroughly described the self-interest of the Quraysh in the way they exercised authority over the Ka'ba and pilgrimage.²⁰ Pilgrims could not enter tents of camelhair to seek shelter from the sun—instead, they had to use leather tents, which were provided by the Quraysh at a price. The Quraysh forbade the making of cheese, sour milk, and clarified butter while people were in a state of haram. Further, they refused to allow those outside the haram area to bring food in with them. Pilgrims had to buy food from the market within the haram area. Pilgrims also needed to wear certain garments to circle the Ka'ba. If a pilgrim could not afford to purchase this garment from the Quraysh, he or she would have to circle the Ka'ba naked. If instead the pilgrim wore his or her regular clothing to circle the Ka'ba, his or her clothing would have to be destroyed before leaving the haram area.

When the prophet Muḥammad took control of the Holy City, and thus took control of the pilgrimage, he put an end to these greedy practices. This transition is in the spirit of Ḥanīfiyyah: the Quraysh had further changed the practices of Abraham's pilgrimage, which was already deeply undermined by paganism. When the prophet Muḥammad came to power he was able to undo some of the changes his people made. But to complicate matters, the prophet Muḥammad also made vast changes to the religious traditions he inherited. He introduced the idea of the Ka'ba qibla, or to face the Ka'ba when praying rather than *sham*, based on the suggestion of one of his followers.²¹ He also introduced new prayers, so that when his followers prayed them, others would look on and wonder what new religion was being practiced.²²

¹⁸ Ishaq, *The Life of Muhammad*, 36.

¹⁹ Ishaq, *The Life of Muhammad*, 53.

²⁰ Ishaq, *The Life of Muhammad*, 87-88.

²¹ Ishaq, *The Life of Muhammad*, 202.

²² Ishaq, *The Life of Muhammad*, 108.

The Pilgrimage

If Petra is indeed the original Mecca, then descriptions of the pilgrimage should fit into the layout and geography of Petra. To make a compelling case, the reader needs a good grasp of the Petra landscape.

The first major difficulty is that no names of any buildings or locations survive in Petra. All these names have been lost. It appears after the city was destroyed by earthquakes, zealous persons destroyed the extant images and inscriptions. Plaster was even chipped off walls, and the memory of the first holy places in Islam was eradicated.

But while the names are gone, the ruined buildings and the landscape remain. Dan Gibson believes that the path of the pilgrimage is still evident in Petra, and that it very similar to the one in Mecca in Saudi Arabia today.

First, we are told that the people gathered at two water sources outside of the haram area where they washed, and where they changed into their pilgrim clothing. This description suits Petra. There are two natural water sources just outside of the city. One is closer to the haram area and one a bit farther away. The further spring flows year-round and is known today as the Moses Spring in Wadi Musa. Some tour guides like to tell tourists the story of Moses striking the rock to provide water for the Hebrews at this spring. Much more probably, this is one of the springs which pilgrims used to ritually wash on their way into the Holy City. The prophet Muḥammad purified himself and prayed beside this *further spring* before starting the pilgrimage.

The second water source was closer to the haram area and lower—today it is covered with dense brush and lush grass. This second spring was significant because the prophet Muḥammad's wife Ayesha would purify herself there. These two springs mark the beginning of the pilgrimage route and are evident still in Petra.

After washing in the springs, the pilgrims would make their way down through the winding path toward the city. Today visitors must pay a fare when they pass through the gates into the modern Petra Park. From there the path passes the famous Obelisk tomb, and the Great Square Rocks which marked the entrance of the forbidden area--the haram boundary. There are 20 of these markers all around Petra, so by whichever way one entered the Holy City, one would be clearly aware that he or she is entering the haram area.

The pilgrims would continue the journey around the bend of the wadi, and into the Petra thaniya, known today as the siq. This path winds its way right through the center of the mountain. Sometimes the sides are over 400 feet tall. The pilgrims would notice alongside of the path a small aqueduct carrying water into the city, originating from springs, dams, and other water collection devices.

Eventually the pilgrims would catch sight of the first major monument. Again, we cannot know what this building was called in antiquity, but today it is called the Treasury Building. Gibson believes it is possible that this building was a library, built to impress the Romans, and help the city qualify as a Roman Metropolis. It was built high on the canyon wall so that the sun would shine directly through the great high doors and light the interior of the library during its opening hours. Below this monument were several tombs which some have suggested were tombs for earlier Nabataean kings.²³

Continuing, the pilgrims would pass through the Street of Facades. This street was lined with tombs. They would see the theater on the left side, and on the right they would see the great Urn Tomb high above them on the canyon wall. As they passed beyond the Urn Tomb they would see the royal tombs. Petra's canyon walls are covered in tombs: for centuries, people wanted to be buried in the Holy City.

Then the pilgrims would walk down the ancient colonnaded street, with great temples and public buildings on either side. Pilgrims could visit the temple of their choice: al-Lat was first on the path, followed by Hubal's temple, and in front of Hubal's temple was a small square stone altar believed to be built by Abraham. Previous to the prophet Muḥammad's time a superstructure had been built on top of it, known as the Ka'ba. Today the remains of the Ka'ba are a small stone structure in front of Qasr al Bint.

On the first day of the pilgrimage the pilgrims would walk around the Ka'ba, and then they would head south until they left the city into an open area near Mina. This large open area would have been the camping spot for thousands of pilgrims; this is where the pilgrims would ritually throw stones at columns. In ancient times it would have been known as Dhu al-Hulaifa. This area has never been excavated, although it was noted in surveys of Petra in the 1930s. After spending the night near Mina, the pilgrims would rise, eat, and prepare themselves to visit the great 'Arafat Mountain.

This journey west to 'Arafat would require several kilometers of travel, including a steep incline to reach the top. Once they reached the top of 'Arafat, the pilgrims would stand in vigil, known as 'wuquf' in Arabic. They would stand and meditate on the vast panoramic view that was spread out before them.

Today the 'Arafat Mountain near Petra is called Jebal Haroun. It is the tallest mountain in the area and is crowned by a medieval structure said to be on the burial place of the Hebrew priest Aaron, whom the mountain is currently named after.

Archaeologists have also discovered the remains of several Nabataean structures on this site, which they believe to be cultic.²⁴ Further, it has been observed that various cultic instal-

²³ Suleiman Farajat and Sami Nawafleh, "Report on the Al-Khazna courtyard excavation at Petra (2003 season)," *Annual of the Department of Antiquities of Jordan* 49 (2005): 373-393.

²⁴ Zbigniew T. Fiema, "The Jabal Hārūn Site: 1000 Years of Continuity and Change," in *Petra – The Mountain* 138

lations in the city of Petra seem to be oriented toward the mountain itself.²⁵ That is, it has been suggested that the Nabataean ‘high places’ of Petra have a qibla—toward Jebal Haroun. Jebal Haroun or ‘Arafat was an important cultic site for the pagan Nabataeans.

Both Josephus and Eusebius identify Jebal Haroun as Biblical mount Hor, where Aaron died, according to Numbers 20:27-29.²⁶ Arafat featured a well-used pre-Islamic Roman (Byzantine) church complex with a pilgrimage center, firmly establishing the site as a destination for Christian pilgrimage.²⁷ Additionally, given the tradition of Aaron’s burial, it was likely Jebal Haroun was both a pagan and Jewish pilgrimage site as well.²⁸ Add to this the pagan cultic history of the mountain, and we are left with the impression of a milieu of religious traditions and pilgrims who regarded Jebal Haroun (or ‘Arafat) as a holy mountain.

In Mecca in Saudi Arabia this portion of the pilgrimage occurs on the ‘plains of ‘Arafat,’ which is an open space with a low hill. The current site in Mecca lacks the vista, broad plateau, and the archaeological heritage of Jebal Haroun.

The prophet Muḥammad preached on ‘Arafat Mountain.²⁹ The assumption in Mecca in Saudi Arabia is that he was on a plain below the hill when he preached, but this is not inferred in the original texts. Rather, the natural reading is that he was on the mountain when he preached. Jebal Haroun has a unique feature. Just below the mountain peak there is a large plateau about 250 meters square (800x800 feet), with outlying areas around it. In the aerial photo on page 141 you can see the ruins of the ancient church on this plain, and the tomb of Aaron above it. This flat area high on the top of the mountain would be sufficient for thousands of people to gather in the afternoon and watch the sun descending over the horizon. Many pilgrims could have easily filled this place.

The Qur’ān refers to the pilgrims “pouring down” from Arafat through a narrow chute at the end of the day (Qur’an 2:198). This description suits Jebal Haroun near Petra. The pilgrims would stand and wait all day until evening. Then they would descend the mountain through the chute onto what was known as Muzdalifa, which was slippery and treacherous. Originally the pre-Islamic pagans descended in the dark, but Qusayy started the practice of

of Aaron II: The Nabataean Sanctuary and the Byzantine Monastery, ed. Zbigniew T. Fiema, Jaakko Frösén, and Maija Holappa (Helsinki: Societas Scientiarum Fennica, 2016): 540.

²⁵ Fiema, “The Jabal Hārūn Site,” 540.

²⁶ Flavius Josephus, *The Works of Flavius Josephus*, trans. William Whiston, (Edinburgh: T. Nelson and Sons, 1895), 4.4.7; Eusebius, *Onomasticon*, s.v. “ōr,” accessed May 26, 2022, https://www.ccel.org/ccel/pearse/morefathers/files/eusebius_onomasticon_02_trans.htm

²⁷ Jaakko Frösén and Zbigniew T. Fiema, “The Finnish Jabal Haroun Project 1999,” Finnish Jabal Haroun Project, accessed May 26, 2022, <https://foto.aalto.fi/research/projects/FJHP/Pages/season1999/fjhp99text.html>

²⁸ Jaakko Frösén, “The Finnish Jabal Haroun Project 1999.”

²⁹ Sahih Muslim 1178b <https://sunnah.com/muslim:1178b>; Jami’ at-Tirmidhi 1163 <https://sunnah.com/tirmidhi:1163>; Sunan Ibn Majah 1851 <https://sunnah.com/ibnmajah:1851>.

lighting fires to light the treacherous path, and this was the practice during the time of the prophet Muḥammad.

Bukhārī includes the following remark on the fires of ‘Arafat:³⁰

Narrated Hisham’s father: When Allah’s Messenger (ﷺ) set out (towards Mecca) during the year of the Conquest (of Mecca) and this news reached (the infidels of Quraish), Abu Sufyan, Hakim bin Hizam and Budail bin Warqa came out to gather information about Allah’s Messenger (ﷺ). They proceeded on their way till they reached a place called Marr-az-Zahran. Behold! There they saw many fires as if they were the fires of `Arafat. Abu Sufyan said, “What is this? It looked like the fires of `Arafat.”³¹

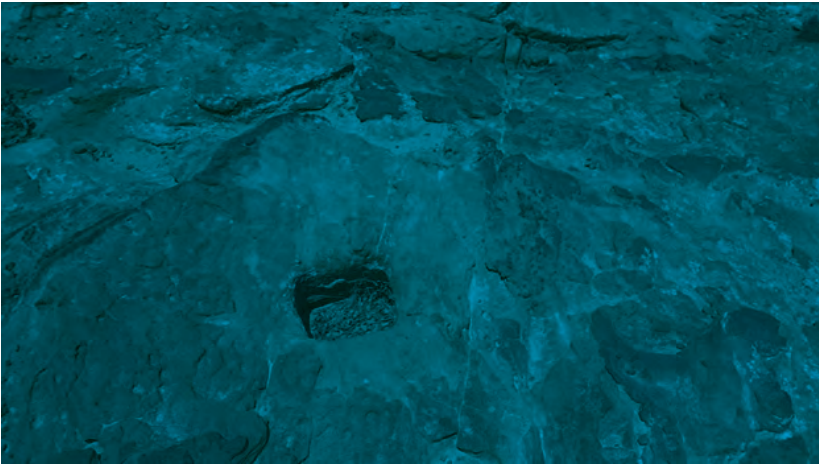
Notice how prominent the fires were in the minds of the speakers, that they could be used as an evocative point of reference.

The path up and down the mountain is filled with broken rock making the path difficult to walk on, especially at night. Today Gibson has found large receptacles or square holes ascending Jebal Haroun in Petra where large torches could have been placed.

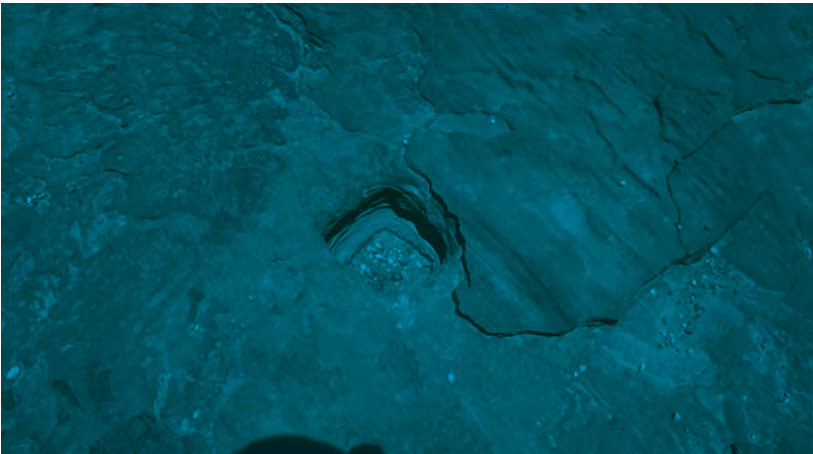


³⁰ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of Al-Ṭabarī Volume VI: Muḥammad at Mecca*, trans. W. Montgomery Watt and M. V. McDonald (Albany: State University of New York Press, 1988), 31; Sahih al-Bukhārī 4280 <https://sunnah.com/bukhari:4280>; Ishaq, *The Life of Muhammed*, 39, 88.

³¹ Sahih al-Bukhārī 4280 <https://sunnah.com/bukhari:4280>

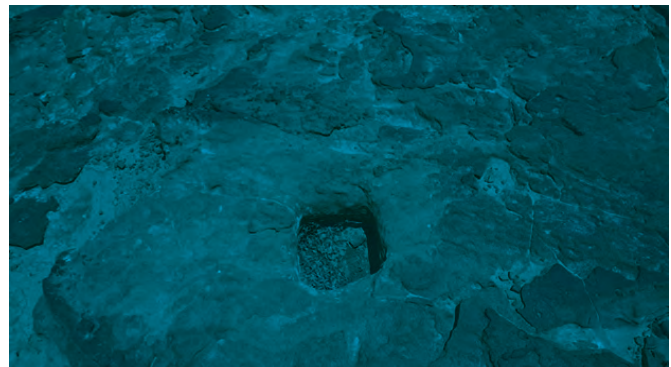


Above: Today a path has been cleared along the slippery slope (Muzdalifah) to make it easier for visitors to ascend and descend the mountain.



Left: All along the Muzdalifah in Petra are square cut hole suitable for erecting tall torches.

Below: These holes are weathered with time, perhaps originating some 2000 years ago.



Below: Pilgrims stand on Mount 'Arafat in Mecca in Saudi 'Arafat mountain in Saudi Arabia.



Again, today Muslims believe that a low hill near Mecca in Saudi Arabia is ‘Arafat. This hill is not a mountain, it lacks a plateau, and there is no slippery slope for people to descend.

After descending Muzdalifa, the pilgrims would return to the camping spot where they would collect some stones and spend the night. The total journey for the first day was seven or eight kilometers.

The next day, the pilgrims would go to Mina. There was a stone pillar in the center of Mina where they would throw their stones at a pillar known as Jamrat al-Kubra. Mina in Petra requires a very large area, with a pillar in the middle, close to the camping area, and with access to nearby markets.

There is a location in Petra which suits these descriptors. Petra features a large open area flanked by several small buildings. Most convincingly, it also features several stone pillars on a raised platform. While this site has been known to archeologists like Glueck, Horsfield, and Conway for some time, it only recently started to receive scholarly attention since Sarah Parcak and Christopher Tuttle used drones and satellites to scan the area. They found an area that had been cleared and leveled, with the plaza measuring 56 meters by 49 meters, and paved with large flagstones.³² Parack and Tuttle’s preliminary report states that this area was constructed in pre-Islamic times and seemed to have been used for religious purposes—a perfect location for Mina.

After stoning the pillar, the pilgrims would head back into the city. When they arrived back at the Ka’ba, they would circle it. After this, they would go seven times between the mountains of Safa and Marwa. Bukhārī mentioned that the prophet loved to do this running in the rainwater passage, rather than moving slowly along with the great crowds on the road.³³ This fits the path between the two sides of the Petra valley, known today as the colonnaded street. Finally, they would return to the campsite near Mina and stay for the night.

The final day of the pilgrimage started at Mina, where the pilgrims would stone all three pillars in the plaza. Then they would return to the Ka’ba for the final tawaf, or circling around of the Ka’ba. At this point most pilgrims would return to Mina for the final dismissal, although some people left directly from the Ka’ba area.

It is fascinating that we find elements of Petra which suit the early descriptions of the pilgrimage perfectly. The mountain is there, outside of the great stones that mark the south side of the sacred area. At the top of the mountain there is archeological evidence that it was a pilgrimage site for many centuries, going back long before the time of Islam. The great plaza

³² Sarah Parcak and Christopher A. Tuttle, “Hiding in Plain Sight: The Discovery of a New Monumental Structure at Petra, Jordan, Using WorldView-1 and WorldView-2 Satellite Imagery,” *Bulletin of the American Society of Overseas Research* 375 (May 2016): 42. doi:10.5615/bullamerschoorie.375.0035

³³ Sahih al-Bukhārī 1617 <https://sunnah.com/bukhari:1617>



Above: 'Aaron's tomb' at the very top of the mountain (center left), with the Christian complex below and to the right. There is room for thousands of pilgrims to gather on the flat area (plains) atop the mountain. (Photo Credit: ©APAAME, Used with permission.)

of Mina is there, with the bases of the pillars for stone throwing. The Ka'ba foundation is still there. And to the right and left of the valley are the great mountains of Safa and Marwa. Even the two springs for ritual cleansing are there, outside of the great stones that mark the beginning of sacred area.

When the Black Stone was moved to Mecca in Saudi Arabia the pilgrimage either ceased or was led by the rebel Ibn al-Zubayr. Al-Ṭabarī, who recorded the leaders of the yearly pilgrimage, mentions no pilgrimage in 65 AH.³⁴ In the following years, 66 and 67 AH, the rebel Ibn al-Zubayr personally led the pilgrimage.³⁵ The next year, in 68 AH, al-Ṭabarī reports that there were four leaders who gathered at 'Arafat mountain, but he makes no mention of the Ka'ba.³⁶ Following this unusual record, the rebel Ibn al-Zubayr once again led the pilgrim-

³⁴ Sahih al-Bukhārī 1617 <https://sunnah.com/bukhari:1617>

³⁵ Al-Ṭabarī, Abu Jafar Muhammad b. Jarir, *The History of al-Tabari Volume XX: The Collapse of Sufyanid Authority and the Coming of the Marwanids*, trans. G. R. Hawting (Albany: State University of New York Press, 1989), 181.

Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of al-Tabari Volume XXI: The Victory of the Marwanids*, trans. Michael Fishbein (Albany: State University of New York Press, 1990), 66, 67, 121.

³⁶ Al-Ṭabarī, *Volume XXI*, 151.

age in the years 69, 70, and 71 AH.³⁷ While Ibn al-Zubayr was still holding out under siege, al-Ḥajjāj led the pilgrimage in 72 AH, and then again in 73 AH after Ibn al-Zubayr's death and defeat. Following this there are various leaders granted the honor of leading the pilgrimage year to year, which was the usual practice. Given Ibn al-Zubayr's extended control of the pilgrimage, Gibson believes that the Black Stone was moved during these tumultuous years.

Those who went on pilgrimage to Saudi Arabia were hard pressed to come up with suitable locations for their pilgrimage. So, they chose two large rocks to represent Safa and Marwa. 'Arafat was just a small hill that pilgrims would gather around. A cave was chosen under a fallen slab to represent the place where the prophet Muḥammad met with the angel. However, there were no marker stones for the haram area--none whatsoever. As for stoning the pillars, they had to build pillars to use. Yes, it was a pilgrimage, but it lacked the spectacular setting of Petra, and the makeshift solutions in Saudi Arabia do not suit the early descriptions of the pilgrimage.

There is no thaniya or siq where people passed through the center of the mountain. There is no ancient history or pagan temples; there are no Christian churches. There is no spectacular view of the sunset on Mount 'Arafat, and no dangerous slippery slope coming down Muzdalifa.

The truth is Petra, and especially the great mountain, was the object of pilgrimage for many years. The last pilgrimage to the great mountain in Petra took place in 1985. That year several things happened. First, the area was designated a UNESCO world heritage site, and so the government prepared for the arrival of many tourists--not pilgrims. The next year, in 1986, a new government department was formed in Jordan: The Department of Fatwas. This department declared the pilgrimage to Petra was a local superstition and contrary to Islam. The pilgrimage was stopped.³⁸

To pursue Ḥanīfiyyah, the religion of Abraham, location is vital. The location where Abraham built his altar with Ishmael is crucial and non-negotiable. There is no sense in a pilgrimage to the wrong place—it defeats the purpose of pilgrimage. Early Muslims, judging by their qiblas, believed the location of Abraham's Ka'ba altar and pilgrimage was Petra. Petra suits their descriptions of the pilgrimage. If the Black Stone had been moved, and ultimately the pilgrimage with it, Islam has moved further—not closer—from the religion of Abraham.

The Ka'ba and the Stone Cubes

The pilgrimage and the Ka'ba are intimately related. In the Qur'ān, Abraham is called to build the Ka'ba, circle it, and institute the pilgrimage:

³⁷ Al-Ṭabarī, *Volume XXI*, 168, 170, 194, 212.

³⁸ Erin Addison, "Is this Sacred of What? – The Holy Place & Tourism Destination at Jabal Haroun, Petra Region, Jordan," in *The Routledge Handbook of Halal Hospitality and Islamic Tourism*, ed. C. Michael Hall & Girish Prayag (Philadelphia: Routledge, 2018), 1.

and remember when We assigned to Abraham the site of the House, saying, “Do not associate anything with Me in worship and purify My House for those who circle the Ka’ba, stand in prayer, and bow and prostrate themselves. Call all people to the pilgrimage.” (Surah 22:26-27)

In Islam, the pilgrimage and the Ka’ba are central to the true religion of Abraham. Clearly, the Ka’ba is also a crucial element of the pilgrimage itself.

In the quest of the four men to rediscover the true religion of Abraham, the Ka’ba is affirmed. Ibn Ishaq attributed these words to one of the four, Zayd, as he faced the Ka’ba: “I take refuge in what Abraham took refuge / When he stood and faced the qibla.”³⁹ While the mention of the qibla, later instituted by the prophet Muḥammad, is a clear anachronism (even within Ibn Ishaq’s own narrative), the idea at the heart of these words from Ibn Ishaq is clear: the true religion of Abraham is centered on the Ka’ba.

We have discussed the Ka’ba at length previously, but we’ll revisit the Ka’ba here in the context of the religion of Abraham.

Al-Ṭabarī recorded the story of a pagan Yemeni king, al-Tubba, who set out north of Yemen to march against the Romans c. 400 CE. First, he conquered Yethrib, known as Medina today, leaving a son there to govern the area. Then al-Tubba marched further north to Petra/Mecca. As his army approached, a group of men said to the king: “oh king, allow us to lead you to an ancient, largely obliterated treasury which previous monarchs have overlooked, which contains pearls, rubies, gold, and silver...[it is] a temple in Mecca which its people worship and pray by.”⁴⁰ Before accepting this request and ransacking the Ka’ba, al-Ṭabarī reported that al-Tubba consulted with two Jewish rabbis. The rabbis informed the king that this was a trap, and that any such hostility toward the Ka’ba would be disastrous.

When al-Tubba asked the rabbis why they did not themselves worship at this temple, the rabbis responded: “it is indeed the temple of our forefather Abraham, and it is just as we have informed you; but the local people have placed obstacles between us and the temple, various idols they have set up around it, and blood they shed there. They are unclean polytheists.”⁴¹ Al-Tubba then proceeded onward until he reached Petra/Mecca. There he had a sequence of dreams: first that the Ka’ba ought to be covered, and then a second and third dream directing him to cover the Ka’ba with finer materials. Al-Ṭabarī tells us that al-Tubba was the first person to put a covering over the Ka’ba building.

Yet, we read in a later volume of al-Ṭabarī that in 91 AH (710 CE) caliph Al-Walid brought a covering for the Ka’ba in Mecca.⁴² Al-Ṭabarī reports that “the like of it had never

³⁹ Ishaq, *The Life of Muhammad*, 102.

⁴⁰ Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of al-Tabari Volume V: The Sasanids, the Byzantines, the Lakmids, and Yemen*, trans. C.E. Bosworth (Albany: State University of New York Press, 1999), 158.

⁴¹ Al-Ṭabarī, *Volume V*, 169.

⁴² Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of al-Tabari Volume XXIII: The Zenith of the Marwanid House*, trans. Martin Hinds (Albany: State University of New York Press, 1990), 181.

been seen.”⁴³ The Arabic in this passage could read that the quality of the covering had never been seen before, but this exclamation also naturally reads that covering the Ka’ba had not been seen before. If the latter is accurate, despite this taking place 300 years after the time of al-Tubba, it is surprising that no practice of al-Tubba’s covering persisted. Certainly at least the memory of al-Tubba’s dreams and coverings would remain; al-Ṭabarī was aware of this story.

Dan Gibson believes that there may be a simple explanation for this contradiction. Al-Tubba covered up the Ka’ba in Petra. Much later, al-Walid covered the relatively new Ka’ba in Mecca, Saudi Arabia, which according to an inscription had been completed 13 years prior in 78 AH. The Meccan Ka’ba truly had never been covered before, but there was a tradition from the previous Ka’ba in Petra which was imitated by al-Walid.

In either case, covering the Ka’ba was not an Abrahamic practice. It was instituted by a foreign king who wanted to honor the Ka’ba.

It is interesting to note that the Ka’ba structure itself in Petra does not seem to have a qibla direction nor any feature that indicates a qibla. But the Ka’ba in Mecca does seem to have a qibla. In Mecca the Hatim wall has been connected to one side of the Ka’ba, giving it a sense of direction. When we calculate the direction of the Meccan Hatim wall, we find that it faces the Ka’ba in Petra—the original Ka’ba.

It is also worthwhile to consider the significance of the cube shape of the Ka’ba. Both the Petra and the Mecca Ka’bas were cubes. But Petra has many more examples of cube shapes from pre-Islamic times. When tourists pass through the entrance gates of Petra, the very first thing they encounter are several large stone cut cubes. The local Bedouin call them jinn rocks. These cubical stones marked the sacred area in which the most sacred building for the Arabs was a cubical structure containing the relics of Petra. Perhaps the shape of the boundary stones was connected to the Ka’ba itself.

Killing was forbidden inside the haram area. It was not permitted to take revenge against enemies or criminals in this sacred space. In effect, Petra was a city of refuge for the Arab tribes. The Hebrews had six cities of refuge, but we know of only one city of refuge in the Arab world.

Again, the belief was Abraham and Ishmael built the Ka’ba. We know that the Ka’ba was considered a holy structure long before the advent of Islam. Dan Gibson believes that in time, the cube shape of Abraham’s altar became a representation of Abrahamic religion itself. The Nabataeans had preferred to represent their deities with abstract shapes rather than images. So too the followers of Abraham appeared to have worshipped a god without images, which was greatly emphasized by the fierce iconoclasm of Islam. It is possible that the prevalence

⁴³ Al-Ṭabarī, *Volume XXIII*, 181.

of the cube shape in Petra was representative of a religious tradition in general, and perhaps Abrahamic religion in particular.

There are small altars throughout Petra which represent a god as a cube. Locally, these are called block gods. It is common for these altars to feature one cube, or one god—sometimes two cubes, or two gods—or even three gods, which may represent three ‘daughters of god.’

Some of the block gods in Petra have faces, which seems contrary to the purpose of representing a god with an abstract shape. These faces likely were added due to the pressure of Hellenization, especially when Petra was under Roman rule.

Even the tombs in Petra were cube shaped. The tombs are cut into stone in great rectangles or cubes, with some decoration. This is consistent with Nabataean tombs throughout the area. Block gods, rectangular tombs, and giant cubes are set all about the city of Petra—and



A block god with a face in Petra.

in middle of the city is a cubical stone structure which contained the most important religious elements of this very religious city. Several magnificent temples were built in Petra, but in the center of these temples was a plain cubical structure, the Ka’ba, which was associated with Abraham. Even amidst the polytheism of pre-Islamic Petra, perhaps there was a memory of the one who built the altar and worshipped an imageless God; perhaps this memory survived in reverence toward the cube shape. Certainly, this reverence toward a cube shape continues with the Ka’ba in Mecca today.

An Interpretation of the Religion of Abraham

The pilgrimage, and the quest of the four men all center on the desire for Ḥanifiyyah, the religion of Abraham. As Abraham turned from the pagan pantheons which dominated his world, so the prophet Muḥammad called his people to renounce their polytheistic religion and embrace his interpretation of the restored religion of Abraham. To restore this religion, he made several changes to the pilgrimage, introduced the qibla, and provided new teachings. Ibn Ishaq recorded:

Ja’far bin ‘Abdullah b. Abu’l-Hakam whose memory went back to apostolic days and who was a narrator of tradition told me that before he left for Mecca Abu ‘Amir came to the apostle [Muḥammad] in Medina to ask him about the religion he had brought. ‘The Hanifiya, the religion of Abraham that is what I follow’ [Muḥammad told him.] “You do not” [Abu ‘Amir replied]. ‘But I do!’ [Muḥammad insisted. Abu ‘Amir then said:] ‘You, Muhammad, have introduced into the Hanifiya things which do not belong to it.’⁴⁴

⁴⁴ Ishaq, *The Life of Muhammad*, 278.

The prophet Muḥammad believed he had truly captured the Ḥanīfiyyah and restored the religion of Abraham just as the four men had desired. But one must consider to what degree the prophet Muḥammad repurposed local pagan practices foreign to Abrahamic religion, and to what degree he simply added elements of his own. It appears that these concerns are at the heart of Abu Amir's objection.

The prophet Muḥammad instructed followers of the Ḥanīfiyyah to climb 'Arafat and meditate until the sun went down. In fact, he claimed that climbing Arafat was the principal activity of the pilgrimage: "Hajj is Arafat."⁴⁵ Yet we know that the Holy City was a site of pilgrimage long before the advent of Islam. So we are left to wonder whether the prophet Muḥammad had simply given the pagan practice of climbing the mountain new meaning or if this was somehow a distant memory of the patriarch's preference for praying on the mountain. It is unclear what has been restored of the 'true religion of Abraham' and what is simply a repurposed existing pagan practice.

Another religious rite which occurred before Islam was to pass seven times from the mountain cliff on one side of the valley to the mountain cliff on the other side of the valley. When the prophet Muḥammad was a young man, his uncle Abu Talib recorded a poem about the pilgrimage. In it he mentions "running between Marwa and Safa."⁴⁶ This was done in remembrance of Hagar's desperate search for water. So, the pagans did this trip seven times back and forth from one great rock wall on one side of the valley to the great rock wall on the other side of the valley. The pagans did not do this in remembrance of Abraham, but in remembrance of Hagar. This is a pre-Islamic tradition which continued into Islam. In fact, al-Bukhārī recorded that some found the continuation of this practice alarming: "I asked Anas bin Malik: Did you used to dislike to perform tawaf between Safa and Marwa? He said: Yes, as it was of the ceremonies of the days of the pre-Islamic period of ignorance, till Allah revealed: Verily! As Safa and Al-Marwa are among the symbols of Allah."⁴⁷ Anas bin Malik is comforted in partaking in a pagan practice by a new revelation. This revelation is in Surah 2:158: "behold, Al-Safa and Al-Marwa are among the symbols set up by God; and thus, no wrong does he who, having come to the Temple on pilgrimage or on a pious visit, strides to and from between these two." It is remarkable for our purposes that such a passage exists to answer credulity over Islam's continuation of pagan practices.

Pilgrims, both pre and post Islamic, were also expected to circle the Ka'ba altar multiple times. This act is more reminiscent of worshiping the altar than imitating Abraham offering a sacrifice on the altar—that is, the focus of this act of circling the Ka'ba is on the Ka'ba itself, and not on a symbolic sacrifice. Sacrifice was offered at the Ka'ba once a year, but the mean-

⁴⁵ Sunan an-Nasa'i 3016 <https://sunnah.com/nasai:3016>

⁴⁶ Ishaq, *The Life of Muhammad*, 123.

⁴⁷ Sahih al-Bukhārī 1648 <https://sunnah.com/bukhari:1648>

ing that Abraham gave to the sacrifice was lost over time, and for the pre-Islamic pagans the act of sacrifice simply became a matter of tradition.

This is the context into which the prophet Muḥammad began calling people back to monotheism. He began by calling the people of Petra, who seemed to have some conception of an ancestor Abraham and practices to honor him, back to the Ḥanīfiyyah.

Crucially, those who seek the terms ‘Islam’ and ‘Muslim’ in the first century of Islam find little. The search is entirely misguided. Again: the original name for the religion of the prophet Muḥammad was Ḥanīfiyyah. Ḥanīfiyyah was the process of rejecting paganism and accepting monotheism. This new faith was the return to the religion of Abraham, not the religion of the prophet Muḥammad.

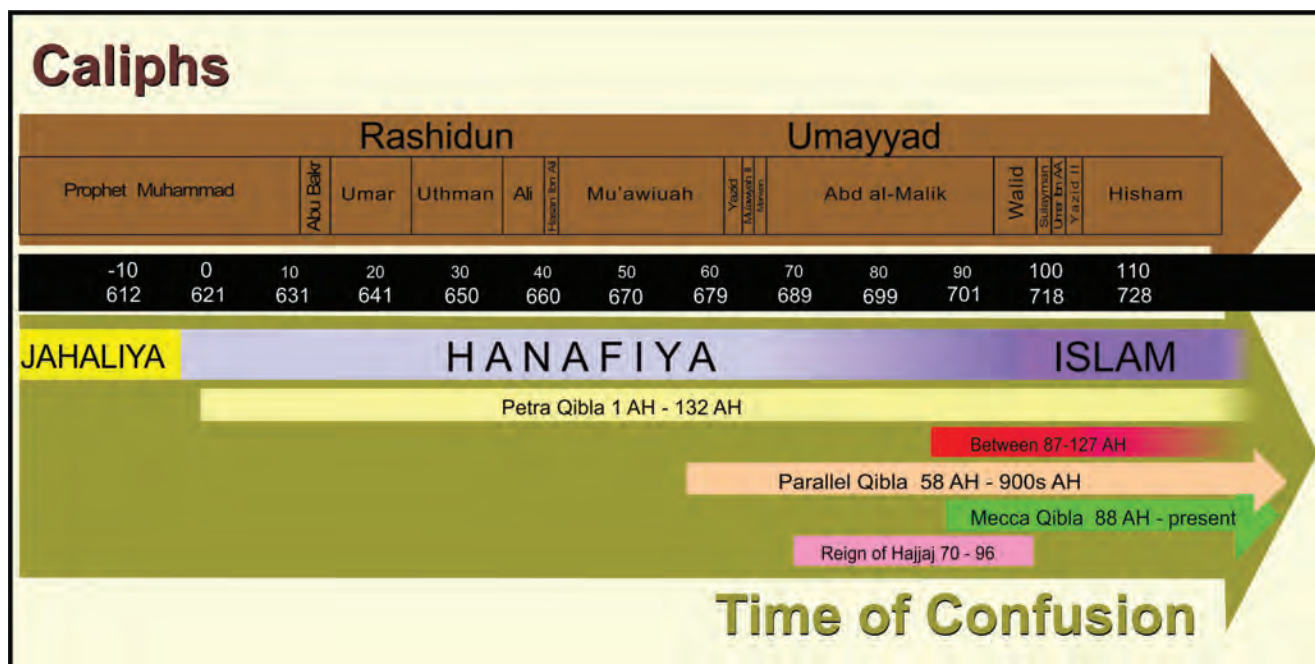
Gibson stated in his video on the religion of Abraham:

I meet all kinds of people who claim that Muslims were not known as Muslims, nor was the religion known as Islam during the first century of Islamic history. And they think this is some kind of proof that Islam did not exist back then. In much the same way, Christians were not known as Christians when Jesus died. The Bible tells us that they first became known as Christians in Antioch (Acts 11:26). Up until this time, the followers of Jesus were simply known as ‘The Way’ or followers of Jesus. That is why I don’t like using the word Christian. Far too many people call themselves Christians, who are not true followers of Jesus. They may follow some church, or some religious teacher, but they are not devoted to Jesus, or trusting only in him and his work on the cross as the solution to their sin problem. No, they trust Jesus, and being a member of a particular church. Or they trust Jesus, and some religious rite they have done, perhaps baptism, or they trust Jesus, and the fact that they are good people. Trusting Jesus and something else, is not being a true follower of Jesus. It is in trusting in him alone.⁴⁸

In much the same way, the followers of the prophet Muḥammad were known by Ḥanīfiyyah, not Islam, or being Muslim. The nuance was that they had left something, not that they had joined something. This sense of joining (or submitting to) something new would not come for some time, when Islam had absorbed many of the local pagan populations, and Islam’s primary rivals became Judaism and Christianity. This exposure to the wider monotheistic world shifted the identity of Ḥanīfiyyah, and from then on, we start to find something called Islam.

As Islam spread into the vast regions of the Christian world, this sense of ‘turning’ from paganism at the heart of Ḥanīfiyyah lost some of its potency. The core concept of Abraham turning from the pantheon of his father to the one true God had less impact amongst a people who already revered Abraham and detested paganism. Thus, the idea of ‘submission’ became much more useful than ‘turning.’ Ultimately, this concept of Ḥanīfiyyah and its association with the Religion of Abraham was lost. It was replaced by a word found in the Qur’ān, Surah 3:19, which reads: “the religion of God is to submit [Islam].” The term Islam became pre-eminent, and the term Ḥanīfiyyah passed out of use.

⁴⁸ <https://nabataea.net/cinema/questionsanswers/q-a-20-religion-of-abraham/>



Above: A timeline showing the period when Muḥammad's religion was known as Ḥanīfiyyah before it was rebranded into Islam.

Gibson believes this rebranding of Islam began under the encouragement of Hajjaj when he made vast changes to the character and practices of the religion of Muḥammad. As we will continue to explore in our narrative, al-Ḥajjāj made changes to the qibla, the Qur'ān, and the language of government. Given his interest in these areas, it is possible he also reframed the religion of the prophet Muḥammad to suit the reality of the young, vast Arab empire. No more will the focus be on asking Arabs to return to Abraham; the people on the borders of the empire will submit to a new revelation: Islam.

Did the prophet Muḥammad seek to restore the religion Abraham in Mecca or in Petra? When Petra is carefully considered as the site of the genesis of Ḥanīfiyyah, we find the essential elements of the pilgrimage and the Ka'ba perfectly suited to the region. When the suitability of these core parts of Ḥanīfiyyah are considered in the wider context of early Islamic qibla data, Petra remains convincing as the place where the call to return to the religion of Abraham originated. If that is true, then the true center of Abrahamic faith which the prophet Muḥammad sought to restore and call people toward is in Petra.

Chapter Ten

Evidence Suppressed

Dan Gibson with Chad Doell

Part One – The Power of Al-Ḥajjāj

In our explanation of the qibla data we have repeatedly encountered the astoundingly influential al-Ḥajjāj ibn Yusuf. After reviewing the chapter on the Between Qibla, and a Case for Petra, one may be left to wonder how one man could have such profound influence over early Islam that 60 or more mosques would align with his own personal qibla. It seems to stretch credulity: one man, infamous for his irreverence toward Islam, exercised so much control over early Islam that he could change the qibla, edit the Qur’ān, and suppress all those who opposed him. Yet, when we consider the way al-Ḥajjāj is remembered by Muslim historians, we find that that al-Ḥajjāj had exactly the required mix of political power, irreverence, and cruelty to fundamentally undermine early Islam.

To understand how al-Ḥajjāj was able to exercise so much power, we need a basic understanding of the political climate of his time. Al-Ḥajjāj was a part of a young Muslim empire which had already undergone remarkable change. Speaking generally, the Rashidun caliphs were primarily religious figures who exercised political power. Dan Gibson notes that with the ascension of the first Umayyad caliph, a subtle change occurred: Mu’awiyah was a primarily political figure who exercised religious power.

Before becoming caliph, Mu’awiyah held the political position of Commander of Syria. During this time, he built a large residence in Damascus from where he managed his section of the Islamic world. When he was made the caliph, he continued living in Damascus, and set up his court there, which was firmly established by 41 AH (662 CE). While this may have been a natural decision for Mu’awiyah, this transition to Damascus shifted power away from

the three leading religious cities: Mecca/Petra, Medina, and Kufa. Mu'awiyah did not display the same piety and sense of justice that was expressed by the first four Rashidun caliphs. Mu'awiyah instead focussed on establishing Islam as a strong political entity. He set about organizing the Islamic world and was the first caliph whose name appears on the coins and inscriptions of the emerging Islamic empire.¹

Mu'awiyah faced repeated rebellions, especially from the religious cities of Petra/Mecca, Medina, and Kufa. Mu'awiyah's response to rebellion was often shocking violence. Ultimately Ibn al-Zubayr was declared caliph by the people of Petra/Mecca, escalating the seething rebellions into civil war. The war between the Umayyads in Damascus and Ibn al-Zubayr in Petra/Mecca lasted for 12 years. It was general al-Ḥajjāj who finally ended the war.

When al-Ḥajjāj was born in 41 AH (661 CE), the Muslim world was greatly expanding in power to include Egypt. In his youth the caliphate had expanded across North Africa and had begun to make gains into Asia. The caliphate was becoming more powerful as it was becoming more politically focused.

When al-Ḥajjāj was sent to deal with Ibn al-Zubayr's rebellion in Petra, his initial instructions were to offer Ibn al-Zubayr clemency. Al-Ḥajjāj grew impatient with the process and sought permission from the caliph to attack. When he had his permission, he was quite willing to spill blood in Masjid al-Haram and he even severely damaged the Ka'ba with his trebuchets.² When al-Ḥajjāj (whose name ironically means 'the pilgrim') led the pilgrimage during the siege in 72 AH, he did not circle the Ka'ba, but rode up Arafat on a horse in armour, in open mockery of the pilgrimage.³ When Petra was ultimately subdued, al-Ḥajjāj moved on to Medina and Kufa, which were also in rebellion. As a reward for his service, despite his many affronts to Islam, al-Ḥajjāj was made governor of the Hijaz, Yemen, and al-Yamama.

Al-Ḥajjāj had several characteristics that made him popular with the ruling caliphs. First, he was fiercely loyal to the office of the caliphate. Al-Ḥajjāj was provided with all his opportunities by the caliphs and had no qualms with making enemies of the traditionalist factions of early Islam. Second, he was ruthless. Al-Ḥajjāj could be counted on to deal with insurgencies with overwhelming, effective violence.

Third, al-Ḥajjāj was clever and conniving in the way he dealt with people. The Umayyad caliphs in Damascus were pre-occupied with wars and rebellions within the empire, as well as the expansion of the empire outward. The empire also needed better administration, so much of the focus of the caliph was on creating and maintaining this infrastructure. The

¹ Salah Hatem Algabri, "Coins of revolutionist Abdullah bin Muawiya al-Talbi (127-130 H / 744-747 AD)," ResearchGate, uploaded October 2018, https://www.researchgate.net/publication/328462219_Coins_of_revolutionist_Abdullah_bin_Muawiya_al-Talbi_127-130_H_744-747_AD

² Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XXI: The Victory of the Marwanids*, trans. Michael Fishbein (Albany: State University of New York Press, 1990), 224.

³ Al-Ṭabarī, XXI, 208.

main Umayyad army was marching further and further from the capital as it continued to meet success. The army not only supported themselves by conquering, looting, and obtaining taxes, but they also sent a percentage of their bounty back to Damascus. Amidst all of these challenges, the most pressing issue the Umayyads faced was unrest and rebellion at home. Al-Ḥajjāj proved himself a useful and loyal commander, who could be trusted to put down rebellions, even if the rebels were the ‘old-school’ Muslims who were alarmed with what was happening in Islam.

Al-Ḥajjāj was well aware of the rift between the traditional Muslims and the still-young Umayyad caliphate. He proved to be quite willing to leverage his newfound power and use that rift for his personal advancement.

Following Ibn al-Zubayr’s defeat, al-Ḥajjāj had no qualms about rebuilding the Ka’ba. Al-Ṭabarī recounts:

in this year, it is reported, al-Ḥajjāj b. Yusuf dismantled the structures of the Ka’ba that Ibn al-Zubayr had put up. The latter had incorporated the Hijr inside the Ka’bah and given the Ka’ba two doors; al-Ḥajjāj restored it to its original form.⁴

After this al-Ḥajjāj returned to his hometown of Medina in Safar and stayed there three months, treating the people of Medina with arbitrary harshness. He built a mosque in the area of the Banu Salimah in his own honor. Further, al-Ḥajjāj treated the Companions of the Prophet with contempt, forcing them to wear heavy seals around their necks: “according to Muḥammad b. ‘Umar-Ibn Abi Dhi’b: Someone saw Jabir b. ‘Abdullah with a seal on his hand. According to Ibn Abi Dhi’b: Isbaq b. Yazid saw Anas b. Malik with a seal around his neck; al-Hajjaj did that to humiliate him.”⁵ Al-Ṭabarī continues: “according to Ibn ‘Umar-Shurabbil b. Abi ‘Awn-his father: I was there when al-Ḥajjāj sent for Sahl b. Sa’d and asked him, ‘What was it that prevented you from supporting the Commander of the Faithful ‘Uthman b. ‘Affan?’ He replied, ‘But I did!’ Al-Ḥajjāj said, ‘You are lying!’ Then he ordered a lead seal put on his neck.”⁶ Historian Chase F. Robinson articulates that these seals were an indication of dhimma.⁷ Those who wore them would be subject to the taxes of the dhimmis—those who had been subjugated by Islam. That the Companions of the Prophet were reduced to dhimma status was profoundly humiliating; they now shared the “servile status” of Christians or Jews “having been symbolically enslaved by other Arabs in the course of conquest.”⁸

The persecution of the Companions of the Prophet continued for several years. Al-Ḥajjāj

⁴ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XXII: The Marwanid Restoration*, trans. Everett K. Rowson (Albany: State University of New York Press, 1989), 2.

⁵ Al-Ṭabarī, *XXII*, 2.

⁶ Al-Ṭabarī, *XXII*, 2-3.

⁷ Chase F. Robinson, “Neck-Sealing in Early Islam,” *Journal of the Economic and Social History of the Orient* 48, no. 3 (2005): 415–416.

⁸ Robinson, “Neck-Sealing,” 416.

used his powerful position to reduce the influence of the traditionalist Muslims who had issues with the innovations of the Umayyads, and in doing so, was successfully elevating his own position and power. He was persecuting the Muslims who had been with the prophet Muḥammad for his own benefit.

Many of the traditionalists would have been at the far reaches of the Umayyad empire with the military. Meanwhile, in the heart of the empire, new thoughts and practices were emerging, especially as the Umayyads consolidated their power and developed their infrastructure. As a part of this consolidation, the traditionalist critics needed to be silenced. Al-Ḥajjāj had the power and temperament to be the orchestrator of this suppression. According to Ibn ‘Abd Rabbih, al-Ḥajjāj’s continued abuse of the Companion of the Prophet Anas in al-Basrah for years prompted the latter to write a letter of complaint to ‘Abd al-Malik, who was furious and convinced al-Ḥajjāj to apologize.⁹ Ultimately al-Ḥajjāj killed four Sahaba (Companions) of the prophet Muḥammad.

Al-Ḥajjāj also tortured and killed the dearest and closest companions of ‘Ali, such as Kumayl, Qanbar, and Sa’id. This is to name only a few of the victims of his suppression. Because of his brutality he was feared during his lifetime, and historians after him tended to treat him with profound resentment—not only did he continually disregard Muslim tradition, he also frequently ignored the instructions of the caliphs themselves.

Al-Ḥajjāj did not always need a reason to put people to death. He would often find some small grievance and use it as an impetus to take life. Al-Ṭabarī recorded this story of al-Ḥajjāj’s treatment of Kumayl ibn Ziyad, one of Ali’s closest companions:

Al-Ḥajjāj waited until Kumayl came to collect his pension. Al-Ḥajjāj seized him and said to him “You are the one who treated ‘Uthman in such-and-such a manner,” and he said [other] things [as well]. Kumayl retorted: “Do not put so much blame on me, and do not pour a mountain of sand on me. It was only that the man had slapped me, then asked me to be patient, and I forgave him, so which one of us was the evil one?” Al-Ḥajjāj gave the order, and Kumayl was put to death.¹⁰

Tha’alibī (Laṭ’āif) claims al-Ḥajjāj was responsible for the killing of over a million men during his lifetime.¹¹

In 75 AH caliph ‘Abd al-Malik needed a strong supporter and ally that he could trust to

⁹ Ibn ‘Abd-Rabbih, Aḥmad b. Muḥammad, *Al-‘Iqd al-farīd*, ed. Aḥmad Amīn, Aḥmad al-Zayn, and Ibrāhīm al-Abyārī (Cairo: 1940), 36-41.

A variant of this story appears also in Ibn al-Athīr, *al-Kāmil fī al-Tārikh*, 7 (Beirut: Dar Sader, 2009), 234.

¹⁰ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, , *The History of al-Tabari Volume XXXIX: The Biographies of the Prophet’s Companions and Their Successors*, trans. Ella Landau-Tasseron (Albany: State University of New York Press, 1998), 270-271.

¹¹ Al-Tha’alibī, *The Lata’if al-ma’arif of Tha’alibi*, trans. C. E. Bosworth (Edinburgh: University Press, 1968),

110.

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rule over Iraq—and so he appointed al-Ḥajjāj as governor in addition to his other positions. This placed al-Ḥajjāj in a very powerful position: he had direct control over the entire eastern half of the caliphate. The following years under al-Ḥajjāj were filled with bloody wars, quelling rebellions, and harsh rule. To even further elevate his status, al-Ḥajjāj managed to arrange marriages between his family and the caliph's family.

As we have previously discussed in chapter two, al-Ḥajjāj constructed the city of Wāsiṭ in 83 AH and Wāsiṭ al-Qaṣab in 95 AH. These new settlements led to the construction of several new mosques. Al-Ḥajjāj's mosque in Wāsiṭ set a new precedent by facing directly between Petra and Mecca—in fact, the word Wāsiṭ means between. Al-Ḥajjāj specifically chose a qibla between the old qibla of Petra and the emerging qibla of Mecca in the Hijaz.

But Wāsiṭ was not the only mosque to adopt this new qibla. Under al-Ḥajjāj's repressive rule, important mosques in Damascus, Bosra, Harran, and even the most important mosque in Raqqa were built with the Between qibla. As noted, so far we have found 60 mosques from al-Ḥajjāj's sphere of influence which had Between qiblas.

It is worth considering why al-Ḥajjāj would choose such a strange qibla. We can speculate that al-Ḥajjāj would have disdained the Holy City of Petra since he had fought against it and destroyed it—damaging the Ka'ba and shedding blood in Masjid al-Haram in the process. He also could not have approved of his enemies moving the Black Stone to Mecca in the Hijaz. While the Muslim world was in confusion with the still-extant Ka'ba in Petra and the Black Stone in Mecca, al-Ḥajjāj added to this confusion by innovating his Between qibla. We have established that al-Ḥajjāj was irreverent and especially disdained traditional Islam. And so, this Between qibla may have been an expression of pride and his continued disdain of Islam.

Whatever his rationale, it is doubtless that al-Ḥajjāj had the power to create a new qibla. After decades of his draconian rule, especially targeting devout Muslims, no one would dare outwardly oppose the qibla of al-Ḥajjāj.

When al-Ḥajjāj died and was no longer a threat to his critics, his critics did emerge. Jaḥiz counts the Wāsiṭ (between) qibla a wrong of caliph Walid, who allowed this to happen: “the setting of the Between qibla is among the misdeeds of caliph Walid I and his family.”¹² If caliph Walid was criticized for al-Ḥajjāj's brazen corruption of Islam, how could he have possibly allowed it? We must recall that the caliphs relied on al-Ḥajjāj and had granted him incredible power. No one wanted to be an enemy of al-Ḥajjāj, not even the caliph. Further, al-Ḥajjāj's daughter had married the son of the caliph. He had profound influence on the caliph's family.

It is astounding that so many of the later mosques built under the Umayyads faced this Between qibla. To add to the confusion, at the very same time, there were mosques built to face the new qibla in Mecca--and there were still new mosques built to face the old qibla of

¹² Al-Jāḥiẓ, *Rasā'il al-Jāḥiẓ*, ed. H. al-Sandubi (Cairo: 1933), 296.

Petra. So why did people accept al-Ḥajjāj's new Between qibla? As we have argued, it was simply due to his power.

Al-Ṭabarī recorded a story which exactly represents the danger of challenging al-Ḥajjāj's new qibla. A man known as al-Hasan went to see al-Ḥajjāj. Al-Ṭabarī indicates that al-Hasan was a man of influence, giving legal opinions at the mosque.¹³ Al-Hasan and al-Ḥajjāj shared a tense exchange, in which al-Hasan boldly challenged al-Ḥajjāj: "We appointed the qiblah, which thou hast been observing, only that We might know those who would turn on their heels, though it was a big thing except to those whom Allah guided and Ali was one of those directed by God to the right way."¹⁴ In response to this challenge "al-Ḥajjāj raged and bent down, striking the ground. I [al-Hasan] fled out, and no one stood in his way. Then I [al-Hasan] went into hiding until he died."¹⁵

Notice that when given the opportunity, al-Hasan is willing to risk his life to challenge al-Ḥajjāj over his qibla. This challenge, coupled with the reference to Ali, was enough to send al-Ḥajjāj into a fury, and al-Hasan into hiding.

Later, al-Hasan is said to have remarked:

I come from a little squinting man, a short [person] wagging the few hairs he has and pointing at me with short fingers that rarely knew reins [of] holy war. By God, even though they ride non-Arabian horses and climb the pulpits, the dishonor of sin is pendant from their necks. God refuses to do anything but disgrace those who disobey Him; He will not cease to teach them lessons [to] their persons and to use them as examples for the believers. Oh God, kill him as he killed Your sunnah.¹⁶

Shockingly, Hasan claims that al-Ḥajjāj had even changed the Sunnah, or customs and practices of the prophet.

Dan Gibson is often challenged on the Between qibla—not on the archaeological record, which stands on its own—but he has observed that many people fail to appreciate the power of al-Ḥajjāj. As the Umayyads mixed the religious and the political worlds, al-Ḥajjāj was able to execute authority over Islam itself, despite his well documented irreverence. Only 80 years after the founding of Islam, al-Ḥajjāj was able to effectively suppress the Muslim devout, including the Companions of the Prophet. The civil wars, often instigated by traditional Muslims, granted al-Ḥajjāj the perfect impetus for this persecution.

With Muslim leadership spread thin over the Middle East, Asia, and North Africa, al-Ḥajjāj was able to accumulate immense power. As the Umayyad Empire spread, we must note that the vast majority of Muslims were first generation converts. These new converts, perhaps

¹³ Al-Ṭabarī, XXXIX, 224.

¹⁴ Al-Ṭabarī, XXXIX, 224.

¹⁵ Al-Ṭabarī, XXXIX, 224.

¹⁶ Al-Ṭabarī, XXXIX, 224-225.

out of ignorance, were more likely to accept al-Ḥajjāj's changes to the qibla, the Sunnah, and the Qur'ān itself than the generation who knew the prophet Muḥammad.

Al-Ḥajjāj had crushed Ibn al-Zubayr and thousands of Ibn al-Zubayr's men chose to join him. He suppressed Medina and Kufa. He was granted authority over the eastern caliphate. His daughter married the caliph's son. Who would dare to object?

The archaeological record reveals to us that after al-Ḥajjāj died, the Between qibla ceased to be used for new mosque construction and Mecca in modern Saudi Arabia became the principal qibla supported by the caliphs.

It is recorded that the Companion of the Prophet Anas was once sitting in a mosque in Damascus, after most of the other men who knew the prophet Muḥammad had died in battle. He is said to have recalled a time when a different Islam was practiced in Arabia. Al-Bukhārī wrote in his hadiths:

Anas said, "I do not find (now-a-days) things as they were (practiced) at the time of the Prophet." Somebody said "The prayer (is as it was.)" Anas said, "Have you not done in the prayer what you have done [to everything else]?" Narrated Az-Zuhri that he visited Anas bin Malik at Damascus and found him weeping and asked him why he was weeping. He replied, "I do not know anything which I used to know during the life-time of Allah's Apostle except this prayer which is being lost."¹⁷

By Anas' reckoning, as recorded by al-Bukhārī, Islam had already become utterly unrecognizable from the religion promoted by the prophet Muḥammad before the first generation had entirely passed.

Evidence Suppressed Part Two – The Qarmaṭians

The Umayyad suppression of the earliest Muslims is only one example of the struggle in the Muslim world between religion and politics. Al-Ḥajjāj's inquisition is especially remarkable because it occurred at a crux of Islamic history: vast empirical power was consolidating and taking shape while some of the first generation of Islam remained. Clearly the two elements, political and religious, were in tension. Under the stewardship of Umayyad emperor-caliphs, Islam changed. By the end of al-Ḥajjāj's reign of terror, all the Umayyad's reforms had been accepted by necessity. This transformation begs the question: even if the traditional Muslims were suppressed, why was there not a greater backlash to these changes to Islam? The answer, we will discover, is that the suppression of pious Muslims did not prevent a backlash, but greatly delayed it. While the empirical adaptation of Islam appeared to be a cohesive religion from the outside, those who objected to these changes quietly remained, and were forced underground, until they were able to lash out at what they believed was a false Mecca and pilgrimage.

¹⁷ Al-Bukhārī, *Ṣaḥīḥ al-Bukhārī*, 529-530 <https://sunnah.com/bukhari:529>.

In fact, political violence against Mecca and the pilgrimage was not unheard of in the opening centuries of Islam. The years 250-251 AH (865-856 CE) were chaotic for the then century-old Abbāsīd caliphate. Caliph al-Musta'in faced many uprisings across his domain, including a civil war which would ultimately force him to abdicate. Some of the instability during this time was centered on Mecca. First, the Banu 'Uqayl, allies of the Qarmatians who we will discuss below, cut off the Jiddah Road and were attacked by the Meccan governor Ja'far Ibn al-Fadl in Shashat. Three hundred Meccans were killed in the fighting, causing prices to rise in Mecca.¹⁸ After this, Ismail ibn Yusuf ibn Ibrahim ibn 'Abdallah ibn al-Hasan ibn 'Ali ibn Abi Talib rebelled in Mecca, forcing the governor, Ibn al-Fadl, to flee.¹⁹ Ismail ibn Yusuf then looted the city, seizing the gold kept at the Ka'ba. He also confiscated some two hundred thousand dinars from the Meccan people while looting, burning, and killing pilgrims. Additionally, he kept pilgrims from assembling at 'Arafat during the pilgrimage.

While later historians explain the motivation of these rebels as financial, the events of the war were never-the-less shocking, revealing a deep irreverence for the city of Mecca and its holy places among various tribes and leaders in the Muslim world.

While the Muslim political realm continued to face instability, there were also important developments within the religion of Islam. During the 2nd and 3rd century of Islamic history we begin to find teachers known as the 'Hidden Imams.' These teachers cautiously espoused doctrine which was 'other than' what the rest of Islam accepted. These Imams were indeed Muslims—they claimed the prophet Muḥammad as their prophet and the Qur'ān as their scripture. But they also typically drew from other philosophical and religious sources, which we will describe below.

During the century following al-Ḥajjāj, there were a number of important developments which allowed an environment for religious dissent from the political establishment to thrive. The first was the development of Bayt al-Ḥikma or the House of Wisdom.²⁰ This House was a community for those who wanted to explore the sciences, especially mathematics, astronomy, and medicine. While the ruling Abbāsīds had an interest in controlling what was taught and the sort of research taking place, Bayt al-Hikma was also influenced by the Hidden Imams and their esoteric teachings. During the 2nd century AH these Hidden Imams influenced Muslim scholars with their cultic and mystic interests. As a result, tension grew between these communities and the caliphs. It is in this environment that various esoteric communities such as the Ismā'īlī, Ṣūfī, and Qarmatians began to develop. The origins of these communities are obscure, not the least of which because they were looked on unfavourably by the caliphs.

¹⁸ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XXXV: The Crisis of the Abbāsīd Caliphate*, trans. George Saliba (Albany: State University of New York Press, 1985), 108.

¹⁹ Al-Ṭabarī, XXXV, 108.

²⁰ Mai Mohammed Al Khalifa, *The Qarmatians: From Concept to State*, trans. Abdullah Richard Lux (Muharrarq: Shaikh Ebrahim Mohammed Al-Khalifa Center for Culture and Research, 2019), 23.

By 300 AH the Abbāsids were alarmed by how wide-spread these secret groups were becoming.²¹ By capturing, torturing, and interrogating their members, the Abbāsids learned that these communities had literature and training manuals—strangely illustrated with curious diagrams. It was also discovered that members of these secret societies were studying these books in a progression; there was a system of study and a hierarchy, and it was difficult to determine who was producing these teachings.²²

Eventually the Abbāsids discovered 51 anonymously written epistles known as the *Risā'il of the Ikhwān al-Ṣafā*, or *Letters of the Brethren of Purity*. These were sometimes found as single letters, and sometimes they were collected in four volumes.²³ They contained lessons on philosophy, theology, cosmology, and much more. An early reference point for dating the *Letters of the Brethren of Purity* is the appearance of a lesson from mathematician al-Khwārizmī, who died in 236 AH, in volume four.²⁴

The Abbāsids also found references to a fifth volume which was deliberately excluded from the other four volumes of epistles. It appears the fifth volume was only intended for those who had mastered the earlier materials, and it was said to bring together the other teachings and make everything clear.

The 51 epistles contained wisdom from Muslim, Greek, Persian, Indian, Jewish, Christian, Gnostic, Hermetic, Ḥarraniān, Zoroastrian, and Chaldean sources.²⁵ In 1980, further works were discovered in the keeping of a Syrian Ismā'īlī family, such as the *Shajarat al-Yaqīn*, or *The Tree of Certainty*.²⁶ While this discovery both confirmed and expanded our knowledge of the Qarmāṭian's written corpus, volume five of the *Risā'il of the Ikhwān al-Ṣafā* has never been found. Some historians believe that volume five was only an index to the earlier material, while others believe that it was the culmination of the secret teaching, meant only for the highest levels.

The students of these secret societies were classified into four groups:²⁷

The 'Craftsmen' – a craftsman had to be at least 15 years of age; they were known as the 'pious and compassionate' (al-abrār wa 'l-ruḥamā), which was used as an honorific title.

The 'Political Leaders' – a political leader had to be at least 30 years of age; they were known as the 'good and excellent' (al-akhyar wa 'l-fuḍalā).

The 'Kings' – a king had to be at least 40 years of age; they were known as the 'excellent and noble' (al-fuḍalā' al-kirām).

²¹ Al Khalifa, *The Qarmāṭians*, 37.

²² Al Khalifa, *The Qarmāṭians*, 36, 42.

²³ *Rasā'il Ikhwan al-Safa'*, (Beirut: Dar Sadir, 1957)

²⁴ *Rasā'il Ikhwan al-Safa'*, 289.

²⁵ Al Khalifa, *The Qarmāṭians*, 54.

²⁶ Al Khalifa, *The Qarmāṭians*, 65, 115.

²⁷ Ian Richard Netton, *Muslim Neoplatonists: An Introduction to the Thought of the Brethren of Purity*, (Edinburgh: Edinburgh University Press, 1991), 36.

The highest order was the 'Prophets and Philosophers' – to become a Prophet and Philosopher a man had to be at least 50 years old. A Prophet and Philosopher was considered equal to Jesus, Socrates, or the prophet Muḥammad. This rank was known as the 'angelic rank' (al-martabat al-malākiyya) (where 'angelic' carries the meaning 'messengers').

Due to the suspicion these groups faced they would not communicate openly. They frequently used allegories, such as stories of animals, to comment on themselves or the religious and political powers. In some cases, those in power were given unflattering allegorical names such as 'Pharoah' or 'Hamon,' which were further obscured by alphanumeric cipher.²⁸

By 300 AH the Qarmaṭians, one of these secret societies, had become especially widespread and influential. They were followers of (and named after) Ḥamdān Qarmaṭ ibn al-Ash'ath (حمدان قرمط بن الأشعث). Their centers of concentration were in Kufa and the Sawād, an especially fertile area in southern Iraq and north-eastern Saudi Arabia. They also had a presence in Yemen. The Qarmaṭians especially concentrated in an area which at the time was known as al-Bahrāin. While today Bahrāin is a small island country in the Persian Gulf, the Bahrāin of 300 AH encompassed a much broader area, including the Sawād.

These secret societies articulated two levels of Islamic religion. The first level was a prerequisite for the second. At the first level, one became a Muslim and followed the prophet Muḥammad and his Sunnah. The second level was a philosophical level that was known as 'faith' or 'īmān.' This second level was not to be attempted unless one was a fastidious and scrupulous, pious Muslim. This second level was spiritual in nature: even though one's physical body was present on earth, one's mind and spirit was becoming aware of unseen spiritual things. As such, the Abbāsīd rulers were seen as temporal rulers by the Qarmaṭians, living in what the epistles called Jahannam, or hell on earth.²⁹ This term came from the Aramaic term Gehinnom, the name of the valley west of old Jerusalem which was associated with Hell in the Christian New Testament.

Thus, the conflict between the Abbāsīds and the followers of the 51 epistles was centred on the Abbāsīds misunderstanding the goals of the Qarmaṭians and other communities. The Abbāsīds were concerned with ruling a physical Islamic empire. The followers of the 51 Epistles were interested in attaining spiritual consciousness and academic knowledge. Nevertheless, the Abbāsīds feared that the secret societies were becoming a political threat, so persecution began very early, despite the fact that these groups did not naturally seek political power.

Ironically, it is this very persecution which ultimately forced the Qarmaṭians to use political mechanisms and violence to establish their security.

Ḥamdān Qarmat himself was initially an Ismā'īlī who founded his own order. These Qarmaṭians called one another the Brethren of Purity. Their teachings were spread by travel-

²⁸ Al Khalifa, *The Qarmaṭians*, 11.

²⁹ Al Khalifa, *The Qarmaṭians*, 118, 121.

ing teachers and agents, who offered education to ordinary people. Higher education was only available to the elite, so while most Muslims learned to read and write, the kind of knowledge presented by the Qarmaṭians was typically unimaginable for an ordinary person.

But anyone who could read could begin to study the first epistle. Once it was mastered, students could move on to the second, and so on. Even at the beginning of their studies they were called ‘Craftsman.’ To outsiders this seemed like an honorific title. To insiders, it would be clear that the Craftsman was studying the first volumes of teachings. As these teachers traveled, they found willing students everywhere. The only qualifications to begin study were, first, that one was a pious Muslim, who, again, could read and write. Then one could begin the studies, without leaving one’s occupation.

It was even a source of pride for the Qarmaṭians to be known by their ordinary occupations. For example, Abdan, the chief missionary and ‘right-hand man’ of Ḥamdān Qarmat, was known as The Tiller and Ox-herder! This made for a charming dynamic: simple shepherds, tillers, herdsmen, and local shop keepers could quote from Socrates, Galen, and Plato. They had a grasp of mathematics, astronomy, geometry, history, and much more. Further, it was not only the ordinary people who were drawn to the teachings of the Qarmaṭians. Queen ‘Awrwā of the Sulayḥid dynasty is said to have reached the highest rank possible.³⁰

Despite the egalitarian nature of these teachings, they did not come without cost. The Qarmaṭian missionaries and teachers collected a one-fifth tax from their converts. These funds, coupled with the group’s appeal, allowed the Qarmaṭians to quickly grow in power. By 266 AH Ḥamdān’s followers were so numerous that he could make overtures for an alliance with the leader of the Zanj--a secular rebellion. The Zanj rebuffed the offer, even though Ḥamdān claimed he could field 100,000 fighting men of the Qarmaṭians.³¹

By 277 AH a fortified refuge (dār al-hijra) was established by Ḥamdān for his supporters near Kufa. Persecuted Qarmaṭians were welcome, with everyone sharing with the newcomers to get them settled and part of the community.

While the Ismā’ilīs and Qarmaṭians were ascetics focused on secret knowledge and spiritual enlightenment, persecution from the Abbāsids made such fortifications necessary. Ultimately the Qarmaṭians established dār hijrah (houses of emigration), based on the idea of the first Muslims finding security in Medina. In their thinking, these houses were like ideal city-states, rather than break-off states. The center of the Qarmaṭians was in Jowtha, at the al-Aḥsā oasis in Saudi Arabia. The al-Aḥsā oasis was home to the core leadership of the Qarmaṭians. Descriptions of this settlement were recorded by 10th century chronicler and geographer Ibn Ḥawqal.³²

³⁰ Al Khalifa, *The Qarmaṭians*, 41.

³¹ Al Khalifa, *The Qarmaṭians*, 108, 382.

³² Muḥammad Abū’l-Qāsim Ibn Ḥawqal, *Ṣūrat al-’Arḍ*, quoted extensively in Mai Mohammed Al Khalifa, *The Qarmaṭians: From Concept to State*, trans. Abdullah Richard Lux (Muharrarq: Shaikh Ebrahim Mohammed Al-Khalifa Center for Culture and Research, 2019), 419-424.

The Qarmaṭians welcomed new people, provided for the poor, and ruled by *shūrā* or mutual consultation, under the leadership of a *Iqdāniyya*, or a meritocratic council of notables.³³ This leadership structure, as well as the Qarmaṭian practice of mutual ownership, has led some modern writers to propose that this community was the first communistic society.³⁴ Despite the Qarmaṭians' concern with social welfare and egalitarianism, it is worth noting that the Qarmaṭian estates were worked by around 30,000 Ethiopian slaves.³⁵ This arrangement no doubt greatly contributed to the Qarmaṭians' prosperity and funded the Qarmaṭians' welfare policies.

Contemporaneous with the rise of the Qarmaṭians was the struggle of the Abbāsids in establishing their dominance over Persia. The Arab rulers attempted to replace the Persian identity and language as they suppressed the teachings of Zoroaster and Mazdak. While the Persians resisted the Arabic language, they did submit to the religion of Islam over time. As such, the teachings of Zoroaster and Mazdak were forced underground. Eventually these suppressed teachings would find their way into the esoteric, remarkably various teachings of the Qarmaṭians.

Because their teachings were secret and they wrote nothing of their own history, we have some conflicting reports and opinions of the Qarmaṭians.³⁶ Were they an Islamic sect? Were they apostates from Islam? Al-Mālṭi claimed that the prayers, fasting, and hajj were not mandatory among the Qarmaṭians. Al-Baghdadi claimed that once they understood the rituals, these were no longer mandatory. But al-Ghazālī said that he heard that to become a Qarmaṭian, one had to perform 30 pilgrimages. Ḥusayn al-Ahwāzi told his followers that prayer was mandated fifty times every day and night. Al-Ṭabarī mentioned that “one of the major landlords was unable to keep pace with the vigilance of a Qarmaṭian peasant in performing his prayers.”³⁷ Al-Maqrīzi recorded that the Qarmaṭians were held in great esteem for their religiosity. On the whole, the evidence seems to be heavily weighted toward the religiosity of the Qarmaṭians, exceeding that which was typically expected of a pious Muslim.

In time the Qarmaṭians were accused of mixing Greek philosophy and astrology with Islam. They were also accused of being Sabaens, Maji, Jews, or freethinking atheists. Today, historians generally consider these accusations unfounded: the Qarmaṭians may have drawn

³³ Marco Demichelis, “Chapter Five: Kharijites and Qarmaṭians: Islamic Pre-Democratic Thought, A Political-Theological Analysis,” in *Religion and Representation: Islam and Democracy*, ed. Ingrid Mattson, Paul Nesbitt-Larking and Nawaz Tahir (Newcastle: Cambridge Scholars Publishing, 2015), 177.

³⁴ Mohammed Rahman, “The Qarmatians: The world’s first enduring communistic society,” *World Bulletin*, January 22, 2014, <https://worldbulletin.dunyabulteni.net/history/the-Qarmaṭians-the-worlds-first-enduring-communistic-society-h127416.html>

³⁵ Rahman, *Enduring Communist Society*.

³⁶ Al Khalifa, *The Qarmaṭians*, 373.

³⁷ Al Khalifa, *The Qarmaṭians*, 373.

from many sources outside of Islam, but they did not seem to endorse all of these competing worldviews.³⁸

While some believe that the Qarmaṭians were Ismā'īlīs, it appears this was not the case. The two groups have very similar origins, especially since Ḥamdān was an Ismā'īlī missionary, but the Qarmaṭians practiced a form of common property (described above) which was not a practice amongst the Ismā'īlī.

And so, our main sources on the Qarmaṭians and their beliefs come from outside the Qarmaṭian community, often from those who opposed them. Dan Gibson believes that in all of these attempts to describe the Qarmaṭians and what they represented, we must allow that their beliefs probably evolved over their 200 years of history. They almost certainly started as a movement intended to expand the knowledge of devout Muslims, but their identity and views of Islamic practices seem to have shifted over time.

Consider the mysterious volume five of their epistles. Those who gained access to this volume were of the highest rank, the “Prophets and Philosophers,” and we can presume that over the course of two centuries of rapid growth, the numbers of those who attained this secret knowledge likewise grew. Perhaps elements of this knowledge were disseminated throughout the Qarmaṭian community over time, and certain secrets became more wide-spread.

This gradual shift in the Qarmaṭian community may help to explain the later radicalization of the group. Qarmaṭian leader Abū Tāhir Sulaymān al-Jannābī was hostile toward the pilgrimage to Mecca.³⁹ Recall that the Qarmaṭians believed that they were the true, more mature followers of Islam. They began as the ‘Brethren of Purity,’ that is, the purity of Islam. As we mentioned, it’s possible they prayed more, pilgrimaged more, and gave more than other Muslim groups.

The Qarmaṭians rejected the use of mosques not because they were atheists, as they were accused, but because they believed mosques had become mouth-pieces of the caliphs.⁴⁰ Still, they willingly paid taxes to the caliph, and they additionally paid taxes to their own leaders. They were very pious Muslims and held to the main tenants of Islam. What made them unique was that they sought higher knowledge and secret teachings. These teachings did not negate Islam, but rather enhanced Islam, in their view. So, when Abū Tāhir began to criticize the pilgrimage, the Qarmaṭians were motivated by the purification of Islam. Something about the pilgrimage offended their sense of the purity of Islam.

At first the Qarmaṭians forcibly tried to stop pilgrims from going on pilgrimage to Mecca. It does not appear that they stopped these groups of pilgrims for material gain--they did not just tax them and then let them proceed. The Qarmaṭians forcibly turned the pilgrims back,

³⁸ Al Khalifa, *The Qarmaṭians*, 402-405.

³⁹ Al Khalifa, *The Qarmaṭians*, 491.

⁴⁰ Al Khalifa, *The Qarmaṭians*, 465.

sometimes with extreme violence. It would have been much simpler for the Qarmaṭians to charge a 'fee' and allow the pilgrims to continue, but their motivations appear to have been ideological, not monetary.

Around 293 AH (906 CE) a leader known as Zikrawayh sent a missionary called Abū Ḡānem Naṣr to revive the Qarmaṭian movement among the Banū Kalb in Syria. Abū Ḡānem and his followers attacked several Syrian towns, including Damascus, pillaging everywhere they struck. In response, the Abbāsīd army marched out against them, and after a brief battle in which Abū Ḡānem was killed, an amnesty was declared. This was the first military confrontation between the Qarmaṭians and Abbāsīds.⁴¹

Zikrawayh sent another missionary to his Syrian supporters, informing them of his imminent appearance. Soon afterward the Qarmaṭian tribesmen of Syria, joined by Zikrawayh's followers in the region of the Sawād, made a surprise attack on Kūfa but were quickly driven out. The Qarmaṭians then defeated the Abbāsīd army sent after them. It is at this point that they began to stop caravans of Persian pilgrims returning from Mecca, arguing with them and, when they resisted, they massacred most of them. The Qarmaṭians continued to confront pilgrims all through 293 and into 294 AH.

Ultimately, when they proved unsuccessful in stopping the pilgrimage by attacking pilgrims, Qarmaṭian leader Abū Tāhir raised an army and attacked the city of Mecca in Saudi Arabia in 317 AH.⁴² To gain entrance to the city they posed as pilgrims. When the city was open to them, they began to attack pilgrims.

Abū Tāhir and the Qarmaṭians killed many pilgrims and local Meccans, leaving their bodies in the street. The Qarmaṭians mocked the sacred rites, and many bodies were stuffed down Zamzam well.⁴³ This disregard for the sacred sites in Mecca shocked the Muslim world. These pious, dedicated Muslims set about destroying the city.

In the end, they removed the Black Stone and took it with them, leaving the city desecrated, with dead bodies lying in the streets. Whatever secrets about Mecca were possibly contained in volume five had set them aflame. So devastating was their attack that the Hajj was put on hold for eight years.⁴⁴

Crucially, Abū Tāhir returned any looted wealth to the people of Mecca.⁴⁵ This fact alone renders the argument that Abū Tāhir was financially motivated utterly untenable. The Qarmaṭians were clearly religiously motivated.

⁴¹ Al Khalifa, *The Qarmaṭians*, 383-385.

⁴² Al Khalifa, *The Qarmaṭians*, 504.

⁴³ Al Khalifa, *The Qarmaṭians*, 507; Ibn al-Athīr, *al-Kāmil fī al-Tarīkh*, vol. 7 (Beirut: House of Knowledge Books, 1987), 53-54.

⁴⁴ Rahman, *Enduring Communist Society*.

⁴⁵ Al Khalifa, *The Qarmaṭians*, 509.

Having taken the Black Stone, Abū Tāhir and his army returned to their communes in greater Bahrāin. Here the Black Stone was placed in storage. No one prayed to the Black Stone. The Qarmaṭians did not offer to ransom it. It was not used as a bargaining chip as some suggest—it was simply removed from Muslim life for 22 years.⁴⁶ Attempts by the Abbāsids and Fatimids to bargain for the return the Black Stone were rejected. It appears Abū Tāhir was convinced that the Black Stone had become an idol and a snare for the Muslims.⁴⁷

It was during this 22-year period that something strange took place. Abū Ṭāhir conquered ‘Omān in 318 AH (930 CE) and became the master of Arabia. Seeking the appearance of the Mahdi, he recognized the special abilities of a young Persian man from Isfahan, whose name we cannot be certain.⁴⁸ In 319 AH, Abū Ṭāhir turned over the Qarmaṭian rule to this young Persian man.

Instead of revealing the truths behind all previous religions, the young Isfahani, who claimed descent from the Persian kings and manifested anti-Arab sentiments, turned out to be a restorer of the old Persian religion. He ordered the worship of fire and the cursing of all prophets. He also instituted several ceremonies that shocked the Qarmaṭians.

This greatly upset the Abbāsīd caliph Rāzī, who had earlier ordered the execution of the chief priest of the Zoroastrians, Esfandiār b. Āḍarbād.⁴⁹ When the supposed Mahdi from Persia began to execute the leading Qarmaṭians of Bahrāin, Abū Ṭāhir had him killed and admitted that he had been an imposter.⁵⁰

This episode seriously demoralized the Qarmaṭians of Bahrāin and weakened their influence over the Qarmaṭian communities in the east. At this point many Qarmaṭians left Bahrāin to join with the armies of various anti-Qarmaṭians rulers. However, the Qarmaṭians continued to hold large sway over the land, as there were even secret followers in the army of the caliph.

In 322 AH the Qarmaṭians agreed not to attack and discourage pilgrims going to Mecca, but Abū Tāhir refused to return the Black Stone.⁵¹ The next year the Qarmaṭians resumed their attacks on pilgrims. In 326 AH the caliph was able to secure the safe passage of pilgrims in exchange for 35,000 dinars paid from the government common treasury, and an individual duty was imposed on each hajj pilgrim.⁵²

⁴⁶ Al Khalifa, *The Qarmaṭians*, 511.

⁴⁷ Al Khalifa, *The Qarmaṭians*, 511.

⁴⁸ *Encyclopedia Iranica*, s.v. “Carmatians,” accessed June 21, 2022, <https://iranicaonline.org/articles/carmatians-ismailis>

⁴⁹ Al-Mas‘ūdī, *Kitāb al-Tanbīh wa l-ishrāf: M.J. de Goeje’s Classic Edition (1894) with Indices and Glossary to BGA I: 7–8*, ed. M.J. de Goeje (Leiden: Brill, 2013), 104-105.

⁵⁰ Al Khalifa, *The Qarmaṭians*, 513.

⁵¹ Al Khalifa, *The Qarmaṭians*, 516.

⁵² Al Khalifa, *The Qarmaṭians*, 517.

Eventually, in 332 AH, Abū Tāhir died of smallpox and the rule of the Qarmaṭians was divided between his two brothers.

At this time, the Black Stone was transported to al-Kūfah and placed in the Friday Mosque so that people could see it. Sinbar ibn al-Ḥasan ibn Sanbar eventually returned the Black Stone to Mecca and re-installed it in its place remarking: “we took it by the ordination of Allah, and we returned it by His will.”⁵³ It is believed that when the Black Stone was returned that it had been smashed into seven pieces. The Black Stone in Mecca today is broken into seven pieces.

It is especially peculiar that the Black Stone, which had remained neglected in al-Aḥsa for a period of 22 years, was returned voluntarily. The Qarmaṭians had rejected all previous offers of ransom for the stone. For instance, Ibn al-Athīr writes that “someone was sent to them with an offer of fifty-thousand gold dinars, if they would return it, but they did not answer him, and [the emissary] came back with nothing.”⁵⁴

Following the scandal with the Isfahani and the return of the Black Stone, the Qarmaṭian state slowly declined. After the death of their leader in 449 AH, internal squabbles reduced their influence substantially. The end of the Qarmaṭians is not recorded and they simply passed into obscurity.

It is difficult to explain the radical actions of the Qarmaṭians, especially the attack on Mecca. The explanation of historians such as Mai Mohammed Al Khalifa, who argues that the attacks on the pilgrims and Mecca were financially motivated, is not satisfying.⁵⁵ This is especially the case since the Qarmaṭians returned the wealth stolen from Mecca and never ransomed the Black Stone, despite opportunities to do so. It seems more likely that these Qarmaṭians, truly zealous Muslims, were ideologically motivated. If that is the case, what would motivate them to take such radical action against the supposed Holy City of Islam?

The only satisfactory explanation as to why zealous Muslims would willingly desecrate Mecca and the Zamzam well is if they did not believe Mecca was holy. As the qibla record testifies, the earliest mosques recognized Petra as the Holy City of Islam. While the memory of Petra as the Holy City was suppressed, it must not have disappeared, and it is possible that a part of the secret teaching of the Qarmaṭians was this memory that the holy sites of Mecca were a make-shift innovation. The true Holy City, where the Ka’ba was built and the prophet was born, was not in Mecca at all, and the veneration of and pilgrimage to the site was contrary to the principles of Islam.

In both cases, al-Ḥajjāj and the Abbāsids used political power and violence to quash dissent. Al-Ḥajjāj’s power was so great that he could murder the very Companions of the Prophet

⁵³ Al Khalifa, *The Qarmaṭians*, 520; Maqrīzī Aḥmad ibn ‘Alī and Jamāl al-Dīn Shayyāl Maqrīzī, *Itti’az al-hunafa*, (Cairo: Dār al-Fikr al-‘Arabī, 1948), 185.

⁵⁴ Ibn al-Athīr, *al-Kāmil*, 234.

⁵⁵ Al Khalifa, *The Qarmaṭians*, 509.

with impunity. He won the civil war, defeated the traditionalist Muslims, and kept them brutally suppressed. The Abbāsids saw the religious teachings of the Qarmaṭians as a threat and drove them toward violence through persecution. When the Qarmaṭians attained considerable political power, they used that power to directly attack the pilgrimage, Mecca, and the Black Stone. Ultimately, the backlash of the religious Muslims came centuries after the qibla change to Mecca. Despite the Qarmaṭians' violent successes, they proved unable to totally stop the pilgrimage to Mecca in Saudi Arabia before dissolving.

These accounts of al-Ḥajjāj and the Qarmaṭians take on new meaning in the context of the multiple qiblas of early Islam. Because the original Petran qibla had been abandoned, al-Ḥajjāj felt free to choose his own qibla and compel his fellow Muslims to pray toward it. This was only one of his many outrages inflicted on traditional Islam, but due to his power and viscousness, al-Ḥajjāj's enemies were unable to meaningfully oppose him. More than two centuries later, the Brethren of Purity attacked Mecca in Saudi Arabia and the pilgrimage. They murdered pilgrims, desecrated Mecca, stuffed corpses into Zamzam well, removed the Black Stone, and smashed it into seven pieces. As we have argued, these are not the actions of people looking for financial gain, but the actions of people who were convinced that Mecca was not the original Holy City of Islam. Ironically, it may be that these Qarmaṭian desecraters of Mecca were zealots and defenders of traditional Islam in an age of Abbāsīd suppression. Their actions may represent the last cry of outrage against the many reforms of the Abbāsids and the Umayyads before them. Of all of the offenses of the caliphs, we can safely believe that the changes to the qibla would be among the most provocative.

Chapter Eleven

Dr. King Challenges Gibson

by Chad Doell

In 2017 Dr. David A. King self-published the article “From Petra back to Mecca – From ‘Pibla’ back to Qibla”¹ on Academia.edu as a direct critique of Dan Gibson’s book *Early Islamic Qiblas*.² King’s article was later published in an abridged form in *Suhayl – International Journal for the History of the Exact and Natural Sciences in Islamic Civilization* in 2018.³ Gibson responded with the very brief article “Comparing two qibla theories” (2018).⁴ Also in 2018, Dr. King self-published “The Petra fallacy: Early mosques do face the Sacred Kaaba in Mecca but Dan Gibson doesn’t know how” in response to the response.⁵ In response to the response to the response, Gibson published a series of videos on Nabataea.net which address the “The Petra fallacy” line-by-line.⁶ Finally, in response to the response to the response to the response, Dr. King self-published a monograph on Academia.edu entitled *Historical mosque orientations: How*

¹ David A. King, “From Petra back to Mecca – From ‘Pibla’ back to Qibla,” Academia.edu, accessed July 6, 2022. https://www.academia.edu/34703712/265_KING_2017_From_Petra_back_to_Mecca_review_of_GIBSON_Early_Islamic_qiblas_pdf

² Dan Gibson, *Early Islamic Qiblas: A survey of mosques built between 1 AH/622 C.E. and 263 AH/876 C.E.*, (Saskatoon: Independent Scholar’s Press, 2017)

³ David A. King, review of *Early Islamic Qiblas: A survey of mosques built between 1 AH/622 C.E. and 263 AH/876 C.E. (with maps, charts, and photographs)*, by Dan Gibson, *Suhayl – International Journal for the History of the Exact and Natural Sciences in Islamic Civilisation* 16-17, (2018-2019): 347-366.

⁴ This article was temporarily posted on Academia.edu and subsequently removed to better address Dr. King’s concerns.

⁵ David A. King, “The Petra fallacy: Early mosques do face the Sacred Kaaba in Mecca but Dan Gibson doesn’t know how,” Academia.edu, accessed July 6, 2022. https://www.academia.edu/37957366/KING_2018_The_Petra_fallacy_Early_mosques_do_face_the_Sacred_Kaaba_in_Mecca_but_Dan_Gibson_doesnt_know_how

⁶ You can find these videos at <https://nabataea.net/cinema/answeringcritics/>
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to interpret and how not, *A preliminary study*.⁷ Within this 1,328 page monograph “Gibson” is explicitly mentioned 1,725 times.

If this argument is new to you, dear reader, I can appreciate how reading through responses to responses to responses to responses would not be appealing. If that is appealing, I am deeply concerned for you. I also do not want to make you read a synopsis of the entire debate here. Rather, I believe it would be much more helpful to provide you with Dr. King’s central objections to Gibson’s Petra theory, as I understand them, and provide my own amateurish critique of these objections.

Describing myself as ‘amateurish’ is generous. I am not a Professor of History emeritus with a Ph.D. in Near Eastern Languages and Literatures from Yale and a B.A. in Mathematics like Dr. King. Nor do I have the decades steeped in early Islamic histories and the vast experience of first-hand research like Dan Gibson. I have a background in literature and, worse still, theology. I have happily spent some time digging in square holes in the Middle East, but was excited about Iron Age potsherds, not early Islamic qiblas. Worst of all, I am the *copyeditor* of this book: I correct comma splices, not professors.

I cannot speak with any real authority on the subject matter, especially the esoteric realm of archaeoastronomy, which I can hardly spell without straining. I will not be able to reinterpret or illuminate the data in any innovative way. But what I can do is offer the perspective of someone outside of this very specialized field (which I imagine is a trait we have in common) and articulate what I believe are essential observations, questions, and problems. I am trained as a critic. And so, while I still may be fettered inside the cave while Dr. King or Gibson (depending on your preference) see clearly in the sun, I can at least try to describe the shadows I see dancing on the cave wall.

I believe Dr. King’s two fundamental objections to Gibson and the Petra theory are the relevance of astronomical alignments to early mosque qiblas and the irrelevance of modern coordinates when collecting medieval qibla data. The major point of separation, as I see it, is that Dr. King relies heavily on the explanations of later medieval Islamic scholars to explain the various qibla alignments in early Islam. Gibson prefers an archaeological explanation, presuming that mosques were intentionally directed toward geographic locations. We will try to describe and respond to King’s two major objections first, and then consider a small selection of Dr. King’s further objections to Gibson’s theory and research.

Dr. King has provided the most challenging, helpful, and aggressive criticism of Dan Gibson’s work. Dr. King’s credentials are impeccable, and his 50 years of experience studying Islamic qiblas make him a very big fish in a very small pond. He is right to repeatedly and emphatically argue that qibla orientations have been absurdly neglected in historical mosque studies: it should be a much bigger pond. But rather than archaeologists, mathematicians, and archaeoastronomers, the other fish with whom Dr. King shares the pond is the amateur histo-

⁷ David A. King, *Historical mosque orientations: How to interpret and how not, A preliminary study*, Academia.edu, accessed November 1, 2022. https://www.academia.edu/87024335/MOSQUE_ORIENTATIONS

rian Dan Gibson. The two do not agree. As such, the discourse between Dr. King and Gibson has been impassioned, on both sides. In this paper I am trying for a tongue-in-cheek tone to avoid severity; I mean no offense to Dr. King, and I do not mind if I offend myself. I feel that Dr. King owes me this boon since I read most of his monograph.

Astronomical Alignments

Dr. King acknowledges that the vast majority of early qiblas do not ‘face’ Mecca the way a modern person would expect. But, he explains, there were other ways to establish a qibla which were appropriate to the means and standards of the first two to three centuries of Islam. King believes that “Muslims for the first two centuries used folk astronomy, particularly astronomical horizon phenomena, the cardinal directions and solar risings and settings at the solstices” for their qiblas.⁸ Some mosques were simply erected on the foundations of previous pre-Islamic temples.⁹ It was only later, after Muslim scholarship had matured, that they “also used qiblas based on geographical coordinates and mathematical procedures,” that is, mosques were built to geographically face the Ka’ba in Mecca.¹⁰ King believes that folk astronomical techniques have been used from the 7th through 21st centuries, and that mathematical methods have been used from the 9th through 21st centuries.¹¹ The first examples of mathematical methods for determining the qibla appear in 9th century Baghdad.¹²

King’s belief that the Ka’ba is astronomically aligned is fundamental to his explanation of the unexpected qiblas of early mosques. King explains how the rectangular base of the Ka’ba itself is astronomically aligned, and its corners roughly face the cardinal directions. The main axis of the Ka’ba points toward the rising of Canopus, the brightest star in the southern sky, and the setting of the stars of the Plough; its minor axis points toward summer sunrise and winter sunset.¹³

This astronomical alignment “was of prime importance for mosque orientations, because mosques are oriented toward the Kaaba, not toward Mecca.”¹⁴ Thus, early mosques could align with the Ka’ba by imitating these astronomical alignments, even if that means they did not geographically ‘face’ toward the Ka’ba at all. In this way, early Muslims did “as best they could with the means at their disposal.”¹⁵ That is, early Muslims “could never have aligned mosques accurately toward...Mecca.”¹⁶ Because it was not possible for early mosques to face

⁸ King, “From Petra back to Mecca,” 5.

⁹ King, *Historical mosque orientations*, 68.

¹⁰ King, “From Petra back to Mecca,” 5.

¹¹ King, “From Petra back to Mecca,” 6.

¹² King, “The Petra fallacy,” 5.

¹³ David A. King, “Islamic Sacred Geography and Finding the Qibla by the Sun and Stars: a Survey of the Historical Sources with an Appendix on some Recent Fallacies concerning Mosque Orientations,” *Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften* 22, (2020): 94.

¹⁴ King, “From Petra back to Mecca,” 6.

¹⁵ King, “From Petra back to Mecca,” 14.

¹⁶ King, “From Petra back to Mecca,” 6.

Mecca (or anywhere else), King believes “the answer for early Muslims was quite simple: one should face the same direction as one would when standing in front of the Kaaba at that wall or corner which corresponds to the location in question.”¹⁷ King believes traditional, non mathematical folk astronomy provided the means for early mosques to align with the Ka’ba without geographically directing the mosque toward the Ka’ba.

For example, King describes how “the earliest Muslims in Egypt and Iraq used winter sunset and winter sunrise, respectively, for the qibla, not because they were stupid, but because they were smart. How else to face an edifice they could not see[?]”¹⁸ The Great Mosque in Sanaa has a “major axis parallel to that of the Kaaba in Mecca” and so its Petra facing is irrelevant.¹⁹ Al-Aqsa mosque is incidentally within three degrees of Petra and is simply aligned according to al-Haram al-Sharif, or The Temple Mount, which is roughly aligned to the cardinal directions with an error of ten degrees.²⁰ The Umayyad Mosque in Amman, the Khirbat al-Minya complex, Khirbat al-Mafjar, and the mosque at Ba’albek simply “took south as the *qibla*.”²¹ King interprets the qiblas of various mosques by cardinal directions, sun rises or sunsets, parallel with the Ka’ba, and so on—a thorough list can be found in chapter ten of the *Historical mosque orientations* monograph.²² Comparing Dr. King and Dan Gibson’s interpretations of individual mosques is outside of the scope of this discourse, but if the reader should like to, Dr. King’s monograph is freely available on Academia.edu, and you have Dan Gibson’s book in your hands.

I find it difficult to provide a summary of King’s interpretation of these various qiblas because he has nearly as many different alignments as he has mosques. The catalogue presented in “From Petra back to Mecca” is dizzying in its variety, and this is only more so in *Historical mosque orientations*. Dr. King describes that there are “some 20 different schemes of sacred geography...in about 30 medieval manuscripts.”²³ This means there are around 20 different types of astronomical alignment King may choose from when studying an early mosque, some of them evidently only attested to in a single medieval manuscript. I also find a remarkable inconsistency in intention between mosques aligned to the winter sunrise and mosques which just happen to rest on the foundations of a pagan temple. Do these always align to some aspect of the Ka’ba? If not, is it still a qibla?

From my limited understanding, my most pressing problem after reviewing Dr. King’s arguments is the qibla. What is a qibla? Can this buffet of cardinal, four wind, Roman road, seasonal sunrises, seasonal sunsets, and astronomical alignments be considered qibla? The esteemed Islamicist Arent Jan Wensinck defined “Kibla” in the *Encyclopedia of Islam* as “the

¹⁷ King, “The Petra fallacy,” 21.

¹⁸ King, “The Petra fallacy,” 8.

¹⁹ King, “From Petra back to Mecca,” 18.

²⁰ King, “From Petra back to Mecca,” 18-19.

²¹ King, “From Petra back to Mecca,” 19.

²² King, *Historical mosque orientations*, 649-828.

²³ King, *Historical mosque orientations*, 324.

direction of Mecca (or, to be exact, of the Ka'ba or the point between the mizāb or water-spout and the western corner of it), **toward** which the worshipper must **direct** himself for prayer [emphasis added].”²⁴ What's more, Allah instructed the prophet Muḥammad:

We have seen the turning of thy face unto Heaven, and indeed We will turn thee toward a *qiblah* well pleasing to thee. So turn thy face toward the Sacred Mosque [lit. Maṣjid al-Harām], and wheresoever you are, turn your faces toward it. Truly those who have been given the Book know that this is the truth from their Lord. And God is not heedless of what they do. (Surah 2:144)²⁵

The command to face Maṣjid al-Harām is repeated in verses 149 and 150. This is the definition of qibla provided by the earliest Muslims. This command, coupled with King's theory, presents us with a theological problem: either Allah's command to face Maṣjid al-Harām was somehow metaphorical and could be satisfied with any number of obscure alignments to sunsets or cardinal directions (and presumably still could be satisfied by standing along a Roman road), or Allah was sincere in the command and centuries of Muslims were unable to obey due to their lack of mathematical expertise. No modern Muslim would find an astronomically aligned parallel-to-the-Ka'ba qibla acceptable if it did not face Maṣjid al-Harām. According to the Qur'ān we have no reason to believe that the earliest Muslims would have found this sort of qibla acceptable either.

Interestingly, Dr. King disagrees, and “remains convinced, along with billions of Muslims past and present, that [historical mosques] face the Ka'ba in various ways that Gibson does not understand.”²⁶ Dr. King suggests his astronomically aligned qiblas are common knowledge and accepted among Muslims, past and present. He reiterates, twice, that “it is not King alone who claims that mosques face the Ka'ba in Mecca one way or another. Billions of Muslims over the centuries and hundreds of Islam specialists these days would have said the same.”²⁷ But a few pages further Dr. King admits that “Muslim readers will generally expect that historical mosques should face Mecca.”²⁸ At this point Muslim readers should be confused. Dr. King also describes how if Muslims were to define the qibla as the direction to Mecca, they would be correct, “but only up to a point.”²⁹ How is it that his astronomical alignments are accepted by *billions* of Muslims, but most Muslims would define the qibla in traditional, geographic terms? I believe billions of copyeditors would agree with me that this argument badly needs a revision.

When attempting to apprehend Dr. King's qibla, there is a profound problem of lan-

²⁴ Arent Jan Wensinck, *The Encyclopedia of Islam*, 2nd ed. (2005), s.v. “Kibla.”

²⁵ *The Study Quran: A New Translation and Commentary*, ed. Seyyed Hossein Nasr et al. (New York: Harper Collins, 2017): 65.

²⁶ King, *Historical mosque orientations*, 84.

²⁷ King, *Historical mosque orientations*, 108.

²⁸ King, *Historical mosque orientations*, 112.

²⁹ King, *Historical mosque orientations*, 148.

guage. Above, when defining the qibla, we use the geographical terms ‘direction,’ ‘toward,’ and ‘face.’ Unfortunately, Dr. King has alternative definitions for these words. King writes “...more likely these mosques will be facing the Ka’ba, which means that the qibla-wall of the mosque will be parallel to the appropriate part of the perimeter of the Ka’ba. Historical mosques will generally face the Ka’ba.”³⁰ This statement had me looking up the definition of ‘face’ in alarm. The problem is that Dr. King is clearly describing an astronomical alignment, “parallel to the appropriate perimeter of the Ka’ba,” but he is using the verb ‘face,’ which means to turn toward something. King adds that “the qibla is toward the Ka’ba, not toward Mecca,” further adding to my befuddlement.³¹ Again, I do understand that King believes early mosques were aligned to the Ka’ba, not directed toward Mecca. But the Ka’ba is a physical, geographical edifice, and the essence of his argument against Gibson is that astronomically aligned mosques do not *face toward* anything—they are aligned and oriented with the Ka’ba. Elsewhere Dr. King describes that “historical mosques were oriented in the direction the builders thought *was the direction of the Ka’ba* [emphasis added].”³² If you were to understand that by ‘the direction of the Ka’ba’ Dr. King means ‘the direction of the Ka’ba,’ you would be mistaken.

I believe the luxury of Dr. King’s argument is that his qiblas can align to just about anything, and because of this flexibility, he feels no real need to prove anything—save in the cases of mosques for which he is especially passionate, such as the Grand Mosque of Cordoba. With his 20 odd schemes at hand, King can select one which seems ‘close,’ and commit most of his energy to proving this-or-that mosque has nothing to do with Petra.

For example, Dr. King posits that the Ka’ba walls are aligned to the “four winds.”³³ If some early mosques are parallel to the Ka’ba to imitate these wind alignments, then the four winds must be an important feature of early Islamic qiblas. In a 1982 paper, Dr. King wrote that “the earliest attestations of the four winds come from Ibn ‘Abbās, a Companion of the Prophet (ca. 650), and Ḥasan al-Baṣrī (ca. 700).”³⁴ In 2022 he reiterated that these two men are his early sources for astronomical alignments.³⁵ They are supposedly seventh century figures, quoted by the tenth century historian Abu ‘l-Shaykh, whose original work no longer exists, by 15th century historian Jalāl al-Dīn al-Suyūṭī.³⁶ Fundamentally, Dr. King is relying on a 15th century source for early astronomical alignments. Nothing reliably original from Ibn ‘Abbās or al-Baṣrī has survived. Further, scholars have argued that the legitimacy of ‘al-

³⁰ King, *Historical mosque orientations*, 96.

³¹ King, *Historical mosque orientations*, 112.

³² King, *Historical mosque orientations*, 4.

³³ Gerald S. Hawkins and David A. King, “On the Orientation of the Ka’ba,” *Journal for the History of Astronomy* 8, (1982): 102.

³⁴ David A. King, “Astronomical Alignments in Medieval Islamic Religious Architecture,” *Ethnoastronomy and Archaeoastronomy in the American Tropics* 385, 1 (1982): 311.

³⁵ King, *Historical mosque orientations*, 125.

³⁶ King, *Historical mosque orientations*, 125-126.

Başrı's' work is dubious at best. Suleiman Mourad summarized his study on al-Ḥasan al-Başrı this way: the sayings, stories, and letters attributed to him were "largely forged in different periods, in some cases even a thousand years after al-Ḥasan's death. [They tell] us more about the beliefs of those who forged the sayings, stories and letters rather than about al-Ḥasan's thought and time."³⁷ Dr. King seems aware that these sources are dubious, especially considering their importance to his theory, so he offers this reassurance: "whoever would doubt their authenticity should, however, keep in mind that the underlying alignments they describe are confirmed by the Ka'ba itself as well as by the earliest qiblas."³⁸ Rest assured, the sources which prove the Ka'ba is aligned to the four winds are proved valid by Dr. King's belief that the Ka'ba is aligned to the four winds--*circulus in probando*.

In fact, Dr. King believes that his later medieval sources stand as "written versions of *pre-Islamic* meteorological and astronomical folklore [emphasis added]."³⁹ That is, Dr. King has amazing faith that his later medieval manuscripts are accurate records of four-wind folklore from an amorphous ancient pre-Islamic date, even if his sources are a millennium removed from the building of the Ka'ba (or by Muslim tradition, three millennia). His primary source on the four winds seems to be the 13th-century Yemeni astronomer al-Farisi.⁴⁰ Dr. King would like me to believe that al-Farisi was accurately describing a *pre-Islamic* tradition in the 13th century. Dr. King's entire argument on the four winds turns on that hinge: not only does the four winds folklore need to be pre-Islamic to be relevant, it needs to be pre-Ka'ba for the Ka'ba to have been built in alignment to the four winds. I am not a scholar, but I cannot believe that this opinion has gone unchallenged.

Perhaps this issue is best summed by one of Dr. King's sources, the esteemed 10th-11th century scholar Abu Rayhan Muhammad ibn Ahmad al-Biruni: "some scholars have been discussing completely irrelevant phenomena, like the directions from which the winds blow."⁴¹

In a 1985 paper Dr. King explains how "astronomers themselves are generally silent on these nonmathematical procedures" of determining the qibla based on the astronomically aligned Ka'ba.⁴² Instead, King writes, "such nonmathematical methods for finding the qibla are occasionally cited in treatises on geography or history."⁴³ In his 2022 monograph, King explains how he believes the combination of al-Farisi's late manuscripts and satellite imagery

³⁷ Suleiman Ali Maroud, *Early Islam between Myth and History: al-Ḥasan al-Başrı (d. 110H/728CE) and the Formation of His Legacy in Classical Islamic Scholarship*, (Leiden: Brill, 2006), synopsis.

³⁸ King, *Historical mosque orientations*, 126.

³⁹ Hawkins and King, "On the Orientation," 105.

⁴⁰ David A. King, "The Sacred Direction in Islam: A Study of the Interaction of Religion and Science in the Middle Ages," *Interdisciplinary Science Reviews* 10, 4 (1985): 323; David A. King, "Islamic Sacred Geography and Finding the Qibla," 7.

⁴¹ Al-Biruni, "Kitab Tahdid nihayat al-amakin," ed. P. Bulgakov, *Majallat Ma'had al-Makḥṭūṭāt al-'Arabīyah* 8 (1962), quoted in David A. King, "Al-Bazdawi on the Qibla In Early Islamic Transoxania," *Journal for the History of Arabic Science* 7, 1-2 (1983): 24.

⁴² King, "The Sacred Direction in Islam," 320.

⁴³ King, "The Sacred Direction in Islam," 320.

confirm his qibla theories and “the question whether [the Ka’ba] was deliberately laid out to be astronomically aligned is simple enough although there are no historical sources, and we leave it to others to investigate the details.”⁴⁴ Presumably historical treatises about the astronomical qibla would mention the astronomically aligned Ka’ba, if King is correct. So it seems there are no astronomical sources, but there are historical sources. But there are also no historical sources. For King’s investigators, the first order of examination should be to determine where those historical sources disappeared to since 1985.

Even Dr. King’s colleague, the archaeoastronomer Gerald S. Hawkins (of *Stonehenge Decoded* fame), was underwhelmed by King’s sources. In their brief collaborative paper, Hawkins observed:

from the point of view of an astronomer, the medieval text references are not exact or specific, though there are general references to the rising and setting of the Sun, Moon, and stars. The stars mentioned are Canopus, known astronomically as α Car, and the stars in the handle of the Plough-- ϵ , ζ and η UMa. There are inconsistencies wherein the medieval writer has apparently inverted rising and setting, and there are ambiguities, such as what does “opposite the western corner” mean? Nor are the astronomical dates clearly established--the one text cited was written c. 1290 A.D., but the original Ka’ba was constructed over a thousand years earlier. However, for the information of historical scholars, measurements have been obtained and astronomical calculations made.⁴⁵

Notice that Dr. Hawkins is explicit that the medieval manuscripts are nonspecific, inconsistent, and too late to offer anything meaningful about the construction of the Ka’ba. Professor of Late Antique and Early Islamic Middle Eastern History Robert G. Hoyland recognized these same problems and concluded that King’s “theories are insightful and revealing of medieval times, but do not stand up when retrojected to the first two centuries of Islam.”⁴⁶

Yet, for the benefit of “historical scholars” like Dr. King, Hawkins provided his opinion on the astronomical alignment of the Ka’ba. Hawkins wrote:

the alignments to the Sun as referred to in the texts are accurate to no better than 5° or 10°. This amounts to twenty solar diameters and would not have been accepted using the criteria of archaeoastronomy, such as with the pattern of alignments first found at Stonehenge. The alignment to the stars of the Plough seems to be more relevant to the medieval period than to the time of the laying of the foundations of the Ka’ba. The alignment to Canopus is accurate to about 2° in A.D. 0. This line is marked by the major axis and the southwest wall.

One could read Dr. Hawkins’ findings and engender the impression that medieval astronomers looked for astronomical alignments for the Ka’ba which had nothing to do with the construction of the Ka’ba. Solar alignments are irrelevant and the alignment to the Plough is medi-

⁴⁴ King, *Historical mosque orientations*, 136.

⁴⁵ Hawkins and King, “On the Orientation,” 106.

⁴⁶ Robert Hoyland, *Seeing Islam As Others Saw It: A Survey and Evaluation of Christian, Jewish and Zoroastrian Writings on Early Islam*, (New Jersey: Darwin Press, 1997), 57.

eval—it aligned in the time of the astronomers who wrote about it, but not when the Ka’ba was built. Canopus appears to be accurate in 0 CE, but we have no way of knowing if that date is relevant. Even if it is accurate to the building of the Ka’ba, which we have no reason to allow, is it accurate because the Ka’ba was built to align with it, or did medieval astronomers simply observe a coincidence? Dr. King still relies heavily on Canopus and Plough to explain his qiblas.⁴⁷ Hawkins adds: “the most accurate alignment is to the Moon,” but thus far Dr. King has been wise enough not to propose a moon qibla.⁴⁸

Dr. King frequently refers to his paper with Hawkins throughout his monograph and other writings. In fact, he provides a reference to the paper as evidence for the astronomical alignment of the Ka’ba to confirm al-Baṣrī and Ibn ‘Abbās as reliable sources.⁴⁹ King also concludes of his collaboration with Hawkins: “to **our** great surprise, the information in the medieval text concurred successfully with that provided by satellite images [emphasis added].”⁵⁰ I am far out of my depth when it comes to interpreting the scientific research of Dr. Gerald Hawkins, but from my lay perspective, I struggle to see this statement as an accurate representation of his conclusions. King wrote the first half of “On the Orientation of the Ka’ba” and is clearly optimistic about the astronomical alignments of the Ka’ba—but I do not see how Hawkins confirms anything about the Ka’ba’s astronomical alignment. To my untrained eye, he seems to disprove it. “On the Orientation of the Ka’ba” is very brief and readily available online, so I encourage the reader to judge Hawkins’ findings for his or herself.

Finally, one pressing question I have after considering King’s astronomical alignments concerns Jerusalem. King admits that “before the Ka’ba was adopted as the principal shrine, the Prophet Muḥammad apparently appointed a qibla at the same time as he instituted the prayer ritual or ṣalāt. For some 16-17 months after the Hijra, the qibla was instituted toward Jerusalem. Thereafter, and ever since, it has been toward the Ka’ba in Mecca. The Jerusalem qibla need not concern us further.”⁵¹ Jerusalem must concern us further. If Jerusalem was the first qibla for those 16-17 months, then the first mosques aligned to Jerusalem. Since Dr. King believes they could not geographically face anywhere, they must have astronomically aligned to Jerusalem. But to what? There was no Dome of the Rock and no Jewish Temple. Was whatever edifice they did align to in Jerusalem also astronomically aligned? Jerusalem causes a major problem for Dr. King, and he avoids it, though he evidently is not concerned with the length of his monograph. It seems to me that King either believes there was some sort of astronomical alignment to Jerusalem, but he cannot explain it, or the 16-17 months of facing Jerusalem are fabricated. Perhaps he believes early mosques simply faced the general direction of Jerusalem: if so, I should like him to say it.

⁴⁷ King, *Historical mosque orientations*, 97.

⁴⁸ Hawkins and King, “On the Orientation,” 107.

⁴⁹ King, *Historical mosque orientations*, 126.

⁵⁰ King, *Historical mosque orientations*, 130.

⁵¹ King, *Historical mosque orientations*, 121-122.

Modern Directions

In his papers critiquing the Petra qibla, Dr. King frequently repeats the argument that “**MODERN** directions from one place to another cannot be used to investigate the reasons underlying the orientation of **PRE-MODERN** architecture.”⁵² In fact, the line “**for the interpretation of orientation of historical mosques, modern qibla directions are irrelevant**” appears in the footer of all 1,328 pages of the monograph. I have started muttering it in my sleep.

King makes this argument because “the ancients did not have access to **MODERN** geographical coordinates. Nor did they have access to exact procedures for finding the direction on one locality to another.”⁵³ Thus, “when Gibson writes that a given mosque faces (the **MODERN** direction of) Petra, not (the **MODERN** direction of) Mecca, this is not to be taken seriously.”⁵⁴ This is because “the earliest Muslims could never have aligned mosques accurately toward Petra, or, for that matter, toward Mecca either.”⁵⁵ Dr. King makes a distinction between a modern qibla and a pre-mathematical qibla and argues that early mosques may “face the *qibla* accepted at the time, [but] will not be facing the **MODERN qibla**.” Elsewhere King admits that though early Muslims could not find the direction of Mecca, “they did this as best they could with the means at their disposal.”⁵⁶

It is helpful to recall the fundamental issue behind the debate between Dr. King and Gibson: both seek to explain the fact that the majority of early mosques do not appear to face Mecca, sometimes with incredible variety. For Gibson, there is an observable pattern of these mosques facing other places accurately. For King, geographically facing a distant location was impossible for the early mosque builders, and so he explains the questionable early qiblas with astronomical alignments: mosque builders could align their mosques to the Ka’ba by imitating part of the Ka’ba’s astronomical alignment. Once again at issue is the definition of the qibla. Gibson maintains a traditional definition of the qibla, and Dr. King has adopted a metaphorical understanding of what it may mean to ‘face’ the qibla, drawn from later medieval scholars.

I struggle to understand Dr. King on this point because although he repeats this argument about modern directions to absurdity, he seldom explains it. I have resolved that this is either because the argument is hollow and there is nothing to explain, or my head is hollow and I will never grasp it. Nevertheless, I will try to capture the nuance of his position: it is important to emphasize that Dr. King’s issue is not with the modern instruments or measurements Gibson employs when collecting qibla data. The issue is that “early Muslims did not know the direction of Petra.”⁵⁷ That is, “it is ill-advised to investigate HISTORICAL orienta-

⁵² King, “The Petra fallacy,” 9.

⁵³ King, “The Petra fallacy,” 26.

⁵⁴ King, “The Petra fallacy,” 29.

⁵⁵ King, “From Petra back to Mecca,” 6.

⁵⁶ King, “From Petra back to Mecca,” 14.

⁵⁷ King, *Historical mosque orientations*, 908.

tions with MODERN qibla-values.”⁵⁸ According to King, the mosque builders of the first two centuries of Islam had no means for determining the geographical direction of Mecca. And so, using accurate, modern GPS and satellite data to determine mosque qiblas is employing a dataset which was totally irrelevant to the seventh through ninth centuries. King is emphatic that Gibson “does not understand that an estimate of the accuracy of an early mosque can only be the difference between the orientation achieved and the alignment the architect builder was trying to achieve. To compare the orientation of a mosque built 1300 years ago with the MODERN qibla is not realistic.”⁵⁹ For King, this is sensible, because there were many qiblas oriented to the Ka’ba. For Gibson, there were only a few qiblas oriented four different ways, which can be measured.

Thus, there seem to be two assumptions underlying Dr. King’s objection. First, the earliest mosque builders did not have the means to geographically direct their mosques anywhere. And, second, they never intended to: they astronomically aligned their mosques because this is what they were capable of doing. So, for King, interpreting these mosques with a modern, geographical qibla is an imposition and irrelevant. I hope I have done the argument justice.

The disagreement between Gibson and Dr. King in this area is not about data. It is about interpretation. In 2017 Dr. King called Gibson’s “information presented ... invalid,”⁶⁰ but has more recently written that there is “nothing wrong with Gibson’s data.”⁶¹ King admits: “do Gibson’s earliest mosque face Petra as he claims they do? They do indeed; the numbers speak for themselves.”⁶² But though Gibson has measured the mosques with “commendable accuracy,”⁶³ King believes Gibson’s interpretation is flawed because, again, directing mosques toward the modern direction of Petra was impossible for the mosque builders.

Dr. King is making an argument from his own assessment of the knowledge of early mosque builders. If they could geographically face mosques toward Petra or Mecca, Gibson’s interpretation is correct. If they could not do this, Gibson is accidentally finding patterns.

If there are three ways to determine a qibla: folk astronomy, medieval mathematics, and modern global positioning systems, is it a problem if they agree? I do not believe early mosque builders could direct their qiblas with the accuracy of modern instruments; I would presume the astronomers and mathematicians of the ninth century onward could not either. But if they appear to be able to consistently do so within five or so degrees, is that not evidence for their expertise? We cannot conclusively prove how these architects oriented their mosques toward Petra. But the pattern is observable and overwhelming, and better archaeologically attested than the astronomical features of the Ka’ba.

⁵⁸ King, *Historical mosque orientations*, 934.

⁵⁹ King, *Historical mosque orientations*, 940.

⁶⁰ King, “From Petra back to Mecca,” 13.

⁶¹ King, *Historical mosque orientations*, 937.

⁶² King, *Historical mosque orientations*, 954.

⁶³ King, *Historical mosque orientations*, 1002.

Dr. King simply wants me to believe that early mosques could not face anywhere, Mecca or Petra, despite the data indicating that they could. Gibson has also identified around 30 early mosques built in the eighth century which accurately face Mecca in the Hijaz, some a full century before Dr. King believes this was possible. This data leaves Dr. King with one of two embarrassing conclusions: either early mosque builders could find Mecca but not Petra, or these mosques accidentally face Mecca. He has chosen the latter.⁶⁴

After conducting a statistical study of both Dr. King and Gibson's explanations for these qiblas, Dr. Walter R. Schumm and Zvi Goldstein found that "the mosques that do seem to point geographically towards Mecca do so for geographical reasons rather than various qibla alignments with the Ka'ba. Furthermore, when degrees of error are compared, even in the five cases that would fit King's theory, Gibson's method yields smaller levels of error."⁶⁵ In another study, Dr. Schumm observed that if the Mecca qibla was accurate, other qiblas could be accurate as well: "when we limited the analyses to mosques that all would probably agree were oriented towards Mecca, high levels of qibla accuracy were obtained, suggesting that accuracy might have been possible for qiblas facing different sites other than Mecca itself."⁶⁶ Ultimately, in terms of these early Meccan mosques, "accuracy was relatively good, in support of Gibson's thesis and contrary to King's antithesis."⁶⁷

Dr. Schumm and Goldstein have determined that their findings are exactly what we would expect if the Petra Qibla theory is true:

while King's theory works well for most mosques and other sites after 900 C.E., Gibson's theory seems to work well for sites prior to 900 C.E., especially for sites constructed before 725 C.E. In summary, many early mosques and related structures do appear to face Petra geographically rather than towards Mecca. However, later structures may be related to today's Mecca in a variety of ways other than simple geographical alignment.⁶⁸

It is fascinating to note the statistical possibility that there were indeed astronomically aligned mosques as Dr. King argues, but that they were later--contemporaneous with the promotion of mathematics and astronomy in the Muslim world. For Schumm and Goldstein, it seems evident that "early Islamic architects were quite capable of aiming their structures toward specific distant sites, with relative accuracy; while there may be multiple explanations for the apparent qiblas of Islamic structures, the idea that none of the early Muslim architects were capable of accurate qibla determination cannot be a valid explanation" of their findings.⁶⁹

⁶⁴ King, *Historical mosque orientations*, 915.

⁶⁵ Walter R. Schumm and Zvi Goldstein, "A Statistical Assessment of Early Islamic History and the Qibla: Comparing the Theories of David King and Dan Gibson," *Open Access Journal of Archaeology and Anthropology* 3, no. 1 (2020): 7, doi:10.33552/OAJAA.2020.03.000555

⁶⁶ Schumm, Walter R., "How Accurately Could Early (622-900 C.E.) Muslims Determine the Direction of Prayers (Qibla)?," *Religions* 11, 3 (2020): 13, <https://doi.org/10.3390/rel11030102>

⁶⁷ Schumm, "How Accurately," 12.

⁶⁸ Schumm and Goldstein, "A Statistical Assessment," 1.

⁶⁹ Schumm and Goldstein, "A Statistical Assessment," 5.

Schumm and Goldstein ultimately conclude: “we think that our statistical evidence greatly strength[ens] the arguments in favor of Gibson’s theory that the original city of Islam was Petra rather than Mecca, that Petra was where Islam was founded.”⁷⁰

Other Objections

Dr. King offers many other objections to Dan Gibson’s work in his papers. We will address some of those objections here in brief.

To discredit the Parallel qibla theory, Dr. King argues that the Great Mosque in Córdoba happened to be aligned to the Roman street plan.⁷¹ Because this Roman street plan was solstitially aligned, the Great Mosque also happens to be “parallel to the main axis of the Ka’ba,” that is, it is “perpendicular to the solstices” of summer sunrise and winter sunset.⁷² The Great Mosque was also “laid out in accord with pre-Islamic religious edifices,” in this case likely a previous Roman temple and church.⁷³ The other African and Spanish mosques with a qibla facing south into the interior of Africa simply also fit into Roman solstitial city layout, and, “as luck would have it, the mosques are ‘parallel’ to the main axis of the Kaaba.”⁷⁴ Some early mosques in Northern Africa which predate the Great Mosque have a similar qibla, which King explains is “thanks to the Romans, and thanks to the alignments of the Kaaba.”⁷⁵

King is nonspecific and matter-of-fact. The graveyard of Sidi ‘Ukba and the early mosque on the site adopt the Parallel Qibla independently of any Roman construction. So too with the mosque in Zawailah and Yogharta Mosque in Morocco. One can interpret the qiblas of the Parallel mosques according to one’s preference because the Córdoba Great Mosque does indeed stand (within five degrees or so) in the same orientation as the Ka’ba, as Dr. King suggests. But it also has a qibla which runs parallel from Petra to Mecca, because the Ka’ba in Mecca faces Petra within ten degrees. Or, to think of it another way, the 39 Parallel Qiblas face south south-east as Petra ‘faces’ the Ka’ba in Mecca, with a fair amount of variation, as can be observed with the Online Qibla Tool.

No matter which possibility one may prefer, it appears that as early as the creation of the graveyard and mosque at Sidi ‘Uqba in 67 AH (686 CE) the African and Spanish qibla was set. This qibla was created totally independently of any pre-existing Roman foundations. The Córdoba mosque would not be built for another century. We have argued that in the context of the competing Petra, Between, and Meccan qiblas created by the relocation of the Black Stone and the political turmoil at the time, the Muslims in Africa and Spain appear to have adopted a unique qibla. This qibla appears to run parallel to Petra and Mecca, and like the Between

⁷⁰ Schumm and Goldstein, “A Statistical Assessment,” 19.

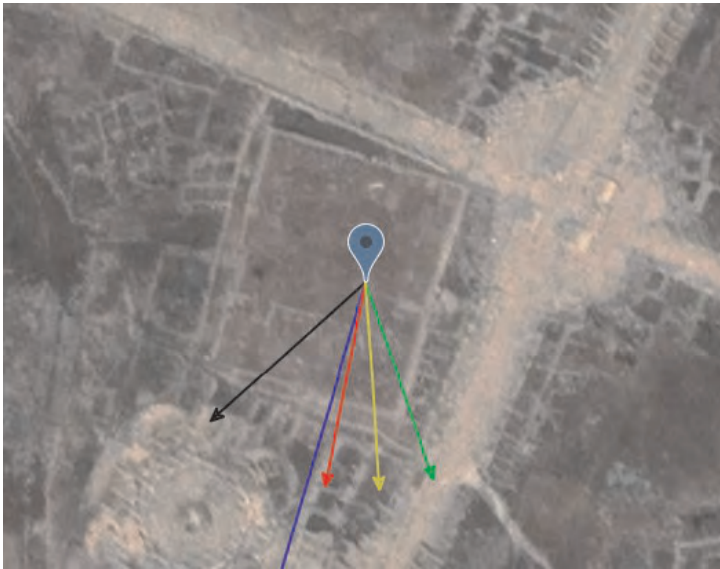
⁷¹ King, “The Petra fallacy,” 20.

⁷² King, “The Petra fallacy,” 20, 24.

⁷³ King, “From Petra back to Mecca,” 17.

⁷⁴ King, “The Petra fallacy,” 33.

⁷⁵ King, “The Petra fallacy,” 24.



Gibson argues that the congregational mosque in Jerash Jordan does not align with the Roman road on two sides.

Qibla, appears to be a sort of compromise between the two locations. The Muslims in Africa and Spain used this qibla quite consistently for over five centuries.

The problem for Dr. King is that mosques in Syria, Palestine, and elsewhere could have also aligned to the Roman roads, or the summer and winter solstice, and did not—see the mosque in Jerash in Jordan, which was built specifically out of alignment with Roman construction in order to face Petra.⁷⁶

It also seems very unlikely that a navigational or folk astronomical error was made determining the qibla in North Africa and recreated over 39 times over five centuries without correction. We are left to determine what we find to be the most satisfying explanation, but King's theory of Roman alignments needs further development.

King makes the surprising argument that Petra could not have been the birthplace of Islam because in early 7th century Petra “there were no Arabs, no Muslims, and no Jews, and, in brief, there was not much going on.”⁷⁷ He further argues that by the early 7th century the Nabataeans had “left Petra.”⁷⁸ He calls it a “ghost town” and a “dead city”⁷⁹ which “was more or less deserted by the 7th century.”⁸⁰ Dr. King even suggests that the builders of the Grand Mosque in Sanaa in 86 AH (705 CE) had “probably never heard” of Petra.⁸¹

As you may be aware, this opinion is outdated. Extensive excavations through the 1990s onward have revealed a late Roman (Byzantine) Petra which was hardly abandoned. The ‘abandonment’ theory was abandoned since the discovery of the Petra papyri found in the back room of a large basilican church, still in use in the early seventh century.⁸² Zbigniew T.

⁷⁶ See https://nabataea.net/explore/cities_and_sites/jerash-umayyad-mosque/

⁷⁷ King, “The Petra fallacy,” 9.

⁷⁸ King, “The Petra fallacy,” 11-12.

⁷⁹ King, *Historical mosque orientations*, 14.

⁸⁰ King, *Historical mosque orientations*, 915.

⁸¹ King, “The Petra fallacy,” 24.

⁸² Zbigniew T. Fiema, “Historical Context,” in *The Petra Papyri I*, ed. Jaakko Frosen, Antti Arjava and Marjo

Fiema, chief archaeologist of the Finnish Jabal Haroun project in Petra, has soundly concluded that “there is no doubt that Petra continued its existence as a major provincial town *at least* until the end of the 6th century [emphasis added].”⁸³ The records of this major provincial town feature “names of purely Nabataean origin” and the use of pre-Islamic Arabic which “is evidence for Arab-speaking populations in the Petra area in the 6th century.”⁸⁴ The records cease in the early 7th century because that is when the storeroom containing the papyri was destroyed by fire.⁸⁵ Even so, we should hardly conclude that Petra was subsequently abandoned at the loss of a storeroom.

Though Dr. King included numerous quotations from journalists and scholars commenting on the state of Petra in the 7th century in his monograph, he did not include anything from the Finnish Jabal Haroun project, despite the importance of their work.⁸⁶ Surprisingly, King comments on an article written by archaeologist Dr. Micaela Sinibaldi entitled “Did Petra’s inhabitants really abandon the city?”⁸⁷ Her conclusion, in a word, is ‘no,’ and she expresses dismay that “the commonly accepted narrative, even by some scholarly views, has maintained that when the role of Petra changed along with broader socio-economic dynamics, the city was completely abandoned.”⁸⁸ Dr. King acknowledges Dr. Sinibaldi’s arguments but helpfully concludes that “Sinibaldi does not envisage Petra as the cradle of Islam.”⁸⁹ We will add she also does not envisage Petra abandoned.

Another of Dr. King’s objections is his dismissing of the Online Qibla Tool as a useful resource. King objects to the use of a “two-dimensional representation” making measurements across a “flat world.”⁹⁰ For Dr. King, measuring with Google Earth is “ridiculous and can only lead to more confusion” and cannot preserve “directions the way Gibson would like.”⁹¹

Google Earth uses WGS84 datum, and its satellite images are algorithmically adjusted to form a spheroid map.⁹² Dan Gibson was able to correspond personally with an engineer at Google Earth, and the engineer explained that Google Earth is generally accurate within 200 meters of a GPS reading. In remote areas, such as islands, it can be worse than that—but often

Lehtinen (Amman: American Center of Oriental Research, 2002), 1.

⁸³ Fiema, “Historical Context,” 4.

⁸⁴ Fiema, “Historical Context,” 4.

⁸⁵ Fiema, “Historical Context,” 5.

⁸⁶ King, *Historical mosque orientations*, 918ff.

⁸⁷ Micaela Sinibaldi, “Did Petra’s inhabitants really abandon the city?,” *The British Academy*, last modified March 6, 2022, <https://www.thebritishacademy.ac.uk/blog/did-petras-inhabitants-really-abandon-city/>

⁸⁸ Sinibaldi, “Did Petra’s inhabitants.”

⁸⁹ King, *Historical mosque orientations*, 926.

⁹⁰ King, “The Petra fallacy,” 32.

⁹¹ King, “The Petra fallacy,” 32.

⁹² The following is a summary of Gibson’s explanation for his use of Google Earth in Early Islamic Qiblas, pages 115-120.

the displacement is better than 20 meters. The Google Earth ruler tool uses a “geodesic line,” which is appropriate when measuring a sphere. Google Earth (and the Online Qibla Tool) is not perfectly accurate. But it is quite accurate, and it is regularly being improved. As the engineer explained to Gibson, they “strive for accuracy” but disclaim accuracy to avoid involvement in legal and land disputes. Calling the WGS84 datum a “flat world” is a fundamental misunderstanding of how this tool functions. More recently Dr. King seems to look on Google Earth favorably, but he has not yet acknowledged any change in his position.⁹³

King argues that Gibson’s database is flawed because “as far as Gibson’s early mosques are concerned, he has grouped them by date of construction. It would have been preferable to treat them by region.”⁹⁴ Dear reader, having presumably read much of Dan Gibson’s work, you likely understand why when cataloguing the mosques of the first centuries of Islam chronology is important. Since Gibson argues that there was an observable shift in the qibla from Petra, to Between, to Mecca over time, chronology is crucial. Dr. King prefers to organize his mosques by region because he believes they are regionally organized. Gibson prefers a chronological emphasis because he believes it helps explain the shift. Even if one were to reject Gibson’s explanation of his data, very few would fault Dan Gibson for emphasizing chronology in a vast medieval archaeological survey.

The final objection we will address is somewhat embarrassing to describe. Dan Gibson and I have great respect for Dr. King and believe that he is both a pioneer and master in his field of Islamic medieval astronomy and mathematics. We happen to believe that he is wrong about early Islamic qiblas. We have appreciated how Dr. King’s objections have both challenged and improved the Petra Qibla theory and have substantially raised the profile of the Petra Qibla in the academic realm.

Unfortunately, Dr. King found it necessary to publish repeated petty quips about Dan Gibson. Dr. King called Gibson “idiotic,”⁹⁵ “deranged,” and “trumpish.”⁹⁶ He described Gibson’s work as “nonsense, rubbish,”⁹⁷ “desperate, hopelessly muddled and utterly puerile” and akin to the work of a “first year college student.”⁹⁸ If his feelings were unclear, King also refers to Gibson’s work as “a monumental pile of garbage.”⁹⁹ King mocks Gibson for mispronouncing a word in a video, and compares the Petra theory to the disintegration of democracy, in the same sentiment.¹⁰⁰ Further, Dr. King called Gibson an “ill informed *Besserwisser*” (know-it-all),

⁹³ King, *Historical mosque orientations*, 104, 106.

⁹⁴ King, *Historical mosque orientations*, 1064.

⁹⁵ King, *Historical mosque orientations*, 924.

⁹⁶ King, “From Petra back to Mecca,” 3, 25.

⁹⁷ King, *Historical mosque orientations*, 898.

⁹⁸ King, “From Petra back to Mecca,” 24, 5.

⁹⁹ King, *Historical mosque orientations*, 984.

¹⁰⁰ King, *Historical mosque orientations*, 1163-1164.

promoting “crackpot theories” which contribute to “Islamophobia.”¹⁰¹ The reader may agree with my assessment that the tone of King’s work often wanders into *ad hominem*; King makes it sound as though the problem is not just the Petra theory, but Gibson himself. I believe that this tone has been unbecoming of a scholar of Dr. King’s esteem.

Conclusion

I am not a scholar of Muslim history, literature, or science. “There are two sorts of outsiders: the uneducated, and those who are educated in some way, but not in your way;” I am an outsider who has largely studied English literature and theology.¹⁰² But in reviewing Dr. King’s work, I’m reminded of C.S. Lewis’ self-conscious attempt, as a scholar of literature, to critique the theologians of his day. Lewis concluded that these theologians “claim to see fern-seed and can’t see an elephant ten yards away in broad daylight.”¹⁰³

I believe that Dr. King has so aggressively countered Gibson because of the popular appeal of Gibson’s work. I believe that Dr. King finds the ramifications of Gibson’s theories dangerous. I believe that as a specialist in a field which has not received “serious attention,” Dr. King is quite unaccustomed to being challenged.¹⁰⁴

Dr. King does not need to pore through the fern-seeds of esoteric 13th century manuscripts and diagrams to unravel the mystery of the early qiblas. The elephant is there to behold, so apparent that an amateur historian with a GPS was able to see it. Over 60 early mosques face Petra accurately, indicating that Petra was the original Holy City of Islam. Dr. King will meditate on al-Farisi and find comfort in his explanations for this problem, centuries removed. But if Dr. King would let the stones speak, he may learn to lend his considerable gifts to explaining the data rather than denying it.

¹⁰¹ King, “The Petra fallacy,” 14, 26, 14.

¹⁰² C.S. Lewis, *Fern-Seed and Elephants* (Samizdat University Press, 2014), 2, <http://www.samizdat.qc.ca/vc/pdfs/Fernseeds.pdf>

¹⁰³ Lewis, *Fern-Seed and Elephants*, 7.

¹⁰⁴ King, “The Petra fallacy,” 21.

Chapter Twelve

The Roman Army

Chad Doell

A question often posed to Dan Gibson is if Petra is the Holy City of Islam, why do the Romans not factor in more prominently? Why would the Romans not oppose the emerging Muslim power sooner? This is a provocative question because Petra was not only closer to Roman territory than Mecca in the Hijaz, it was a Roman holding. After considering the Roman strategic disposition, the ethnic makeup of Roman troops in Arabia Petraea,¹ the religious climate of Roman Petra, and the impact of the 7th century Roman-Sassanian war, we will find that the emergence of Islam not only fits into Roman Petra, but the changing fortunes of the Roman world directly influenced the formation of Islam.

The Roman Border

If we are to understand the Roman presence in early 7th century Petra, it is helpful to consider the nature of the Roman border and fortifications in the area. The Nabataean Kingdom, and its capital Petra, was suddenly absorbed into the Roman Empire in 106 CE. We have very few Roman written sources about this annexation or the following centuries of occupation and Romanization, and essentially nothing from the Nabataeans themselves.² But, the abundant archaeological record of Roman fortifications on the southern Arabic frontier can provide an impression of the Roman presence in and around Petra.

Helpfully, Mariana Castro has exhaustively studied and catalogued the Roman border and its fortifications in southern Arabia Petraea. By comparing the changes in military fortifications through the Nabataean, Roman, and medieval Roman (Byzantine)³ periods, she has

¹ Arabia Petraea was the early name of the Roman province in southern Jordan shortly after the annexation of the Nabataean Kingdom. By the 5th and 6th centuries, Petra was the capital of a province called Palaestina Salutaris or Palaestina Tertia, which also included the Negev and Sinai. To avoid confusion by referring to Petra's province as Palestine, we will use the admittedly anachronistic Arabia Petraea to describe the area around Petra in the 6th and 7th centuries.

² Mariana Castro, *The Function of the Roman Army in Southern Arabia Petraea*, (Oxford: Archaeopress, 2018), 9.

³ Recent scholarship has shifted away from referring to the Eastern Roman empire as the Byzantine empire. We will follow suit and call this medieval Constantinopolitan people 'Romans,' despite the 'Byzantine' terminology proving helpful in resisting the unhelpful conflation of some 2200 years of Roman history, from the founding of the Kingdom of Rome to the fall of Constantinople.

been able to provide key conclusions about the nature of this little-understood Roman frontier.

Castro has found that the border near Petra was fairly flexible, and outlined how many scholars wonder whether this boundary constituted “ideological or definite borders.”⁴ Part of the issue is the assumption that the Roman *limes* (or frontier defenses) in Arabia were a well-fortified, defined border, but there is no evidence that this was the case as it was along the Rhine.⁵ The Roman fortifications in Arabia Petraea were rather “more concerned with controlling client kings, waterpoints, and wadi passages than with establishing a continuous system of forts and towers.”⁶ Thus the Roman fortifications in the area were “neither linear or tightly packed, but porous and broadly spaced.”⁷ Further, it is an error to assume that Roman fortifications necessarily served a military function: a fortified building could “have served as a *caravanserai*, residence, church,” or as part of a system of “fortified granaries.”⁸

In fact, Castro observed that the most recognizable ‘border’ in the area was the north-south Roman road called the Via Nova Traiana, which served as an upgrade to the old King’s Highway and ran from Aqaba, up past Petra, and further north well into Mesopotamia. This is an important observation because this road was meant to encourage “communication rather than separation.”⁹ That is, the Roman highway was meant to encourage the movement of people and goods in and out of the empire, not limit them, because the “annexation of the east seems to have been part of an attempt to control oriental trade and expand the commercial power of the empire.”¹⁰ The Romans did not annex the Nabataean Kingdom to fortify it against the ‘nomadic menace,’ but to tax the caravans which traveled from southern Arabia along the King’s Highway. While the Romans were certainly wary of raids into their territory, the movement of people into the empire in Arabia Petraea was not the problem, it was the economically motivated goal.

By the 6th and into the 7th centuries, the military presence in Arabia Petraea had shifted east of the Via Nova Traiana, away from the settlements and cities on the Jordanian plateau, including Petra.¹¹ The Romans had previously held a number of fortifications along the Wadi Araba, the deep, wide valley south of the Dead Sea, but Castro observed that the Wadi Araba “was apparently almost completely abandoned” by the later Roman military.¹² The new eastern fortifications were mostly watchtowers which featured drastically improved sightlines from previous periods, so while the Romans did not attempt to form a heavily fortified border,

⁴ Castro, *Function of the Roman Army*, 10.

⁵ Castro, *Function of the Roman Army*, 10.

⁶ Castro, *Function of the Roman Army*, 12.

⁷ Castro, *Function of the Roman Army*, 12.

⁸ Castro, *Function of the Roman Army*, 22.

⁹ Castro, *Function of the Roman Army*, 14.

¹⁰ Castro, *Function of the Roman Army*, 38.

¹¹ Castro, *Function of the Roman Army*, 50.

¹² Castro, *Function of the Roman Army*, 50.



Map of the Via Nova Traiana.

their watchtowers and forts were able to communicate by light signal.¹³ This means that around the 6th century onward, the Roman military presence was east of Petra, and it appears that most of the Roman installations near the city were intended to regulate trade, rather than serve a military function. Additionally, there was no Roman fort in Petra.¹⁴

From this data we can conclude that although there was a Roman presence in the prophet Muḥammad's Petra, the Roman military had shifted east of the city. Roman taxes and checkpoints would have been a regular feature for the prophet Muḥammad, especially as his wife Khadijah organized her trade caravans. But the interests of the Roman military appear to have been

monitoring the movements of nomads and the arrival of caravans in the east. This border was made up of mostly signal posts, with very few large forts, intended to enable those few forts on the border to counter potential raids. It appears the Romans felt the populations of the Jordanian plateau were sufficiently 'Romanized' after centuries of rule and there was no longer a need to occupy forts and towers in the interior of the plateau.

While Roman political power, religion, and taxation would have been a factor through much of the prophet Muḥammad's life, it would not remain so. Just when the prophet Muḥammad began to preach in the Holy City, the Roman presence on the Jordanian plateau would have entirely disintegrated due to the Sassanian conquest of Palestine. We will fully explore this important destabilizing event later in our discussion.

The Ghassanid Foederati

To further illuminate the relative freedom the prophet Muḥammad would have experienced in Roman Petra, we should also consider exactly who constituted a 'Roman soldier' at the time. While the second century Nabataean Kingdom was occupied and administered by the citizen soldier *legionaries* we typically associate with the Roman Empire, the 6th and 7th century Roman military was largely made up of mercenaries.

¹³ Castro, *Function of the Roman Army*, 54.

¹⁴ Castro, *Function of the Roman Army*, 144.

Following the successful expansion of the empire under Justinian I (d. 565 CE), and the disastrous depopulation of the empire from the Justinian plague (*Yersinia pestis*) immediately afterward, the Roman forces on all frontiers were spread thin. The Romans would hold this tenuous position until it finally collapsed in the early years of Heraclius' reign in the 610s CE.¹⁵ The military strategy of the Romans had long shifted from fielding large armies of heavy infantry to, as John Haldon puts it, "delaying tactics, depriving the enemy of supplies... fomenting anxiety...and similar methods to wear down the enemy."¹⁶ The Eastern Roman empire lacked the manpower of previous generations and so developed sophisticated strategies and tactics designed to break enemy morale and inflict attrition, rather than risk losing an army in a large scale engagement. The severe consequences of a single lost battle at Adrianople or Yarmuk would prove this strategy wise.

To solidify Roman power in Palestine, Syria, and Arabia Petraea, the Romans formed client kingdom relationships with some of the tribes of Arabia. The most important of these clients was a confederation of Christian Arabs called the Ghassanids. As Haldon notes, the Ghassanids would become "a mainstay of Roman power in the East, acting both as allied troops...and as a useful bolster for Roman security within the eastern provinces."¹⁷ The Ghassanid Arabs provided the Romans with much needed manpower and would patrol the roads, occupy fortifications, and commit large numbers of troops to Roman battles in the region.

In return, the Ghassanid sheik was granted the title of '*Strategos Paembolon*' or 'Commander of nomad auxiliaries' by the Romans and received regular Roman payments to maintain his people's loyalty.¹⁸ The 6th and 7th century Roman army in the southeast was a patchwork of mercenaries, including defected Persian troops. But historian David Nicolle observed that "most of the troops within Syria seem to have been of Arab origin."¹⁹ In fact, prior to the Muslim invasion of the empire, Nicolle estimated that the Roman troops in the area numbered "5,000 in northern Syria, plus 5,000 in Palestine and Arabia [with] a further 6,000 tribesmen from allied Arab phylarchs."²⁰ Dr. Walter Kaegi agrees that "local Arab garrisons probably equalled or exceeded the number of regular Byzantine soldiers."²¹

It is likely that, on the Jordanian plateau, a majority of local soldiers occupying military outposts and patrolling the roads were Arab mercenaries. While the Ghassanids formed the primary Roman military structure in the region, towns and villages were garrisoned by local,

¹⁵ John Haldon, *The Byzantine Wars*, (Stroud: The History Press, 2012), 43.

¹⁶ Haldon, *The Byzantine Wars*, 44.

¹⁷ Haldon, *The Byzantine Wars*, 58.

¹⁸ David Nicolle, *Yarmuk AD 636: The Muslim conquest of Syria*, (Long Island City: Osprey Publishing Ltd., 2006), 12, 26.

¹⁹ Nicolle, *Yarmuk*, 23.

²⁰ Nicolle, *Yarmuk*, 32.

²¹ Walter E. Kaegi, *Byzantium and the Early Islamic Conquests*, (New York: Cambridge University Press, 1992),

part time soldiers.²² As such, it was not only the northern Arabic Ghassanids whom the Romans relied on, but especially south of the Yarmuk, Kaegi believes “the Byzantines probably relied on local Arab tribes.”²³

Thus, we find that the Roman military presence in the region of Petra was porous both by necessity and design, and many of those ‘Roman soldiers’ the prophet Muḥammad would have encountered in and around Petra were fellow Arabs—some of them his tribesmen. The reality of the military presence in Arabia Petraea was nothing like the columns of Greek troops patrolling roads and occupying forts which some imagine—the region was comfortably Arab and aligned to Constantinople. Constantinople relied on the Ghassanid Arabs to defend and stabilize the region, and in turn the Ghassanids received Roman gold. Of course this arrangement would not last—ultimately, the Ghassanid mercenaries were “shattered by the Sassanian conquest,”²⁴ and many of their remnant defected to join their fellow Arabs against the Romans at Yarmuk.²⁵ With the Sassanian conquests the local Arab garrisons of the towns and villages reverted to tribal loyalties and raiding and a power vacuum formed in Roman Arabia Petraea which engendered the meteoric rise of the Muslims.

The Religious Climate of Petra

Between 391-392 CE, the emperor Theodosius I issued a series of edicts which banned public and private pagan sacrifice and ordered the closing of pagan temples.²⁶ These edicts were not as decisive or sweeping as they sounded because Theodosius’ successors Arcadius (d. 408 CE) and Justinian (d. 565 CE) both found it necessary to repeat the ban on pagan sacrifice.²⁷ The Christian Romans were concerned about continuing pagan sacrifice in the empire, and they also appear to have struggled to stop it.

While Theodosius’ edicts clearly had a profound impact on the policy of the increasingly Christianized Roman world, they had less impact on reality. One of the objections Dan Gibson has faced in locating the Holy City of Islam in Petra is that the pagan worship and sacrifice of the Quraysh at the Ka’ba would not be tolerated in the Christian Roman Empire. This objection is sensible in that the emperors had banned pagan sacrifice, but it is naïve in as much as it assumes these edicts were universally observed or even enforceable.

Dr. Frank Trombley has recognized that pagan practice survived in provinces “which were only superficially hellenized,” especially in Syria and Egypt where various pagan cults

²² Kaegi, *Byzantium*, 41.

²³ Kaegi, *Byzantium*, 63.

²⁴ Nicolle, *Yarmuk*, 12.

²⁵ Haldon, *The Byzantine Wars*, 61.

²⁶ K. W. Harl, “Sacrifice and Pagan Belief in Fifth- and Sixth-Century Byzantium,” *Past & Present* 128 (August 1990): 7.

²⁷ Harl, “Sacrifice and Pagan Belief,” 7.

continued to flourish.²⁸ Certainly the semi-nomadic, former Nabataean Kingdom on the very fringe of the empire was only superficially Hellenised. Dr. Kenneth W. Harl further argued that

the prohibition of sacrifices was widely disobeyed in the fifth and sixth centuries. Ancient shrines such as Heliopolis (Baalbek) and Carrhae (Harran) are reported to have operated throughout the fifth and sixth centuries despite repeated imperial efforts to suppress these cults. Even in mostly Christian Edessa, 'the blessed city,' organized communities of pagans were still sacrificing to Zeus-Hadad in the last quarter of the sixth century.²⁹

Harl concludes that these persisting pagan centers are evidence of "imperial toleration."³⁰ In fact, there is evidence of continued tolerance of the pagan cult in Maina in Greece as late as the 9th century, presumably because Maina was geographically important, and the pagans there paid their taxes.³¹

The continuation of pagan sacrifice, despite the strong language of the imperial edicts, may be in part due to demographics. At the death of Theodosius I, well over half of the Roman world remained pagan.³² Eastern cities were said to contain significant pagan populations at the end of the 6th century—the conquering Arabs even encountered Romans performing pagan rites when under siege during the Arab conquests in the 7th century.³³ Further complicating this religious context, a majority of Christians in Syria, Egypt, and elsewhere belonged to sects which Constantinople (usually) considered heretical.³⁴

Through the 6th century the church was still struggling to convert pagans and close temples in Anatolia, in the regions immediately surrounding Constantinople.³⁵ John of Ephesus is said to have converted some 80,000 pagans in Anatolia over his 30 year career—but this record also indicates that there were many tens of thousands of pagans to be converted.³⁶ Nicholas of Sion was a 6th century bishop in Anatolia who, in an effort to accommodate the new converts under his care, performed a recorded 13 animal sacrifices with "Christian cult formulae."³⁷ The village of Tanae, near Constantinople, was still performing pagan sacrifice in the 6th century.³⁸ The Quinisextum Council in 691-692 CE was concerned about enduring

²⁸ Frank R. Trombley, "Paganism in the Greek World at the End of Antiquity: The Case of Rural Anatolia and Greece," *The Harvard Theological Review* 78, no. 3/4 (1985): 328.

²⁹ Harl, "Sacrifice and Pagan Belief," 14.

³⁰ Harl, "Sacrifice and Pagan Belief," 14.

³¹ Trombley, "Paganism in the Greek World," 347.

³² Harl, "Sacrifice and Pagan Belief," 15.

³³ Trombley, "Paganism in the Greek World," 346.

³⁴ Nicolle, *Yarmuk*, 9.

³⁵ Trombley, "Paganism in the Greek World," 329.

³⁶ Trombley, "Paganism in the Greek World," 329.

³⁷ Trombley, "Paganism in the Greek World," 339.

³⁸ Trombley, "Paganism in the Greek World," 342.

pagan practice across the empire.³⁹ A cult of Kybele persisted through the 8th century in Western Anatolia.⁴⁰ It is further worth noting that it does not appear the Romans began building monasteries in mainland Greece until the 9th century; monasteries were the primary means of converting rural populations to Christianity, meaning that until that time most of rural Greece remained pagan.⁴¹

Petra existed on the fringe of an empire which through the 5th, 6th, 7th centuries and onward was still struggling with its religious identity. Pagan practice and sacrifice persisted in the heartland of the empire. Several successful inquisitions were conducted in Constantinople itself to discover court officials who still privately performed pagan religious rites in the 6th century.⁴² The east maintained large pagan populations, many of whom were able to continue pagan sacrifice. It is entirely plausible that the Quraysh were able to perform their pagan sacrifices at the Ka'ba throughout this period. In fact, given the prevalence of pagan practice in Anatolia, Greece, Egypt, and Syria, it would be surprising if the edicts were successfully enforced in distant Petra when officials either struggled to enforce these edicts, or ignored them, in other more important centers. That is not to say there would not be tension with the local Christians of Petra—but to suggest that the edicts of Theodosius marked the end of pagan practice across the empire is unrealistic and completely untrue.

Petra has an interesting if dubious place in the religious milieu of the eastern Roman Empire. Petra was apparently used as a place of exile for various pagans and heretics, including a 6th century alchemist from Antioch,⁴³ a 6th century heretic Isidore of Chalcis who functioned as a local bishop in Petra,⁴⁴ and the 5th century Nestorian Irenaeus of Tyre.⁴⁵ Nestorius himself was to be exiled to Petra as well but managed to divert his exile to Egypt. If Petra was a place of exile, especially for religious outsiders, we have good reason to wonder if the rigor of the Theodosian edicts could ever be expected to be enforced there.

The Roman-Sassanian War

We have thus far attempted to provide the military/archaeological, ethnic, and religious context of Roman Petra during the time of the emergence of Islam. This information serves to

³⁹ Trombley, "Paganism in the Greek World," 343.

⁴⁰ Trombley, "Paganism in the Greek World," 344.

⁴¹ Trombley, "Paganism in the Greek World," 345.

⁴² Trombley, "Paganism in the Greek World," 335.; Harl, "Sacrifice and Pagan Belief," 23.

⁴³ E. S. Bouchier, *A Short History of Antioch: 300 B.C.-A.D. 1268*, (Oxford: Basil Blackwell, 1921), 179.

⁴⁴ Simon Samuel Ford, "Ordination and Episcopacy in the Severan-Jacobite Church: AD 518-c. 588," PhD diss., (University of Oxford, 2016), 30.

⁴⁵ Fr. Georges Florovsky, "The Byzantine Fathers of the Fifth Century," *Holy Trinity Mission*, accessed September 8, 2022, http://www.holytrinitymission.org/books/english/fathers_florovsky_2.htm.

describe a southern Arabia Petraea which was thinly garrisoned in large part by Arab mercenaries, on the fringe of imperial religious control, and a place of exile where the empire often sent her religious problems. The marginal Orthodox Roman presence in both religious and military terms in Petra is a suitable environment for the emergence of a uniquely Arab, militaristic form of monotheism—save for one problem. Mecca in the Hijaz was never a Roman city, and so it is quite believable that the prophet Muḥammad could seize it from the Quraysh without imperial complications. But Petra was a Roman city, so there needs to be an explanation for both why the Quraysh were able to exercise control over the city and persecute the prophet Muḥammad and his companions, and why the prophet Muḥammad was ultimately able to seize the city without Roman intervention.

Rather than posing a problem, a survey of Roman history demonstrates that the prophet Muḥammad's actions have everything to do with Petra's status in the Roman Empire. He was able to capture Petra because the city was abandoned by the Romans after the Sassanian conquest of Syria and Palestine. By considering a brief summary of the last Roman and Sassanian war and locating the actions of the prophet Muḥammad within this troubled Roman world, we will find that not only does the prophet Muḥammad's career fit into Roman Petra, it was formed by Roman Petra.

Geoffrey Greatrex and Samuel N. C. Lieu compiled a documentary history of this period called *The Roman Eastern Frontier and the Persian Wars AD 363-628*.⁴⁶ Drawing from their work, we will summarize the major events of the Roman-Sassanian war of 602.

The Roman and Sassanian (Persian) empires were engaged in warfare for centuries across Syria, Armenia, and Mesopotamia. In 590 CE there was a rebellion against the ruling dynasty in the Sassanian capital Ctesiphon, causing the new Sassanian ruler Khusro II to flee to Constantinople.⁴⁷ Khusro appealed to the Roman emperor Maurice for military aid to retake Ctesiphon. Maurice agreed, and with Roman aid, Khusro successfully reconquered his empire only a year later. Capitalizing on this great success, Maurice declared Sassanian emperor Khusro his adopted son.⁴⁸ This cooperation and adoption led to a rare decade of peace between the Romans and Sassanians.

But that peace ended in 602 CE when Roman general Phocas usurped Maurice and had the emperor and his family killed.⁴⁹ Khusro used this usurpation of his adoptive father's dynasty as a pretext for war, likely eager to regain the vast amounts of territory he granted to Maurice in return for Roman military aid. Khusro's forces slowly and systematically captured Roman holdings, city by city, fort by fort. By 607 or 608 CE, Roman Armenia had fallen to

⁴⁶ Geoffrey Greatrex and Samuel N. C. Lieu, *The Roman Eastern Frontier and the Persian Wars AD 363-628*, (London: Routledge, 2002).

⁴⁷ Greatrex and Lieu, *Persian Wars*, 172.

⁴⁸ Greatrex and Lieu, *Persian Wars*, 174.

⁴⁹ Greatrex and Lieu, *Persian Wars*, 182.

the Sassanians.⁵⁰ By 610 CE, the Romans had lost all of their holdings east of the Euphrates.⁵¹

The Romans were unable to field an army and offer meaningful resistance during this long Sassanian campaign. This inability to respond is in part because in 608 CE the Exarch of Africa, Heraclius the Elder, started a revolt against the usurper Phocas.⁵² Heraclius the Elder managed to capture a number of ports in northern Egypt and cut off food supplies for Constantinople; in response, Phocas desperately removed his troops from Syria and Palestine to retake the Egyptian coast, leaving the east unsupported as the Sassanians continued to make gains.⁵³ In 610 CE, Heraclius the Elder's son, also named Heraclius, captured and personally killed Phocas, and was declared emperor Heraclius I.⁵⁴ This younger Heraclius directly assumed command of his eastern armies in the field by 612 CE—something no emperor had done since Emperor Valens in 378 CE.⁵⁵

As Khusro captured Roman territory, he cleverly reinstalled Monophysite bishops who had been declared heretical by the council of Chalcedon.⁵⁶ The Christian population of the east and Egypt remained majority Monophysite, and so Christians widely celebrated Khusro as executing judgment on their Chalcedonian persecutors.⁵⁷ Khusro's clever manipulation of the ever-divisive Christological controversies, which he no doubt learned about during his time in Constantinople, further eroded Roman resistance to his conquests as many Romans celebrated him as a liberator.

By 611 CE, the Sassanians had taken Antioch.⁵⁸ Damascus, Syria, and most of Palestine fell in 613 CE, which was finalized by the capture of Jerusalem in 614 CE, followed by a brutal massacre of Christians in the city.⁵⁹ As a result of these conquests, the Roman arrangement with the Ghassanids broke down and Arab tribes (possibly including Ghassanids) took advantage of the chaos and Roman displacement to raid in Palestine and Syria.⁶⁰ Many Palestinian Romans, likely including the garrisons and administrators of Arabia Petraea, fled for sanctuary in Egypt.⁶¹ The Romans further suffered the disastrous loss of Alexandria in 619 CE, and ultimately the entirety of Egypt.⁶²

⁵⁰ Greatrex and Lieu, *Persian Wars*, 187.

⁵¹ Greatrex and Lieu, *Persian Wars*, 185.

⁵² Greatrex and Lieu, *Persian Wars*, 185.

⁵³ Greatrex and Lieu, *Persian Wars*, 187.

⁵⁴ Greatrex and Lieu, *Persian Wars*, 188.

⁵⁵ Greatrex and Lieu, *Persian Wars*, 188.

⁵⁶ Greatrex and Lieu, *Persian Wars*, 185.

⁵⁷ Greatrex and Lieu, *Persian Wars*, 185.

⁵⁸ Greatrex and Lieu, *Persian Wars*, 189.

⁵⁹ Greatrex and Lieu, *Persian Wars*, 190, 191.

⁶⁰ Greatrex and Lieu, *Persian Wars*, 191.

⁶¹ Greatrex and Lieu, *Persian Wars*, 193.

⁶² Greatrex and Lieu, *Persian Wars*, 196.

In 622 CE, 20 after the war began, with his offers of surrender denied and Constantinople repeatedly under threat, Heraclius was finally able to launch an incredibly successful counter offensive. The Romans fought effectively through Armenia and into the Persian heartland until the Persian war effort began to dissolve and Khusro II was overthrown and killed in 627 CE. A Sassanian army remained in Egypt, which agreed to a treaty with Heraclius and finally returned the east to Roman control in 629 CE.⁶³

Emperor Heraclius recovered the true cross from the Sassanian capital, which had been taken during the fall of Jerusalem. He personally returned it to the Church of the Holy Sepulchre with much acclaim on March 21, 630.⁶⁴

The Prophet Muḥammad and the Roman-Sassanian War

The Qur’ān features very few details connected with specific geography, dates, or historical events, but remarkably the developments outlined above appear explicitly in the Qur’ān. Surah 30:2-5 reads: “the [Romans] have been defeated in a land nearby [adna al-ard]. Yet after being defeated they will prevail within a few years—unto God belongs the affair, before and after, and on that day the believers will rejoice in God’s help. He helps whomsoever He will, and He is the Mighty, the Merciful.”⁶⁵ The prophet Muḥammad is believed to have received this revelation while he was still in Mecca, before the Hijra.⁶⁶ As such, this revelation acknowledged the massive losses the Romans had suffered and predicted Heraclius’ resurgence and ultimate victory. The prophet Muḥammad is clearly aware of developments in the Roman Empire.

The description of the location of the Roman defeat ‘in a land nearby’ is especially interesting. Dr. Khalid El-Awaisi, an expert in Qur’ānic geography, has outlined the four general ways of interpreting this description: the prophet Muḥammad may be describing the Roman losses in Mesopotamia, the nearest Roman land to the Persians. The prophet Muḥammad may be speaking of the land between Arabia and Syria around Adraa (Daraa). He may be referring to the loss of Jordan and Palestine. Or, he may be referring to the Dead Sea Basin and the Jordan Valley.⁶⁷

⁶³ Greatrex and Lieu, *Persian Wars*, 226.

⁶⁴ Greatrex and Lieu, *Persian Wars*, 228.

⁶⁵ *The Study Quran: A New Translation and Commentary*, ed. Seyyed Hossein Nasr et al. (New York: Harper Collins, 2017): 985.

⁶⁶ *The Study Qu’ran*, 985; Khalid El-Awaisi, “The Quranic Prophecy of the Defeat and Victory of the Byzantines,” *Journal of Islamic Jerusalem Studies* 15 (Summer 2015): 4.

⁶⁷ El-Awaisi, *Quranic Prophecy*, 22.

El-Awaisi argues that the first option, Mesopotamia, is awkward because the prophet Muḥammad is addressing Meccans, and to describe Mesopotamia as a ‘nearby land’ without elaborating is unnatural.⁶⁸ This issue leaves option two, the land between Syria and Arabia, specifically the capture of Adraa, an attractive choice. Adraa featured one of the most important Roman forts in the east, and its loss was a major development. But it is also unclear how the borders of Syria constitute a ‘nearby land’ if we imagine the prophet Muḥammad is in Mecca in the Hijaz; the Roman province of Palestina Salutaris, which included Petra, was much closer.

The third option, Jordan and Palestine, exactly suits our theory. If the prophet Muḥammad was reporting these events in Petra, his city and province would have been directly impacted by the Sassanian conquests. After conquering Jerusalem in 614 CE, the Sassanians withdrew north to Damascus, and do not appear to have maintained a presence on the Jordanian Plateau. The Roman presence on the borders disappeared; the Arab mercenaries likely abandoned their posts, and the regular Roman troops likely moved to join the Roman forces gathering in Egypt. The abandonment of the forts and watchtowers lead to raiding. All of this constitutes a dramatic destabilizing of Petra and the Jordanian Plateau. This would explain why the Qur’ān is so unusually specific in Surah 30—the Roman defeat in nearby Palestine was an immediate concern for the first Muslims.

Finally, the fourth option, the Dead Sea Basin and the Jordan Valley, is also interesting. This interpretation exists because ‘adna al-ard’ can also be translated as ‘the lowest land.’ In other passages in the Qur’ān, the term ‘adna’ is translated as ‘nearest,’ ‘less,’ and ‘low.’⁶⁹ The problem, of course, is that the Romans and Sassanians did not fight by the Dead Sea. It is possible that ‘the lowest land’ was an idiomatic way for the Petrans to refer to Palestine because of the sharp topographic decline toward the Dead Sea, but this explanation is still much less sound than option three.

Commentators on Surah 30 frequently place these verses in the context of conflict between the Muslims and the Quraysh. The 11th century commentator on the Qur’ān, al-Wahidi, recorded the following on the passage:

the Persians defeated the Byzantines. The Prophet, Allah bless him and give him peace, and his Companions heard this while in Mecca and felt sad about it. The Prophet, Allah bless him and give him peace, disliked that the Magians [Sassanians/Persians], who did not have a revealed Scripture, have the upper hand over the Byzantines who were people of the Book. The disbelievers of Mecca, on the other hand, were exultant and spiteful. When they met the Companions

⁶⁸ El-Awaisi, *Quranic Prophecy*, 22.

⁶⁹ El-Awaisi, *Quranic Prophecy*, 24.

ions of the Prophet, Allah bless him and give him peace, they said to them: ‘You are people of the Book and the Christians are people of the Book. We are without a revealed Scripture and our brothers the Persians have defeated your brothers the Byzantines. If you ever fight us, we will defeat you too.’⁷⁰

The exact same hadith is recorded by al-Suyuti (d. 911 AH/1505 CE) from Ibn Abi-Hatim (d. 327 AH/890 CE) from Ibn Shihab (d. 124 AH/742 CE).⁷¹ It also appears in al-Ṭabarī’s *Tasfir* and his *History*.⁷² This tradition connects the pagan and Christian conflict between the Sassanians and the Romans to the Meccan (Petran) conflict between the pagan Arabs and the Muslims. The local pagans gloated about the Persian victory and denigrated the ‘people of the Book,’ Christians and Muslims. If this took place in Petra, the local pagans, presumably the Quraysh, had reason to gloat: the Roman withdrawal to Egypt would have left a void of power in the region, historically attested by the reports of raiding. The Quraysh would have been able to take full political control of the city and were free to persecute the Muslims. The mockery in this hadith suits the context of persecution. The prophet Muḥammad and the Muslims, who appear to have a kinship with the Romans, not only had to come to terms with the defeat of their kin, but a loss of political stability. The closing lines of the Hadith, where the Quraysh suggest that they would be similarly victorious if the Muslims should resist with violence, foreshadow the conflict to come.

Al-Ṭabarī recorded a further tradition in which Abu Bakr, after hearing the prophet Muḥammad’s prediction of Roman victory, makes a bet with one of the Quraysh that ‘his brethren’ the Romans would be victorious. Humorously, Abu Bakr bets that the Romans would reverse their losses too soon, and the prophet Muḥammad tells him to extend the timeframe of the bet by a few years.⁷³

Qur’ānic commentators further connect the Muslims’ victory over the Quraysh with the Roman victory over the Sassanians. Al-Wahidi recorded the following tradition attributed to one of the companions of the prophet: “Abu Sa’id al-Khudri who said: ‘When the Battle of Badr took place, the Byzantines had also defeated the Persians. The believers rejoiced and so these verses [Surrah 30] were revealed...’”⁷⁴ It is evident that the early Muslims saw themselves as closely entwined with the Romans, so much so that they created a tradition where they heard of the Roman victory over the Persians as they were victorious over the Quraysh at Badr. The people of the book prevailed.

⁷⁰ Ali ibn Ahmad al-Wahidi, *Asbab al-Nazul*, trans. Mokrane Guezzou, (Amman: Royal Aal al-Bayt Institute for Islamic Thought, 2008), 125.

⁷¹ El-Awaisi, *Quranic Prophecy*, 5.

⁷² Abu Jafar Muhammad b. Jarir al-Ṭabarī, *Tasfir Al Qur’an* 11, (Beirut: Dar el Fikr, 2009), 6866; Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of al-Tabari Volume V: The Sasanids, the Byzantines, the Lakmids, and Yemen*, trans. C.E. Bosworth (Albany: State University of New York Press, 1999), 325.

⁷³ Al-Ṭabarī, *Tasfir* 11, 6866; al-Ṭabarī, *Volume V*, 326.

⁷⁴ Al-Wahidi, *Asbab al-Nazul*, 125.

The least we have proved is that early Muslim history does fit into the history of Petra—it is plausible that pagan worship would take place in Roman Petra at the Ka’ba, and the Muslims would not face Roman political opposition because the Romans lost control of the region from 613 CE onward. The Muslims were aware of Roman developments and expressed kinship with their fellow people of the book.

But the connections between Roman and Muslim history are remarkable, and lead us to present the following theory: the prophet Muḥammad began to share his revelation in 613 CE, just as Roman power was disintegrating in the region of Petra. Local Roman troops, many of them Arabs, abandoned their garrisons and either deserted or fled to Egypt. As such, any remaining Christian Roman authorities in Petra would have lacked the authority of the state, emboldening the prophet Muḥammad to begin his proclamations. Further, the instability of the times would have provided the impetus for the prophet Muḥammad to encourage his people, which is very much the tone of the entirety of Surah 30.

The Sassanian victories also emboldened the pagan Quraysh, who filled the political void in Petra, and were free to persecute the prophet Muḥammad and his followers. The prophet Muḥammad fled Petra for Medina in 622, the same year Heraclius finally began his counter-offensive. Coincidentally, Heraclius was crowned emperor in 610 CE, the same year the prophet Muḥammad began to receive his revelation, or ‘became a prophet.’ As Heraclius turned the tide of the war against the Sassanians, the prophet Muḥammad in Medina militarized and successfully campaigned against the Quraysh. When Heraclius regained control of Syria and Palestine, he set his frontier from Gaza to the Dead Sea, north of Petra, leaving Petra in the control of the Quraysh.⁷⁵ In 629 CE Muslim and Roman forces clashed for the first time at Mu’ta, which we will discuss below. In December 629 CE the prophet Muḥammad captured Mecca (Petra), likely motivated to do so before the Romans could reassert their power over the Jordanian Plateau.

The prophet Muḥammad’s successor, Abu Bakr, managed to conquer Arabia in 633 CE. That same year he campaigned against the battered Sassanians and captured Iraq. In 634 CE, only a few years after the costly Roman victory over the Sassanians, the Muslims had an imperial army capable of invading Syria. In 636 CE, at the battle of Yarmuk, the Roman forces were completely devastated, and the entirety of the Roman Empire in the Levant and North Africa lay open for Muslim conquest. Over the following decades mosques would be built across the Middle East to face Petra, keeping the qibla direction for prayer as the prophet Muḥammad instructed, facing the city he fought to secure.

⁷⁵ Nicolle, *Yarmuk*, 14.

Appendix: Mu'ta

The theory presented above may lead us to reconsider the battle of Mu'ta—the first conflict between the Muslims and Romans, which occurred before the Muslims had captured the Holy City.

According to Walter Kaegi, Mu'ta “loomed large in later Muslim traditions” even though it was little more than a skirmish and a “clear Muslim defeat.”⁷⁶ The impetus for the battle, according to Muslim tradition, is that the prophet Muḥammad sent envoys with letters to various leaders, including emperor Heraclius. Supposedly the Roman administrator at Balqa, around modern Amman, intercepted the envoy and had him killed.⁷⁷ Dr. Kaegi wisely holds this explanation as suspect. The Romans had not reasserted their authority over their former holdings east of the Jordan in 629 CE, and so the governor of the region was probably “acting as a surrogate, and not as a commander of any regular Byzantine forces.”⁷⁸

A Roman official called Theodore was informed by one of the Quraysh that the Muslims intended to attack, so Theodore moved to intercept with a force of “soldiers of the guards of the dessert,” that is, Arabs.⁷⁹ The Roman historian Theophanes adds that the Quraysh informant even told Theodore when the Muslims would attack.⁸⁰ The two forces clashed at the village of Mu'ta, just east of the southern Dead Sea; the Muslims initiated the attack while the Christians were worshipping, with Khalid ibn al-Walid drawing up the Muslim forces in “sophisticated battled order.”⁸¹ In the subsequent battle, Theodore managed to kill three of the Muslim commanders, but Khalid was able to escape.

Evidently, for the Romans, this encounter was little more than a foiled Arab raid thanks to a helpful informant. But, in Muslim tradition, Mu'ta has taken on a legendary status. According to Ibn Ishaq it was not only a force of mercenary Arabs which the 3,000 Muslims faced at Mu'ta, it was “100,000 Greeks joined by 100,000” Arabs, lead by the warrior-emperor Heraclius personally.⁸² What follows in Ibn Ishaq's narrative is a heroic account of Muslim commanders struggling to hold the standard of the apostle, falling one by one as martyrs. It may be helpful to note that historians estimate that there may have been 100,000 soldiers in the entire Roman Empire at the time.⁸³

⁷⁶ Kaegi, *Byzantium*, 71.

⁷⁷ Kaegi, *Byzantium*, 69.

⁷⁸ Kaegi, *Byzantium*, 71.

⁷⁹ Kaegi, *Byzantium*, 72.

⁸⁰ Kaegi, *Byzantium*, 72.

⁸¹ Kaegi, *Byzantium*, 72.

⁸² Ibn Ishaq, *The Life of Muhammad: A Translation of Ishaq's Sirat Rasul Allah*, trans. A. Guillaume (Karachi: Oxford University Press, 2004), 53.

⁸³ Kaegi, *Byzantium*, 40; Nicolle, *Yarmuk*, 32.

The traditional explanation for the battle of Mu'ta leaves much to be desired. While Kaegi believes that the Romans may have hired Arab mercenaries to try and stabilize the former Roman holdings east of the Jordan, there is no reason to believe there was any Roman administrator there to whom the prophet Muḥammad would send his letter. Mu'ta took place only two months after Heraclius had negotiated the withdrawal of the Sassanian army in Egypt.⁸⁴ There had not been time to set up any Roman infrastructure in the region. As such, Kaegi concludes:

the battle was part of the Byzantine probing into regions where they had not operated for more than two decades. The Byzantines were attempting to re-establish their authority in areas after the Persian evacuation. The Byzantines were extending south, with the aid of allied tribes, and the Muslims were probing north. They collided at Mu'ta.⁸⁵

Why would the prophet Muḥammad send his limited forces north to trouble the Romans, with whom he felt some kinship, if his eye was on Mecca in the Hijaz? Why is one of the Quraysh in Palestine informing the Romans of the prophet Muḥammad's movements? It must be exactly as Kaegi suggests: the Romans were expanding south to reassert authority, while the Muslims were probing north. According to Gibson's theory, the prophet Muḥammad was pressing north because although he had a treaty with the Quraysh, he was anxious that the Romans may retake the Holy City and the Ka'ba in Petra. The Quraysh, living near the rebuilding Roman administration in former Roman Petra, were eager to thwart the prophet Muḥammad's plans because of the recent war with the Muslims and informed against him. The prophet Muḥammad was forced to contest the Romans, and when he failed, he broke his treaty with the Quraysh and took the Holy City before the Romans could do so. In mere months after Mu'ta, the prophet Muḥammad would attack the Holy City Petra and capture it.

It is interesting to note the prophet Muḥammad's radical change in disposition toward the Romans. We have argued above that the earliest Muslims appear to have identified with the Christian Romans as fellow people of the book. According to our theory, the loss of Roman authority in Petra led to significant suffering for the Muslim community under the re-ascendent Quraysh. Yet, it is commonly recognized that there was a remarkable change in the prophet Muḥammad's methods after he fled to Medina. There, the earliest Muslims took to raiding and began to grow in military power. Because of this power it became possible for the prophet Muḥammad to capture and control Petra and the Ka'ba. The Romans, who were once seen as guardians to the vulnerable Muslim community, were now rivals as they began to retake their former holdings. The prophet Muḥammad had the power to defeat the Quraysh and claim his Holy City—if the Romans did not retake it first.

Kaegi believes it is this same concern for the Romans retaking their territory which caused the prophet Muḥammad to send the expedition to Tabuk: "it was not yet clear just

⁸⁴ Kaegi, *Byzantium*, 73.

⁸⁵ Kaegi, *Byzantium*, 73.

how far Byzantium would be able to reassert authority in the southern region east of the Dead Sea.”⁸⁶ Again, we should wonder why the area east and south of the Dead Sea would be such a priority for the prophet Muḥammad unless he were fighting for control of the Holy City and Ka’ba.

The events of Roman and Sassanian history exactly suit the pattern of the prophet Muḥammad’s career. The prophet Muḥammad and his community were affected by the changing fortunes of the Romans. But, when the prophet Muḥammad began to accumulate power in Medina, new possibilities opened for him. He contended the Romans at Mu’ta, and shortly thereafter took Petra from the Quraysh. Six short years later, the prophet Muḥammad’s followers would decisively defeat the Romans at Yarmuk. Where Roman history once gave shape to the prophet Muḥammad’s life, Islam would now give shape to much of the Roman world.

Heraclius Timeline		Muhammad Timeline
	c. 570	Muhammad born in the Holy City
Heraclius born in Cappadocia	c. 575	
Khurso II attacks. Roman Sasanian War	602	
Heraclius crowned Emperor	610	Gabriel appears to Muhammad
Romans lose Syria & Palestine	613	Muhammad speaks publically
Romans lose Jerusalem to Persians	c. 614	Quraysh free to persecute Muslims
Romans lose Alexandria	619	
Heraclius leads counter-offensive	620	Muhammad’s night journey
Romans advance in the Caucasus	622	Hijra to Medina
Romans take Nineveh. Khusro II dies	c. 624	Battle of Badr
(July) Romans regain Egypt	627	Battle of the Trench
(Sept) Battle of Muta	628	Treaty of Hudabiyyah
Heraclius returns Cross to Jerusalem	629	
		(Sept) Battle of Muta
Battle of Yarmuk	630	Muslims take the Holy City
Heraclius dies, age 65	632	Muhammad dies age 61 or 62
	636	Battle of Yarmuk
	641	

⁸⁶ Kaegi, *Byzantium*, 82.
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Chapter Thirteen

Other Places

Dan Gibson with Chad Doell

Relocating the Holy City of Islam to Petra, even when based on a firm archaeological record, presents several problems. Traditional sites, issues, and stories need to be relocated to a very different part of the Arab world. Towns and battlefields which have been thought to have been a part of the Islamic story for centuries need to be reconsidered. The archaeological evidence for Petra as the Holy City of Islam creates a considerable amount of tension.

The goal of the Petra theory is not revisionism; it's reclamation. For all the sites located in the Hijaz which will no longer fit the narrative of the first centuries of Islam, there is a forgotten site in southern Jordan or elsewhere which may be reclaimable. This process may be problematic to many people, but it also may be true.

The following chapter is only an attempt to scratch the surface of this geographical problem. We will address some of the issues Dan Gibson is most often asked about. The real work of relocating the story of the prophet Muḥammad and Islam to southern Jordan will take more research and care than we can realistically address in this volume. But we can share some of Dan Gibson's thoughts and theories about the events and places which formed early Islam.

13.1 Abraha and the Elephant

Traditional Islamic history contains the story of a Yemeni ruler known as Abraha, who traveled Arabia with his army and subdued several cities. Abraha ruled the modern region of Yemen through the mid 6th century. He also controlled large portions of Arabia as a result of his conquests. A unique feature of Abraha's story is that his army contained at least one very large elephant, and by some accounts more than one elephant. Abraha is also believed to



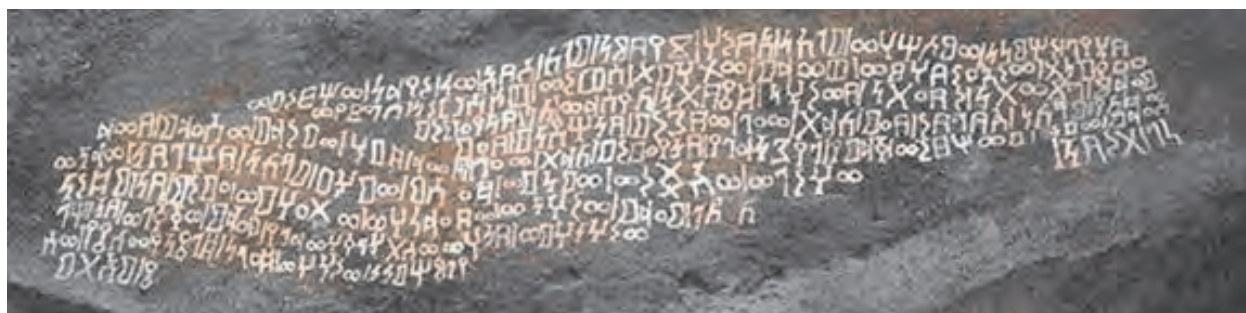
have had contact with the prophet Muḥammad’s grandfather, ‘Abd al-Muṭṭalib, when Abraha’s army drew near to the holy city.

In the past historians have doubted whether Abraha was a real person, but the discovery of several inscriptions over the past decades has confirmed his historicity.

CIH 541¹

The largest Abraha inscription is known as CIH 541. It was inscribed in Abraha’s honor and describes his conflicts as well as a rupture in the great Marib dam in Yemen, its repair, and other historical events such as visits from dignitaries from Rome and Persia around 541 CE.²

Another Abraha inscription is found in the vicinity of the Well of Murayghān. It details Abraha’s military incursion into Arabia against the tribe of Ma’ad. No specific locations are mentioned, only the names of the tribes involved. As the inscription reads, after conquering the tribes Abraha returned to Yemen. The date provided corresponds to 552 CE.³



Murayghān Inscription – this replica is at the Smithsonian National Museum of Natural History.

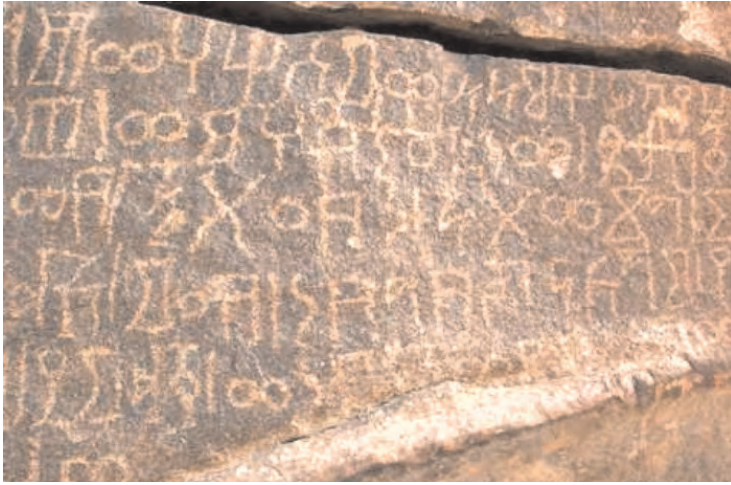
Another Abraha inscription, known as DAI GDN 2002-20, comes from the Marib dam. It was discovered in 2004 laying in the sand close to the dam. It is a limestone column, and it is inscribed on all four sides. It describes the construction of the north sluice for the dam around 548 CE.⁴

¹ Simpson, fig. 18, photograph, *Corpus of Sabaic Inscriptions*, 2002, <http://dasi.cnr.it/index.php?id=79&prjId=1&corId=27&colId=0&navId=909391336&recId=2382>

² Digital Archive for the Study of pre-Islamic Arabian Inscriptions, “CIH 541,” last accessed October 24, 2022, <http://dasi.cnr.it/index.php?id=79&prjId=1&corId=27&colId=0&navId=909391336&recId=2382>

³ ‘Abdel Monem A. H Sayed, “EMENDATIONS TO THE BIR MURAYGHAN INSCRIPTION Ry 506 AND A NEW MINOR INSCRIPTION FROM THERE,” *Proceedings of the Seminar for Arabian Studies* 18 (1988): 131–133.

⁴ Digital Archive for the Study of pre-Islamic Arabian Inscriptions, “DAI GDN 2002-20,” last accessed October 24, 2022, http://dasi.cnr.it/index.php?id=dasi_prj_epi&prjId=1&corId=0&colId=0&navId=742613551&recId=2391



Ryckmans 506 also known as Murayghān 1. ⁵

Of particular interest are the inscriptions called Murayghān 1 and Murayghān 3 which record the Yemenis undertaking several expedition to central Arabia. ⁶ On the way they captured Yethrib, or Medina. This is probably the expedition in which Abraha led an assault on the Ka'ba, which we will describe below from Islamic sources. Although some of the inscription are undated, Dr. M.J. Kister concluded that this event took place around 552 CE. ⁷

Given these inscriptions, there is no doubt that there was a Yemeni ruler known as Abraha, and that he campaigned from Yemen into Arabia. It is accepted that much of Arabia was under the control of Yemen for at least ten years, perhaps much longer. This is why Yemen played such an important role in the early years of Islam.

Abraha practiced miaphysite Christianity, so he had a church built in his capital Sana'a. Some of the earlier texts do not call it anything other than a church, but some of the later texts call it a cathedral, and others describe it as a great building. Ibn Ishaq records that it was "such a church as could not be seen elsewhere in any part of the world at that time." ⁸

Abraha had difficulty convincing the local Yemenis to worship at his grand church. The Yemenis had a long pagan history, but Judaism had also recently been declared the state religion. The Yemenis' history with paganism and Judaism made pilgrimage to the Ka'ba, presumably in Petra, more attractive than worshipping at Abraha's church. Al-Ṭabarī recorded

⁵ Christian Julien Robin, "Abraha et la reconquete de l'Arabie deserte: un reexamen de l'inscription Ryckmans 506 = Murayghan 1," *Jerusalem Studies in Arabic and Islam* 39 (2012): 89.

⁶ Digital Archive for the Study of pre-Islamic Arabian Inscriptions, "Ry 509," last accessed June 26, 2022, http://dasi.cnr.it/index.php?id=dasi_prj_epi&prjId=1&corId=0&colId=0&navId=477945437&recId=8670

⁷ M. J. Kister, "The Campaign of Ḥulubān: A New Light on the Expedition of Abraha," *Le Muséon* 78 (1965): 428.

⁸ Ibn Ishaq, *The Life of Muhammad: A Translation of Ibn Ishaq's Sirat Rasul Allah*, trans. A. Guillaume (New York: Oxford University Press, 2006), 21.

that a man from Mecca came to Sana'a and defiled the church with dung. Abraha was so angry he swore he would destroy the Ka'ba.⁹

In the Islamic account Abraha marched north out of Yemen and conquered the tribes all the way up to Medina. From there he continued marching on to Mecca—or, as we have argued, the Holy City of Petra.

According to Muslim tradition, when Abraha approached the city, the prophet Muḥammad's grandfather 'Abd al-Muṭṭalib tried to negotiate with him, but the other Quraysh withdrew. When the negotiations failed, al-Ṭabarī tells us that “'Abd al-Muttalib...set off with his companions of Quraysh to the mountain tops and sought refuge there, in expectation of what Abraha was going to do in Mecca when he entered it.”¹⁰ In Ibn Ishaq's account, “'Abdu'l-Muttalib went back to Quraysh and having given them the news ordered them to withdraw from Mecca and take up defensive positions on the peaks and in the passes [thaniyas] of the mountains for fear of the excesses of the soldiers.”¹¹ The terms peaks and thaniyas are more reminiscent of Petra than Mecca in the Hijaz. Mecca's mountains are several kilometers from the Ka'ba. But in Petra it was common for the people to gather on the mountains, protected by massive cliffs around the valley. From the cliffs they could look down on the Ka'ba building almost below them. It was also possible for those on the mountains to throw rocks at anyone in the valley below them, and to use small catapults to rain rocks onto invaders. This would not be possible in Mecca in Saudi Arabia because of the distance involved, but it was very possible in Petra. The Ka'ba building in Petra was right near the cliffs of Habis Mountain and could be defended as described.

Abraha prepared to enter this area, and he made his great elephant ready for battle. But when it was time to attack, the elephant refused to move. In the end, Abraha's army was crushed by rocks thrown from the cliffs above, and they fled.

It appears that on the march back to Yemen Abraha's army struck by some disease, and many of them died. Some commentators think it was smallpox.¹² If we prefer Dr. Kister's date for Abraha's campaign, Abraha may have travelled to Petra just after the horrors of the Justinianic Plague. It's an interesting possibility that this army from far-off Yemen may have come into contact with a late outbreak of the plague, but this is speculation.

The earliest manuscript record of Abraha and his elephant comes from Ibn Hisham. Then, some 200 years after the start of Islam, Ibn Sa'd recounted the same story, but in his account,

⁹ Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of al-Tabari Volume V: The Sasanids, the Byzantines, the Lakmids, and Yemen*, trans. C.E. Bosworth (Albany: State University of New York Press, 1999), 218.

¹⁰ Al-Ṭabarī, *Volume V*, 227.

¹¹ Ibn Ishaq, *The Life of Muhammed*, 25.

¹² John S. Marr, Elias J. Hubbard, and John Cathey, “The Year of the Elephant,” *Wikiversity Journal of Medicine* 2, no. 1 (April 2015). Doi:10.15347/wjm/2015.003.

there were 13 elephants. The number of elephants has grown over the years, and it is common for modern accounts to speak of Abraha and his army of elephants. So, while the details of his campaign may be disputed, the inscriptions mentioned above demonstrate that Abraha was a real person, a ruler in Yemen, and that he made several incursions into Arabia.

Many people who read about Abraha's aborted assault on the Ka'ba wonder about the elephant—particularly the type of elephant it was. There are three possibilities. It could have been an Asian elephant from somewhere near India; it could have been a North African elephant, or it could have been an African savannah elephant. Each of these elephants have different characteristics.

The Asian elephants were used by Alexander's generals across the Hellenized world, even in Europe. The Macedonians encountered these elephants in India and brought elephants back from India with them. This Asian elephant is smaller and has smaller ears compared to the African elephants, but it has a temperament which allows it to be tamed and controlled. Abraha's elephant may more closely resemble the larger African elephant than the mild-mannered Asian elephant.

Another possibility was that Abraha's elephant was a North African elephant. The North African elephant is now extinct, but it was the kind of elephant that was used by Hannibal in his famous campaign against Rome. North African elephants once existed on the plains around



Carthage, were tamed by the Carthaginians, and were used by the Carthaginian military. Descriptions of these animals indicate that the North African elephant was smaller, like the Asian elephant, and that it became extinct in the fourth century from over hunting.¹³

*An African Savannah Elephant.*¹⁴

¹³ Norman Ali Bassam Ali Taher Mohammad Ahmad Ahmad Mostafa Abdallah Mohammad Khalaf-Prinz Sakerfalke von Jaffa, "A Historical Record of the Extinct Carthaginian Elephant (*Loxodonta Africana pharaohensis Deraniyagala*, 1948) from Tell Rafah, South of Gaza Strip, State of Palestine," *Gazelle: The Palestinian Biological Bulletin* 40, no. 209 (May 2022): 4.

¹⁴ Vadaka1986, *elephants_water_sand_family_16768_640x1136*, photograph, Flickr, June 3, 2014, <https://www.flickr.com/photos/vadaka1986/16768640/>

The African savannah elephant is very large in size and has very large ears to dissipate body heat. These elephants are commonly regarded as stubborn and difficult to tame.¹⁵ Presumably this would make them militarily unreliable.

Michael Charles, in his paper “The Elephants of Aksum: In Search of the Bush Elephant of Late Antiquity,” recognizes the “reasonable literary basis” for Abraha’s elephant and suggests that his elephant “possibly was a large male bush elephant,” that is, an African savanna elephant.¹⁶ This suggestion is supported by Ibn Kathir who, drawing from earlier sources, explained that the elephant had “a huge body the like of which had never been seen” and that “it was sent to Abrahah from An-Najashi, the king of Abyssinia, particularly for this expedition.”¹⁷ If Ibn Kathir’s sources are reliable, Abraha received a particularly large elephant from the African savannah, which makes the African savannah or bush elephant the likely case.

This leaves us with the heart of the problem: how did Abraha manage to bring an African elephant all the way from Yemen to Petra? Objections to this feat range from the distance of travel to how it would have been impossible to cross the Arabian deserts with an elephant.

To answer these issues there are several things we need to consider. First, this story took place around 550 CE—nearly 1500 years ago. The deserts of Arabia at that time were not as severe as they are today. It was in the 7th century that Arabia underwent a “phase of severe desiccation which reached an extreme peak towards the end of the 1st millennium C.E.”¹⁸ This desertification was so severe that many towns and cities were abandoned, and the fertile coastal plain of Arabia became arid. Interestingly, Arie S. Issar and Mattanyah Zohar have noticed that the beginning of the extreme desertification of the Arabian Peninsula coincided exactly with the Muslim expansion into the Roman world—the inhospitality of their traditional homes may have been a motivation for the Muslims to expand.¹⁹ There was even an Arabic word to describe those who emigrated out of Arabia into the surrounding areas at that

flickr.com/photos/124384010@N08/14149943277.

¹⁵ Ruth Schuster, “African and Asian Elephants Differ in Ears, Trunk – and Brain,” *Haaretz*, last updated October 26, 2022, <https://www.haaretz.com/israel-news/science/2022-10-26/ty-article/african-and-asian-elephants-differ-in-ears-trunk-and-brain/00000184-13f1-d726-ad95-1bf37cda0000> ;

Craig Kasnoff, “Asian and African Elephant,” *Bagheera*, accessed October 25, 2022, <https://bagheera.com/asian-elephant-and-african-elephant/>

¹⁶ Michael Charles, “The Elephants of Aksum: In Search of the Bush Elephant in Late Antiquity,” *Journal of Late Antiquity* 11, no. 1 (Spring 2018): 173.

¹⁷ Ibn Kathir, *Tasfir Ibn Kathir*, ed. Shaykh Safiur-Rahman Al-Mubarakpuri (Lebanon: Darussalam, 2003), 590.

¹⁸ Arie S. Issar and Mattanyah Zohar, *Climate Change: Environment and History of the Near East*, 2 ed. (New York: Springer, 2007), 218.

¹⁹ Issar, *Climate Change*, 218.

time—muhāgirūn, or emigrants.²⁰ It is helpful to consider that Muslim expansion could have had to do with climate change as much or more than religious fervor.

The rural families of Arabia were known for having very large families, as they still do to this day. As the grasslands of Arabia slowly turned to desert, young men moved farther afield looking for opportunities. The caliphate provided for and even encouraged emigration out of Arabia into newly created Arab garrison cities. Those who did this could receive from the fay, or a stipend received from local taxes. Young men could receive more if they joined the army and went on to conquer other areas. So young Arab men from rural Arabia flooded into the newly founded cities, and often entered the Muslim armies, which offered them a quick road to advancement and wealth. So as climate change turned the grassland of Arabia into desert, thousands of people moved from Arabia into the newly established garrison cities at the far frontiers of the caliphate.

For our immediate purposes, it is enough to realize that Abraha predated the droughts and climate change mentioned above. The Arabia in the time of Abraha was remarkably more fertile than our modern conception of the peninsula.

In the Hebrew Bible there were three different terms used for the ‘desert.’ Isaiah 35:1 reads: “the wilderness and the dry land shall be glad; the desert shall rejoice and blossom like the crocus.” In this case ‘wilderness,’ or *midbar*, simply means uninhabited land and could be used for steppes or prairie. *Tsiyah* is translated as dry land, which could be like the African savannah. Finally, ‘desert,’ or *araba*, refers to land which supports little life.

The existence of ancient towns and cities in the deserts of Arabia demonstrates that some



Ruins of Rabadhah in Saudi Arabia.²¹



Ruins of Asham in Saudi Arabia.²²

regions of Arabia were more like the savannahs of Africa than the deserts that now exist. For example, the ancient city of Rabadhah, 200 kms east of Medina, was once a thriving city with large houses, fortified walls, watchtowers, pottery kilns, stone-working factories, and jewelry

²⁰ Günter Lüling, *A Challenge to Islam for Reformation*, (New Delhi: Motilal Banarsidass Publishing House, 2022), 350. Patricia Crone, “The First-Century Concept of Hiḡra,” *Arabica* 41 (November 1994): 352-387.

²¹ Al-Rashid, *Al-Rabadhah*, cover photo.

²² , Untitled, Google Maps, March 2018, <https://goo.gl/maps/uTQHgAuoAuLoeb3a7>.

production. For centuries it has lain in ruins with dry wells, unable to produce the agricultural goods it once could, without modern irrigation.²³ Another example is the ruins of Asham, an agricultural and mining town from the 6th to 12th centuries, which is now in the middle of the desert.²⁴

During the time of early Islam, these regions were more *tsiyah* than *araba*, if we use the Hebrew reckoning. The African savannah elephant was accustomed to living in dry conditions, but still required access to water, and the presence of ruined cities and ancient agriculture suggest that these sources were once more plentiful. Today, the Arabian savanna is much smaller than it once was, but still covers much of the Hijaz and Yemen.

Abraha brought his army and his elephant across the savannah of Arabia in the century before the great drying period that turned much of the Arabian savannah into desert. Further, the Nabataeans had already constructed water collection systems and wells all along their routes across the Arabian savannah from Gaza to Yemen. So, it seems quite possible for Abraha to have taken a single, grass-eating elephant from Yemen to Petra.

Finally, there is a curious question of the birds mentioned Surah 105 of the Qur'ān, "The Elephant," which addresses the Abraha event. Surah 105:1-5 reads: "hast thou not seen how thy Lord dealt with the masters of the elephant? Did he not make their scheming go astray, and send against them birds in swarms, pelting them with stones of baked clay, such that He made them like devoured husks?" The Qur'ān focuses more on the great flock of birds that affected the battlefield than the elephant. While the Qur'ān describes the birds themselves throwing stones onto the invaders, it is possible that a flock of birds passed over while those on the mountaintops assaulted Abraha and his forces with stones. This experience would have been quite surreal.

In any case, Abraha fled and returned to Yemen. Again, on the way many of his soldiers suffered from a plague. After returning to Yemen, Abraha died from an unknown disease, supposedly losing fingers, and suffering from grotesque sores on the way.²⁵ According to Islamic tradition, all of this took place the year the prophet Muḥammad was born.

While some have argued that the story of Abraha proves that a Petran 'Mecca' is logistically impossible, upon closer study it remains perfectly plausible that Abraha could have taken his army and his elephant through the Arabian savannah from Yemen to Petra in the 6th century.

²³ Sa'ad bin 'Abd al-'Aziz al-Rashid, *Al-Rabadhah: A Portrait of Early Islamic Civilisation in Saudi Arabia*, (Riyadh: King Saud University, 1986), 26.

²⁴ Abdullah Ali Abadi Al-Zahrani, "Mining in Al-Baha Region, South-Western Saudi Arabia in Islamic-Era: The Archaeology of Asham," PhD Thesis, (University of York, 2014).

²⁵ Al-Ṭabarī, *Volume V*, 231.

13.2 The Battle of Badr

The Battle of Badr was the opening battle between the fledgling followers of the prophet Muḥammad and the Quraysh, fought on 17 Ramadan 2 AH (13 March, 624 CE). It is a pivotal battle in the history of Islam not only because it was a Muslim victory, but because the Muslim forces were personally led by the prophet Muḥammad.

Muslim scholars who have addressed Gibson's research have raised the location of the Battle of Badr as proof that the Holy City of Islam was Mecca in Saudi Arabia. They suggest that the descriptions of the battle do not suit the geography and topography of Petra in modern day Jordan. To respond to this objection, we will explore some of the important problems

Writing	Number of Words	Number of Geographical Places	Words per geographical mention
Gospel of Matthew (KJV)	24,755	31 locations, 108 references	229
Gospel of Mark (KJV)	15,844	26 locations, 79 references	200
Gospel of Luke (KJV)	27,090	31 locations, 110 references	246
Gospel of John (KJV)	19,973	14 locations, 69 references	289
The Gospel of Nicodemus (Wake, 1730)	14,346	15 locations, 36 references	399
Gospel of the Birth of Mary (Wake, 1730)	3,573	5 locations, 8 references	447
The Gospel of the Infancy of Jesus Christ (Wake, 1730)	11,730	6 locations, 25 references	469
The Protevangelion (Wake, 1730)	6,467	3 locations, 12 references	539
The Qur'ān *	149,450	9 locations, 65 references	2,299

with identifying the site of the Battle of Badr and provide a possible alternative.

One of the first challenges any historian faces when studying and identifying the geography of Islam is just how few geographical references there are in the Qur'ān. In fact, there are only a few dozen clear geographical references in the entire book. In *Qur'ānic Geography*, Gibson compared the number of geographical references in the Qur'ān with those found in the four gospels and Gnostic literature.

Comparison of the number of geographical references.²⁶

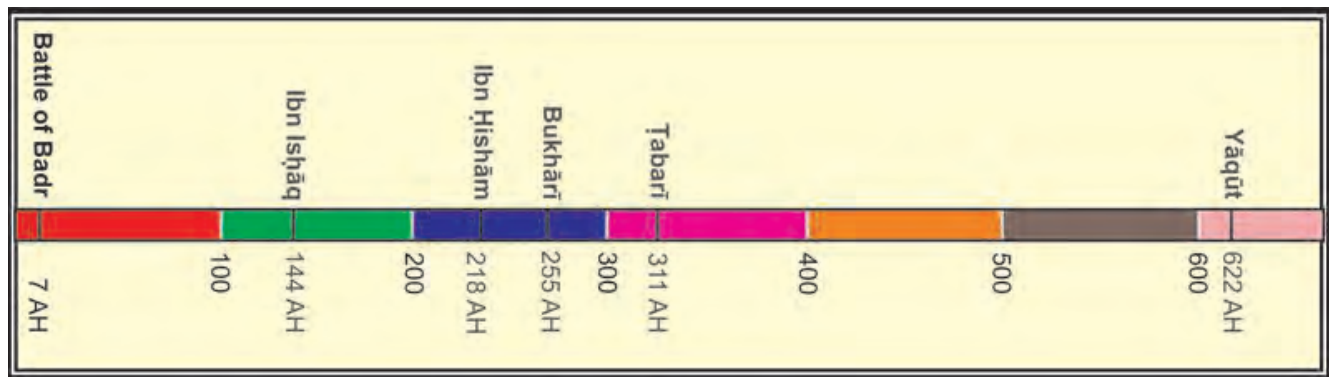
Gibson noted that each individual gospel contains more geographical references than are found in the entire Qur'ān. While this observation proves little, it does illustrate the problem that later collectors of Islamic history faced. The Qur'ān simply does not provide us with much in the way of geographical reference. The Battle of Badr is a prime example of this problem. When later Islamic writers were collecting the hadiths and historical accounts from early Islam, they were confronted with the fact that many details were forgotten, or place names were provided without a sense of the wider geographical context.

This struggle with geographical details is especially pronounced in the first large military encounter between the prophet Muḥammad and the Quraysh. This battle is often referred to as the Battle of Badr, or the Battle of the Full Moon غزوة بدر. Even the name of the battle does

²⁶ Dan Gibson, *Qur'ānic Geography*, (Saskatoon: Independent Scholars Press, 2010), 19.

not appear to tell us where the battle took place--it only indicates that the moon was full when the battle was fought.

Today Muslim historians claim that the battle took place at Huniin (غَزْوَةُ حُنَيْنٍ) or the Valley of Nostalgia, the modern name of the valley that commemorates the battle. But even that name indicates that this site was simply a place where the battle was commemorated. The fact is we do not know the geographical name of the site of the Battle of Badr. In one of al-Ṭabarī's accounts Badr is simply a well, with no further details on location.²⁷



In other accounts from al-Ṭabarī we find a few more details of where the battle took place. But we should recall that there were no eyewitnesses of the battle living when al-Ṭabarī wrote his history, several centuries later. Nothing had survived from the original accounts. While al-Ṭabarī had a copy of Ibn Ishaq, if you look at the timeline, you can see that al-Ṭabarī wrote about 300 years removed from the Battle of Badr.

Islamic Historians on a Timeline.

Additionally, many who study the geography of early Islam turn to Yāqūt ibn-‘Abdullah al-Rumi al-Hamawi. He wrote his book on geography around 619 AH (1222 CE) from Mou-sul in Iraq. Yāqūt tried to identify the locations mentioned by al-Ṭabarī, Ibn Hisham, and Ibn Ishaq some 300 years before his time. So, in the case of Badr, Yāqūt was writing over 600 years after the events took place. When we reference Yāqūt, we do it only to consider his per-spective, but we do not consider him a reliable authority on these early events.

The earliest account of Badr was written by Ibn Ishaq. He spent several chapters describ-ing the events leading up to the battle, as well as who was present. Ibn Ishaq tells us that the Muslims had heard that a caravan of Quraysh tribesmen were coming from Syria with a large amount of money and merchandise, as well as arms.²⁸ Ibn Ishaq even compiled several lists of everyone involved in the battle, including separate lists for those slain and taken prisoner.²⁹

²⁷ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Vol.VII: The Foundation of the Community*, trans. W. Montgomery Watt and M. V. McDonald (Albany: State University of New York Press, 1987), 32.

²⁸ Ibn Ishaq, *The Life of Muhammed*, 289ff.

²⁹ Ibn Ishaq, *The Life of Muhammed*, 327ff.

What is missing is the description of the battle itself.

There are a few descriptions of the martyrdoms of some of the companions of prophet Muḥammad, but the only tactical description of Badr we have from Ibn Ishaq is as follows: “the apostle took a handful of small pebbles and said, turning towards Quraysh, ‘Foul be those faces!’ Then he threw the pebbles at them and ordered his companions to charge. The foe was routed.”³⁰ What happened to the battle? Gibson believes Ibn Ishaq may have recorded the details of the battle of Badr, but everything we have of Ibn Ishaq was revised and edited by Ibn Hisham. Ibn Hisham even admits in his preface that he omitted from Ibn Ishaq’s writings topics that are “disgraceful to discuss [and] matters which would distress certain people.”³¹ So, the earliest accounts of Badr provide us with extensive detail about what happened before and after the battle, but absurdly, very little about the battle itself.

When al-Ṭabarī created his record of the Battle of Badr, he also seemed to struggle to find a description of the battle. So where did al-Ṭabarī get his information? How can he give us the story 300 years later, without having access to or using the earlier accounts? For his first account of Badr, al-Ṭabarī referred to a letter, written by an ‘Urwah to caliph ‘Abd al-Malik (reign 65-86 AH).³² The letter describes the pretext to Badr and briefly describes the battle, in fewer words than Ibn Ishaq. Al-Ṭabarī does not explain where he found ‘Urwah’s letter, nor does he explain why no other historians had access to it for so many years.

Consider, again, the timeline. The Battle of Badr took place while the prophet Muḥammad was still alive. After the prophet Muḥammad came Abu Bakr, after Abu Bakr came ‘Umar, after ‘Umar came caliph ‘Uthman, after ‘Uthman came Ali, after Ali came Hasan ibn Ali, after Hasan came Mu’awiyah, and after Mu’awiyah came Yazid, after Yazid came Mu’awiyah II, after Mu’awiyah II came Marwan, and now, ten caliphs later, after Marwan came ‘Abd al-Malik, who apparently received an exclusive account of the Battle of Badr. Even if ‘Urwah’s letter is authentic, hidden away after it was sent to the caliph two centuries before al-Ṭabarī, it is still far removed from the actual battle.

With the scant details from these histories one can visit the site of Badr today and find a particular sand dune, which is apparently exactly the sand dune mentioned by Ibn Ishaq and repeated by al-Ṭabarī.³³ Today, at the traditional site of Badr, there are upturned rocks that look like gravestones. But there are no inscriptions on these rocks. An inscription could easily put this problem to rest if it were to match the detailed records of Ibn Ishaq, but none of these rocks can be verified.

So, we are left with two options. Gibson expressed it this way: “I can either accept the

³⁰ Ibn Ishaq, *The Life of Muhammed*, 301.

³¹ Ibn Ishaq, *The Life of Muhammed*, 691.

³² Al-Ṭabarī, *Volume VII*, 28-32.

³³ Ibn Ishaq, *The Life of Muhammed*, 294; al-Ṭabarī, *Volume VII*, 43.

Saudi story and deny all of the evidence that I have found about Petra, and the Ka'ba, and the qibla...or I can look for the battle of Badr in another place, where it fits the Petra story.”³⁴ Gibson decided to look for the location of the battle in the vicinity of Petra. Whatever the solution, the reader will have to decide between Gibson's findings and the traditional account.

According to Ibn Ishaq, the Quraysh's caravan was returning from Damascus, bringing supplies down to the Holy City of Islam.³⁵ Some of this shipment must have contained arms, as coats of mail were part of the plunder.³⁶ It is interesting to note that Damascus was under Sasanian (Persian) control at the time, and since this was partially an arms shipment, it is tempting to believe that the Sasanians had an interest in using the Quraysh as *foederati* in



The location of Qastal.

Petra, given the affinity for the Sasanians expressed by the Quraysh in the hadiths. Nevertheless, the Muslims heard about the caravan, and they departed Medina to intercept it. Gibson believes they traveled north of Petra, along the desert routes, seeking to meet the caravan and loot it before it could reach Petra. This means that the battle site should be north of Petra.

Recall that the Roman presence in Arabia Petraea had dissolved, and so the Muslims were free to use the

wadi passes up into the Jordanian Plateau to attack the Quraysh without having to regard the Roman watchtowers. The Muslims could attack anywhere they wished. Gibson also believes the Quraysh used the old desert highway because, if they had camels in their train, they could not travel on the stone Via Nova Traiana. Thus, we can assume the battle must have taken place on the desert highway north of Petra.

Gibson searched for a battle site with several characteristics. First, Badr was known as a watering place for caravans, so it needed substantial water sources. Second, there should be a graveyard which would match the number of fallen at Badr. Gibson lived in the area for many years and was intimately familiar with the route in mind. He immediately considered one location: Qastal.

³⁴ See Dan Gibson's video transcript on the Battle of Badr: <https://nabataea.net/cinema/archeologyislam/archaeology-and-islam-09-muhammad-in-petra/>

³⁵ Ibn Ishaq, *The Life of Muhammed*, 289.

³⁶ Al-Ṭabarī, *Volume VII*, 34-35, 59.

Qastal has the oldest Muslim graveyard in Jordan. It also features a very old mosque with a square minaret. This is possibly the oldest minaret in Jordan, and possibly the oldest square minaret anywhere. The square base still survives, but some centuries later a round minaret was built on the old foundation.



Orientation of the Qastal Site:
©APAAME.³⁷

Because of its importance in the formation of the early Islamic identity, the battle of Badr was recalled forever after. Every Muslim who had participated at the battle was remembered with high esteem. Those who died were martyrs. Only 14 Muslims died in the Battle, so Gibson was looking for a small graveyard where some 14 buried appeared to be highly esteemed. After the battle, one would expect that a small mosque or monument would be built. Gibson also expected that the mosque would face Petra, since the Mecca qibla did not exist yet.

This is the exact scenario Gibson found in Qastal. There is an old Petra facing mosque, and near to it is a small, old graveyard. Some distance away is a larger graveyard.

Some years later, Umayyad caliph Yazid bin ‘Abd al-Malik built a large house or qasr right between the two graveyards. We already have evidence that caliph ‘Abd al-Malik had a particular interest in Badr, based on ‘Urwah’s letter. ‘Urwah writes, “you have written to me asking about Abu Sufyan and the circumstances of his expedition,” indicating that, if legitimate, this letter was requested by the caliph.³⁸ It is interesting that ‘Abd al-Malik, who asked for accounts of Badr, built himself a manor house between the graveyards at Qastal, and nothing was ever built at the traditional site of Badr in Saudi Arabia.

Many of the early tombstones at Qastal have been moved to museums, such as the Mad-

³⁷ Special thanks to Professor David Kennedy and Dr Robert Bewley (Oxford School of Archaeology) and the APAAME (Aerial Photographic Archive for Archaeology in the Middle East). Photo used with permission. Labeling by Dan Gibson.

³⁸ Al-Ṭabarī, *Volume VII*, 29.

aba Archaeological Museum and the Amman Museum. To date the faded writing on them has not been published. Again, given Ibn Ishaq's thorough records, even a single name could be a breakthrough.

Along with these earliest graves, there are also later graves of people who wanted to be buried on this important spot. There are Mamluk graves, and even graves from the last century. How do we determine which graves are earlier and which graves are later? The secret to that is to understand how Muslims oriented their graves.

For over a thousand years, Muslims have been buried on their right sides, facing Mecca in Saudi Arabia. This is what we would expect of Muslim graves all over the world. Below is a photo of an excavated Muslim graveyard in Spain.



*Tauste Graves.*³⁹

But in Qastal the Muslim graves predate Mecca in Saudi Arabia. These graves would be oriented differently.

Early Christians were buried laying on the backs, with their toes facing east, so that when Christ returns in the eastern sky, they will sit up and face him. But these earliest graves at Qastal do not belong to Christians. They do not face east.

Some have suggested that these graves face Jerusalem. That is because the feet or heads of some of the graves at Qastal seem to face Jerusalem. But these are Muslim graves. So if the dead are buried Muslim style, laying on their sides, the head and feet of the graves are irrelevant. We should consider the facing of the sides of the graves.

When we draw a line from the side of these graves, we discover that they face toward Petra.

Again, there are two different graveyards at Qastal: first, a small one beside the qasr (the large house), and a larger one behind the qasr. Why would there be two different graveyards? It is possible that one is a graveyard for the Muslims who fell at Badr, and the second for the polytheist Quraysh.

³⁹ Iranzu Guede et al, *Fig 2. Aerial view of some burials showing individuals placed in the graves following the Muslim burial rituals (facing east)*, 2017, <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0176572#pone-0176572-g002>



Grave orientation;
©APAAME.⁴⁰



The large and small grave-
yards; ©APAAME.⁴¹

If this is the case, it is certainly curious that the Muslims would bury the pagan Quraysh to also face Petra. Perhaps this was done to emphasize the Muslim victory. Or perhaps the Quraysh also traditionally were buried to face their sacred Ka'ba, and this practice was inherited by the Muslims.

The smaller graveyard closest to the qasr is of primary importance. If we discount the more recent graves, many of them dated, we discover around a dozen early graves. The number is hard to count exactly—more precision would require an archaeological dig to determine exactly when the burials took place. From the records we know the names of 14 Muslims who died in the Battle of Badr, but in Ibn Ishaq's account, one of the men was wounded at Badr and survived for some time. He ultimately succumbed to his wound on the way home and was

⁴⁰ Special thanks to Professor David Kennedy and Dr Robert Bewley (Oxford School of Archaeology) and the APAAME (Aerial Photographic Archive for Archaeology in the Middle East). Photo used with permission. Labeling by Dan Gibson.

⁴¹ Special thanks to Professor David Kennedy and Dr Robert Bewley (Oxford School of Archaeology) and the APAAME (Aerial Photographic Archive for Archaeology in the Middle East). Photo used with permission. Labeling by Dan Gibson.

buried at a place called Safra. Traditionally he is counted amongst the martyrs of Badr. So, only 13 graves should be in Qastal, which roughly suits the 12 or so early graves Gibson has observed there.

Is this Badr? We will never know for sure unless these graves were to be excavated and documented. But if we need to reconcile the location of Badr with a Petra qibla, Qastal should receive serious consideration as the site of the battle.

13.3 China

Was there contact between the earliest Muslims and China? Dr. David A. King has cast some doubt on this idea, helpfully offering “one could contend that [the Guangzhou mosque] was built by eager Muslims from Petra, who had no ships and who must have arrived in China on a flying carpet.”⁴² In this section we will explore the early contact between China, the Middle East, and Muslims in particular.

Contact between the Nabataean Arabs and the Chinese goes back to the first century BCE. The chart below demonstrates multiple contacts between the Chinese and the Middle Eastern peoples. Note that the first known contact was around 100 BCE.⁴³ On the left are the Chinese manuscripts, followed by the date of their writing. The right column lists the dates when Chinese contact was made with the Middle East, particularly concerning the Arabs and their trade with Rome and India.

Chinese Source	Date Written	Referring to events ...
Shiji or Shi Ji., ch. 123	90 BCE	100 BCE
Qian Han Shu, ch. 96a	100 BCE	100 BCE
Hou Han Shu, chs 116,118	450 CE	97 CE
Wei Lue in Sanguo Zhi, ch 30	Before 429 CE	220-264 CE
Jin Shu, ch. 97	635 CE	265-419 CE
Sung Shu, ch. 97	500 CE	420-478 CE
Liang Shu, ch. 54	629 CE	512-556 CE
Wei Shu, ch. 54	572 CE	386-556 CE
Jiu Tang Shu, ch. 198	950 CE	618-906 CE
Xin Tang Shu, ch. 221,a.b.	1061 CE	618-906 CE
Nestorian Stone	781 CE	719 CE
Song Shi, ch. 490	1345 CE	960-1279 CE
Shufan Shi	1225 CE	1225 CE
Ming Shi, ch. 326	1739	1368-1643 CE

There are several important documents to help us understand the contact between the western world and the Chinese. One is the *Hou Han Shu*, which was the official history of the later, or eastern, Han Dynasty (25-221 CE). It was compiled by Fan Ye who died in 445 CE. Fan Ye drew from several earlier histories such as the *Shi Ji* by Sima Qian, the *Han Shu* by Ban Gu, and many others--most of which have not

⁴² King, David A., “From Petra back to Mecca – From ‘Pibla’ back to Qibla,” Academia, accessed July 6, 2022, 17. https://www.academia.edu/34703712/265_KING_2017_From_Petra_back_to_Mecca_review_of_GIBSON_Early_Islamic_qiblas.pdf

⁴³ This chart is adapted from material presented in: Joseph Needham, *Science and Civilisation in China Volume 1*, (Cambridge: Cambridge University Press, 1954), 192-193.

survived intact.⁴⁴ Another document, the *Weilue*, is from 239-265 CE in which the Chinese describe their contact with Da Quin.⁴⁵ These documents establish that there was regular contact between the western world and China before the rise of Islam.

Early Islamic Contact

Sa'd ibn Abī Waqqāṣ was born in the Holy City in 595 CE. At that time the prophet Muḥammad was only 25 years old and had just married Khadijah. Sa'd's father was the paternal uncle of Āminah, the mother of the prophet Muḥammad. Sa'd was 17 years old when he accepted Islam, against the wishes of his family. In 614 CE, Sa'd was with the prophet Muḥammad when they were opposed and persecuted by the polytheists in the Holy City. During the persecution Sa'd beat a polytheist and killed him, and Sa'd became known as the first Muslim to shed blood in the name of Islam.⁴⁶ He was among those who emigrated to Medina in the first year of the Islamic calendar.

Sa'd fought at the Battle of Badr, standing firm when others deserted their positions. The prophet Muḥammad honored him by declaring him one of the best archers at that time.

Years later, at the farewell pilgrimage, Sa'd fell ill. Sa'd said to the prophet Muḥammad:

'O Allah's Messenger (ﷺ)! My sickness has reduced me to the (bad) state as you see, and I am a rich man, but have no heirs except one daughter. Shall I give 2/3 of my property in charity?' He said, 'No.' I said, 'Then 1/2 of it?' He said, 'Even 1/3 is too much, for, to leave your inheritors wealthy is better than to leave them in poverty, begging from people. And (know that) whatever you spend in Allah's Cause, you will get reward for it, even for the morsel of food which you put in your wife's mouth.'⁴⁷

These verses are well known and have been preached on often in mosques over the centuries, so Sa'd is familiar to Muslims all around the world.

Sa'd ibn Abī Waqqāṣ was among those who built the city of Kufa in Iraq.⁴⁸ Sa'd fought under caliph Ummar's command against the Sasanian army in several battles.⁴⁹ He was also appointed the governor of Kufa and Najjīd. Ultimately, caliph Ummar dismissed him from his post as governor but said it was not because he had done any treachery. Later, Sa'd was one of

⁴⁴ The online Silk Road Narratives has many translations of Chinese histories: <https://depts.washington.edu/silkroad/texts/texts.html>

⁴⁵ John E. Hill, "Weilue: The Peoples of the West," *UW Departments Web Server*, accessed October 26, 2022, <https://depts.washington.edu/silkroad/texts/weilue/weilue.html>

⁴⁶ Ibn Ishaq, *The Life of Muhammed*, 118.

⁴⁷ Sahih al-Bukhārī 6373, <https://sunnah.com/bukhari:6373>

⁴⁸ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XIII: The Conquest of Iraq, South-western Persia, and Egypt*, trans. Gauthier H. A. Juynboll (Albany: State University of New York Press, 1989), 61, 65-66.

⁴⁹ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of al-Tabari Volume XIV: The Conquest of Iran*, trans. G. Rex Smith (Albany: State University of New York Press, 1994), 2.

six people nominated by Ummar to be his successor.⁵⁰ At the end of the deliberations Uthman became caliph, and Sa'd ibn Abi Waqqāṣ disappeared from the official records of al-Ṭabarī.

This is where the Middle Eastern account of Sa'd ends, and he seems to disappear from the history books. In the Middle East it is believed that Sa'd died sometime between 54-58 AH and was buried in al-Baqi' cemetery in Medina. The Wahhabis and Saudis felt that these tombs and mausoleums were becoming objects of veneration, so the graveyard was demolished in 1806 and again in 1925.⁵¹ It is unclear whether it was originally a tomb or a memorial for Sa'd in al-Baqi', and today there is little left to verify that he was ever buried in Medina.

In 2020 Dan Gibson received an email from a Chinese historian who is the family historian for his extended tribe. This family has oral and written accounts of what took place in China during the early days of Islam. These Chinese Muslims claim that Sa'd ibn Abi Waqqāṣ introduced Islam to China in 29 AH (650 CE), during the reign of emperor GaoZong of Tang.⁵² Western scholars often reject Chinese accounts of his mission to China as a fantasy.⁵³

However, it is possible to trace some of Sa'd ibn Abi Waqqāṣ's journey to China. For instance, there is a mosque in the Lalmonirhat District of Bangladesh which is said to have been built by Sa'd himself in 27 AH, on his way to China. It is locally called after his name as the Abu Akkas (Waqqāṣ) Mosque. This mosque has been rebuilt multiple times over the centuries and is known today as the Harano Mosque or the Mosque of the Sahaba (Companions). Today it is a modern concrete building, but the local belief is that the original mosque was established by Sa'd ibn Abi Waqqāṣ.⁵⁴

It is said that Sa'd outlived the Ten Blessed Companions, to whom the prophet Muḥammad promised paradise. Some believe he died in Guangzhou China at the age of 80, around 54 AH.

The Chinese historian who contacted Gibson provided details about Sa'd's life in China. He told Gibson that Sa'd ibn Abi Waqqāṣ left for China with a group of 40 people. Despite caliph Uthman sending a delegation for them in 30 AH, asking them to return to the caliphate, they did not return. Chinese Muslims called Sa'd and the 40 Muslims *muhajireen*, or emigrants. This is the same word that is used for those who emigrated from the first Holy City to Medina in the hijra. Curiously, Sa'd and the 40 were not only called *muhajirun* by the Chinese Muslims, but *muhajirun of the true Mecca*.

These 40 emigrants traveled to the city of Guangzhou. In time all of them died in China. They are entombed in the Xianxian mosque in Guangzhou. Xian means 'the western peace'

⁵⁰ Al-Ṭabarī, *Volume XIV*, 146.

⁵¹ Adeel Mohammadi, "The Destruction of al-Baqi': A Case for Wahhabi Iconoclasm," *University of Toronto Undergraduate Journal of Middle East Studies* 8 (2015): 47-56.

⁵² Liamao Wang, *Return to the City of Light; Quanzhou : An Eastern City Shining with the Splendour of Medieval Culture*, trans. Michael Szonyi (Fujian: Fujian People's Publishing House, 2000), 99.

⁵³ Jonathan N. Lipman, *Familiar Strangers: A History of Muslims in Northwest China*, (Seattle: University of Washington Press, 1997), 204.

⁵⁴ Kajal Rashid and Iftekhar Mahmood, "The history of arrival of Muslims in South Asia will change: Thirteen and a half hundred years ago mosque," *Prothom Alo*, last updated October 19, 2012, <https://web.archive.org/web/20150624032912/archive.prothom-alo.com/detail/news/299066>



Jiao Chong Xi Yu plaque.

(‘xi’ means west and ‘an’ means peace). Guangzhou was the capital of the region and was known in the west as Canton. It was a destination for western merchants for several hundred years. There was a substantial Arab presence in Guangzhou because in 141 AH “Arabs and Persians rioted in Guangzhou, looting warehouses and burning homes; two years later, when Yang-zhou was looted by the army of the rebel Tian Sheng-gong, thousands of Arab and Persian traders were killed.”⁵⁵

There was one further interesting item that this Chinese historian related to Gibson. He said the last Empress of China--Dowager CuXi--put up a plaque in the threshold of the Huai-Sheng (Lighthouse) Mosque titled the “Jiao Chong Xi Yu” plaque, which means “the true source of Islam is from west of Mecca.” This plaque was put up, no doubt, by Imperial decree, and there has never been any objection from Muslim scholars in China that the ‘true source’ is ‘west of Mecca.’



*Mosque of Abu Waqqas in China.*⁵⁶

When Gibson visited China in 2008, he spent time at the Huai-Sheng (Lighthouse) Mosque in Guangzhou and measured its qibla. At the time, Gibson was unaware of the tomb of Sa’d ibn Abī Waqqāṣ and the 40 muhajireen three kilometers away.

⁵⁵ Chen Da-Sheng, “CHINESE-IRANIAN RELATIONS vii. Persian Settlements in Southeastern China during the T’ang, Sung, and Yuan Dynasties,” *Encyclopedia Iranica*, last updated October 14, 2011, <https://iranicaonline.org/articles/chinese-iranian-vii>

⁵⁶ Tururu2015, *Mezquita, tumba y parque*, photograph, TripAdvisor, December 2017, https://www.tripadvisor.com/Attraction_Review-g298555-d1825177-Reviews-Muslim_Hero_Tomb-Guangzhou_Guangdong.html#/media-atf/1825177/293233527/p/?albumid=-160&type=0&category=-160



*Graves of the
muhajireen.⁵⁷*

At that time, Gibson was also unaware of al-Ḥajjāj's Between qibla, and so he only considered Petra or Mecca as possible directions for Huai-Sheng's qibla. Originally Gibson classified the Huai-Sheng Mosque as Petra facing. But over time Western scholars pressured him to reconsider this mosque because it was very early; they argued that it could not be accurate from such a great distance from the Middle East. So, in the end, Gibson changed the classification of Huai-Sheng Mosque to 'unknown.'

Eventually Gibson reclassified this mosque, noting that it was reconstructed in 751 AH (1350 CE) and underwent major work in 1107 AH (1695 CE) to repair fire damage. He noted that the current, later structure seems to face the Between qibla. If this mosque was one of just a few mosques, the accuracy of this qibla may be questionable, due to its extreme distance from the Middle East. But when Huai-Sheng is considered alongside the over 250 other mosques from the first three centuries of Islam, the data seems to fit.

Then, to further complicate matters, in 2021 Gibson received emails from the same Chinese historian asking him to reclassify the Huai-Sheng Mosque back to Petra! This created a dilemma. The Chinese records have been handed down from generation to generation, but this may not be enough to convince Western scholarship of the legitimacy of a Petra qibla for this mosque.

It is interesting that the idea of a true western Mecca as the source of Islam has survived in China after it was abandoned and forgotten in the west. When Khalid al-Qasri was appointed as the governor of Mecca in 91 AH, he declared that the caliph's interpretation of history and religion is the only correct version. The memory of the Holy City Petra was unceremoniously abolished; Mecca in Saudi Arabia, established as a replacement of convenience for Petra, now became the original Holy City through the official position. Then, around 130 AH, mas-

⁵⁷ Klepot, *other tomb*, photograph, TripAdvisor, February 2015, <https://www.tripadvisor.ca/Profile/klepot/photo/123556704?m=19905>

sive earthquakes destroyed what was left of Petra. From then on new mosques in the Middle East would face other directions, but the Petra qibla seems to have been abandoned, save for a few locations in Central Arabia. In time the memory of Petra was totally lost. Yet, this story of two Meccas seems to have been kept alive by Chinese Muslims.

13.4 Medina

Dan Gibson is often asked what implications his Petra theory has on Medina. If 'Mecca' is in a different location, would that mean Medina would have to be relocated as well? In short, no. Medina is Medina. But Medina's relationship to 'Mecca' is, of course, somewhat different than traditionally understood.

When the prophet Muḥammad and his followers were persecuted, some of his followers emigrated to Abyssinia, or modern Eritrea and Ethiopia. This emigration was the first hijra. When the Muslims arrived in Africa, they built a small mosque at Massawa. This mosque has been maintained and possibly rebuilt over the years and is still available for visitors to see.



The Petra to Abyssinia journey was mostly by boat.

Eventually the persecution of the Muslims by the Quraysh stopped because the prophet Muḥammad uttered favorable verses about the gods El-Lat, El-Uzza, and El-Manaat, as recorded in Surah 53:19–20. These verses became known as the satanic verses and the prophet Muḥammad later retracted them. Consequent to the retraction, the persecution of the Muslims by the Quraysh continued. Some of the prophet Muḥammad's followers suggested that they move to the area known as Yathrib, which would later be called Medina.



A possible route of the Hijra from Petra to Medina.

The hijra would have been harder and taken longer than traditionally thought because the Muslims would have either traveled across the Nafud desert or along the Red Sea coast. But it is possible they could have traveled by boat down the Red Sea and made the short trek inland to Medina.

At that time Medina was not a city. Yathrib (يثرب) was an agricultural area. The name Yathrib means place of the bull or place of cattle. Medina is in a low area, where run-off water collects from the surrounding barren mountains. The valley of Yathrib was green, but for many centuries Yathrib was not much more than a swamp which was a cause of illness.

Yathrib was also known as an oasis and can be found in ancient records as far back as the sixth century BCE, when it is mentioned in the Chronicle of Nabonidus.⁵⁸



*Medina was a lush green with stagnant water.*⁵⁹

⁵⁸ Islamic Awareness, "A Pre-Islamic Nabataean Inscription Mentioning The Place Yathrib," last updated February 18, 2018, <https://www.islamic-awareness.org/history/islam/inscriptions/yathrib1.html>

⁵⁹ Florent Egal, *Traditional village of Aba As-Su'ud*, photograph, The Saudi Arabia Tourism Guide, September 17, 2016, <https://i0.wp.com/www.saudiarabiatourismguide.com/wp-content/uploads/2016/09/DSC01610-9.jpg>.

Bukhārī wrote the following hadith recalling the conditions in Yathrib after the hijra: narrated ‘Aisha:

When Allah’s Messenger (ﷺ) reached Medina [at the end of the hijra], Abu Bakr and Bilal became ill. When Abu Bakr’s fever got worse, he would recite (this poetic verse): “Everybody is staying alive with his People, yet Death is nearer to him than His shoe laces.” And Bilal, when his fever deserted him, would recite: “Would that I could stay overnight in A valley wherein I would be Surrounded by Idhkhir and Jalil (kinds of goodsmelling grass). Would that one day I could Drink the water of the Majanna, and Would that (The two mountains) Shama and Tafil would appear to me!” The Prophet (ﷺ) said, “O Allah! Curse Shaiba bin Rabi`a and `Utba bin Rabi`a and Umaiya bin Khalaf as they turned us out of our land to the land of epidemics.” Allah’s Messenger (ﷺ) then said, “O Allah! Make us love Medina as we love Mecca or even more than that. O Allah! Give blessings in our Sa and our Mudd (measures symbolizing food) and make the climate of Medina suitable for us, and divert its fever towards Aljuhfa.” Aisha added: When we reached Medina, it was the most unhealthy of Allah’s lands, and the valley of Bathan (the valley of Medina) used to flow with impure colored water.⁶⁰ The swamp-like environment of Medina posed a problem for the refugees from Petra and inspired immediate longing for the Holy City amongst the prophet Muḥammad and his companions.

To the outsider passing by, Medina was a long valley with fields, trees, and fortified houses. These houses were designed in such a way that the workers in the fields around them would be protected by mud walls. In the case of attack, the people could run into the houses and fortify themselves inside the towers.



*Construction of a mud house.*⁶¹

In the photo above, mud houses are being constructed in northern Yemen, in a similar style to the early houses in Medina. The workmen mix the mud and straw with their feet. A row of mud is then applied to the wall, allowing the wall to slowly get thinner as it rises, with each layer slightly wider at the bottom so that rain drips off the joint. The row will be allowed

⁶⁰ Sahih al-Bukhārī 1889, <https://sunnah.com/bukhari:1889>

⁶¹ Photo by Gerhard Lichtenthäler. Used with permission.

to dry, usually for an entire year, until it is fully hardened. Then another layer will be applied. Sometimes fathers begin construction of rooms for their children, or additions to their house soon after they are married, before the children even are born.

The origin of the Jewish community in Medina has long been in question. The Islamic sources seem to assume that there were always Jews in Medina, and that they were the ones who planted the fields and built the houses. No one knows when the Jews moved into this swampy area, but at the time of the hijra, the Jewish tribal groups in Medina numbered more than 20. By this we can assume that there were more than 20 distinct Jewish families or large clans in Medina.

The first group of Yemeni refugees arrived in the second century CE when the Ma'rib dam broke the first time. The final, and probably largest migration of Yemenis was between 542 and 570 CE, when the Ma'rib dam failed for the final time and over 50,000 people moved out of Yemen, some stopping in Medina, and some moving on to Egypt, Libya, and even as far as

Tunisia and Morocco.



Route refugees took out of Mar'ib

The Aus and Khazraj tribes from Yemen settled in the Yathrib valley and farmed the land. Eventually they united to become one tribe known as the Anṣār, who initially allied with the local Jews to defend themselves. Later, trouble broke out between the Anṣār and the Jews. Some of the Anṣār had heard the prophet Muḥammad's teaching, and so they invited him and his followers to come to the Yathrib valley to aid them in their struggles with the Jewish tribes.

Over the years, the area known as Yathrib had many names. Ali Hafiz notes in his his-

tory of Medina some 95 different names for the settlement. Amongst these names were Taba, Tayba, al-'Asima, Al-Anṣār, al-Mumina, Dar Al-Sunna, Dar Al-Salām, Dar Al-Fatḥ, Al-Dira, Al-Ḥasina, That al-Ḥarar, That Al-Nakhīl, Akitat Al-Bildan, Al-Barra, Al-Jabira, Dar Al-Īmān, and Medinat al-Rasūl.⁶²

During the founding years of Islam, Yathrib become known as Medinat al-Rasūl or 'The City of the Prophet' which, when shortened, became Al-Medina or just Medina, 'The City.'

After the hijra, Medina became the center of Islam. It was here that much of the Qur'ān was revealed, and it was here that the prophet Muḥammad and his followers not only subjugated the Jews, but also began to build their fortunes by plundering merchants traveling to Yemen. At first they were careful to only attack passing caravans, but eventually they ranged wider and wider until much of central Arabia was under their influence. All of the caravans from Syria and Jordan needed to pass through the region of Medina on the way to Yemen, making them vulnerable targets of the prophet Muḥammad's bandits.

Following the death of the prophet Muḥammad, the next two caliphs ruled from Medina. Abū Bakr did much to spread Islam within the Arabian Peninsula and his armies marched as far as Iraq and Syria. Omar was the next caliph, and during his reign his armies defeated the Persians and the Romans, leading to the conquest of the Sasanian Empire and the eastern Roman provinces, including Egypt.

As Medina was the capital of this newly born Islamic empire, it became an administrative and financial center for a vast territory. Islamic doctrine was discussed and taught in the city, and centers of learning were created along with military infrastructure.

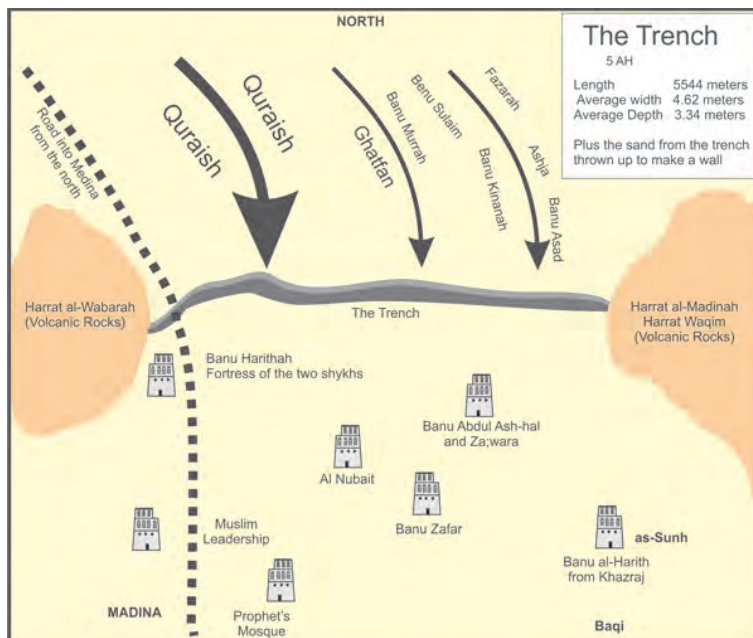
The third caliph, 'Uthmān, continued the spread of Islam by conquest when he campaigned in Cyprus. 'Uthmān was assassinated and eventually Mu'āwiyah took over. The capital was moved to Damascus to better administer the growing empire.

Starting in 63 AH, Medina and Mecca became involved in a rebellion against Damascus. We have previously particularly focused on Ibn al-Zubayr's rebellion from the Holy City. During this time, several civil wars took place, and eventually the holy places were destroyed.

When the Abbāsids took control of the Islamic Empire in 132 AH, Medina continued its state of unrest and rebellion until the Abbāsids forcefully subdued the people of the city.

Today the city of Medina has a population exceeding one million. There is little doubt that the modern city of Medina is the one spoken about in early Islamic history. The earliest mention of this city is found in records from over a thousand years before the prophet Muḥammad. The region around Medina suits the descriptions of the early Muslim records as well. For example, Medina has the two mountains where the prophet Muḥammad dug a ditch to defend the city from the Quraysh. Further, Medina has important historical graveyards, such as al-Baqi'.

⁶² Ali Hafiz, *Chapters from the history of Madina*, (Jeddah: al-Madina Printing and Publishing Co, 1987), 3.



The Battle of the Trench.

Notice that when the Quraysh attacked Medina, they approached from the north, even though Mecca in the Hijaz is 450s km to the south of Medina.

The Quba Mosque in Medina was the first mosque built by the prophet Muḥammad. Caliph Uthman made the first renovations to this mosque. It was renovated again in 435 AH, then in 555 AH, and again every century through the 600s, 700s, 800s, and in 1245 AH (1829 CE). In 1984 the mosque was demolished and rebuilt as the large structure standing in its place today. Saudi Crown Prince Muhammad bin Salman has announced his intention to increase the capacity of Quba mosque again, from 20,000 to 66,000 worshippers.⁶³

Masjid al-Qiblatain is another important mosque in Medina. It is traditionally thought that it was in this mosque that the prophet Muḥammad changed the direction of prayer. He was originally facing towards sham, or north, and he turned around and faced Mecca in the Hijaz, according to the traditional accounts.⁶⁴

The Qiblatain Mosque also has a very long history. The interesting characteristic of this mosque is that it maintained two qiblas over the centuries, even when it was rebuilt in 950 AH (1543 CE) onward.⁶⁵ As we have mentioned, in 1987 the Qiblatain Mosque was completely renovated with the new mosque only maintaining a single qibla facing Mecca in the Hijaz. Nothing remains of the original mosque, but 'Abdel Wahid el-Wakil, the architect, made drawings of the foundation stones of the older mosque which show that there were two qiblas: one facing north, and one facing Mecca in the Hijaz. Of course, contrary to the traditional explanation for the two qiblas, Gibson believes Qiblatain Mosque maintained both a Petra and Mecca qibla before the Petra qibla was removed.

⁶³ "Quba: Islam's first mosque to expand tenfold, says crown prince," Arab News, April 8, 2022, <https://www.arabnews.com/node/2059121/saudi-arabia>

⁶⁴ As-Sayyid Sabiq, *Fiqh us-Sunnah*, trans. Muhammad Sa'eed Dabas and Jamal al-Din Zarabozo (Indianapolis: American Trust Publications, 1991), 114-115.

⁶⁵ Abdel Wahed El-Wakil, "Qiblatain Mosque: Medina, Saudi Arabia," *Qiblatain Technical Review* (1992), 2. 226



Medina fits the Petra narrative. Through consideration of the nature of the orientation of early mosques, one can accept that Petra is the Holy City of Islam without undermining the importance of Medina in early Islamic history.

Qiblatain's northern qibla faced both Petra and Jerusalem.

13.5 Paran

Paran is a region often associated with Mecca in Islamic records. Paran is also repeatedly mentioned in the Torah. Thus, to locate Paran, we must consider the wider breadth of ancient accounts. We will find that similar to other locations, the wilderness of Paran seems to have been transferred from southern Jordan to Saudi Arabia by Muslim sources, but this transfer is problematic when non-Muslim sources are consulted.

There are several assumptions we encounter when attempting to locate Paran. There is a common belief that Paran is another name for Sinai. Alternatively, Muslims tend to believe that Paran is the Hijaz, the area around Mecca in Saudi Arabia. Others will specifically locate Paran in northern Sinai. A cursory search for online maps of Paran will yield a variety of results.

The southern border of Edom (the Jordanian Plateau) has always been fixed. It is a large expansive escarpment that drops several thousand feet from the high desert to the lower desert below, and it runs from east to west making it a very distinctive border. Ancient forts and defensive structures dot the top of this escarpment. Above the escarpment there is rainfall, fields, and villages. Below the escarpment there is desert, rock, and sand dunes.

For several years Dan Gibson lived with his wife and children near the top of the escarpment while exploring the desert both above and below. To the west Mount Seir watched over the Wadi Araba below. Beyond the southern and western borders of Edom there are no fixed geographical landmarks which can help us discern the borders of Sinai and Paran.

The Torah in Numbers 10:12 reads: “the people of Israel set out by stages from the wilderness of Sinai. And the cloud settled down in the wilderness of Paran.” Additionally, Numbers 12:16 reads: “the people set out from Hazeroth [in Sinai] and camped in the wilderness

of Paran.” Notice first that Sinai and Paran are two distinct places in both passages. But Sinai and Paran are close and seem to be described as ‘two wildernesses side by side.’ It seems something must have divided them to make them two distinct wildernesses. Gibson would suggest that the divide is the Wadi Araba.

The Torah again describes Paran in Deuteronomy 33:1-2: “this is the blessing with which Moses the man of God blessed the people of Israel before his death. He said, “The LORD came from **Sinai** and dawned from **Seir** upon us; he shone forth from **Mount Paran**; he came from the ten thousands of holy ones, with flaming fire at his right hand [emphasis added].” This passage includes three geographical terms: Sinai, Seir, and Mount Paran, leaving us with the impression that they are all in much the same place. This is much like saying ‘the White House/Washington/DC.’ Each of these locations are distinct, but they are linked geographically and conceptually so that the Torah may poetically describe God shining from all of them with equivalence.



Paran east of Wadi Araba and south of Mount Seir.

Earlier in the Torah, in Genesis 14:5-6, Paran is mentioned during a campaign of king Chedorlaomer: “in the fourteenth year Chedorlaomer and the kings who were with him came and defeated...the Horites in their hill country of Seir as far as El-paran on the border of the wilderness.” This description indicates that Paran is between the wilderness and Mount Seir. Paran in this case could be either south or east of the Jordanian Plateau, as pictured above.

Paran comes from the Hebrew root פָּאֵרן, which can mean ‘beautiful.’ And indeed, the deserts of Paran contain amazing beauty. Tourists come from all over the world to visit the wonders in Wadi Rum, which, according to this definition, is in the wilderness of Paran.

Genesis 21:19-22 records that when Ishmael lived in the wilderness of Paran, his mother Hagar found a wife for him from the land of Egypt. 1 Kings 11:17-18 details that when Hadad the Edomite fled from Edom to Egypt, he passed through Paran on the way to Egypt.

Eusebius wrote in his *Onomasticon* that Eilat, which he called Aila, was “in the desert of Pharan.”⁶⁶ Eilat is at the very northern tip of the Gulf of Aqaba, which again indicates that Paran is the area south of the Jordanian escarpment.

⁶⁶ Eusebius, *Onomasticon*, s.v. “Pharan,” accessed October 27, 2022, https://www.ccel.org/ccel/pearse/more-fathers/files/eusebius_onomasticon_02_trans.htm
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Hadad's route down the Kings Highway through Paran and west to Egypt.

The Book of Jubilees, written around 140 BCE or earlier, tells us that Ishmael and his sons as well as the sons of Keturah (one of the wives of Abraham) “went together and dwelt in Paran to the entering of Babylon in all the land which is towards the East, facing the desert. And these mingled with each other, and their name was called Arabs, and Ishmaelites.”⁶⁷ Here the inference is that Paran also covered the desert east of Mount Seir. The Book of Jubilees explains that Ishmael moved into the desert east of Petra and occupied the whole area as far as the borders of Babylon. This is also what we find in Babylonian and Chaldean records.⁶⁸ The Babylonians encountered the Nabataeans, the tribe descended from Nabaioth the eldest son of Ishmael, in the deserts just west and south of the Babylonian border. That region was also inhabited by the Qedarites, the tribe descended from Ishmael's second son Qedar. This description extends Paran to the area between Mount Seir and Mesopotamia.

Paran is the wilderness to the east of Sinai, and it extends around the southern border of Edom and out into the eastern desert including the area of Wadi Rum, and then out into the desert east of the Jordanian Plateau.

Sebeos, the Armenian Bishop and historian, was contemporaneous with the Arab conquest and wrote that the Arabs “set out from the P'arhan desert.”⁶⁹ Today many Muslims cite Sebeos as evidence that the prophet Muḥammad is mentioned in non-Islamic history

⁶⁷ R. H. Charles trans., “Jubilees 20,” *Pseudepigrapha, Apocrypha and Sacred Writings*, accessed October 28, 2022, <http://www.pseudepigrapha.com/jubilees/20.htm>

⁶⁸ Esther Eshel, “The Onomasticon of Mareshah in the Persian and Hellenistic Periods,” in *Judah and the Judeans in the Fourth Century B.C.E.*, ed. Oded Lipschitz, Gary N. Knoppers, and Rainer Albertz (University Park: Eisenbrauns, 2007), 149.

⁶⁹ Sebeos, *Sebeos' History*, trans. Robert Bedrosian, (New York: Public Domain, 1985), 40.

and thus the prophet Muḥammad really existed, but they usually fail to note that Sebeos located the prophet Muḥammad and the founding of Islam in Paran, not in the Hijaz.

The only major city near Paran was Mount Seir, known to the Roman west as Petra. The name 'Petra' was given to the city by the Roman emperor Hadrian who visited it in 130 CE. From then on it was known as 'Petra Hadriane,' but most simply called it Petra. Petra was known by other names for many centuries before and after it was renamed in Hadrian's honor. One of the best known was the ancient name of Raqīm. But, remarkably, Sebeos tells us that the Muslim armies started from there.

As we have explored previously, the Armenian writer Thomas Artsruni (d. 274 AH/887 CE) recorded: "at this time there were some despotic brothers in the regions of Arabia Petraea in the place [called] P'aran, which is now called Mak'a - warlike chieftains, worshippers of the temple of the image of the Ammonite temple called Samam and K'abar. It happened that one of them, called Abdla, died leaving a son of tender age called Mahmet."⁷⁰ Artsruni was very precise when he wrote 'Arabia Petraea in P'aran.' Arabia Petraea was the former name of the Roman province which had Petra as its capital. Paran refers to the wilderness on the fringes of this former Roman province. And, of course, Artsruni says something truly amazing: the place is named Mak'a. Here we see a clear connection between Petra, Mecca, and the wilderness of Paran in southern Jordan.

Thomas Artsruni used the Roman names for these places for an audience in Constantinople. These are places well known to the Christianized Roman world, particularly in the Middle East. Bishops had come from this place to participate in major church councils. Great theological debates that sometimes split the church were influenced by Christian leaders from Petra. So, Artsruni is not speaking of something nebulous—his description is precise.

Of course, Artsruni was writing long after the Arab conquest, and so names and provinces had changed. Artsruni recorded that the Arabic name for this area was "now called Mak'a;" by the time of his writing the city of Petra was destroyed and abandoned, and the name Mecca has been transferred to a location in the Hijaz. But Thomas Artsruni is early enough to remember that the city of Petra also had, amongst its many names, Mecca. Petra/Mecca is where "Mahmet," the prophet Muḥammad, was born.

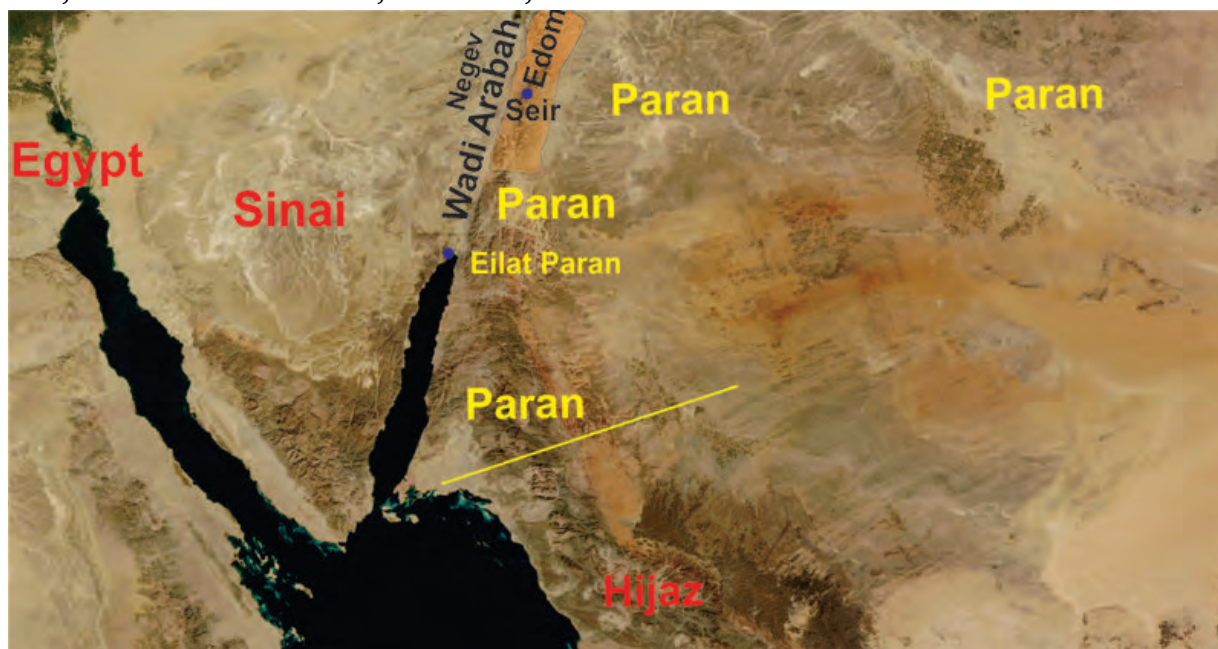
Today many Muslims believe that Paran is the area around Mecca in Saudi Arabia because they have been told that Mecca was in Paran—which is true. But this conclusion is drawn without consideration for the long-standing understanding of the location of Paran. Muslim scholars have tried to fit Paran around Mecca, rather than fit Mecca into Paran.

The Arab geographer al-Muqaddasi (d. 381 AH) wrote that the Red Sea branches into two at a place called Faran, next to al-Hijaz.⁷¹ So he located Paran (Faran) in a northern

⁷⁰ Thomas Artsruni, *History of the Artsrunik*, trans. Robert W. Thompson (Detroit: Wayne State University Press, 1985), 165.

⁷¹ Al-Muqaddasi, *Al-Muqaddasi*, trans. G. S. A. Ranking and R. F. Azoo (Calcutta: Asiatic Society of Bengal, 1897), 15.

location. The border between Paran and the Hijaz is where the Red Sea divides into two. Paran is to the north, and Hijaz is to the south. This is the traditional understanding of Paran, even according to Muslim geography. Paran is not in Saudi Arabia around the city of Mecca, but north. There was, therefore, another Mecca in the north.



Paran is north of the Hijaz.

Yāqūt, the esteemed Muslim geographer writing around 600 AH, wrote: “Fārān is an Arabized Hebrew word, and it is one of the names of Mecca mentioned in the Torah.”⁷² Here Yāqūt clearly connects Paran/Fārān with the region of Mecca and also the Hebrew scriptures. As we have argued from the Torah, these connections make more sense if Paran were located in northern Arabia.

It was not until several hundred years into Islamic history that the name Paran started being applied to the area of Mecca in modern Saudi Arabia. If we locate the original ‘Mecca’ at Mount Seir where Petra was later built, then it is understandable that the name Paran shifted to Mecca in Saudi Arabia when the Black Stone was moved there. As we have argued, there is no suitable early archeological record of Mecca in Saudi Arabia, certainly not as early as several centuries BCE. There are no temples to Allāt in Mecca in the Hijaz, nor any of the other deities mentioned by early Islamic writers.

Another Islamic writer, Al-Hamdani (d. 333-334 AH), wrote in *Geography of the Arabic Peninsula* that the Paran mountains around Mecca were named after Paran, the son of Amalek.⁷³ Al-Azraqī also associated the Amalekites with Mecca.⁷⁴ The history of the Amalekites is relatively well known. The Amalekites lived north of Edom, not in Saudi Arabia. 1 Chronicles

⁷² Yaqut Al-Hamawi, *Muʿjam al-Buldan Volume 4*, (Beirut: DarSadir Lil Tibaʾah wa-al Nashr, 1955), 220.

⁷³ Al-Hamdani, *Geographie der Arabischen Halbinsel*, trans. David Heinrich Muller (Berlin: E. J. Brill, 1884), 285.

⁷⁴ Muhammad ibn ‘Abd Allah al-Azraqi, *Kitab Akhbar Mecca*, (Giza: Maktaba Alnafezah, 2013), 41.

4:42-43 explains that a remnant of the Amalekites fled to Mount Seir and remained there, long after they were soundly defeated by King Saul and David: “some of them, five hundred men of the Simeonites, went to Mount Seir...and they defeated the remnant of the Amalekites who had escaped, and they have lived there to this day.” It is remarkable that the chronicler recorded an Amalekite presence at Mount Seir, or Petra, while al-Azraqī indicated that there was an Amalekite presence in Mecca. Given the known geography of the Amalekites, and the previously described association of the name ‘Mecca’ with Mount Seir or Petraea, it seems distinctly possible that al-Azraqī maintained a memory of an extinct people-group which once dwelt in the future Holy City of Islam at Mount Seir.

It should be noted that Claudius Ptolemy seemed to identify Paran with the Sinai. In his Geography he lists Wadi es-Sheikh in Sinai as Wadi Feiran, and forever after this is what was repeated on European maps. He also identified El Hesweh Oasis in Sinai as the Feiran Oasis. Around 550 CE Christian monks established a monastery at the oasis called St. Catherine’s Monastery. But there does not seem to be any indication that these monks believed they were living in Paran. Sinai and Paran are quite clearly distinct in Biblical records, and so it is possible that the association between the two started with Ptolemy’s name selection for these locations in the Sinai.

Ultimately there are two conclusions one may draw from (or in spite of) this information. One may conclude with Muslim tradition that Paran has always been the area around Mecca in Saudi Arabia. Or, as we have argued, one may conclude that Paran became associated with Mecca in the Hijaz after the name Mecca was applied to the new location in Saudi Arabia—after ‘Mecca’ in Jordan had been abandoned due to war and earthquakes. At the least, the location of Paran does not produce a strong objection to the Petra theory, and in fact seems to lend credence to Petra as the original Holy City of Islam.

13.6 Ta’if

In Islamic history, the location Ta’if (or Tai’f) is associated with Mecca. While the Qur’ān does not mention Ta’if by name, it is thought that the ‘two towns’ of Surah 43:31 are Mecca and Ta’if. In the hadiths, the prophet Muḥammad would preach in Ta’if when he was near Mecca.⁷⁵ Yāqūt tells us that it was a three-day journey to get from one to the other.⁷⁶ Today, the city of Ta’if is in Saudi Arabia, distant from Petra in Jordan. Gibson has been challenged to explain this apparent contradiction.

The religious environment of Ta’if may provide us with an explanation for its location. Ibn Kathir recorded that 7th century Ta’if had a temple to the goddess Allāt.⁷⁷ This record

⁷⁵ Abu Jafar Muhammad b. Jarir Al-Ṭabarī, *The History of Al-Ṭabarī Volume VI: Muḥammad at Mecca*, trans. W. Montgomery Watt and M. V. McDonald (Albany: State University of New York Press, 1988), 115.

⁷⁶ Yaqut Al-Hamawi, *Mu’jam al-Buldan Volume 6*, (Beirut: DarSadir Lil Tiba’ah wa-al Nashr, 1955), 203.

⁷⁷ Ibn Kathir, “Tafsir Surah An-Najm – 19,” *Quran*, accessed October 28, 2022, <https://quran.com/53:19/tafsirs/169?locale=en>

creates an issue because Allāt was worshiped in northern Arabia. It is in Jordan and even Syria where we find other temples to Allāt, and where we find inscriptions and graffiti which mention Allāt.⁷⁸ There is nothing regarding Allāt in Medina, and certainly not as far south as Mecca in the Hijaz. Allāt was unknown there. In the region currently known as Ta'if, about 100 kilometers south-east of Mecca in Saudi Arabia, there is no archaeological evidence of a previous temple to Allāt.

There are further issues. In his record of the Muslim siege of Ta'if in 10 AH, al-Ṭabarī mentioned a wall.⁷⁹ It may not have been a high wall: archers in Ta'if took shelter behind it as they resisted the Muslims. Note that the word wall is singular. Today there is no evidence of any foundation for a medieval wall in Ta'if in Saudi Arabia.

Additionally, the name Ta'if means surrounded or encompassed, but the use of wall instead of walls suggests that the city was not encompassed on all sides by the wall. Perhaps it was encompassed by some geographical feature.

If Petra is indeed the original Holy City of Islam, then there should be a location that fits this description two or three-days travel from Petra.

Gibson believes that all of these requirements missing in Ta'if in Saudi Arabia can be met by the ancient town in Wadi Rum. The name Rum most likely comes from the early name Iram, or Aram. It was an ancient place associated with the people of 'Ad in the distant past. And, right in the middle of the ruin, archeologists have found a temple to Allāt, and a spring of water inside the settlement area.

While the word 'town' is sometimes used to describe Ta'if by western writers, the Muslim accounts simply refer to the location as al-Ta'if. It most likely was not a town in western terms, but was a watering place in the desert with a year-round spring. It was also a holy place due to the temple of Allāt, and a place of refuge due to the towering cliffs around it.

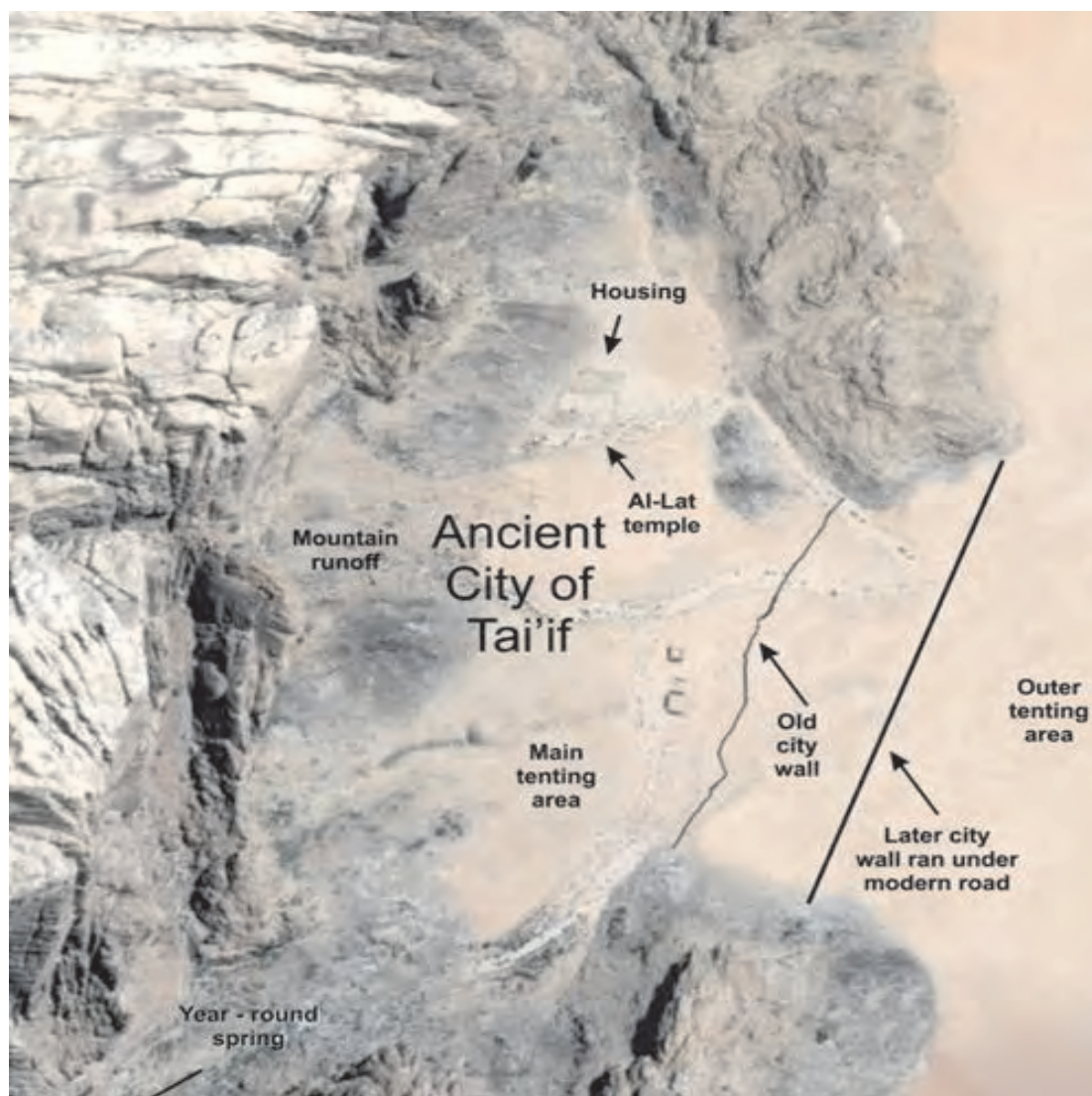
As for city walls, and being 'encompassed,' consider the satellite photo below. Today there is a modern town outside the ancient area, but the ruins of an ancient settlement remain, surrounded by very high sheer mountain cliffs on all sides except for one opening to the desert. Gibson believes that there was a low wall across this opening, connected on each side to the cliffs. This would satisfy the name Ta'if, or 'encompassed.'

When the British constructed a road in this area, the engineers faced a problem. Much of the desert of Wadi Rum contains sand which makes a very poor road base. All along the route, the engineers sought out stones that could be used to make the road base more solid. In some cases the road wound from one outcropping of rock to another, so that rocks did not need to be transported great distances. In 2022 Gibson interviewed several old men from the area who remembered the British engineers and the construction effort. They recalled the search for suitable rock to make the bed under the road. They also recalled that rock was taken from the temple of Allāt and other buildings to make the British military fort.

⁷⁸ Healey, J.F., *The Religion of the Nabataeans: A Conspectus*, (Leiden: Brill, 2001), 110.

⁷⁹ Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of al-Tabari Volume XIX: The Caliphate of Yazid b. Mu'awiyah*, trans. I.K.A. Howard (Albany: State University of New York Press, 1990), 22.

What Gibson found interesting is that the British purposely built their road across the entrance of the Rum enclosure from one cliff to the other. As it approached, the road wound along the side of the mountain, and then it ran straight across the front of the entrance from one side to the other, exactly where the ancient wall would have been. When Gibson questioned the elderly Arab men, they indicated that the British put the road closest to, or overtop of, any solid rock foundations they could find. Was this road built over the rocks of the city wall? While this is a tantalizing idea, it is no longer possible to prove it one way or the other.



Proposed Ta'if site in Wadi Rum.

Dan Gibson believes that after Masjid al-Harām was built in Mecca in 78 AH, people began to look for the other locations in the Hijaz to associate with the old stories. As part of this geographical transfer, Gibson believes that they identified Ta'if as a village in the Hijaz, as well as other locations such as the slopes of Aqaba, Mount 'Arafat, Mina, and others--as best they could in the vicinity of the new Mecca. Gibson believes that the shift of names from southern Jordan to the Hijaz most likely happened after the Second Civil War when people

migrated from modern day Jordan to modern day Saudi Arabia. There the migrants' desire to revere the Black Stone naturally lead to the reidentification of the holy sites of Islam in the around the new Masjid al-Harām. This process is hinted at by al-Azraqī:

104- Sae'd Ibn Al-Sai'b Ibn Yasar said: I have heard some of Nafi' Ibn Al-Jubair Ibn Muti'm's sons, and some others, mentioning that they have heard that: "when Ibrahim [Khalilullah] made his supplication for Makkah to provide its people with fruits, Allah the Almighty moved the land of Tai'f from Al-Sham and placed it there [in the Hijaz], to provide -or sustain- the Sanctuary."⁸⁰

Startingly, al-Azraqī specifically describes Ta'if being moved from the north to the vicinity of Masjid al-Harām. Al-Azraqī continued to repeat his account of this miracle, twice:

105- Muhammad Ibn Al-Munkadir narrated that prophet Muhammad ﷺ said: "When Allah placed the Sanctuary, He moved Al-Tai'f to it from Al-Sham." 106- Abdulrahman Ibn Nafi' Ibn Jubair Ibn Muti'm said: "I have heard Al-Zuhri saying: Allah the Almighty has moved a town from Al-Sham and placed it at al-Tai'f, to answer the supplication of Ibrahim Khalilullah who said: provide its people with fruits."⁸¹

These records from al-Azraqī could very well represent an effort to explain the relocation of Ta'if from a well known, northernly location, to the Hijaz. Ultimately, the entire story was transferred from Petra to Mecca in the Hijaz, including all the surrounding place names.

13.7 Zamzam

When Petra was finally abandoned in the early years of Islam, the memory of the names of its features was abandoned as well. As a result, when searching for Islamic locations within Petra, the best we can do is match the current features of Petra with historical descriptions. This challenge is especially true for the ancient well of Zamzam.

When searching for the historical descriptions of Zamzam, one is struck that the word 'Zamzam' does not appear in the Qur'ān. Even when the Qur'ān details the stories of Abraham, Ishmael, and Hagar, Zamzam is not mentioned. Rather, the first substantive descriptions of Zamzam can be found in the hadiths.

The story of Zamzam well appears in Bukhārī's hadiths narrated by Ibn 'Abbas.⁸² Bukhārī describes that after Abraham's second son Isaac was born Abraham declared him to be the son of promise. Choosing the second son caused discord between Abraham's two wives, Sarah and Hagar. As a result of the discord, Abraham took Hagar and Ishmael to an uninhabited valley to abandon them. Bukhārī tells us that Hagar was still suckling the boy.

⁸⁰ Al-Azraqi, *Kitab Akhbar Mecca*, 37.

⁸¹ Al-Azraqi, *Kitab Akhbar Mecca*, 37.

⁸² Sahih al-Bukhārī 3364, <https://sunnah.com/bukhari:3364>

Abraham brought Hagar and Ishmael to a small hill in the valley. The hill is described as the highest place in the valley by some writers,⁸³ while others describe it as a long hillock.⁸⁴

Abraham did give them a leather bag containing some dates and a small water-skin, and then started to leave them. Hagar “followed him saying, ‘O Abraham! Where are you going, leaving us in this valley where there is no person whose company we may enjoy, nor is there anything (to enjoy)?’”⁸⁵ But Abraham did not immediately look back. Hagar “asked him, ‘Has Allah ordered you to do so?’ He said, ‘Yes.’ She said, ‘Then He will not neglect us.’”⁸⁶

Abraham departed. On reaching the thaniya, or the narrow canyon where he could turn and disappear out of sight, he turned around and prayed toward Hagar and Ishmael--and the future site of the Ka’ba.

This story fits the Petra landscape. Abraham would have left them on the small hillock near where the Petra Ka’ba stands today, and he would have walked across the valley where the colonnaded street would one day be built. He would have turned and prayed before he entered the area where the Street of Facades would later stand, and then he would have departed the valley through the siq.

Hagar eventually ran out of water and could no longer suckle Ishmael. He began to cry with hunger. So, she left him and climbed the nearest mountain which was later known as Safa. She stood on this mountain and looked to see if there was anyone around, but there was not. Then she descended from Safa and found the child still crying. So, she ran across the valley and climbed the mountain which would later be known as Marwah, but she could not see anyone from Marwah either.

Hagar ran between Safa and Marwah seven times. The prophet Muḥammad confirmed the pre-Islamic tradition of walking seven times between Safa and Marwah in remembrance of Hagar as a part of the Islamic pilgrimage.

Finally, an angel appeared and spoke to Hagar. The angel dug into the earth and water flowed from the place he disturbed. Hagar made a rim around the place, and it became known as the ‘well of Zamzam.’

Hagar lived in that valley until people from the tribe of Jurhum moved there. She allowed them to stay, but she maintained control of Zamzam and its water. Hagar was pleased to have the company of other people. Bukhārī tells us that Ishmael grew up among the Jurhum and learned to speak their language, an early form of Arabic.

The Torah contains a similar story in Genesis 21:14. In this account Abraham rose early in the morning and took bread and a bottle of water and gave them to Hagar, putting them on her shoulder and sending Hagar and Ishmael away. She departed and wandered in the wilderness:

⁸³ Sahih al-Bukhārī 3364; Riyad as-Salihin 1867, <https://sunnah.com/riyadussalihin:1867>; Sahih Muslim 2473a, <https://sunnah.com/muslim:2473a>

⁸⁴ Sahih Muslim 1260, <https://sunnah.com/muslim:1260>

⁸⁵ Sahih al-Bukhārī 3364.

⁸⁶ Sahih al-Bukhārī 3364.

when the water in the skin was gone, she put the child under one of the bushes. Then she went and sat down opposite him a good way off, about the distance of a bowshot, for she said, “Let me not look on the death of the child.” And as she sat opposite him, she lifted up her voice and wept. And God heard the voice of the boy, and the angel of God called to Hagar from heaven and said to her, “What troubles you, Hagar? Fear not, for God has heard the voice of the boy where he is. Up! Lift up the boy, and hold him fast with your hand, for I will make him into a great nation.” Then God opened her eyes, and she saw a well of water. And she went and filled the skin with water and gave the boy a drink. (Genesis 14:15-21)

Genesis 14:14 describes Hagar as wandering in “the wilderness of Beersheba.” This descriptor is vague, but it seems to place her in the Negev which is opposite the Wadi Araba from Petra. Interestingly, the second century BCE Book of Jubilees reads: “she opened her eyes, and she saw a well of water, and she went and filled her bottle with water, and she gave her child to drink, and she arose and went toward the wilderness of Paran.”⁸⁷ According to this Jewish tradition Hagar traveled from the Negev to Paran, or the Petra wilderness. So, there is an early pre-Islamic tradition associating Hagar’s expulsion with the Petra area.

There are similarities between the accounts in the Torah and the hadiths. Hagar and the child are cast out of the Abraham’s encampment. The child and Hagar end up in a barren valley where they begin to cry and weep. In both cases there is divine intervention and the provision of a well. Hagar and the child weeping may be why the valley became known as the valley of Becca, or the valley of weeping.

In the Islamic account, the bubbling water becomes the well Zamzam. Later, Abraham returns to the valley to teach Hagar and Ishmael the ways of God and to build an altar for worship. That altar was known as the House of God, very much like Isaac’s altar at Bethel (בֵּית אֱל), which also means house of God.⁸⁸ This former altar would later be built up into the Ka’ba.

Bukhārī wrote that the House of God was built on a hillock where torrents of rain would flow to the right and left of the hill. This House of God did not flood—the water naturally flowed around it and away.

Bukhārī also recorded another hadith which describes how Zamzam would sometimes fill up with sand and had to be dug out.⁸⁹ He also wrote that there were steps leading up to Zamzam.⁹⁰ Zamzam had doors which could be closed and guarded.⁹¹ Other sources describe Zamzam as more of a cistern which needed to be cleaned and have snakes removed.⁹²

⁸⁷ R. H. Charles trans., “The Expulsion of Hagar and Ishmael (xvii. 1-14),” *Sacred Texts*, accessed September 29, 2022, <https://www.sacred-texts.com/bib/jub/jub38.htm>

⁸⁸ Sahih al-Bukhārī 3364.

⁸⁹ Ibn Ishaq, *The Life of Muhammad*, 62.

⁹⁰ Sahih al-Bukhārī 3156-3157, <https://sunnah.com/bukhari:3156>

⁹¹ Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of al-Tabari Volume XXI: The Victory of the Marwanids*, trans. Michael Fishbein (Albany: State University of New York Press, 1990), 60.

⁹² Sunan Abu Dawud 5251, <https://sunnah.com/abudawud:5251>

The name ‘Zamzam’ is also a curiosity. There is no natural translation for the name, and the most popular explanation is that it comes from the phrase “Zöme Zöme,” which some say was repeated by Hagar as she tried to contain the water that was flowing out of ground. This explanation was developed later in Islamic history and is not supported by the earliest documents.

In the Torah, we are told of a people known as the Zamzummim (Deuteronomy 2:20). As Rephaim, the Zamzummim were a tall people who lived in the land of Seir. One of the early names given to the Petra mountains was Mount Seir. So, there is a possibility that Zamzam well at Seir (Petra) was named for its ancient inhabitants, the Zamzummim.

It seems that when the ‘second Mecca’ was established in the Hijaz, a local well was designated as Zamzam. During the confusion of the Between period, there were two locations for pilgrimage, but when Petra was devastated by a catastrophic earthquake in 130 AH, the city was permanently abandoned. The dams protecting Petra from flooding were left unmaintained, and when they collapsed, Petra was repeatedly flooded. Many features such as Zamzam were lost under meters of debris. For the Islamic world, this solved a pressing controversy, and from then on, the Holy City was unambiguously Mecca in the Hijaz. Zamzam well became the new well in the Hijaz, and the location of the original Zamzam where Hagar was abandoned was forgotten.

13.8 Shib Abu Talib

Shi’b Abu Talib (شعب أبي طالب), or the Abu Talib Canyon, was another important location near the Holy City of Islam. The canyon was named after Abu Talib, an uncle of the prophet Muḥammad and leader of the Banu Hashim tribe in the Holy City before the hijra.

Al-Ṭabarī recorded the story of how, in response to persecution from the Quraysh, 82 Muslim men emigrated to Abyssinia in East Africa from the Holy City.⁹³ The Muslims who remained hoped that they would receive gifts of arms from Abyssinia to allow them to protect themselves from the Quraysh, but this did not happen. Following the migration, the Quraysh intensified their persecution of the prophet Muḥammad and the few Muslims who remained in the Holy City. The Quraysh drew up a document stating that they would not intermarry with the Banu Hashim and Banu Muttalib, the two key Muslim families.⁹⁴ The people of the Holy City were also barred from buying or selling with the Muslims. This document was hung up in the Ka’ba area for everyone to see, to make it binding. Very quickly everyone else in the city joined in this boycott against the few remaining Muslims.

The Muslims retreated from the Holy City to a nearby valley, where they lived for about three years. When the Muslims retreated to their homes in this very narrow valley the Quraysh trapped them there. For three years the Muslims suffered, until the boycott was lifted. This situation was extremely desperate for the prophet Muḥammad and his followers.

⁹³ Al-Ṭabarī, *Volume VI*, 100-101.

⁹⁴ Al-Ṭabarī, *Volume VI*, 105.

Saifur Rahman al-Mubarakpuri, summarizing the hadiths, described the events this way in his *Ar-Raheeq al-Makhtum*:

Abu Talib wisely and quietly took stock of the situation and decided to withdraw to a valley on the eastern outskirts of Makkah. Banu Hashim and Banu Al-Muttalib, who followed suit, were thus confined within a narrow pass (referred to as ‘Shi’b of Abu Talib’), from the beginning of Muharram, the seventh year of Muhammad’s mission till the tenth year, that is a period of three years.⁹⁵

A ‘shi’b’ is a path through a narrow place, with mountains on either side. It is distinct from a thaniya, which is a narrow pass; a shi’b is more like a canyon or narrow valley.

Shi’b Abu Talib has been known by other names: Shi’b Banu Hashim, Shi’b Abi Yusuf, and Shi’b ‘Ali bin Abi Talib. Some records tell us that ‘Abd al-Muttalib owned property there, and it is also where Khadijah lived with the prophet Muḥammad.⁹⁶

If Petra is the original Holy City of Islam, there should be a site near the city which suits the descriptions of Shi’b Abu Talib. It would be a box canyon: only one way in and out. It would have to be a narrow passage—some accounts say that a camel would have trouble passing through it. It would need steep walls inside the canyon, so that one could not climb out of it. It should be within walking distance of the city and the Ka’ba if the prophet Muḥammad and Khadijah lived in the canyon. Additionally, it should have evidence of dwellings carved into the rock.

While there is a suburb of Mecca in Saudi Arabia that is known as Shi’b Abu Talib, it is not a canyon but a valley with a sloping side, and there is no evidence that people could have been trapped inside of it. Recently much of the valley has been demolished for the construction of a set of highway tunnels through the hills.

But, just a couple of kilometers from Petra, there is a small box canyon which resembles the descriptions of Shi’b Abu Talib remarkably well. It has a very narrow entrance way, so narrow that only one horse or camel could pass at a time.

Dan Gibson has explored this canyon personally. The film crew for *The Sacred City* tested the canyon with a single horse which passed through the entrance, and then rode down through the canyon. At the far end of the canyon there are steps that go up to a very small hanging valley. There is no way down from this hanging valley without ropes to rappel down the cliff.

In the box canyon there are a couple of tombs, but the majority of the structures there are carved rooms which were used for dwellings. There are also a series of dining or feasting rooms complete with running water into large basins at the entrance. There are ground level rooms that would be suitable as storage rooms

⁹⁵ Safiur-Rahman Al-Mubarakpuri, *The Sealed Nectar (Ar-Raheeq al-Makhtum)*: Biography of the Noble Prophet, (Mississauga: Darussalam, 2008), 94.

⁹⁶ Aṣghar Qā’idān, *Tārikh wa āthār-i Islāmī-yi Mecca wa Medina*, 4 ed. (Tehran: Nashr-i Mash‘ar, 1961), 114.



Exit from the box canyon.



Housing in the box canyon known as Little Petra.

This canyon is known locally as Little Petra, but historically it is known as al-Baydha. It fits the description of Shi'b Abu Talib perfectly. This valley could easily be sealed, and it would only take one or two guards to keep people trapped in the canyon.

The area at the entrance to this canyon would have also been a perfect place for Khadijah to manage her merchant business without having to enter Petra proper. We are told that Khadijah's caravans equaled the caravans of all other traders of the Quraysh put together.⁹⁷ Just outside of Little Petra there was a suitable space to load and unload the camels for her expansive merchant business. Inside the narrow box canyon there were rock-cut rooms where goods could be stored. A single guard at the entrance could guard the entire valley. And right outside the entrance there are fields for agriculture where fodder could be provided to the camels.

In recent years Brown University conducted a survey of the area around Little Petra and discovered an early Islamic village just outside of the box canyon, which includes several mosques.⁹⁸ If this box canyon was the home of Khadijah and the prophet Muḥammad, it would be no surprise that it was also the site of an early Muslim settlement near Petra.

Until an inscription can be found at the site, there is no way of proving that it is Shi'b Abu Talib. But, Little Petra does suit the description of the canyon better than the location recognized in the Hijaz. For the first century of Islam, mosques faced Petra as the Holy City—and given that archaeological testimony, Little Petra provides a very convincing location for Shi'b Abu Talib.

⁹⁷ Muḥammad ibn Sa'd, *Kitab at-Tabaqat al-Kabir Volume VIII: The Women of Madina*, trans. Aisha Bewley (London: Ta-Ha Publishers, 1995), 10.

⁹⁸ Micaela Sinibaldi and Christopher A. Tuttle, "The Brown University Petra Archaeological Project : 2010 excavations at Islamic Bayḍā," *Annual of the Department of Antiquities of Jordan* 55 (2011): 431-50.

13.9 Ghadir Khumm

Ghadir Khumm (غدير خم) is another important location in Islamic literature. Ghadir means pond or brook. Khumm often refers to something that smells badly or is putrid. Today, Muslims all over the world consider Ghadir Khumm to be the name of a pond located on the road leading out of Mecca towards Medina.

The story of Ghadir Khumm is very controversial. It begins in the year 10 AH Dhu l-Hijja Tamantash, or March 19, 632 CE. During a stop at this spot, the prophet Muḥammad is said to have announced, “for whomever I am his Mawla then ‘Ali is his Mawla.”⁹⁹ Shia Muslims interpret this phrase to be the designation of Ali as the prophet Muḥammad’s heir, but this is disputed by Sunni Muslims.

‘Mawla’ has several meanings in Arabic. Sunnis translate mawla as ‘friend’ or one who is loyal or close, so they interpret the prophet Muḥammad’s meaning as “anyone who has me as his friend, has Ali as his friend.” Thus, Sunnis believe that the prophet Muḥammad’s statement was only about Ali deserving friendship and respect.

But the Shias claim that the word mawla means ‘master’ or ‘ruler.’ So, in this case, the prophet Muḥammad was saying, “anyone who has me as his ruler has Ali as his ruler.” Thus, Shias believe that the prophet Muḥammad appointed Ali as his successor.

The word ‘mawla’ became the cause of the split between Sunni and Shia Muslims. For the last 1500 years, hundreds of thousands of Muslims have died contending over the prophet Muḥammad’s succession. Sunnis ascribe very little significance to Ghadir Khumm, but the Shias revere it as the place where the prophet Muḥammad officially appointed Ali as his successor.

Because of the controversy and division few people have asked about the whereabouts of this place. The conflict is based on what happened, not where it happened. Our concern here is not to decide whether the prophet Muḥammad appointed Ali as his successor. Our task is to try and discover the true location of Ghadir Khumm. Is it in Saudi Arabia near Mecca, or is it in Jordan near Petra?

The traditionally accepted location of Ghadir Khumm in Saudi Arabia is located four kilometers away from al-Juhfah. Al-Juhfah is approximately 64 kilometers north of Mecca. It is supposed to be one of the five miqats, or gathering places, for pilgrims performing Hajj. Historically, due to the water supply and the shade of a few trees, Ghadir Khumm is said to have been a common stopping place where routes from Medina, Egypt, and Iraq intersected.¹⁰⁰

The oldest historical accounts refer only to a place known as Khumm. Ibn Ishaq names it among ten wells that were around the Holy City.¹⁰¹ Two of these wells belonged to the clans of the Quraysh and were known as Rumm and Khumm. Rumm was dug by Murra ibn Ka’b

⁹⁹ Jami’ at-Tirmidhi 3713, <https://sunnah.com/tirmidhi:3713>; Sunan Ibn Majah 121, <https://sunnah.com/ibnmajah:121>

¹⁰⁰ Joseph Eliash, “Ali b. Abi Talib in Ithna – Ashari Shi’i belief,” PhD diss., (University of London, 1966).

¹⁰¹ Ibn Ishaq, *The Life of Muhammad*, 65.

ibn Lu'ayy, and Khumm by B. Kilab ibn Murrar. Ibn Ishaq recorded a poem by Hudhayfa ibn Ghanim which reads: "In the good old days we were long satisfied / To get our water from Khumm or al-Hafr." ¹⁰²

The historian Ibn Sa'd (d. 230 AH) adds that Khumm was a well en route to Mecca. ¹⁰³ He never refers to it as a 'ghadir' or pond. Drawing from these early sources, Khumm was clearly a well or a cistern. Both 'well' and 'cistern' fall under the word 'beer' in Arabic.

Gibson believes that several hundred years after the prophet Muḥammad made his statement at Khumm, as the geography of the Holy City was being relocated to the Hijaz, a pond on the route from al-Juhfah to Mecca in Saudi Arabia was identified as Khumm, and Beer Khumm (the well) became Ghadir Khumm (the pond).

Al-Ṭabarī, who never mentioned Ghadir Khumm in his extensive history of Islam, later wrote a two-volume book explicitly on Ghadir Khumm called *Kitab al-Fadd'il*. ¹⁰⁴ This book was left unfinished and has since been lost. By the time of Yāqūt, writing nearly 600 years after the Hijra, Khumm was believed to be the pond in modern Saudi Arabia. ¹⁰⁵

However, if Petra was the original Holy City of Islam, then there should be a place near Petra that fits the original descriptions. In fact, multiple wells or cisterns should be in and around the city unless they ceased to be used and were later filled in.

To locate Khumm it may be helpful to first locate the five mīqāts or Stations of the Ihraam. The prophet Muḥammad designated these locations so that visiting pilgrims would know where to put up their tents. These locations were near to the holy sites but outside of the sacred area. They needed to be close to the Holy City so that pilgrims could easily come and go from the various pilgrimage routes.

These pilgrimage routes required walking seven to eight kilometers each day while performing the hajj rituals. Once the pilgrims washed at Jirana they wore a pilgrim's robe consisting of two seamless sheets of cloth. This signified that they had entered the sacred state or Ihraam, which comes from the word haram or forbidden. Then they would proceed down the main pilgrimage route.

The five mīqāts or camping stations were:

- (1) Dhu al-Hulaifa in the south, which was the mīqāt for those who approach the Holy City on the southern paths into the city.
- (2) Juhfah was north of the city and was the mīqāt for the people who come from Syria or from the north.
- (3) Qarn al-Manazil was east in the hills.

¹⁰² Ibn Ishaq, *The Life of Muhammad*, 65.

¹⁰³ Abu 'Abd Allah Muhammad Ibn Sa'd Ibn Mani' al-Zuhri al-Basri, *KITAB AL-TABAQAT AL-KABIR Volume 1 Parts 1*, trans. Haroen Soebratie (Netherlands: 2012), 470.

¹⁰⁴ Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of al-Tabari Volume I: General Introduction and From the Creation to the Flood*, trans. Franz Rosenthal (Albany: State University of New York Press, 1989), 91-93.

¹⁰⁵ Yāqūt al-Hamawī, *Kitāb Mu'jam al-Buldān Volume 2*, (1906), s.v. "Khumm (خُم)"

(4) Yalamlam was the miqāt for the people coming from Yemen.

(5) Dhat Iraq for those from Iraq and Iran.

Because these miqāts were designated for people living in tents no archeological record remains. The requirements for these miqāts would be a flat area for the tent village and access to water. Insufficient archeological survey and excavation has taken place at Petra to accurately determine where these locations might have been, but there are ample possible places that may have been used. For instance, Qarn al-Manazil would most likely have been in the hills above Wadi Musa. Dhu al-Hulaifa would have been at the base of ‘Arafat Mountain, or Jebal Haroun, which is what the mountain is called today. Juhfah was probably north of the Bedul settlement, north of Petra up toward al-Baydha. Hopefully further excavations will uncover where these locations may have been.

Since the well or cistern of Khumm is described as outside of the Haram area several cisterns and a handful of old wells would be candidates for Khumm. Further exploration is needed, but there is shortage of candidates. Identifying the original location of Khumm would provide Muslims around the world with the site of the prophet Muḥammad’s last sermon.

13.10 Al-Abwā’ Village

If Petra is the original Holy City of Islam, then where was al-Abwā’ (الأَبْوَاء), the village where the prophet Muḥammad’s mother Āminah was buried? As with so many other traditional locations, there is a village in Saudi Arabia today called Al-Abwā’. In order to test the veracity of this location there are a number of things to consider. First, we should refer to the early Islamic writers and how they describe al-Abwā’. Where do they say it was? What do they say happened there?

We will begin with the 14th century historian Ibn Kathir, who notes that the very first raid that the Muslims carried out against the Quraysh was at al-Abwā’: “the number of military expeditions which the Messenger of God (SAAS) organized totaled twenty-seven. These were, in order, Waddān, also known as al-Abwā’...”¹⁰⁶ As we can see from Ibn Kathir’s record, al-Abwā’ is also called Waddān.

Ibn Ishaq describes the first raid this way: the prophet Muḥammad traveled “until he reached Waddān, which is the raid of al-Abwā’...The B. Damra there made peace with him through their leader Makhshi b. ‘Amr al-Damri. Then he returned to Medina without meeting war and remained there for the rest of the month of Safar.”¹⁰⁷ Here again we see the locations of Waddān and al-Abwā’ are connected.

Al-Ṭabarī describes al-Abwā’ similarly: “in this year, according to all the Sirah-writers,

¹⁰⁶ Ibn Kathir, *The Life of the Prophet Muḥammad Volume IV*, trans. Trevor Le Gassick (Lebanon: Garnet Publishing, 2006), 312.

¹⁰⁷ Ibn Ishaq, *The Life of Muhammad*, 281.

the Messenger of God personally led the expedition of Al-Abwā', or, as it is sometimes called, Waddān; the two places are six miles apart and opposite one another."¹⁰⁸ Al-Ṭabarī offers the additional detail that al-Abwā' and Waddān are different communities, six miles 'apart and opposite.' There are several important clues here. What does 'opposite one another' mean? This description seems to indicate that there is something between them. Perhaps one was on one hill and the other was on another hill. In that case they may have been divided by a wadi or a valley.

Al-Ṭabarī also provides us with the story of the prophet Muḥammad's mother:

the Messenger of God's mother Āminah died at al-Abwā' between Mecca and Medina when the Messenger of God was six years old. She had brought him to Medina to let him visit his maternal uncles of the Banu 'Adi b. al-Najjār, but she died on the way back to Medina with him. Al-Ḥārith related to me that Muḥammad b. Sa'd-Muḥammad b. 'Umar-Ibn Jurayj-'Uthman b. Safwan, who said that Āminah bt. Wahb's grave is in the ravine of Abu Dharr at Mecca.¹⁰⁹

There are significant differences between the two accounts al-Ṭabarī has recorded here. He first tells us that Āminah died at al-Abwā' between Medina and Mecca, and then provides a second account which tells us she was buried 'at Mecca.' To reconcile the two descriptions, we may consider that Āminah was buried near 'Mecca,' but on the road from Medina to Mecca, since she was returning from that direction. Since the original Holy City of Islam appears to have been Petra, Āminah would have been buried between Petra and Medina, but closer to Petra.

Again, we are first told that Āminah died at al-Abwā', but al-Ḥārith reported that her grave was in the ravine of Abu Dharr, *at Mecca*. If this confusion is surprising, it is reflected in the account of Ibn Sa'd:

when the Apostle of Allah, may Allah bless him, conquered Makkah, he came to a ruined grave and sat there and the people also sat round him. He sat like a person attending to a speech. Then he stood up weeping. 'Umar, who was the boldest of those before him, came forward and said: May my father and mother be sacrificed for you, O Apostle of Allah! What makes you weep? He said: This is the grave of my mother, to visit which I sought my Lord's permission, which was granted; I asked for her salvation but He did not grant it. So I recalled her and was overpowered (by grief) so I wept. He was never seen weeping more than on this occasion. Ibn Sa'd said: This is an error, her grave is not at Mecca but it is at al-Abwā'.¹¹⁰

We started out with a simple question—the location of al-Abwā'—but things immediately become more complex and controversial. Have you noticed that whenever we ask a simple question about a geographical location from early Islam, immediately issues come to the surface? The records are not clear. Two hundred years after the hijra Muslims themselves could not agree on the location of many places. Ibn Sa'd was writing around 230 AH (840 CE), and

¹⁰⁸ Al-Ṭabarī, *Volume VII*, 15.

¹⁰⁹ Al-Ṭabarī, *Volume V*, 283-284.

¹¹⁰ Ibn Sa'd, *KITAB AL-TABAQAT AL-KABIR*, 129.

in his time there was already disagreement on the location of Āminah's grave. Ibn Sa'd also recorded an account of Āminah's death:

the Apostle of Allah, may Allah bless him, was with his mother 'Aminah Bint Wahb. When he was six years old, she took him on a visit to his maternal uncles...at Madinah and with him was his nurse Umm Ayman. They were riding two camels and they lodged in the house of al-Nābighah and sojourned there for a month...Then his mother started back for Makkah with him. When they reached al-Abwā', she died, and her grave is there. Then Umm Ayman brought him to Makkah on the two camels which were with them. She nursed him along with his mother (when she was alive). After his mother's death the Apostle of Allah, may Allah bless him, passed by the site of al-Abwā' during his 'Umrah al-Hudaybiyah. He (Ibn Sa'd) said: Verily Allah permitted Muḥammad to visit his mother's grave and the Apostle of Allah, may Allah bless him, came there, got (the grave) repaired and wept by its side and the Muslims wept because of the weeping of the Apostle of Allah, may Allah bless him. He was questioned about it and he replied: (Recollection of) her affection overpowered me and I wept for her.¹¹¹

The connection between Hudaybiyah and al-Abwā' stands out in this passage. The treaty of Hudaybiyah was struck after the prophet Muḥammad and his followers walked as pilgrims from Medina to the Holy City.¹¹² Representatives of the Quraysh came out to meet the prophet, and the result was permission for the pilgrimage and a ten-year truce between the Muslims and the Quraysh. The prophet Muḥammad and his followers stopped just outside of the borders of Masjid al-Harām, probably at a place known as Hudaybiyah. In the passage from Ibn Sa'd above, the prophet Muḥammad seems to pass by his mother's grave during his pilgrimage immediately before or after the signing of Hudaybiyah. This would place his mother's grave (al-Abwā') either at the edge of Masjid al-Harām or just inside the sacred area.

Yāqūt records the following of the prophet Muḥammad's parents:

in Al-Abwā' is the grave of Āminah bint Wahb, the mother of the Prophet, (may God bless him and grant him peace) and the reason for her burial there was that 'Abdullāh, the father of the Messenger of God, (may God's prayers and peace be upon him) had gone out to Medina to pick dates and died in Medina. His wife was Āminah (son of Abd Manāq, son of Zahra, son of Kalāb son of Murra, son of Ka'b, son of Lu'ay, son of Gālib) who would go out every year to Medina to visit his grave. When the Messenger of God came to be six years old, (may God bless him and grant him peace) His mother went out to visit the grave, with 'Abd al-Muṭṭalib and Um Ayman the nursemaid for the Messenger of God, (may God's prayers and peace be upon him). When they came to Al-Abwā' on their way back to Mecca, Amina died there. It is said that Abu Tālib visited his maternal uncles Bani al-Najjār in Medina and took with him Āminah, the mother of

¹¹¹ Ibn Sa'd, *KITAB AL-TABAQAT AL-KABIR*, 128-129.

¹¹² Abu Jafar Muhammad b. Jarir al-Ṭabarī, *The History of al-Tabari Volume VIII: The Victory of Islam*, trans. Michael Fishbein (Albany: State University of New York Press, 1997), 67-89.

the Messenger of God (may God bless him and grant him peace). When he returned on his way to Mecca, Amina died at the Al-Abwā'.¹¹³

According to this account, 'Abdullāh, Āminah's husband and the father of the prophet Muḥammad, had been in Medina. He was originally from the Holy City, but he met and married Āminah in Medina. So Āminah was originally from Medina. 'Abdullāh brought her back to the Holy City to meet his family, and she lived there with him. Soon after they were married, when Āminah was pregnant with the prophet Muḥammad, 'Abdullāh died. After this, Āminah tried to make regular visits back to her family in Medina. Each time she would take the young prophet Muḥammad with her. She usually stayed in Medina for one month before returning home. We do not know how many times she went to Medina, but we do have one journey especially recorded—her death.

From this account we learn that the prophet Muḥammad was familiar with Medina. He had family there from his mother's side and would visit with his mother. Note that the records indicate that 'Abdullāh, the father of the prophet Muḥammad, was buried in Medina. A number of sources suggest that soon after their marriage 'Abdullāh was called to Gaza on a trading caravan trip.¹¹⁴ When he left, Āminah was pregnant.

After spending several months in Gaza, he went directly to Medina to be with his wife and her family, especially his paternal grandmother, Salma bint 'Amr, who belonged to the Najjār clan of the Khazraj tribe who lived around Medina. 'Abdullāh was preparing to join a caravan to return to Mecca when he fell ill. Yāqūt's account tells us that it had something to do with picking dates; perhaps he fell from a treetop. So, the caravan went on without him to Mecca where 'Abd al-Muṭallib, 'Abdullāh's father, immediately sent his eldest son al-Ḥārith back to Medina to find out what had happened. Upon his arrival in Medina, al-Ḥārith learned that his brother had died and had been buried a month after falling ill. Al-Ḥārith returned to Mecca to announce the death of 'Abdullāh to their aged father and 'Abdullāh's wife Āminah. All 'Abdullāh left to Āminah was a few camels and goats and a slave girl named Um Ayman as an inheritance.¹¹⁵

Notice the timing of these events. The caravan went from Medina to 'Mecca,' and immediately al-Ḥārith rushed back to Medina to seek his brother. Assuming he could walk at three kilometers per hour for 12 hours each day, he could travel about 36 km per day. If he had a horse, he could travel much farther each day.

- Travel from Medina to Mecca in the Hijaz is just less than 500 km, so it could have been done in 12 days. It would take roughly 12 days for the caravan to get from Medina to Mecca in Saudi Arabia with the news of 'Abdullāh's illness, allowing 12 days for al-Ḥārith to walk back to Medina. This amounts to 24 days without al-Ḥārith rushing on horseback. How could a month have passed since 'Abdullāh had died?

¹¹³ Yāqūt al-Hamawī, *Kitāb Mu'jam al-Buldān Volume 1*, (1906), s.v. "Al-Abwā' (ءأوبأأ)"

¹¹⁴ Michael Lecker, "The Death of the Prophet Muḥammad's Father: Did Wāqidi Invent Some of the Evidence?," *Zeitschrift Der Deutschen Morgenländischen Gesellschaft* 145 no. 1 (1995): 14-16.

¹¹⁵ Ibn Sa'd, *KITAB AL-TABAQAT AL-KABIR*, 107.

- On the other hand, a trip from Medina to Petra in Jordan is about double the distance, so it would have been around 48 days of total travel time. Hearing that ‘Abdullāh had died a month earlier fits the distance to Petra much better than it fits the distance to Mecca in Saudi Arabia.
- Some commenters have objected that the distance between Petra and Medina would be too far to be possible, but when you compare this distance to the travel times in the original stories, the distance to Petra usually fits better than the distance to Mecca in Saudi Arabia.

It is not commonly recognized that the prophet Muḥammad was directly related to one of the tribes in Medina; in fact, he had close relatives among them. On several occasions the young prophet Muḥammad spent a month in Medina as a child. Once again, it was on the way home during one of these visits that his mother Āminah died and was buried in the place known as al-Abwā’.

So where was al-Abwā’? Was it close to Medina, or was it close to the Holy City, or was it between the two somewhere? Is al-Abwā’ in Saudi Arabia, or is it in Jordan?

As mentioned, there is a village called al-Abwā’ in Saudi Arabia today. It is not on the major road between Medina and Mecca. Saudi Arabia is mountainous in the region of al-Abwā’, so the roads are limited. It is difficult to explain why Āminah would be in the mountainous al-Abwā’ in Saudi Arabia if she were on her way back to Mecca. Waddān is nowhere to be found, and it ought to have only been six miles away.

Many people who visit al-Abwā’ in Saudi Arabia struggle to find the grave of Āminah. The prophet Muḥammad is said to have fixed the grave, and it was clearly made known to the people of Mecca after he conquered the city, but all you can find in al-Abwā’ in Saudi Arabia is a circle of black stones on a hilltop--not in a ravine. The site that is supposed to be her grave does not suit the early descriptions.

The qibla directions of early mosques indicate that the original Holy City of Islam was Petra, not Mecca in the Hijaz. If so, it makes sense that al-Abwā’ poorly suits the location in Saudi Arabia. The grave should be in the Petra region, not Mecca. With this in mind, here are some criteria for a suitable location for al-Abwā’:

1. It is located somewhere between Medina and Petra, closer to Petra. Later, the prophet Muḥammad stopped and wept there after conquering Petra. It is described as both ‘Mecca’ and al-Abwā’. So, they must have been very close to each other. Perhaps al-Abwā’ was a suburb of Petra.
2. It is located along a route where people coming from Medina would pass as they neared Petra, such as when the prophet Muḥammad led the pilgrimage and struck the treaty with the Quraysh.
3. It is located near a place known as Waddān, six miles away, which is opposite al-Abwā’. So, there is some sort of topographical feature between them.

4. Āminah's grave is in a ravine, not on the top of a hill as in Saudi Arabia.
5. The meaning of the name al-Abwā' is most likely "the Place of the Fathers," leaving the impression that it was either a burial place, or a place from which the Arab tribes had descended.

There were several ways of approaching the first Holy City. One way into Petra was through the Edomite hills following the Roman Via Nova Traiana, or the old King's Highway. From this highway there were several ways to connect to Petra from the east. Another way into Petra was to travel up Wadi Araba until Um Rattam, and then turn east and follow the wadi up into the mountains, coming out near small settlement known as 'Little Petra,' or al-Baydha.

There are several places below Little Petra where the Wadi Araba is six miles wide, which fits the description of the two towns: al-Abwā' on the east side and Waddān on the west. The 'Place of the Fathers' may easily have been along the east side, which contains many deep ravines and poorly explored sites including the Pond Monument. Ibn Ishaq tells us that this region was controlled by the Bani Damra tribe, and that the prophet Muḥammad made peace with them, and then returned to Medina without having a war.¹¹⁶

When the Black Rock was moved to Saudi Arabia, the name "Mecca" was transferred along with it, and over time it became the center of pilgrimage for the new and growing Islamic religion. It wasn't until several hundred years after the founding of Islam that a small town in Saudi Arabia was identified as al-Abwā. Unfortunately, the grave of Āminah and the town of Waddān were not there. Now that we are turning our attention to the area around Petra, we may someday be able to find the two settlements of Waddān and al-Abwā.

¹¹⁶ Ibn Ishaq, *Life of Muhammad*, 281.

Chapter Fourteen

Conclusion: Let the Stones Speak

Dan Gibson with Chad Doell

This brings us to the end of *Let the Stones Speak*. More could be addressed here, such as many of the numerous arguments Dan Gibson has presented in his videos and his earlier books. It is our hope that the evidence presented here is sufficient for the reader to formulate an opinion.

This book began with the five qibla directions as determined by the Online Qibla Tool. Are the five qibla directions evident to you? If you click back and forth with the Qibla Tool, can you see the same pattern that Gibson observed a decade ago? Consider the statical analysis presented in chapter three. Independent scholars analyzed the data and tested it to see if these patterns can be supported mathematically. Using rate distortion theory, they tested the area that the mosques appear to have been intended to face and found it well supported. Dr. King claims these patterns are simply coincidence. In the end, you must decide if you prefer the coincidence explanation, or if you believe that not only did early Muslims have several different qiblas in their history, but they also had the knowledge to accurately face their mosques and qasrs toward distant locations.

We presented the Indian Circle as a possible method for determining the direction of distant locations. Most of this method is described to us by Arab writers in the Middle Ages. The missing component of this argument was provided by Dan Gibson who gleaned it from Roman descriptions of how the Arabs measured distance by counting paces. Again, you the reader must decide if you believe this is a feasible explanation. Did the ancient Arabs really have the knowledge to navigate by the stars, plot directions, and measure long distances?

Chapter five explored Mecca's presence on ancient maps. Many Muslims look to Ptolemy's Macoraba as an early representation of Mecca which was used for many maps afterward. Was ancient Macoraba ancient Mecca? Again, the reader is called on to decide.

Next we examined Gibson's use of qasrs in his database. Did ancient qasrs have a qibla direction? Do the qiblas in qasrs change our understanding of early Muslim prayer? What do we learn from the early qasrs and their Petra qibla?

The qasr discussion was followed by three supporting arguments for Petra as the original Holy City of Islam. The names of Petra were examined and compared with common names used to describe the original Holy City of Islam. After examining the names of the city, we explored the Nabataean roots of the Arabic of the Qur'ān. We argued, based on the observation of Mark Drurie, that the language of the Qur'ān is much more consistent with the Nabataean Aramaic and Arabic of southern Jordan than the Bedouin Arabic of the Hijaz. It is once again left to you to decide if these observations are convincing. Finally we examined the Arabic of the Qur'ān itself and noted that there seems to be a remarkable presence of Aramaic in the script. Aramaic was spoken throughout the Middle East for several centuries before Arabic became the most used language. Does the Petra connection support the Aramaic used in the Qur'ān? Once again, the reader must decide.

We argued that the original Ka'ba structure was in Petra, and that the old foundation stones of this structure still exist in Petra today. We compared the descriptions and measurements provided by al-Azraqī to the Ka'ba in Petra and the Ka'ba in Mecca. Do you feel these arguments are strong enough to persuade you that the original Ka'ba may still exist in Petra?

Then, in chapter nine, we explained the original impetus for Islam: the search for the religion of Abraham, as described by the very earliest writers and biographers of the prophet Muḥammad. Does this chapter help you understand how Islam was formulated and how it came into existence, and how it may have formed in Petra?

The situation among the ruling caliphs, both in the Umayyad and Abbāsid dynasties, influenced the formation of Islam. We paid special attention the influence of general al-Ḥajjāj ibn Yūsuf on Islam, noting how he suppressed anyone who stood against the Umayyad caliphs. We argued that al-Ḥajjāj exerted remarkable personal influence over the development of the new religion. In the same chapter we examined the Abbāsid era, especially the influence of secret societies like the Qarmatians and their shocking attack on Mecca. Does their apparent opposition to Mecca as the Holy City of Islam lead you to believe that there may have been some memory of Petra as the original Holy City?

In chapter 11 we summarized the arguments made by Dr. David A King against the Petra Qibla theory. Dr. King argues that early Muslims did not have the technology or knowledge to accurately plot a qibla, so they adopted some aspect of the Ka'ba building in Mecca (or some other cardinal or astronomical feature) to set as a qibla for their mosques. King extracted this idea from Muslim writers in the later Middle Ages who were trying to explain the erratic looking qiblas of early Islam. King argues that no one should use modern tools to measure early qiblas. Are you convinced by Dr. King's explanations?

In chapter 12 we examined the role of the Romans in the development of early Islam. Special attention was given to the last war between the Sassanians and Romans. We observed

a pattern between the ebb and flow of Roman fortunes and the prophet Muḥammad's life. Is there enough evidence to convince you that Roman events influenced the new religion, and the prophet himself?

The final chapter examined some of the numerous other locations and miscellaneous issues that challenge the Petra theory.

If nothing else, we hope that you, the reader, will understand that the manuscripts from the first 200 years of Islamic history are missing. Despite this void the stones speak loudly, filling in the gaps that the later manuscripts neglect and providing us with a glimpse of a dawn of Islam which was wrought with controversy, confusion, and a lost Holy City.

The evidence presented in this book will provoke many questions. It is not possible for them all to be addressed here. But first, we must ask: why are these findings shocking to Muslims, and even to historians of Islam? Why would these findings matter to the average Muslim?

In *Narratives of Islamic Origins: The Beginnings of Islamic Historical Writing* Fred Donner, professor emeritus of the University of Chicago, categorized four different types of scholars of Islam.¹ When his work was published in 1998 the idea of these four categories caught on, and it seems that many scholars of Islam try to squeeze each other into one of these categories.

Dr. Donner explained that his four categories primarily concern one's opinion of what happened in the early period of Islam, from 610-660 CE.² The lack of sources for this formative period of Islam has led to the emergence of a number of scholarly opinions of what happened in this period. These opinions are often very contradictory to one another.

Dr. Donner's first approach to Islamic history is called the Descriptive Approach. This approach accepts and agrees with the traditional Muslim sources' descriptions of the first decades of Islam. This approach assumes that the Qur'ān is a resource for studying the life and career of the prophet Muḥammad and that the reports found in Islamic chronicles are generally reliable. In this approach, hadith literature is also viewed as mostly reliable for sketching the early history of Islam.

Donner's second category is what he calls the Source-Critical Approach. This approach tries to formulate theories and methods to account for what some see as contradictions in the narratives. This approach purports that the traditional historical sources contain a mixture of true and fabricated information. Sources from outside of the Muslim world are used as points of comparison with Muslim sources because non-Muslim sources are believed to be more reli-

¹ Fred Donner, *Narratives of Islamic Origins: The Beginnings of Islamic Historical Writing*, (Princeton: Darwin Press, 1998).

² Scholarly Islam, "Four Approaches to the Academic Study of the Origins of Islam ~ Fred Donner," last updated January 5, 2017, <https://scholarlyislam.com/2017/01/05/four-approaches-to-the-academic-study-of-the-origins-of-islam-fred-donner/>

able. In this approach, the hadiths are seen as of little historical value and the Qur'ān is still generally believed to accurately record the origins of Islam.

The third approach described by Dr. Donner is the Tradition-Critical approach. According to this approach, the traditional histories developed over time and were formed by the context which produced them: political, religious, and social. That is, the timeframe in which a history was written deeply influenced the way the history of an earlier time was represented. So, in this framework, most of the traditional histories are fabrications, but they may contain some fact which can be apprehended and evaluated through study.

As you can guess, these theories of Islamic history are ordered from most to least skeptical, and so the final approach is the most skeptical of all. The Skeptical Approach questions whether there is any legitimate history in Muslim tradition. Similar to the Source-Critical approach, the Skeptical Approach assumes that Muslim sources have changed over time, but to the point where there is nothing remaining of historical value. According to the Skeptical Approach, the Qur'ān was still being adjusted in the 2nd and 3rd century AH and the biographical details of the prophet Muḥammad were invented to explain the Qur'ān. The hadiths and histories are, of course, totally unreliable in this approach.

So how does Gibson describe his own approach to Islam? Dan Gibson believes that

at this point in my studies, I think there was a real Muḥammad, around the time that Islamic history describes him. I think the historical dates could have been out by as much as 20 years, but overall they are quite accurate. I believe this because there are always issues matching up one civilization's histories with another. I believe that Muḥammad was born in a city known as Mecca, but that city also had other names, including Rekem, Seir, Sela, and Petra. The later Islamic writers used the name of Mecca for both Petra in Jordan and Mecca in the Hijaz. In time their identities merged into one memory of one place in Saudi Arabia, rather than two.

I believe that after the Black Stone was moved to Saudi Arabia, people started going to the Saudi location for pilgrimage, and in time the names of places such as Mina, Arafat, Zamzam, Shib Abu Talib, and so on were transferred from the Petra location to the Mecca location. At first there were two pilgrimages; I think manuscript evidence supports this. Eventually the Petra location was destroyed by a massive earthquake, and at the same time political correctness changed everything and the Meccan location rose above all the others. I also believe that places around Mecca were re-named, such as Ghadir Khumm, Aqaba, Baydha, and even the village of Ta'if.

As for the Qur'ān, I think Muḥammad did produce surahs. Many of these were circulated as individual documents. The challenge early Muslims had was to collect these individual documents and bring them together into a conclusive single book. Abu Bakr tried, Uthman tried, but

the final document was put together by al-Ḥajjāj whose focus was on Arabizing the text, rather than being consistent with the original intention of the text.

I think the closest of Dr. Donner's categories for me is a Source-Critical historian, but even there I am somewhat uncomfortable. I often find myself in the same box that most traditional Muslims find themselves, except I do not believe in the divine inspiration of the Qur'ān.

Some, like Dr. King, keep insisting that I am a revisionist, and others think I am an absolute skeptic. I am not. I don't think the ancient chroniclers of history went about inventing history. I don't think they invented new characters or inserted them into their history. I think they tried to accurately write down what people were saying and thinking during their lifetime. Did it 100% accurately reflect what actually happened? I cannot say how accurate they were, any more than I can say how accurate newspapers are today. How accurately does our modern media get things? How accurately do they reflect your thinking, and how much is their view influenced by what is currently politically correct?

I don't expect any more or any less from the writers of Islamic history or hadiths. But they are useful in interpreting what the archeological record tells us, and in getting a picture of what really happened in Arabia 1500 years ago. I put my emphasis on the archeological data of mosques and their qibla directions, and then I interpret the manuscripts in that light.

For many people the evidence seems clear. Islam began in the city of Petra. It would have been the home of the prophet Muḥammad and the Rashidun caliphs. However, when Caliph Muawiya moved the government to Damascus, a schism opened in Islam, causing the Second Civil War. During that war the Black Stone was moved to the Mecca valley in Saudi Arabia, bringing about confusion regarding which direction the faithful should face. That issue was only solved a century later when caliphs embraced the Saudi location as the correct one. Objections declined for over a hundred years, until everyone in Islam had accepted Mecca as the holy city of Islam.

Thousands of Muslims have enthusiastically contacted Dan Gibson saying they embrace the archaeological evidence and are seeking to understand what this might mean to their faith. At the same time, many are skeptical, as the evidence presented in this book challenges the basic tenants of traditional Islam. In the end the reader must decide.

Appendix A

Qibla Database

Gibson's database was first released as the *Online Qibla Tool* on November 24, 2018. The Qibla Tool is a simple graphical overlay-program of the qibla database which allows visitors to view the qibla database graphically and is the easiest way for visitors to understand the data. The Qibla Tool can be found on Dan Gibson's website: Nabataea.net.¹

In essence, the qibla database contains data of some 250 mosques and places of Islamic prayer from the first three centuries of Islam, including a handful of notable mosques from the following centuries. Every effort has been made to list every known mosque or place of prayer from the first three centuries of Islamic history. However, some may have been missed or new places may be discovered after the publishing of this data. Each location has been painstakingly researched, and many of them have been personally visited by Gibson or by volunteers who are helping Gibson collect data. The database contains the latitude and longitude of each location making it easy for others to locate and visit them using online tools such as Google Earth.

The focus of this data is to determine the direction that people faced while praying at each location. This is given in degrees, starting with 0 degrees at the north. The goal of this database is to discover the direction people faced at the time the original structure was built. This direction is shown in the Qibla Tool as a line extending from the location. If the original building has been demolished and rebuilt so that the original direction is unknown, then the date is listed in the unknown category, and no line is shown.

The qibla database also contains Dan Gibson's classifications. He lists each location under one of these categories: Unknown, Petra, Mecca, Parallel, Jerusalem and Between. The Qibla Tool allows viewers to sort the mosques into these categories, and to zoom down to view each structure. It works best in a desktop computer. The tool also allows visitors to view mosques by the era in which they were built. Again, these are Gibson's classifications, usually based on archaeological discoveries at the different sites. The Rashidun dating is usually Gibson's. The data is sorted according to eras. These eras include: Muhammad (during his lifetime), Rashidun (the first four caliphs), Early Umayyad, West Umayyad (North Africa and Spain), Umayyad, and Abbasid. A handful of unique mosques built after the first 300 years of Islam have additional eras of Timurid and Safavis.

The link *More Info* opens a screen about the featured mosque. The data used in the Qibla Tool is available as an Excel spreadsheet which can be viewed below or requested from Dan Gibson. Below are the mosques included in this data.

¹ https://nabataea.net/explore/founding_of_islam/
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Year CE	Year AH	City	Country	Mosque Name	lat	lon
622	1	Medina	Saudi Arabia	Quba Mosque	24.43962	39.61723
623	2	Medina	Saudi Arabia	Prophets Mosque	24.46762	39.61138
626	5	Medina	Saudi Arabia	Qiblatain	24.48409	39.57866
627	6	Janad	Yemen	Janad Early Mosque	13.66871	44.16639
627	6	Samail	Oman	Al Mudhmar Mosque	23.31138	58.01068
629	8	al-Kilabiyah	Saudi Arabia	Jowatha Mosque	25.46962	49.67887
629	8	Guangzhou	China	XianXian Mosque	23.14826	113.25545
600-699	20-80	Eritrea	Eritrea	Massawa Mosque	15.61198	39.48063
627	6	Guangzhou	China	Huaisheng Mosque	23.12590	113.25374
634	13	Dawmat alJandal	Saudi Arabia	Umar ibn al-Khattab	29.81193	39.86739
635	14	Gaza	Palestine	Gaza Congregational	31.50428	34.46457
637	15	Hama	Syria	Hama Great Mosque	35.13448	36.74868
637	16	Mosoul	Iraq	Jonah Mosque	36.34290	43.12693
637	16	Aleppo	Syria	Shuaibiyah Mosque	36.19871	37.15228
638	16	Kufa	Iraq	Kufa Mosque	32.02861	44.40083
640	18	Palmyra	Syria	Palmyra Congregational	34.55111	38.26808
640	18	Um Jemal	Jordan	Congregational	32.32477	36.36796
642	21	Fustat	Egypt	Amr ibn -Al-As	30.01052	31.23338
649	28	Jeddah	Saudi Arabia	Imam Shafi'I Mosque	21.48623	39.18747
649	28	Larnaca	Cyprus	Hala Sultan Tekke	34.88528	33.61031
650	29	Aqaba	Jordan	Aqaba Umayyad	29.53093	35.00039
671	51	Kairouan	Tunisia	Uqba Ibn Nafi'	35.68171	10.10382
671	51	Merv	Turkmenistan	Gyaur Hala Friday	37.66193	62.19189
674	55	Jerusalem	Israel/Occ.	Dome of the Chain	31.77814	35.23574
678	58	Mila	Algeria	Sidi Ghanem Mosque	36.45038	6.27153
680	59	Tiberias	Israel	Tiberius Lower Mosque	32.77628	35.54400
684	65	Jerusalem	Israel/Occ.	Dome of the Rock	31.77812	35.23529
686	67	Biskra	Algeria	Mosque of Sidi 'Ukba	34.74892	5.89742
686	67	Biskra	Algeria	Graveyard of Sidi 'Ukba	34.75129	5.89519
687	68	Humeima	Jordan	Qasr Humeima	29.9499	35.34593
688	69	Zawailah	Lybia	Congregational	26.16555	15.12555
697	78	Mecca	Saudi Arabia	Ka'ba	21.42252	39.82610
600-699	20-80	Amman	Jordan	Rajum Qasr Mosque	31.97029	35.83869

Year CE	Year AH	City	Country	Mosque Name	lat	lon
600-699	20-80	Amman	Jordan	Rajum Qasr	31.97073	35.83852
600-699	20-80	Samra	Jordan	Khirbat Samra	32.18078	36.16277
660-699	40-80	Amman	Jordan	Seven Sleepers Lower	31.89893	35.97384
660-699	40-80	Amman	Jordan	Seven Sleepers Upper	31.89881	35.97379
660-699	40-80	Husn	Jordan	Husn Umayyad Lower	32.48972	35.88000
600-699	20-80	Desert Castle	Jordan	Qasr Mushash	31.81317	36.31572
600-699	20-80	Desert Castle	Jordan	Qasr El-Bai'j	32.36820	36.34249
600-699	20-80	Zeila	Somolia	Zeila Qiblatain (Lft)	11.35372	43.47135
600-699	20-80	Sabata	Jordan	Khirbet Sabata	32.29269	35.85193
637-699	16-8-	Bethlehem	Israel	Kathisma church	31.73926	35.21272
600-699	20-80	Siraf	Iran	Ibn Abi Taleb Mosque	27.67036	52.33735
600-699	20-80	Tell Shiloah	Israel	Jami' al-Sittin	32.05469	35.29004
700	81	Desert Castle	Jordan	Qasr Burqu'	32.60847	37.96233
701	82	Ashdod-Yam	Israel	Ashdod Fort Mosque	31.78029	34.62163
705	86	San'a	Yemen	Sana'a Grand Mosque	15.35311	44.21494
705	86	Suf	Jordan	Umar ibn 'Abd al-'Aziz	32.31528	35.83889
706	87	Khirbat al Minya	Israel	Khirbat al Minya	32.86509	35.53626
706	87	Wasit	Iraq	Hajjaj Mosque	32.1904	46.30390
642-710	20-90	Uskaf	Iraq	Uskaf Bani Junayd	33.09871	45.03760
700-744	81-127	Mufraq	Jordan	Qasr Al-Fedayn	32.34514	36.20081
700-750	81-130	Merv	Turkmenistan	Mosque	37.67909	62.17135
707	88	Jebal Says	Syria	Jebal Says Fortress	33.30315	37.35957
708	89	Damghan	Iran	Masjid al-Tarik Khana	36.16432	54.35439
709	90	Jerusalem	Israel/Occ.	Al-Aqsa Mosque	31.77617	35.23571
709	91	Damascus	Syria	Damascus Umayyad	33.51183	36.30659
710	92	Desert Castle	Jordan	Qasr Al-Kharana	31.72898	36.46280
710	92	Amman	Jordan	Amman Umayyad	31.95467	35.93435
712	93	Desert Castle	Jordan	Khann al Zabib Qasr	31.51329	36.10092
712	93	Desert Castle	Jordan	Khann Zabib Mosque	31.51291	36.10209
712	93	Um Walid	Jordan	East Qasr Mosque	31.64681	35.89980
712	93	Kalyan	Uzbekistan	Kalyan Mosque	39.77592	64.41409
712	93	Um Walid	Jordan	Walid East Qasr	31.64676	35.89864
712	93	Um Walid	Jordan	Walid West Qasr	31.64513	35.89375

Year CE	Year AH	City	Country	Mosque Name	lat	lon
712	93	Estakhr	Iran	Suliman Mosque	29.97992	52.91015
714	95	Jericho	Israel/Occ.	Khirbat al Mafjar	31.88275	35.45965
714	95	Jericho	Israel/Occ.	Khirbat al Mafjar	31.88162	35.45966
714	95	Anjar	Lebanon	Anjar	33.73201	35.93383
715	96	Aleppo	Syria	Aleppo Umayyad	36.19935	37.15684
717	99	Manama	Bahrain	Masjid al Khamis	26.2082	50.5483
720	101	Qastal	Jordan	Qasr Qastal	31.74609	35.93988
720	101	Resafa	Syria	Resafa Syria	35.62861	38.75966
721	102	Bosra	Syria	Mosque of Bosra	32.52151	36.48290
723	104	Muwaqqar	Jordan	Qasr Muwaqqar	31.81261	36.10375
724	105	Baghdad	Iraq	Mosque of Rusafa, Iraq	33.33097	44.41617
724	105	Palmyra	Syria	Palmyra Congregational	34.55091	38.26820
725	106	Amman	Jordan	Grand Hussein Mosque	31.94971	35.93461
725	107	Jerash	Jordan	Jerash Umayyad	32.27916	35.89131
726	107	Desert Castle	Syria	Qasr al Hayr al Gharbi	34.34438	37.58435
727	109	Banbhore	Pakistan	Banbhore	24.75232	67.52194
728	109	Wadi Shireh	Jordan	Open Air Mosque	29.77757	35.60959
728	110	Desert Castle	Syria	Qasr Hayr al Sharqi	35.07395	39.07106
730	112	Amman Citadel	Jordan	Umayyad Palace	31.95552	35.93414
732	115	Tunis	Tunisia	Jami' al-Zaytuna	36.79708	10.17136
740	122	Baalbeck	Lebanon	Ba'albeck Mosque	34.00710	36.20729
740	122	Tiberias	Israel	Tiberias Friday Mosque	32.77628	35.54400
740	122	Rabba	Jordan	Maqam Zayd ibn Ali	31.26863	35.74359
740	122	Rabba	Jordan	Maqam Zayd ibn Ali	31.08989	35.70881
741	124	Humeima	Jordan	Humeima Tombs	29.94963	35.34612
742	125	Xian	China	Huajuexiang Mosque	34.26331	108.93639
743	125	Desert Castle	Jordan	Qasr Bayir	30.76180	36.67929
743	125	Shamakhi	Azerbaijan	Juma Mosque	40.62683	48.64378
743	126	Desert Castle	Jordan	Qasr Mushatta	31.73817	36.00999
743	126	Desert Castle	Jordan	Amra Bathhouse	31.80176	36.58727
743	126	Desert Castle	Jordan	Qasr Amra	31.80481	36.58153
743	126	Desert Castle	Jordan	Qasr Tubah	31.32579	36.57129
744	127	Harran	Turkey	Harran Uni. & Mosque	36.86481	39.03117

Year CE	Year AH	City	Country	Mosque Name	lat	lon
748	131	Kufa	Iraq	Kufa Mosque	32.02861	44.40083
750	133	Siraf	Iran	Siraf Early Mosque	27.66823	52.33141
753	135	Shibam	Yemen	Shibam Palace	15.92656	48.62551
753	135	Beth Shean	Israel	Umayyad Mosque 1	32.50331	35.50195
753	135	Beth Shean	Israel	Umayyad Mosque 2	32.50279	35.50279
750-799	133-183	Tiberias	Israel	Tiberias Area D Mosque	32.77485	35.54463
750-799	133-183	Tarsus-Gozlukule	Turkey	Tarsus-Gozlukule	36.91112	34.89622
750-799	133-183	Ba'ayith	Saudi Arabia	Ba'ayith	26.04991	41.92274
700-800	81-183	Haidra	Tunisia	Haidra Umayyad	35.56553	8.45332
700-750	81-133	Azraq	Jordan	Azraq Qasr	31.88021	36.82728
700-750	81-133	Tulul al-Ukhaydir	Iraq	Tulul al-Ukhaydir	32.31667	43.33333
700-750	81-133	Jericho	Israel/Occ.	Khirbat al-Mafjar 3	31.87970	35.46017
707	88	Negev Highland	Negev	Sede Boker	30.88161	34.79076
700-799	81-183	Tafilah	Jordan	Maqm Jafar IbnAbiTalib	31.06670	35.69542
750-799	133-183	Abu Ghush	Israel	Umayyad Mosque	31.81056	35.10787
700-799	81-183	Rashidiya	Jordan	Qasr Rashadiya	30.70226	35.62983
650-750	40-132	Hubras	Jordan	Hubras Umayyad	32.67209	35.84139
705-740	83-133	Hallabat	Jordan	Hammam Sarah Mosque	32.08363	36.36301
700-750	83-133	Zeila	Somolia	Zeila Qiblatain Mosque	11.35372	43.47135
700-750	83-133	Negev Highland	Negev	Nahal 'Oded	30.50493	34.70735
700-799	81-183	Negev Highland	Negev	Bor Bator	30.38310	34.61031
700-799	81-183	Negev Highland	Negev	Har Oded	30.50836	34.75560
750-799	81-183	Negev Highland	Negev	Nahal Omer	30.54407	35.17710
700-799	81-183	Mafraq Area	Jordan	Hayan Mishref	32.26730	36.15361
700-799	81-183	Mafraq Area	Jordan	Hayan Mishref	32.26730	36.15361
700-799	81-183	Sa'd	Jordan	Sa'd North	32.34161	35.98033
700-799	81-183	Sa'd	Jordan	Sa'd South	32.33917	35.98111
700-799	81-183	Sama Rusan	Jordan	Khirbet Burz	32.62389	35.79986
700-799	81-183	Rahat	Negev	Nahal Peher Mosque	31.3723	34.7651
700-799	81-183	Negev Highland	Negev	Nahal 'Arod	30.49656	34.70779
700-799	81-183	Negev Highland	Negev	Beer Karkom 1	30.28977	34.76661
700-799	81-183	Negev Highland	Negev	Beer Karkom2	30.28913	34.76742
700-799	81-183	Negev Highland	Negev	Ramat Barnea	30.68194	34.49780

Year CE	Year AH	City	Country	Mosque Name	lat	lon
700-799	81-183	Negev Highland	Negev	Horvat Sharav	30.75236	34.89950
700-799	81-183	Negev Highland	Negev	Nahal Hazaz	30.89377	34.86359
700-799	81-183	Negev Highland	Negev	Nahal La'ana	30.73012	34.59986
701-760	81-183	Negev	Shivta	Shivta Mosque	30.88083	34.63123
700-799	81-183	Methala, Kerala	India	Cheraman Juma	10.22336	76.16658
700-799	81-183	Kilakarai	India	Kilakarai Old Mosque	9.23439	78.7836
700-799	81-183	Kilakarai	India	Palaiya Jumma Palli	9.22949	78.78598
750-799	133-183	Sindh	Pakistan	Muhammad bin Qasim Mosque	27.64582	68.93636
700-799	81-183	Antakya	Turkey	Habibi Neccar	36.20155	36.16547
700-799	81-183	Gujarat	India	Barwada Mosque	21.69205	72.27085
700-799	81-183	Yamama	Saudi Arabia	Yamama Great Mosque	24.19217	47.35202
700-799	81-183	Sal	Jordan	Sal Mosque	32.57045	35.91125
700-799	81-183	Bushra	Jordan	Bushra Great Mosque	32.55816	35.89475
700-799	81-183	Aydoun	Jordan	Aydoun Grand Mosque	32.50618	35.85735
700-799	81-183	Tibnah	Jordan	Tibnah Umayyad	32.47725	35.72734
700-799	81-183	Desert Castle	Jordan	Qasr Uweinid	31.78491	36.73366
700-799	81-183	Azrak	Jordan	Qasr Ain as-Sil	31.89420	36.84588
700-799	81-183	Azraq	Jordan	Azraq Fort Mosque	31.88030	36.82755
750-799	81-183	Shanga	Kenya	Shanga Friday	-2.12548	41.06538
700-799	81-183	Mazari Sharif	Afghanistan	Blue Mosque	36.709	67.11084
750-799	133-183	Desert Castle	Jordan	Qasr Aseikhin	31.94615	36.95192
750-799	133-183	Ain Beni Hasan	Jordan	Beni Hasan Mosque	32.27017	36.05545
700-799	81-183	Hangzhou	China	Fenghuang Mosque	30.2452	120.17054
700-799	81-183	Be'er Ora	Israel	Be'er Ora Qiblatain East	29.71677	34.98486
750-799	81-183	Be'er Ora	Israel	Qiblatain South	29.71677	34.98486
700-799	81-183	Jerash	Jordan	Jerash Small Mosque	32.28125	35.89297
700-799	81-183	Bowshar	Oman	Sahi Ramdah Mosque	23.54324	58.39836
700-799	81-183	Ibra	Oman	Qiblatain Mosque	22.70194	58.52755
700-799	81-183	Beni Bouabdellah	Morocco	Yogharta Mosque	34.82126	-2.50318
700-799	81-183	Erbil	Iraq	Bazaar Qaisariya	36.19036	44.01023
700-799	81-183	Erbil	Iraq	Erbil Grand Mosque	36.19144	44.00958
700-799	81-183	Erbil	Iraq	AlSawaf Mosque Grnds.	36.18353	44.00320
700-799	81-183	Samarqand	Uzbekistan	Ulugh Beg Mosque	39.65478	66.97573

Year CE	Year AH	City	Country	Mosque Name	lat	lon
700-799	81-183	Salalah	Oman	Job's Tomb Shrine	17.11190	53.99378
700-799	81-183	Samarkand	Uzbekistan	Bibi Samarkand	39.66070	66.98009
700-799	81-183	Kilwa	Tanzania	Kilwa	-8.95915	39.49829
700-799	81-183	Samarkand	Uzbekistan	Afrasiab Phase 1	39.66948	66.99069
700-799	81-183	Beidha	Jordan	Umm Qussa2	30.37505	35.45317
762	145	Baghdad	Iraq	Mosque of Mansur	33.30074	44.41165
750-799	133-183	Al-Bara	Syria	AlBara Mosque	35.68841	36.53123
764	146	Kufa	Iraq	Qasr Ukhaydir	32.43973	43.60278
770	153	Ribat	Tunisia	Ribat Fortress	35.82763	10.63873
772	155	Tauste	Spain	Tauste Graveyard	41.91689	-1.25482
772	155	Ishfan	Iran	Grand Mosque	32.66970	51.68519
772	155	Raqqa	Syria	Raqqa Mosque	35.95195	39.02093
780	160	Zoozan	Iran	Malek Mosque	34.35544	59.87690
786	169	Najaf	Iraq	Ali Shrine	31.99589	44.31442
700-799	81-183	Bani Abbās	Algeria	Abdul Qader Yagouri	30.13357	-2.16401
784	168	Cordoba	Spain	Cordoba Mosque	37.87904	-4.77955
785	167	Tepe Madresh	Iran	Tepe Madresh	36.16594	58.81174
796	181	Ghaen	Iran	Ghaen Jamia	33.72578	59.19312
799	183	Baghdad	Iraq	Shrine of Kazmiyya	33.38039	44.33813
800	184	Dougga	Tunisia	Dougga Mosque	36.42273	9.21883
801	185	alRabadha	Saudi Arabia	alRabadha Area C	24.63240	41.28983
801	185	Kharab Sayyar	Syria	Kharab Sayyar Mosque	36.58946	39.56123
802	186	Siraf	Iran	Site C Mosque	27.66784	52.34129
806	190	Heraqlah	Syria	Heraqlah	35.95673	38.93308
806	190	Tel Beth Shean	Israel	Mihrab in Church	32.50439	35.50335
809	193	Susiya	Negev	Qasr Susiya	31.40553	35.10292
817	201	Mashhad	Iran	Imam Riza Shrine	36.28737	59.61448
820	204	Zabid	Yemen	Al-Asha'ir Mosque	14.19592	43.31262
827	212	Desert Castle	Jordan	Qasr Hallabat	32.09293	36.32799
827	212	Desert Castle	Jordan	Qasr Hallabat Mosque	32.09270	36.32844
828	213	Fez	Morocco	Moulay Idriss II Tomb	34.06487	-4.97480
830	215	Rahba	Syria	Rahba Mosque	35.00676	40.42452
835	220	Merida	Spain	Merida Fort Mosque	38.91491	-6.34690

Year CE	Year AH	City	Country	Mosque Name	lat	lon
836	221	Kairoun	Tunisia	Grand Mosque	35.68171	10.10382
847	232	Samarra	Iraq	Great Mosque	34.20593	43.87985
848	233	Cordoba	Spain	Mezquita de Cordoba	37.87906	-4.78129
850	236	Susa	Tunisia	Great Mosque of Susa	35.82688	10.63974
850	236	Sabz Pushan	Iran	Sabz Pushan	36.03303	58.99980
850	236	Surt	Lybia	Surt Old Mosque	31.20769	16.58872
850	236	Sfax	Tunisia	Great Mosque of Sfax	34.73589	10.76084
856	242	Bastam	Iran	Ba-Yazid Mosque	36.7916	46.0173
859	245	Samarra	Iraq	Abu Dulaf Mosque	34.36087	43.80144
859	245	Fez	Morocco	Uni. of al-Qarawiyyin	34.06491	-4.97350
866	252	Kairoun	Tunisia	3 Doors Mosque	35.67891	10.10387
871	257	Shibam Aqyan	Yemen	Shibam Aqyan	15.50942	43.90273
876	263	Cairo	Egypt	Ibn Tulun Mosque	30.02868	31.2495
880	267	Badajoz	Spain	Badajoz Mosque	38.88368	-6.96940
800-899	184-286	Dehistan	Turkmenistan	Dehistan Mosque	38.26643	54.62174
800-899	184-286	Merv	Turkmenistan	Kyz Bibi Mausoleum	37.65917	62.15319
800-899	184-286	Merv	Turkmenistan	Merv Great KyzKala	37.65512	62.15256
800-899	184-286	Merv	Turkmenistan	Merv Little KyzKala	37.65350	62.15276
850-899	236-286	Merv	Turkmenistan	Sultan Sanjar Mosque	37.66440	62.16372
800-899	184-286	Beidha	Jordan	Umm Qussa 1	30.37486	35.45472
800-899	184-286	Nimes	France	Nimes Graveyard	43.83335	4.35141
800-899	184-286	Zaragoza	Spain	Zaragoza Mosque	41.65450	-0.87579
800-899	184-286	Toledo	Spain	Bab al-Mardum Mosque	39.85627	-4.02607
800-899	184-286	Cordoba	Spain	El Naranjal de Almagro	37.87534	-4.79339
800-899	184-286	Volubilis	Morocco	Volubilis Mosque	34.07222	-5.55581
800-850	184-236	Samarkand	Uzbekistan	Afrasiab Phase 2	39.66948	66.99069
800-899	184-286	Arja	Oman	Arja Copper Mine	24.37719	56.45044
800-899	184-286	Basra	Iraq	Basra Great Mosque	30.50513	47.81490
800-899	184-286	Khirbat Abu S.	Palestine	Abu Suwwana	31.76627	35.30038
800-899	184-286	Eshtemo'a	Palestine	Eshtemo'a	31.40107	35.06731
800-899	184-286	Jarash	Saudi Arabia	Jarash Mosque	18.20262	42.82401
800-899	184-286	Sederot	Israel	Sederot Old Mosque	31.53479	34.59459
800-899	184-286	Bukhara	Uzbekistan	Magokki Attor	39.77323	64.41833

Year CE	Year AH	City	Country	Mosque Name	lat	lon
800-899	184-286	Asnaq	Iran	Asnaq Friday Mosque	38.06195	47.18928
800-899	184-286	Fahraj	Iran	Masjid i Jami' Fahraj	31.76428	54.58142
800-899	184-286	Balkh Province	Afghanistan	Nine Domed Mosque	36.73004	66.88529
800-899	184-286	Siraf	Iran	Siraf Congregational	27.66730	52.33509
800-899	184-286	Siraf	Iran	Siraf Site F	27.67065	52.30902
800-899	184-286	Siraf	Iran	Siraf Site M2	27.66812	52.31744
800-899	184-286	Al-Balid Mosque	Oman	Salalah Al-Balid Mosque	17.00599	54.13059
800-899	184-286	Houmt souk	Tunisia	Mosque with graveyard	33.87446	10.86635
800-899	184-286	Kashan	Iran	Kashan Jamia	33.98349	51.44318
800-899	184-286	Kashan	Iran	Soltani Madrasa	33.98286	51.44787
800-899	184-286	Kashan	Iran	Agha Bozorg	33.97820	51.44528
800-899	184-286	Sorkhe	Iran	Sorkhe Mosque	35.46411	53.21334
800-899	184-286	Hulbuk	Tajikistan	Hulbuk Fortress Mosque	37.77752	69.55670
800-899	184-286	al-Mabiyyat	Saudi Arabia	al-Mabiyyat	26.50374	38.05320
800-899	184-286	al Rabadha	Saudi Arabia	al Rabadha Mosque	24.63088	41.28969
800-899	184-286	Asham	Saudi Arabia	Asham	19.61089	41.21112
800-899	184-286	Merv	Turkmenistan	Askhab Mausoleum	37.65342	62.17142
800-899	184-286	Abarkuh	Iran	Biroon Mosque	31.12493	53.29532
912	300	Wasit	Iraq	Wasit Upper Mosque	32.1904	46.30390
916	304	Mahdia	Algeria	Great Mosque of Mahdia	35.50397	11.07196
922	310	Ajdabiya	Libya	Ajdabiya Fatimid Palace	30.75770	20.22001
944	333	Beja	Tunisia	Medjez el Bab	36.72518	9.18285
973	362	Tripoli	Libya	al-Naqah Mosque	32.89539	13.17887
1011	402	Janad	Yemen	Janad Later Mosque	13.66871	44.16639
1028	419	Sale	Morocco	Mosque	34.04034	-6.82734
1048	440	Raja Gir	Pakistan	Odigram Mosque	34.74314	72.31421
1082	475	Tlemcen	Algeria	Tlemcen Grand Mosque	34.88377	-1.31049
1100	494	Nitl	Jordan	Nitl Mosque	31.65225	35.86136
1140	535	Merv	Turkmenistan	Hamdani mausoleum	37.67931	62.17042
1150	544	Udayas	Morocco	Udayas Graveyard	34.02987	-6.84150
1151	545	Udayas	Morocco	Kasbah Citadel Mosque	34.03211	-6.83613
1142	536	Taza	Morocco	Great Mosque	34.21250	-4.01897
1150	552	Meknes	Morocco	Meknes Grand Mosque	33.89484	-5.56486

Year CE	Year AH	City	Country	Mosque Name	lat	lon
1157	552	Merv	Turkmenistan	Sultan Sanjar Maus.	37.66440	62.16372
1184	580	Marrakech	Morocco	Koutoubia Mosque	31.62376	-7.99337
1184	580	Marrakech	Morocco	Kasbah Mosque	31.61771	-7.98871
1195	590	Rabat	Morocco	Hassan Tower Mosque	34.02381	-6.82261
1199	595	Marrakesh	Morocco	Koutoubia Mosque	31.62376	-7.99337
1199	545	Sultan Yacoub	Lebanon	Sultan Yacoub Tomb	33.64431	35.85983
1199	595	Sultan Yacoub	Lebanon	Sultan Yacoub Mosque	33.6444	35.85998
1294	693	Tripoli	Lebanon	Mansouri Great Mosque	34.43452	35.8425
1196	592	Tanfier	Morocco	Grand Mosque	35.78584	-5.80950
1200	596	Harat	Afghanistan	Herat Great Mosque	34.34493	62.19303
1318	718	Ramla	Israel	White Mosque	31.92757	34.86597
1337	737	Abarquh	Iran	Abarquh Friday Mosque	31.13035	53.28530
1350	751	Guangzhou	China	Guangzhou Mosque	23.12590	113.25374
1500	900	Kashan	Iran	Mianchal Mosque	33.98508	51.44825

Appendix B - The Mosques

In chronological order

More details can be found in the Online Qibla Tool

Arrows: Black: Jerusalem, Red: Petra, Yellow: Between, Green: Mecca

Quba Mosque, 622 CE / 1 AH

Medina, Saudi Arabia

GPS: 24.439619, 39.617228

Torn down and rebuilt in 1043 CE and many times after. The original qibla direction cannot be determined.

Prophet's Mosque, 623 CE / 2 AH

Medina, Saudi Arabia

GPS: 24.467615, 39.611376

Torn down and rebuilt in 707 CE and many times after. The last significant rebuild was in 1951. The original qibla direction cannot be determined.

Mosque of the Two Qiblas, 626 CE / 5 AH

Medina, Saudi Arabia

GPS: 24.484089, 39.578658

Torn down and rebuilt several times. The last significant rebuild was in 1987. Original qibla direction was apparently observed in the ruined foundation under the old mosque. It faced north generally towards Jerusalem or Petra. No accurate measurements were made at that time.



Janad Early Mosque, 627 CE / 6 AH

Janad, Yemen

GPS: 13.668710, 44.166391

Torn down in 1011 CE and rebuilt. The original qibla direction cannot be determined.

Al Mudhmar Mosque, 627 CE / 6 AH

Samail, Oman

GPS: 23.311375, 58.010684

Torn down several times, the most recent was in 1979. The original qibla direction cannot be determined.

Jowatha Mosque, 629 CE / 8 AH

al-Kilabiyah, Saudi Arabia

GPS: 25.469615, 49.678872

Torn down in the 9th century and rebuilt. The original qibla direction cannot be determined.

Xian Mosque, 629 CE / 8 AH

Guangzhou, China

GPS: 23.148262, 113.255447

This may be the earliest extant mosque. It faces Petra and contains the graves of Sa'd ibn Abi Waqqāṣ and 40 emigrants from the Middle East to China in the first century of Islam.

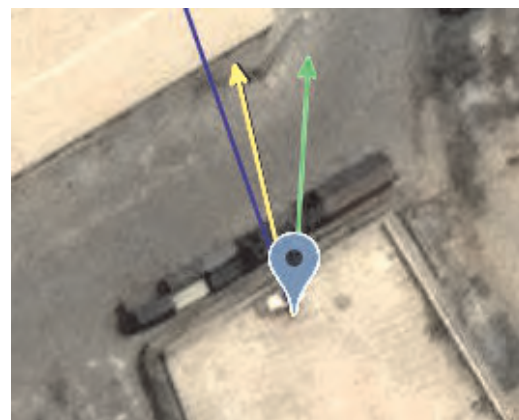


Ṣaḥābah Mosque, 600-699 CE / 20-80 AH

Massawa, Eritrea

GPS: 15.611981, 39.480632

Dating to the early 7th century CE, it is believed to be the first mosque on the African continent. It was reportedly built by Companions of the Prophet Muḥammad who came to Abyssinia on the First Hegira. While this mosque is in Eritrea it was part of Abyssinia at the time. The companions were fleeing persecution of the followers of Muḥammad by the people in the Holy City. The current structure is of later construction as some features, like the miḥrāb, did not develop until later in Islamic architecture (89 AH/708 CE). So, this mosque was likely built as a memorial to these early followers of Muḥammad.



Guangzhou Mosque, 627 CE / 6 AH

Guangzhou, China

GPS: 23.125902, 113.253737

The Great Mosque of Guangzhou is also known also as Huaisheng Mosque (Memorial of the Holy Prophet) or the Guangta Mosque (Light Tower Mosque). It is thought to be one of the earliest surviving mosques in China and has the earliest freestanding minaret in China. Chinese manuscripts from 1206 CE claim that the mosque was originally built by Abu Waqqas on the first Muslim mission to

China in the 630s, during Muḥammad's lifetime. The mosque was rebuilt in 1350 during the Yuan dynasty under the rule of Zhizheng (1341-1368) and rebuilt again in 1695 under Emperor Kangzi of the Qing dynasty after it suffered fire damage. When examining this mosque in 2008, Dan Gibson did not see any evidence that the mosque had been reoriented. Gibson first classified this mosque as Petra-facing, but once he understood between-facing mosques, he changed the classification to Between.



Umar ibn al-Khattab, 634 CD / 13 AH

Dawmat al Jandal, Saudi Arabia

GPS: 29.811933, 39.867393

This mosque was torn down and rebuilt in 1793 CE. The original qibla direction cannot be determined.

Gaza Congregational Mosque, 635 CD / 14 AH

Gaza, Palestine

GPS: 31.504283, 34.464567

This mosque contains three miḥrābs. GPS directions are: Petra: 144, Between 155, Mecca 153. It has been torn down and rebuilt multiple times, but the original miḥrābs continue to exist. Worshipers can pray at any of the miḥrābs.



Hama Great Mosque, 637 CE / 15 AH

Hama, Syria

GPS: 35.134475, 36.748679

Located in Bab al-Qubli Quarter west of the Hama citadel, Jami' al-Kabir, or the Great Mosque, was built on the site of a Roman Temple from about 250 CE. The temple was converted into a Byzantine Church approximately 100 years later. The Muslims demolished and rebuilt the structure as a mosque using the original materials.

One square minaret adjacent to the prayer hall dates to the 12th century, and the other was built by around 1427 by the Mamluks. The western portico contains the tombs of 13th century Ayyubid caliphs. The mosque was destroyed in bombardments during the 1982 uprising in Hama. The Syrian Antiquities Department rebuilt the mosque according to an early Umayyad design.

Jonah Mosque, 637 CE / 16 AH

Mosoul, Iraq

GPS: 36.342902, 43.126931

A shrine was built in 16 AH to commemorate the prophet Yunus (Jonah). Centuries later, in 1393 CE, Tamurlane tore it down and built a mosque facing Mecca. The orientation of the earlier shrine cannot be determined.

Shuaibiyah Mosque, 637 CE / 16 AH

Aleppo, Syria

GPS: 36.198713, 37.152282

Originally a Rashidun mosque stood on this site, built by Umar ibn al-Khattab in 637 CE. In 1150–51 CE Nûr al-Dîn constructed a larger mosque and school on this spot. The original qibla is unknown.

Kufa Mosque, 638 CE / 16 AH

Kufa, Iraq

GPS: 32.028611, 44.400833

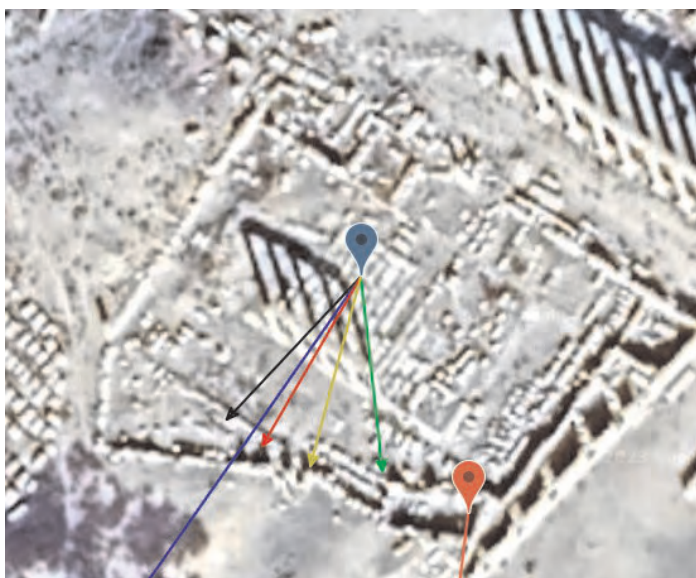
The original mosque was torn down and rebuilt in 749 CE with a Meccan qibla. The original qibla is unknown.

Palmyra Congregational Mosque, 640 CE / 18 AH

Palmyra, Syria

GPS: 34.551112, 38.268082

This large central mosque in Palmyra was built early in the Islamic era. A Roman structure originally occupied this location, which stands near a major crossroad in the old city. It seems early Muslims recognized the building's orientation as facing Petra, so they re-purposed the building to be a mosque with one wall used as a Petra qibla wall. Later, a new qibla wall was constructed on the same site, but south of the earlier structure. This wall created a much larger worship area. The new qibla wall had a miḥrāb and faced the Between position. There are several issues with the archeology done in Palmyra. Archaeological excavations began in Palmyra back in the 1920s, and some early excavations seemed to be little more than treasure seeking digs, some of which were never recorded. Additionally, some reports were poorly written, some never published, and others with only rudimentary drawings. However, since the 1950s, several modern digs have taken place. It is unfortunate that some of the earlier digs disrupted important sites. The larger mosque and the re-purposed Roman building were excavated in 1962 by a team from the Directorate General of Antiquities and Museums of Syria led by Adnan Bounni. The excavation was apparently done without any recording of the stratigraphy. The earliest mosque, the repurposed Roman structure, faces Petra but does not have a miḥrāb, as this mosque was built prior to the development of the miḥrāb in 708 CE. The later mosque has a miḥrāb with a qibla facing the Between position.

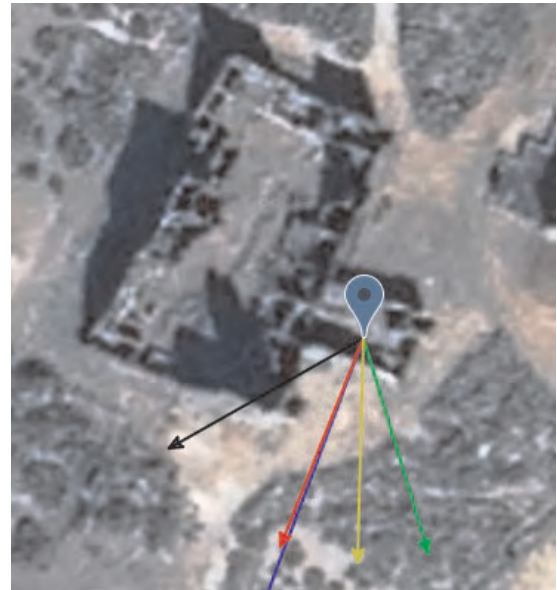


Um Jemal Castellum, 640 CE / 18 AH

Um Jemal, Jordan

GPS: 32.324774, 36.367963

Dan Gibson examined this structure on several occasions during his years living in Jordan and became convinced that it was a Rashidun era qasr with an attached Rashidun era mosque, and not a Byzantine structure as originally thought. Unlike the other structures in Um Jimal, the qasr or castellum has an orientation that faces toward Petra. The Islamic era began in Um Jimal with the arrival of the Muslim armies in 640 CE. Once the Rashidun Caliphs took control of the area much remodeling was done throughout the city to repurpose buildings to suit their own needs. During this time the castellum acted as an Arab qasr. Whether it was rebuilt for this purpose or repurposed is up for debate. Archaeologists at Um Jimal also debate the



idea that some of the churches in Um el-Jimal were converted into mosques. There is some evidence that at one time, in some former churches, the apse was blocked off and the focus of the structure's space was shifted to the south wall. True to early Rashidun architecture, no mihrābs were constructed early on. Later, two houses were converted to mosques with typical late Umayyad plans and a small tower on the exterior of its west face indicating the presence of a minaret. Early archaeologists working on the site identified the structure attached to the east wall of the qasr as a chapel. This is not surprising as there is nothing that would identify it as a mosque, except for its orientation. Since there was no mihrāb the archaeologists did not recognize it as a mosque. None of its walls faced Mecca, and there are no other indications except that the far wall, upon entering the structure, faced Petra. True to other Rashidun mosques of the period the columns are square, and the internal small square room appears to be the base of a short minaret.

Amr ibn -Al-As Mosque, 642 CE / 21 AH

Fustat, Egypt

GPS: 30.010516, 31.233376

The Mosque of 'Amr ibn al-'As was founded by the Muslim conqueror of Egypt in 641 CE near his house in the town of Fustat, outside of Cairo. The original mosque no longer stands and the original foundation is no longer evident. However, the original direction of the mosque can be reconstructed from descriptions. These descriptions show that the qibla faced east and had to be corrected later under the governorship of Qurra ibn Sharik (Creswell 1969, pages 37, 150). Interestingly this agrees with the later Islamic tradition compiled by Ahmad ibn al-Maqrizi that 'Amr ibn al-'As prayed facing east, and not more towards the south (al-Maqrizi 1326 page 6; Crone-Cook 1977 pages 24, 173). The 15th century historian al-Maqrizī relates two stories about the way in which 'Amr had the qibla laid out.

The first story reads: “‘Amr sent the two men [named in the text] to set up the qibla and said to them: ‘Stand when the sun is beginning to decline -or, in another version, when the sun is on the meridian- and have [the sun] at your ḥājibaylumā,’ and they did [this].”

The second story says: “‘Amr was laying out ropes so that the qibla of the mosque could be set up, and he said: ‘Make the qibla sharriq l-qibla and you will face the Ka’ba.’ Al-Maqrizī relates that when ‘Amr prayed in the mosque, he prayed almost towards the east [nahiyat al-sharq illa l-shay’ al-yasir], and that when he prayed in a church he would pray almost in the qibla of the Christians, i.e., due east [lam yanṣarif ‘an qiblatihim illā qalīlan].”

Ibn Taghrtibirdī and al-Qalqashandī, but not al-Maqrnzi, report that when the mosque was enlarged by Qurra it was actually pulled down and rebuilt on a larger scale in a different direction, more to the

south. Ibn Taghrtibirdi's remarks (Arabic text no. 10) are as follows: "the qibla was much too far to the east. When Qurra ibn Shartk pulled down his mosque and [re]built it in the time of al-Walid ... he turned [the qibla] a little to the south."

From the Qibla Tool we can see that the original mosque would have faced the Ka'ba in Petra which was a little north of east. The new mosque was built facing south of east and was closer to the Between qibla. This would agree with the above two statements. 'Amr faced 'too far east' meaning a bit north of east when he prayed. So, he would observe the direction the Christian churches faced (which was due east) and then he would turn just a bit farther (north) so that he faced the qibla. Later these old mosques were torn down, and the qibla of the current mosque faces south of east towards Mecca in Saudi Arabia.

Imam Shafi'I Mosque, 649 CE / 28 AH

Jeddah, Saudi Arabia

GPS: 21.486227, 39.187469

This mosque was torn down and rebuilt in 1251 CE. The original qibla direction cannot be determined.

Hala Sultan Tekke Mosque, 649 CE / 28 AH

Larnaca, Cyprus

GPS: 34.885283, 33.610306

This mosque was torn down and rebuilt in 1323 CE. The original qibla direction cannot be determined.

Aqaba Umayyad, 650 CE / 29 AH

Aqaba, Jordan

GPS: 29.530927, 35.000388

Gibson believes this mosque faces north, generally towards Petra. Later it was enlarged, and the builders tried to face it south, however the south facing wall did not provide a very accurate qibla. Sadly, important parts of this mosque were destroyed when they collapsed into a nearby wadi.



Uqba Ibn Nafi' Mosque, 671 CE / 51 AH

Kairouan, Tunisia

GPS: 35.681714, 10.103818

The Great Mosque of Kairouan was also known as the Uqba Ibn Nafi' Mosque. As it stands today, this mosque was built by the Aghlabid governor of Kairouan, Ziyadat Allah, between 817 and 838 CE. He erected the building on the site of an older mosque, originally constructed by 'Uqba ibn Nafi in 671 CE during the conquest of North Africa. Although the current mosque retains virtually no trace of the original 7th century building, it is still often referred to as "Mosque of Sidi 'Uqba," or "Mosque of 'Uqba Ibn Nafi." Historically, it has been accorded great significance as the first mosque in the first town of Islam in the West. This modern mosque faces 60 degrees south of East, which is parallel to a line drawn between Petra and Mecca. Nothing remains of the 671 CE mosque.

Gyaur Hala Friday Mosque, 671 CE / 51 AH

Merv, Turkmenistan

GPS: 37.661934, 62.191886

In 671 CE, Ziyad ibn Abi Sufyan sent 50,000 Arab troops to Merv as a colony. During this time the first mosques in Merv were constructed. Their qibla direction is listed as unknown.

Dome of the Chain, 674 CE / 55 AH

Jerusalem

GPS: 31.778141, 35.235736

Traditionally, it is claimed to be one of the oldest Muslim structures on the Temple Mount. It was built by the Umayyads, was used a Crusader chapel, was restored as a mosque by the Ayyubids, and was renovated by the Mamluks and Ottomans. The Umayyad design of the building has largely remained unaltered by later restorations. There is a legend that this dome is built on the spot where King Solomon suspended a chain, and only honest and upright people could grasp it. While the sides of this structure are open, one side has a miḥrāb niche denoting the qibla direction, which faces Petra.



Sidi Ghanem Mosque, 678 CE / 58 AH

Mila, Alveria

GPS: 36.450383, 6.271528

The oldest mosque in Africa west of Egypt is known as the Sidi Ghanem Mosque. Umayyad General Abu al-Muhajir Dinar arrived around 675 CE and commanded that a spot near a Christian basilica be cleared to construct a mosque to honor himself. The mosque did not align with the Roman basilica or to the Roman city street plan. Gibson believes the original qibla wall faced towards Petra. Later general Dinar became embroiled in a spat with the Umayyad caliph in Damascus. It appears that he changed the mosque plan from east to south, and latrines were built between the mosque and Damascus. This made it the very first south-facing mosque in Africa. Eventually general Uqba replaced general Dinar and enslaved him. They both died in battle, with Dinar still chained to his master.



Tiberius Lower Mosque, 680 CE / 59 AH

Tiberias, Israel

GPS: 32.776276, 35.543996

Beneath the Umayyad mosque in Tiberias is an earlier mosque, possibly dating from Rashidun times. Coins and ceramics helped date the earlier mosque, but since its foundation has not been revealed (except one corner) the qibla direction of the early mosque is not known.

Dome of the Rock, 684 CE / 65 AH

Jerusalem

GPS: 31.778118, 35.235286

The Dome of the Rock was built by the Umayyad caliph Abd al-Malik, started in 684 and completed in 691 CE. There is no mihrāb niche built into the original architecture, but portable ones have been installed at different times. None of the sides face Mecca, but like the Dome of the Chain, one side faces directly toward Petra. (See photo to the left)

Old Mosque of Sidi 'Ukba, 686 CE / 67 AH

Biska, Algeria

GPS: 34.749392, 5.897497

Numerous inscriptions date this mosque to 67 AH but there are epitaphs dating a reconstruction to 416 AH (1025 CE) and an inscription on a wooden plank is dated to 1215 AH (1800 CE). Similarly, the mosque's mihrāb is dated to 1214 AH (1789 CE). However, the orientation of the building does appear to have changed. Recent visitors have confirmed that the early remains of the original mosque (now inside the new construction) face southeast, similar to other early North Africa mosques. The modern mosque now faces Mecca in Saudi Arabia.

Graveyard of Sidi 'Ukba, 686 CE / 67 AH

Biskra, Alveria

GPS: 34.749392 5.897497

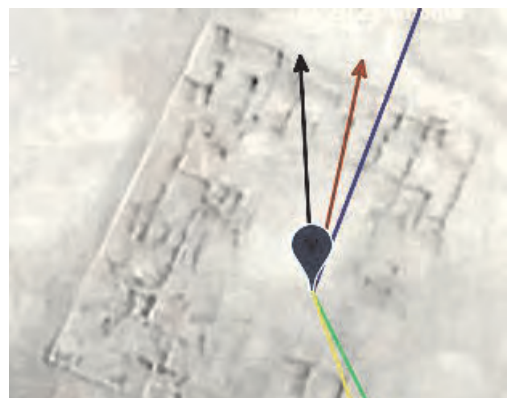
When Amir Dinar died with general Uqba a mosque was built to commemorate general Uqba's death. Uqba's soldiers were buried beside the mausoleum. Muslims are always buried on their sides, facing the qibla direction. In this case, the graves all face a southerly direction (rather than Petra), similar to North Africa mosques from this period onward.

Qasr Humeima, 687 CE / 68 AH

Hawara, Jordan

GPS: 29.9499, 35.345925

This Abbāsid qasr was identified in 1993. It is a rectangular structure (c. 61 x 50 m) consisting of a large courtyard surrounded by rooms fronting the court. The excavation team did not find any room with a mihrāb niche, so no prayer area was identified in the qasr itself. What appeared to be



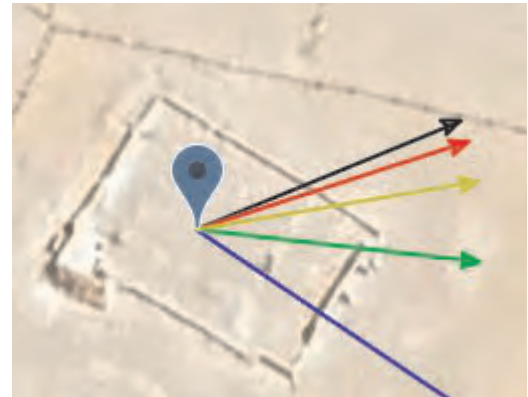
a very small mosque (c. 5.7 m sq.) was later identified in the southwest corner of the property and research published prior to 2020 lists this structure as a mosque. However, it has now been identified as the 124 AH tomb of Muḥammad ibn ‘Alī ibn ‘Abd Allāh ibn al-‘Abbās. Dan Gibson has identified the long wide room on the north side as an early Rashidun Mosque with no miḥrāb niche. It is accessible from the central courtyard and faces north away from Mecca but towards Petra. This room does not have a miḥrāb because at the time of construction the miḥrāb had not been invented yet. Since the entire structure faced a qibla direction, the central court could have also been used for prayer toward Petra, only 27 miles to the north.

Zawailah Congregational Mosque, 688 CE / 69 AH

Zawailah, Lybia

GPS: 26.165547, 15.125548

This mosque is claimed by some to be the first mosque in the Sahara Desert. It was partially excavated by Ziegert and Abdussalam (1969, 1973) and more substantially by Abdus-said (1979). A sample from the mud brick revealed that the mosque was built between 670-857 CE. This would fit with the dates of the other mosques in Africa that used a similar parallel qibla direction.



Ka’ba, 697 CE / 78 AH

Mecca, Saudi Arabia

GPS: 21.422, 39.826104

The Ka’ba in Saudi Arabia faced the original Ka’ba in Petra. Its date of construction is not exactly known, but the date of Masjid-al-Haram in Mecca is given in the Ḥuma al-Numūr inscription as 78 AH.



Rajum Qasr Mosque, 600-699 CE / 20-80 AH

Amman, Jordan

GPS: 31.970292, 35.838694

This site contains a qasr and a separate mosque. Both are oriented towards Petra.

Khirbat Samra, 600-699 CE / 20-80 AH

Samra, Jordan

GPS: 32.180780, 36.162770

This mosque is located on the hill above the old Samara Train Station. The mosque is built in a typical Rashidun pattern: a board rectangular room, 16 meters wide and only 4.4 meters deep. It has an entrance in middle of the north wall, and a rectangular miḥrāb cut into the middle of the south wall. The qibla direction appears to be a Petra qibla but this needs to be confirmed by measurements on the ground. It appears the square miḥrāb was added later to the plain qibla wall and that this wall was then reinforced with rows of massive white limestone blocks.

Seven Sleepers Mosque, 600-699 CE / 20-80 AH

Amman, Jordan

GPS: 31.898928, 35.973

Around 4th century CE a story began to circulate in eastern Christianity of seven young men who fell asleep for 300 years. This story also circulated through the Muslim world according to al-Ṭabarī Vol 4, and Surah 18. There are several locations that claim to be the cave of the sleepers. One is in Ephesus in modern day Turkey. There is also a cave filled with carved sarcophagi from the late Roman and Byzantine periods called the Cave of Seven Sleepers in the village of Rajib, just south of Amman, Jordan. There are ruins of a church and two mosques at this site. The earliest of these mosques faces Petra and dates from the 7th century, but it sits atop of much earlier caves and tombs.

The Qur'ān reads: "Do you not think the Men of the Cave and al-Raqim were among Our signs and a wonder?" (Surah 18).



Husn Umayyad Mosque, 660-699 CE / 40-80 AH

Husn, Jordan

GPS: 32.489716, 35.880004

Al-Husn is 8 km south of Irbid, Jordan. It is generally assumed that the name of Tell al-Husn was derived from the Umayyad fort built on the Tell north of the town, perhaps the site of the classical city of Dion, one of the cities of the Decapolis. The Umayyad mosque is on the far south side of the Tell, a few meters to the west of the main gate of the Umayyad fortress, currently surrounded by a modern graveyard.

Qasr Mushash, 600-699 CE / 40-80 AH

Desert Castle, Jordan

GPS: 31.813172, 36.315719

This large Qasr complex and settlement was a caravan station on the route between Amman (Roman Philadelphia) and Wadi Sirhan. It has a Petra facing Qasr, separate bathhouse, and waterworks.

Ibn Abi Taleb Mosque, 600-699 CE / 20-80 AH

Siraf, Iran

GPS: 27.670362, 52.337346

There are two old mosques in this city. The first is known as the Siraf Mosque. It dates from the 9th century. The other mosque is a very small early mosque in a residential area. It has never been properly excavated but appears to face Petra. Dan Gibson has classified it as unknown. Residents would simply line up in the courtyard to pray.

Qasr Mushash, 600-699 CE / 20-80 AH

Desert Castle, Jordan

GPS: 29.530927, 35.000388

This qasr is in ruins; however, the orientation is toward Petra. The qasr consists of 13 rooms around a central courtyard. The settlement complex had many hydraulic systems in the form of reservoirs, cisterns, and dams. The whole site had several separate units: the qasr, a bathhouse, the water system, and several other structures.

Qasr El-Bai'j, 600-699 CE / 20-80 AH

Bai'j, Jordan

GPS: 32.368201, 36.342485

Located on the ancient road north of Um Jemal, the earliest building dates to 410 CE but this site has never been fully excavated. The north side of this qasr remains, but much of the center has been robbed of stones for use elsewhere. The south wall is missing but it appears to have faced Petra.



Zeila Qiblatain Mosque, 600-699 CE / 20-80 AH

Zeila, Somalia,

GPS: 11.353723, 43.471351

Though now in ruins, the edifice featured two mihrābs: one is said to have been oriented to the north toward Mecca, and the other oriented to the northwest, generally toward Jerusalem or Petra. The two qiblas remained in place until 2016 when the qibla wall collapsed. Now it would take an archeological team to establish their direction, as from this location there were only two or three degrees between Jerusalem and Petra. The right mihrāb appeared to have been constructed later and was more ornate and protruded from the mosque.

Khirbet Sabata, 600-699 CE / 20-80 AH

Sabata, Jordan

GPS: 32.292, 35.851925

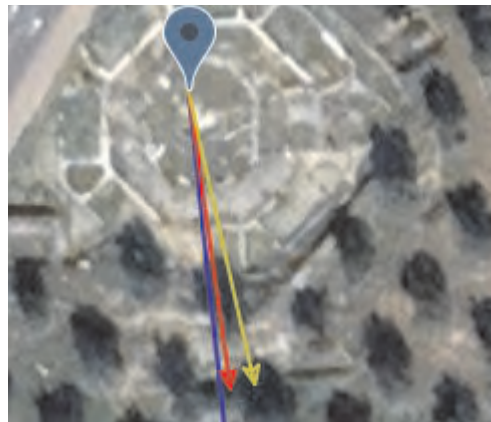
The general plan is a broad rectangular shape with the entrance from the east. The qibla wall rests on a high substruction of an older date. The mihrāb was formerly in the middle of the south wall but in 2021 Dr. Peter Harremoes reported that due to illegal excavations the qibla direction could not be determined.

Kathisma Church, 637-700 CE / 16-180 AH

Bethlehem, Palestine

GPS: 31.739257, 35.212722

Several excavations led by Rina Avner revealed an octagonal church from the Byzantine era, with a rock directly in the middle, presumably the one that Mary rested on during her trip to Bethlehem. While the church dates to the 5th century, sometime in late 7th or early 8th century a miḥrāb was built on the south side of the church, leading historians to believe that the church was transformed into a mosque with a qibla facing south toward Petra.



Qasr Burqu', 700 CE / 81 AH

Desert Castle, Jordan

GPS: 32.608469, 37.962325

According to an inscription this palace qasr was restored and enlarged by the Umayyads who used it as part of the network of forts watching the outlets from Wadi Sirhan. Walid I was in charge of that region in 708 CE, during the reign of his father Abd al-Malik. An Arabic inscription on one of the walls suggests that it may have been occupied as late as 1409. Perhaps in later excavations a mosque or place of prayer will be discovered.

Ashdod Fort Mosque, 701 CE / 82 AH

Ashdod-Yam, Israel

GPS: 31.780290, 34.621629

Located on the Israeli sea coast, Ashdod Yam was a fortification built by the Umayyads. The fort of 'Minat al-Qal'a' (literally 'the port with a castle') was later reconstructed by the Fatimids and then Crusaders. The initial purpose was to hold off the strong Byzantine navy and it constituted one link in a chain of Muslim coastal fortifications. Gibson could not determine the original qibla direction.

Sana'a Grand Mosque, 705 CE / 86 AH

Sana'a, Yemen

GPS: 15.353109, 44.214939

According to early sources the prophet Muḥammad commanded the construction of The Great Mosque of Ṣan'ā, including its location and dimensions, sometime around 630 CE. While the validity of this claim lacks certainty, this mosque remains an early Islamic architectural project. Sometime between 705 and 715 CE the Umayyad caliph al-Walid I rebuilt and enlarged the mosque. In 1972 and 2010, caches of early versions of the Qur'ān were discovered in this mosque which have impacted the study of the origin of the Qur'ān. Dan Gibson examined this and other mosques in Yemen between 1983-1985. This mosque is oriented toward Petra. Mecca is seven degrees to the west. But from this location all the qiblas are very close.



Umar ibn ‘Abd al-‘Aziz Mosque, 705 CE / 86 AH

Suf, Jordan

GPS: 32.315280, 35.838890

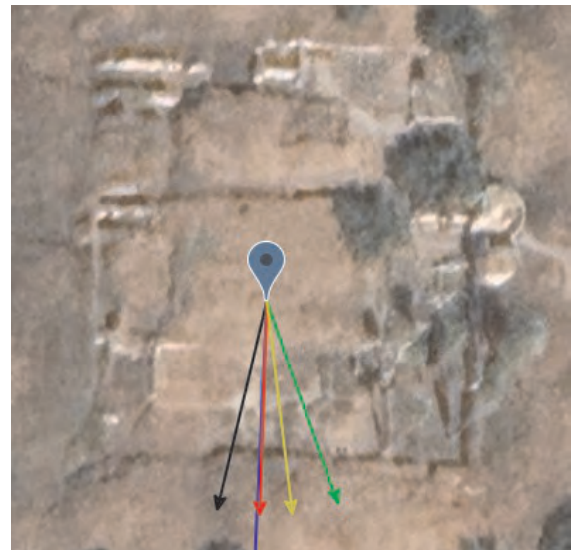
This mosque has a lower and upper level. The lower level is the original mosque dating back to Rashidun times, while the upper level was built later. An Arabic inscription reads: “Umar ibn ‘Abd al-‘Aziz, in the year eighty six Hijri.” So, this mosque was founded by ‘Umar before he became the eighth caliph of the Umayyads (717-720 CE). Measurements on the ground show a qibla direction of 200.9°. This is 11° from Petra, but closer than all the other qibla options. Both the imam and a local man related to Dr. Peter Harremoës that they believed the mosque was a church before it became a mosque. Below the mosque, and in the surrounding area, there is a system of tunnels, and some appear to have been related to a church. This may suffice to explain why the mosque is not clearly oriented. The current mosque was renovated about 40 years ago. One man remembered that before the renovation there were mosaics and paintings on the walls and a snake figure on a column, but that was all removed during the last renovation. The inscription of Umar ibn al-Aziz is still there.

Khirbat al Minya, 706 CE / 87 AH

Horvat Kur, Israel

GPS: 32.865088, 35.536262

Also known as ‘Ayn Minyat Hisham. This Umayyad palace complex had an internal palace, mosque, and bath. Based on an inscription set into a gateway it was built by al-Walid and contained a purpose-built mosque in the bottom right corner. Because it is almost directly north of Petra, the mosque and the entire building faces directly toward Petra, including the internal mosque.

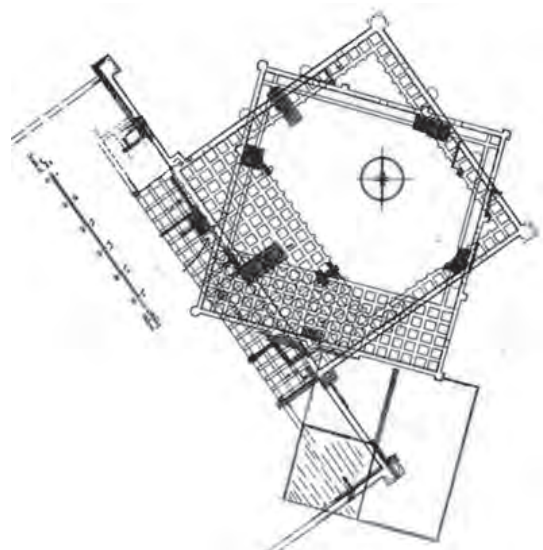


Ḥajjāj Wāsiṭ Mosque, 706 CE / 87 AH

Wāsiṭ, Iraq

GPS: 32.190400, 46.303899

Creswell’s drawing shows an earlier mosque under a later mosque. The earlier mosque was built by al-Ḥajjāj. The later mosque was built on the same location but with a different orientation. The lower mosque is the first mosque that faced a qibla between Petra and Mecca. It became known as the Wāsiṭ Mosque, or Between Mosque. Dan Gibson located another 59 mosques built in the following 40 years facing this same Between qibla.



Uskaf Bani Junayd 642-710 CE / 20–90 AH

Uskaf, Iraq

GPS: 33.098713, 45.037596

The town of Uskāf Banī Junayd, (also known as Iskāf) was an ancient and medieval city of Iraq, located on the Nahrawan Canal at the present site of Sumāka. During the Sasanian period and early Islamic ca-

liphates Uskaf was the largest city in the Diyala basin; however, it declined sharply after the Samarran period and was abandoned by the early 1100s. Excavations were carried out starting in the late 1950s and a mosque and palace were discovered. Archaeologists have been puzzled by the direction of the mihrāb, and that it was off-center. The original, smaller mosque did not have a mihrāb, which seems to have been added to the later larger mosque.

Qasr Al-Fedayn, 700-744 CE / 81-127 AH

Mafrq, Jordan

GPS: 32.345183, 36.200684

The Umayyads transformed a Roman structure on this site into a palatial residence. It is referred to in the Arabic chronicles as an agricultural estate. The mosque sits to the side of the main building. The qibla wall is not straight but the bottom is much straighter than the top, so qibla measurements were based on the bottom part of the wall. The qibla wall decorations illustrate that change was taking place. Square Rashidun pillars were being phased out and the new Umayyad circular pillars were becoming popular.



Graveyard Mosque, 700-750 CE / 81-130 AH

Merv, Turkmenistan

GPS: 37.679092, 62.171348

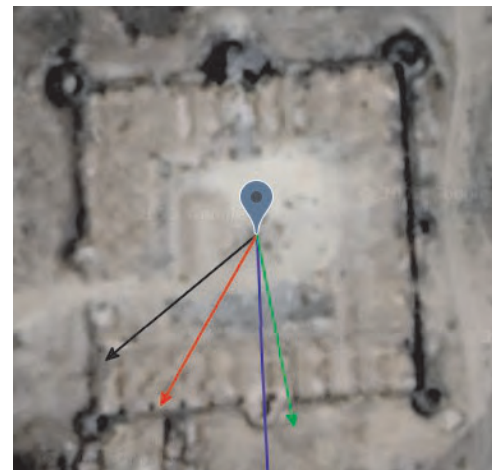
Known as Mazar Hazrat Khwaja Yusuf Hamdani, this old mosque and mausoleum stands in Merv, Turkmenistan and appears to face Petra.

Jebal Says Qasr, 707 CE / 88 AH

Jebal Says, Syria

GPS: 33.303148, 37.359571

There are many small and several large qasrs at the Jebal Says location. This location is unique because it is high in the mountains beside Lake Al-Khubra, near the rim of an extinct volcano. The largest qasr (#5) was built as a palace, or summer house, for the caliph Walid in 707 CE. It is assumed that the smaller qasrs were built by well-to-do Umayyad families so they could escape the heat of the city and enjoy the cool of the mountains and the lake. The earliest qasrs date from 528 CE but do not have a qibla direction. Walid's palace and qasr are especially important as they are the earliest Mecca facing structures that Gibson could find.



Masjid al-Tarik Khana, 708 CE / 89 AH

Damghan, Iran

GPS: 36.164323, 54.354392

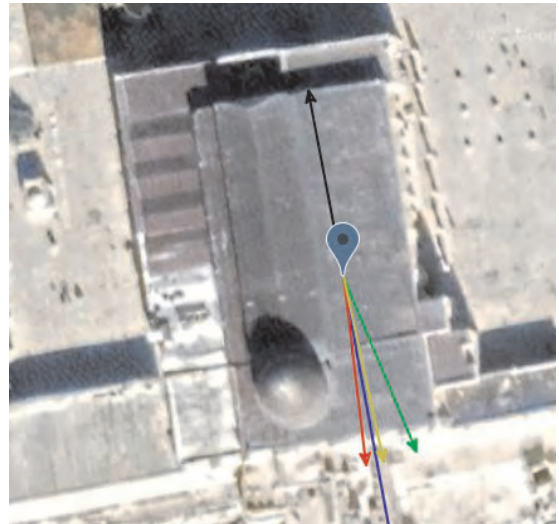
This is the oldest extant mosque in Iran, known as Tarik Khana or the 'House of God.' It incorporates a simple Arab plan with Sassanian construction techniques. An arcade lines the central courtyard, a single bay deep on all but the qibla side where it increases to three bays. This mosque faces the Between qibla.

Al-Aqsa Mosque, 709 CE / 90 AH

Jerusalem

GPS: 31.776174, 35.235713

According to John Moschus who wrote *Pratum Spirituale* or *Spiritual Meadow*, the Muslims began to build a mosque on the capital in Jerusalem soon after its capture around 637 CE or 16 AH (Hoyland, 1997, pages 63-65). Historians generally date Al-Aqsa Mosque to 709 CE. The Al-Aqsa Mosque has undergone multiple stages of construction and renovations over the years. The building suffered from several major earthquakes and was renovated and reconstructed during the Abbāsid period by caliph al-Mahdi (775-785 CE), and possibly previously by caliph al-Mansur (754-775 CE). This mosque in Jerusalem does not face Mecca but rather faces towards Petra which is only 160 miles away.



Damascus Umayyad Mosque, 709 CE / 91 AH

Damascus, Syria

GPS: 31.776174, 35.235713

Caliph al-Walid I (r. 705–715 CE) removed a large cathedral in the center of the city and built a very large mosque facing the Between qibla. Thousands of laborers and artisans toiled for nine years. The new mosque was the most impressive in the Islamic world at the time. The interior walls were covered with fine mosaics depicting paradise.

Qasr Al-Kharana, 710 CE / 92 AH

Desert Castle, Jordan

GPS: 31.728982, 36.462795

Qasr Al-Kharana (or Haranah) was built by the Marwanid Umayyads (685-750 CE) and was used during their reign, as attested to by a very early Kufic inscription found on the site. A painted inscription in one upstairs room is dated to 710 CE and names a certain Abdul Malik bin Omar, thought to be a member of the entourage of Walid I. The entire structure has a qibla direction 3° from the Between position.

Amman Umayyad Mosque, 710 CE / 92 AH

Amman, Jordan

GPS: 31.954671, 35.934353

The foundation of this congregational mosque on the Amman citadel faces the Between qibla. The Umayyads built a number of buildings around this mosque in the early period, and some years later, built a palace to the north, which has a Meccan qibla.



Qasr Khann al-Zabib, 712 CE / 93 AH

Desert Castle, Jordan

GPS: 31.513294, 36.100916

Khann al-Zabib was a caravan stopping place on the old Hijaz route. Much of the materials and some structures were taken from the remains of a small late Roman town. Although now damaged, just beyond the north-east corner an Islamic caravanserai may still be seen. It is dated to 712-737 CE. The Khann al-Zabib qasr has a qibla direction very close to the Between qibla.

Khann Zabib Mosque, 712 CE / 93 AH

Desert Castle, Jordan

GPS: 31.51291, 36.10209

There is a purpose-built mosque to the southeast, a distance from the qasr. This mosque faces closer to the Petra qibla. It is unclear why the mosque would be so far from the qasr itself. Dan Gibson has proposed that it served a traditional congregation while the qasr served the more modern congregation of reformers.

Kalyan Mosque, 712 CE / 93 AH

Kalyan, Uzbekistan

GPS: 39.775917, 35.899799

This mosque was rebuilt multiple times over the centuries. The qibla of this mosque is indeed a puzzle. It faces 2.6 degrees north of Jerusalem and 5.8 degrees north of Petra, so it could be considered facing either of these places. It is more than 26 degrees from Mecca. Dan Gibson classified this mosque as unknown.

Walid West Qasr, 713 CE / 93 AH (#1)

Um Walid, Jordan

GPS: 31.645127, 35.893746

East Qasr Mosque, 713 CE / 93 AH (#3)

Um Walid, Jordan

GPS: 31.646810, 35.899799

Walid East Qasr, 713 CE / 93 AH (#2)

Um Walid, Jordan

GPS: 31.646762, 35.898635



There are three structures in the town of Um Walid that were built near the same time. Each of these structures faces a different qibla. Exact dates for each structure have not been established. The existence of two Umayyad era qasrs within the same town is unique. Did two families or factions live in this town, requiring two different qasrs? It is interesting to note that the western qasr faces closest to a Between qibla while the eastern qasr faces closest to Petra. The external mosque of the eastern qasr faces between a Petra and a Between qibla. None of these buildings are oriented towards Mecca in Saudi Arabia.

Suliman Mosque, 712 CE / 93 AH

Estakhr, Iran

GPS: 29.979923, 52.910150

This mosque was originally uncovered by Ernst Hersfeld and is mentioned again in subsequent archeological reports. Since most of the mosque is un-excavated, the qibla direction could not be discerned. Gibson classified it as unknown.



Khirbat al-Mafjar, 714 CE / 95 AH

Jericho, Palestine

GPS: 31.882747, 35.459649

GPS: 31.881617, 35.459655

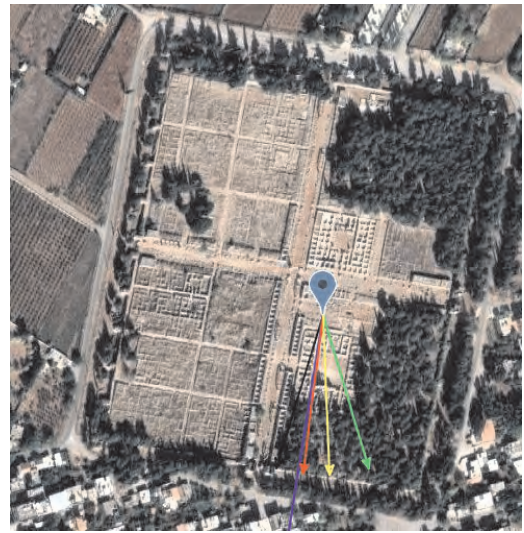
There are two mosques at this location. One faces Petra and a later one faces the Between qibla. The later construction has not been dated. Khirbat al-Mafjar is located near Jericho in the Jordan Valley. It remains one of the most sophisticated Umayyad palaces known for its elaborate mosaics, stucco carvings, and overall sculptural magnificence. Khirbat al-Mafjar was built during the reign of Hisham Ibn 'Abd al-Mali. It was abandoned around 744 CE when the Umayyad dynasty collapsed and the Abbāsids rose to power. The Abbāsids never rebuilt the palace.

Anjar Mosque, 714 CE / 95 AH

Anjar, Lebanon

GPS: 33.732008, 35.933831

The Anjar Mosque is located 58 km from Beirut, just a short distance from the Litani River. Anjar is the only exclusively Umayyad site in Lebanon. Commissioned by the Umayyad caliph al-Walid, son of 'Abd al-Malik ibn Marwan, in the early 8th century, it prospered as a trading city since it was situated strategically at the crossroads of the north-south and east-west trade routes. However, by the conclusion of Umayyad political domination no more than 30 years later, Anjar fell rapidly into disrepair and eventually was abandoned. The entire complex including the palace and mosque are built with an orientation facing Petra.



Aleppo Umayyad Mosque, 715 CE / 96 AH

Aleppo, Syria

GPS: 33.732008, 35.933831

The original mosque was built early in the 8th century. However, the current building dates back only to the 12th century, so we cannot determine its original qibla direction. The current mosque is 5 degrees from the Between qibla. The minaret was built in 1090 CE and was destroyed during fighting in the Syrian civil war in 2013. Dan Gibson classified it as a Between qibla because it was closer to Between than Mecca.

Masjid al Khamis, 717 CE / 99 AH

Manama, Bahrain

GPS: 26.208200, 50.548300

The Suq al-Khamis, or Thursday Market Mosque, is situated in the southern suburb of Manama, four km away from the town of Al Khamis. Its construction date is debated and there are possibly remains of two mosques on this site. Some archaeologists suggest that the early mosque was built in 717 CE during the reign of the Umayyad caliph Omar bin Abdul-Aziz, with only a qibla wall. The later mosque can be dated by an inscription from 1058 CE, near the end of Qarmatian rule. This wall has a mihrāb facing halfway between Mecca and a Between qibla

Qasr Qastal Mosque, 720 CE / 99 AH (Photo right)

Qastal, Jordan

GPS: 31.746089, 35.939875

The Umayyad complex faces Petra and has been partially replaced by modern residential buildings. The qasr was most likely built by Yazid II, based on a reference in a poem written by Khthayyir ibn Abdurrahman Azza (644-723 CE), but the site was used for centuries prior as a caravan stopping place. The site also contains one of the oldest minarets in



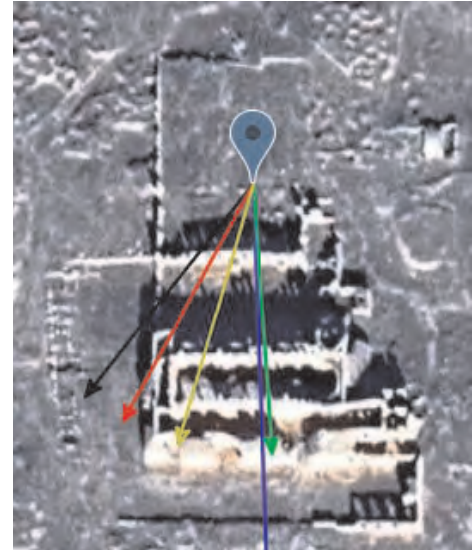
the world. The external graveyard contains some examples of early Umayyad graves, where the deceased were laid on their side facing Petra. Dan Gibson has proposed that this is the site of the Battle of Badr. The mosque mihrāb was originally rectangular.

Resafa Moque, 720 CE / 101 AH

Resafa Syria

GPS: 35.628606, 38.759662

Resafa is situated 25 km from the Euphrates at the edge of the Syrian Desert. It began as a large Roman fort and became a place of Christian pilgrimage after the martyrdom of Saint Sergios, during the 5th and 6th centuries. Under Islamic rule it became the residence of caliph Hisham ibn Abd al-Malik (r. 724-743 CE) and continued to be of central importance in the Islamic period. This congregational mosque is the earliest Mecca-facing mosque found by Gibson. It is notable that it is the first mosque that caliph Hisham built, located near his palace, making this a significant statement. The only previous Mecca qibla was caliph Walid's qasr at Jebal Says.



Mosque of 'Umar, 721 CE / 103 AH

Bosra, Syria

GPS: 32.521514, 36.482897

Although Bosra is known for its famous still-intact theater, the city also displays strong Islamic (especially Ayyubid) architectural influences. Caliph 'Umar led the Muslim conquest of Syria in 636 CE and chose the location for this mosque. The mosque that stands there today was completed in 720 CE by caliph Yazid II. As was usual in early mosque construction, everything of the original mosque was removed or covered over and a new mosque was built over top, oriented towards the Between qibla.

Qasr Muwaqqar, 723 CE / 104 AH

Muwaqqar, Jordan

GPS: 31.812609, 36.103750

At one time this qasr stood on an elevated mound surveying the desert and the cultivated lands to the west. It is in line-of-sight of Qastal and Mushatta to the west and Haranah to the east. Qasr al-Muwaqqar is surrounded by water infrastructure and many cisterns remain, but most of the buildings have been destroyed. Tombs in the Muwaqqar graveyard (31°48'49.94"N 36° 6'21.50"E) generally face Petra, if the bodies are buried on their left side. Gibson classified the qibla of the qasr building as unknown since so much of the building is in ruins. But, it seemed closest to a Between qibla.

Grand Hussein Mosque, 725 CE / 106 AH

Amman, Jordan

GPS: 31.949711, 35.934610

This Ottoman style mosque was rebuilt in 1924 by the late King Abdullah I on the site of an Omar ibn Al-Khattab mosque. It is probably also the site of the Cathedral of Roman Philadelphia. The modern mosque faces Mecca. There is no trace of the earlier mosque.

Jerash Umayyad Mosque, 725 CE / 107 AH

Jerash, Jordan

GPS: 32.279156, 35.891308

Located at an important crossroad in ancient Jerash, this mosque faces within 5° of Petra rather than aligning with the Roman crossroads. This mosque is in sharp contrast with Dr. David King’s belief that some mosques were built to align with Roman roads. This mosque has a semicircular mihrāb. Excavators have suggested there may have been an earlier mosque under this one.



Qasr al Hayr al Gharbi, 726 CE / 107 AH

Desert Castle, Syria

GPS: 34.344381, 37.584353

Qasr al-Gayr al-Gharbi is 37 miles west of Palmyra. It was constructed by the Umayyad caliph Hisham ibn ‘Abd al-Malik. The inhabitants of this qasr could easily determine the qibla direction as the entire complex faced the Between qibla. No external mosques have been identified.



Banbhore Congregational, 727 CE / 109 AH

Banbhore, Pakistan

GPS: 24.752318, 67.521944

This mosque was built after the area was conquered by general Muḥammad ibn Qasim in 711 CE. This mosque has a qibla wall, but no mihrāb. It is one of the earliest known mosques in the Indo-Pakistan subcontinent. Its plan, deducted from archaeological remains, closely resembles the plans of congregational mosques in Kufa (670 CE) and Wasit (702 CE). Inscriptions found on the site date the mosque to 727 CE. This mosque faces within 2.5 degrees of Mecca.

Wadi Shireh Open Air Mosque, 728 CE / 109 AH

Wadi Shireh, Jordan

GPS: 29.777571, 35.609588

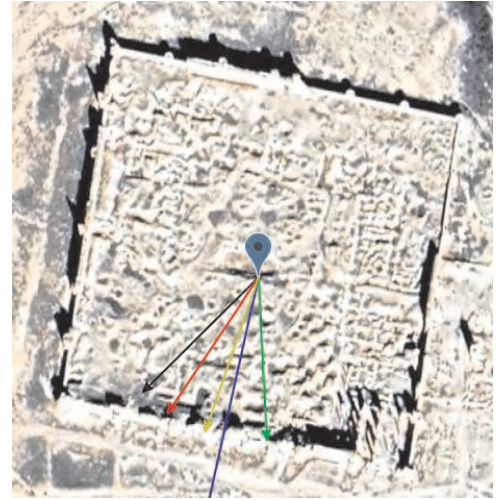
There are ruined remains of an open-air mosque in this Bedouin encampment. It has no mihrāb, but an inscription is present. The orientation has been classified as unknown.

Qasr Hayr al-Sharqi, 728 CE / 110 AH

Desert Castle, Syria

GPS: 35.073945, 39.071061

Qasr al-Hayr al-Sharqi in Syria is 97 km northeast of Palmyra and 64 km to the south of Rusafa. It was originally constructed in 728-729 CE under caliph Hisham to be used as a retreat for the Umayyad caliphs. After Umayyad regional authority declined the site was absorbed and embellished by the Abbāsids under caliph Harun al-Rashid and remained functional until the 14th century. The qasr and the external mosque both have the same qibla, facing a Between position.



Amman Umayyad Palace, 730 CE / 112 AH

Amman Citadel, Jordan

GPS: 31.955517, 35.934

The northern set of Umayyad buildings on the Amman Jordan citadel were built around 730 CE. The older Umayyad congregational mosque faced the Between position, but the newer palace and mosque with the Blue Dome were built after the death of Ḥajjāj ibn Yūsuf. The qibla at this time had changed to face Mecca. These building are significant because they illustrate the shift of qibla direction between the earlier congregational mosque and the later palace.

Jami' al-Zaytuna, 732 CE / 115 AH

Tunis, Tunisia

GPS: 36.797077, 10.171363

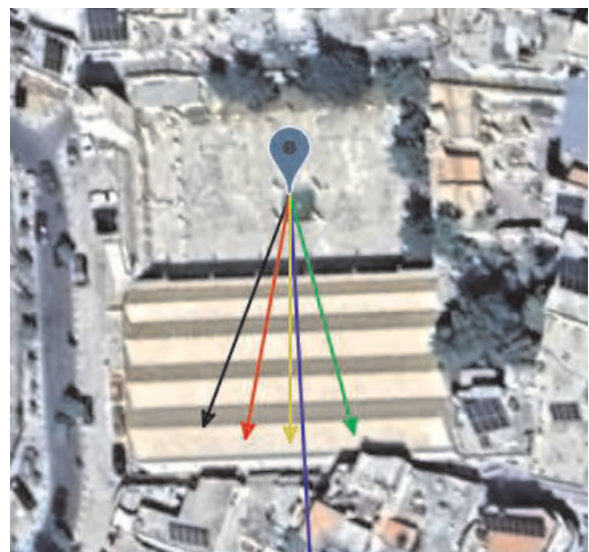
This mosque was built on the ruins of a Roman basilica. A century after its construction it was completely rebuilt to emulate the Great Mosque at Kairouan. The two mosques were reconstructed concurrently between 856 and 863 CE. In 864 CE renovations were funded by the Abbāsīd caliph Al-Musta'in. This mosque has a Parallel qibla.

Ba'albeck Mosque, 740 CE / 112 AH

Baalbeck, Lebanon

GPS: 34.007102, 36.207294

This Umayyad mosque has suffered from deterioration due to dampness, salt, and structural degradation. The last renovation was conducted with special attention to archaeological remains, as it is believed that the mosque may have been built upon several older structures dating back to antiquity. Lime mortar and traditional materials were used to preserve the building's character. The Ba'albek Mosque stand to the east of the main Ba'albek ruins and faces a Between qibla.



Tiberias Friday Mosque, 740 CE / 122 AH

Tiberias, Israel

GPS: 32.776276, 35.543996

There are three mosques at this site located on the western shore of Lake Tiberias. The large, Mecca facing Umayyad Friday Mosque has a miḥrāb niche and was built on top of an earlier mosque. Coins and ceramics were found among the base stones of the crudely crafted foundation of the earlier mosque which helped date the earlier structure to around 660-680 CE. A smaller mosque was discovered nearby in Area D.

Maqam Zayid ibn Ali, 740 CE / 112 AH

Rabba, Jordan

GPS: 31.268628, 35.743585 and 31.089892, 35.708814

Two locations are listed here because the head of Zayid ibn Ali is buried in a different place than his body. They became separated in the battle of Mu'tah. This mosque and memorial faces Petra.

Humeima Tomb, 740 CE / 122 AH

Humeima, Jordan

GPS: 29.949629, 35.346120

These tombs are located southeast of the Abbas family qasr. The Oleson excavation mistakenly identified them as being the mosque for the qasr. However, Al-Ḥarawī (1215 CE) identifies these structures as tombs. See: Islamic Heritage Sites in Jordan, A Student's Gazetteer, 2020. These small tombs face closer to a Between qibla than to Mecca.

Huajuexiang Mosque, 742 CE / 125 AH

Xian, China

GPS: 34.263306, 108.936389

This is one of the oldest and most renowned mosques in China; however, much of the existing structure was constructed later. The existing mosque was built in 1392 CE. The qibla of the original mosque is unknown.

Qasr Bayir, 743 CE / 125 AH

Desert Castle, Jordan

GPS: 30.761803, 36.679290

Qasr Bayir was built by al-Walid II in 743 CE, before he became caliph. This site is among many other palaces built in the Jordanian desert. Before its destruction in 1931 its masonry was used by Beake Pasha to build a modern outpost for the Arab legion. The general direction seems to face 4.2° from Mecca. You can faintly see the outline of the original qasr which was much larger than the current building.

Juma Mosque, 443 CE / 125 AH

Shamakhi, Azerbaijan

GPS: 40.626828, 48.643781

A modern mosque stands on this location, making it impossible to determine the qibla of the original structure.

Qasr Mushatta, 743 CE / 126 AH

Desert Castle, Jordan

GPS: 31.738172, 36.009986

One of the largest and most impressive of the Umayyad palaces, Mushatta Palace is an unfinished, brown limestone and brick complex which includes an entrance hall, internal mosque, audience hall, and residential quarters. It is speculated that Umayyad caliph al-Walid II built Mushatta during his brief reign (743-744 CE). Construction ended in 744 when he was assassinated. The entire complex faces Petra, as does the internal mosque.



Amra Bathhouse, 743 CE / 126 AH

Desert Castle, Jordan

GPS: 31.801758, 36.587270

This Umayyad bathhouse was part of a larger complex and contains a star chart on the ceiling that demonstrates the ability of the Arabs to understand the stars and think abstractly. The bathhouse is attributed to al-Walid I (705-715 CE) and contains no evidence of a qibla. A small qasr some distance to the left has a Between qibla. (See next)

Qasr Amra, 743 CE / 126 AH

Desert Castle, Jordan

GPS: 31.804806, 36.581528

Recent excavations have uncovered a small qasr to the west of the bathhouse with rooms oriented around a central courtyard, with a watchtower. The plan is rectangular, with a mihrāb in the south wall projecting to the exterior. This qasr is in ruins so it is difficult to measure the orientation with any reasonable level of precision.

Qasr Tubah, 743 CE / 126 AH

Desert Castle, Jordan

GPS: 31.325786, 36.571288

The unfinished Qasr al-Tubah was started under the patronage of caliph Walid II ibn Yazid around 743-744 CE, during a time when many well-to-do young men were building their own qasrs. What makes this qasr notable is that it faces toward Jerusalem. This



strange anomaly may be due to Walid II's unusual character, which purportedly led to his murder in 744 CE. He was distracted with wine, women, songs, and poetry. Many facades attributed to his construction contain semi-nude women and lavish decorations. His behavior was so profligate that he was passed over and, instead, his uncle Hisham became caliph. His desert castle project was then abandoned.

Harran University & Mosque, 744 CE / 127 AH

Harran, Turkey

GPS: 36.864805, 39.031172

Caliph Marwan II made Harran his capital from 744-750 CE until it was conquered by the Abbāsids in 750 CE. Marwan II built a mosque in the center of the city and a royal palace on the site of the temple. The entire Haran complex faces the Between qibla. During the late 8th and 9th centuries Harran University was a center for translating works of astronomy, philosophy, natural sciences, and medicine into Arabic.

Kufa Mosque, 748 CE / 131 AH

Kufa, Iraq

GPS: 32.028611, 44.400833

Around the end of the Second Civil War (748 CE), the original mosque of Omar on this site was torn down and rebuilt, this time facing Mecca. The Kufa mosque is claimed to be the place where 'Ali was fatally wounded by a poison-coated sword while prostrating in the Fajr prayer. This mosque also contains the tombs of Muslim ibn 'Aqil, Hani ibn 'Urwa, and Mukhtar al-Thaqafi. Islamic traditions relate that this was the dwelling place of Noah and that this was the place where he built his Ark. Up to twelve miles of land in all directions from the mosque were considered blessed by its holiness. There are also Shia traditions which state that performing one prayer in this mosque is the same as having performed one thousand prayers elsewhere, and performing one obligatory prayer here is equal to having performed an accepted Hajj.

Siraf Early Mosque, 750 CE / 133 AH

Siraf, Iran

GPS: 27.668227, 52.331410

This small early, residential mosque has never been properly excavated. Residents would line up in the courtyard to pray toward Petra. There are several large mosques in this city with other orientations.

Shibam Palace, 753 CE / 135 AH

Shibam, Yemen

GPS: 15.926561, 48.625508

The Great Mosque of Shibam in Yemen is surrounded by towering mud brick houses. It was originally built in 753 CE. Much of the current mosque is thought to have been built in the 14th century. Little remains of the original structure and so it is listed as Unknown.

Umayyad Mosque 1 & 2, 753 CE / 135 AH

Beit She'an, Israel

GPS: 32.503314, 35.501948

GPS: 32.502788, 35.502788

This site contains two early mosques as well as a miḥrāb in a ruined church. None of these sites have been firmly dated, nor have the qibla directions been established. There is also a more modern Ottoman mosque at this site.

Tiberias Area D mosque, 750–799 CE / 133-183 AH

Tiberias, Israel

GPS: 32.774846, 35.544627

The qibla direction is unknown. This small mosque in Area D is mentioned by David Stacy (Stacey, David, 2004. Excavations at Tiberias, 1973-1974: The Early Islamic Periods, IAA Reports 21, Jerusalem: Israel Antiquities Authority, 79-80.)

Tarsus-Gozlukule, 750–799 CE / 133-183 AH

Tarsus-Gozlukule, Turkey

GPS: 36.911115, 34.896216

This mosque was dated by stratigraphy and dateable objects including soapstone as 750-900 CE. It has a semicircular miḥrāb.

Ba'ayith, 750–799 CE / 133-183 AH

Ba'ayith, Saudi Arabia

GPS: 26.049907, 41.922744

The mosque is based on historical texts, mosque parallels, inscriptions, datable objects, C14, stratigraphy, construction techniques, stratigraphy, and pottery. Reports said there is a semicircular miḥrāb, but no qibla direction was given.

Haidra Umayyad, 700-800 CE/ 81-183 AH

Haidra, Tunisia

GPS: 35.565529, 8.453322

Haïdra contained the ruins of Ammaedara, one of the oldest Roman cities in Africa. An Umayyad mosque was identified by several columns and the internal organization of the structure. Its orientation is unknown, but all qasrs and mosques from this period faced the Parallel qibla.

Azraq Qasr mosque, 700-750 CE / 81-133 AH

Asraq, Jordan

GPS: 31.880208, 36.827282

Located in an oasis town, the qasr was constructed of black stone by Umayyad caliph Walid II, who used it for hunting and as a military base to defend the region. It underwent restoration in 1237 CE when 'Izz ad-Din Aybak, an emir of the Ayyubids, fortified it further. The qasr was built with the southwest wall facing Petra. The internal mosque was constructed later with a Between qibla.



Tulul al-Ukhaydir, 700-750 CE / 81-133 AH

Tulul al-Ukhaydir, Iraq

GPS: 32.316670, 43.333330

While this site is listed in archaeological databases, the exact GPS coordinates are unknown and thus the qibla is unknown. The site dates between 700-750 CE from texts, pottery, inscriptions on the site, coins, and a mihrāb. The site is about 30 km southwest of the large Qasr Bani Muqatil, listed in the Online Qibla Database as Ukhaydir.

Khirbat al-Mafjar, Site 3, 700 – 750 CE / 81-133 AH

Jericho, Palestine

GPS: 31.879695, 35.460169

South of the palace buildings a third mosque was found. See: Whitcomb, Donald, 2016. The qibla direction is unknown.

Hubras Old Mosque, 700-750 CE / 81-133 AH

Hubras, Jordan

GPS: 32.662793, 35.824158

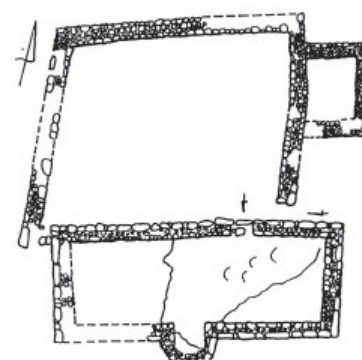
This mosque consists of two sanctuaries, a smaller one built within the prayer hall of an earlier one. The earliest mosque has a between qibla and dates back to Umayyad times. It has been in use off and on for over a thousand years.

Sede Boker Open Air Mosque, 707 CE / 88 AH

Sede Boker, Israel

GPS: 30.881611, 34.790761

This open-air mosque was dated by coins between 775-785 CE and an inscription dated 781 CE. The original qibla is unknown.



Sede Boker

Maqam Jafar Ibn Abi Talib, 700-799 CE / 81-183 AH

Tafilah, Jordan

GPS: 31.066698, 35.695416

Jafar was a companion and cousin of the prophet Muḥammad, and an older brother of Ali. He died during the battle of Mut'ah in 8 AH. This shrine has been rebuilt several times over the centuries but continues to face Petra to this day.

Umayyad Mosque, 750 – 799 CE / 133-193 AH

Abu Ghosh, Israel

GPS: 31.810562, 35.107872

The remains of a mosque were found and dated by a foundation inscription on the site that mentioned a mosque. No miḥrāb was mentioned. The qibla direction is unknown.

Qasr Rashadiya, 700-799 CE / 81-183 AH

Rashidiya, Jordan

GPS: 30.702263, 35.629825

This qasr was built with reused Roman and Byzantine materials facing Petra. It has not been dated other than from the Umayyad period. The modern mosque was built with reused Umayyad stones. A road was bulldozed through the middle of this qasr.



Hamмам Sarah Mosque, 705-740 CE / 83-188 AH

Hallabat, Jordan

GPS: 32.083627, 36.363010

This Petra facing mosque stands adjacent to the al-Sarah Hammam. The mosque is square, with an entrance in the center of the north wall. The qibla wall has an elongated miḥrāb which projects to the exterior. Much of the Hammam was rebuilt since many stones were removed and used as building materials in the surrounding villages. All that remains of the mosque is the floor and some low walls.

Nahal 'Oded, 700-750 CE / 81-133 AH

Negev, Israel

GPS: 30.504929, 34.707352

This settlement is at the foot of the southwest slope of Mount Oded, in the Negev highlands. Although no miḥrāb niche exists, the structure was probably an open-type mosque, judging by its location relative to the settlement and the alignment of the upright stone, which is the same as that of the miḥrāb in the other Negev mosques. Sherds dating from the end of the Byzantine period and the Early Islamic period, as well as an 8th century CE coin were discovered during the excavations. Gibson classified the qibla as unknown.

Bor Bator, 700-799 CE / 81-183 AH

Negev, Israel

GPS: 30.383096, 34.610312

The mosque is built on a hillside, consisting of a rectangular enclosure with a mihrāb niche in the center of the southern wall. Its proximity to a large cistern along a main route from the Sinai to the central Negev and the Arava Valley suggest that it was built to serve travelers. Classified as unknown.

Har Oded, 700-799 CE / 81-183 AH

Negev, Israel

GPS: 30.508363, 34.755601

This nomadic settlement consists of 15 circular and oval dwellings with entrances facing southeast. It has been suggested that one was a mosque, perhaps predating the invention of the mihrāb niche. Gibson classified it as Unknown.

Nahal Omer, 750–799 CE / 133-183 AH

Tsofar, Israel

GPS: 30.544067, 35.177101

This open-air mosque is found in the Negev. It is dated to 750-799 CE by mehash-ware, soapstone, coins, and C14 dating. The mosque is about 5x10 meters with a rough mihrāb. Gibson has classified it as Between.

Hayan Mishref, 700–799 CE / 81-183 AH

Mufraq Area, Jordan

GPS: 32.267299, 36.15361

Hayan Mishref is a small Umayyad village east of Thag-ara. Gibson's interpretation is that the original building was a Rashidun style mosque that faced Petra without a mihrāb. Later, space was opened in the qibla wall and a rough mihrāb was added that faced more towards the Between qibla. Gibson lists the original mosque as Petra and the later renovations as Between.



Sa'd North & South, 700-799 CE / 81-183 AH

Sa'd, Jordan

GPS: 32.341605, 35.980332

GPS: 32.341605 35.981111

One mosque is north of the road and the other is south of the road. These village mosques date from Umayyad to Mamluk times and are not currently in use. Gibson classified both as Petra Mosques, although they face between the Petra qibla and the Between qibla.

Khirbet Burz, 700-799 CE / 81-183 AH

Sama Rusan, Jordan

GPS: 32.623889, 35.799861

This appears to be an open-air mosque, built along the SW exterior wall of a Byzantine church. The qibla wall is the south wall. It has a mihrāb niche protruding to the exterior, but it appears to have been added later to turn the qibla to the east. This qibla is a puzzle and is listed as unknown.

Nahal Peher Mosque, 700-799 CE / 81-183 AH

Rahat, Israel

GPS: 31.372300, 34.765100

Discovered beside a farm structure in Rahat in the Northern Negev, this small rural mosque faces too far west. Gibson classified the qibla as unknown.

Nahal 'Arod, 700-799 CE / 81-183 AH

Negev, Israel

GPS: 30.496555, 34.707789

This open-air mosque was built as a rectangular enclosure open to the north. In the center of the south wall is a mihrāb niche. The qibla direction has not been established.

Be'er Karkom 1 & 2, 700-799 CE / 81-183 AH

Negev, Israel

GPS: 30.289766, 34.766608

GPS: 30.289130, 34.767415

Two open-air mosques were discovered at a large nomadic site east of Be'er Karkom containing 58 circular dwellings. Both mosques face south but #2 has a qibla that faces farther east. Gibson classified these mosques as unknown until better measurements can be taken.



Ramat Barnea, 700-799 CE / 81-183 AH

Negev, Israel

GPS: 30.681938, 34.497799

The open-air mosque in Ramat Barnea is in the center of a 15-building settlement. It is oval shaped and elevated about 0.4 m above ground level. The walls are constructed of large, standing, roughly hewn fieldstones. The rounded mihrāb niche in the middle of the southern wall is 2 m wide and 2 m deep. This oval shape is unusual; the other mosques in the Negev Highlands are either rectangular or square. Gibson classified this structure as Unknown and doubts it is a mosque.

Horvat Sharav, 700-799 CE / 81-183 AH

Negev, Israel

GPS: 30.752364, 34.899499

This open-air mosque is unusual among the mosques of the Negev Highlands, where the entrance is usually opposite the mihrāb. The walls are built of two rows of roughly hewn fieldstones with a gravel filler. They stand 0.7 to 0.8 m wide and 1 m high (three to four courses), and by the small amount of stone debris in the area, this seems to have been their original height. The qibla faces too far west to be accurate, and Gibson classified it as Unknown.

Nahal Hazaz, 700-799 CE / 81-183 AH

Negev, Israel

GPS: 30.893767, 34.863587

A second mosque in the Sde Boker area is on a hilltop near the Nahal Hazaz watercourse. This mosque consists of one room with a curved mihrāb niche in the center of the southern wall. On a plain west of the mosque a settlement of seven dwellings was discovered. Gibson classified this mosque as Between.

Nahal La'ana, 700-799 CE / 81-183 AH

Negev, Israel

GPS: 30.730121, 34.599858

This mosque and farm were excavated during the Negev Emergency Survey and were part of a settlement complex adjoined by large tracts of terraced farmland. The prayer room (5 m², 1.8 m high) is in the southern wing. In the mounds of ash found near the structure were sherds characteristic of the end of the Byzantine and Early Islamic periods, and several Umayyad coins dating to the 7th and 8th centuries C.E. This mosque faces Mecca.

Shivta Mosque, 701-760 CE / 81-143 AH

Shivta, Israel

GPS: 30.880825, 34.631229

The invading Muslim armies built a mosque in Shivta (also known as Sobota, or Esbeita) next to the large southern church. The mosque, and a dwelling known as the Pool House, were built using materials from the church. One of the puzzles at Shivta is the orientation of the mosque qibla. Like many of the open-air mosques in the Negev, this mosque faces west of all of the other qiblas and so is listed as unknown.



Cheraman Juma, 700-799 CE / 81-183 AH

Methala, Kerala, India

GPS: 10.223355, 76.166579

The Cheraman Juma Masjid is a mosque in the Indian state of Kerala. There are those who claim that

it was built in 629 CE by Malik Dinar, an Arab propagator of Islam and a contemporary of the prophet Muḥammad. This mosque was renovated and totally reconstructed in the 11th century facing Mecca. The original qibla is unknown.

Kilakarai Old Mosque, 700–799 CE / 81-183 AH

Kilakarai, India

GPS: 10.223355, 76.166579

There are two old mosques in Kilakarai as well as a larger modern mosque. This small mosque is supposedly the oldest mosque in India. The current building is a small structure that was rebuilt in 1036 CE, so the original qibla remains unknown. This mosque is often confused with the Palaiya Jumma Palli Mosque.

Palaiya Jumma Palli, 700-799 CE / 81-183 AH

Kilakarai, India

GPS: 9.229489, 78.785983

This mosque is often confused with the Old Kilararai Mosque. However, it looks like an Indian temple. The mosque was completely rebuilt in the 11th century and again in the 17th century by a workforce and materials provided by the ruler of Ramnad and some by the Kilakarai merchants. What remains today comes from the 17th century so it is not possible to determine the original qibla, nor the foundation of the original building. While many Muslims claim that it is a very early mosque, perhaps built by Malik ibn Dinar, nothing exists of the original building to confirm this except local legend.

Muḥammad bin Qasim Mosque, 750–799 CE / 133-183 AH

Sindh, Pakistan

GPS: 27.645815, 68.936360

Muḥammad bin Qasim led the Islamic armies into Pakistan in 649 CE, capturing al-Alor in 712 CE and building a mosque soon after. In 962 CE the city was destroyed by a massive earthquake that changed the course of the Indus River. Today, there are ruins of an old mosque on top of a small hill that locals celebrate as the original mosque. Others believe it is a mosque constructed in 1400s. The ruins seem to face Mecca.

Habibi Neccar Mosque, 700–799 CE / 81-183 AH

Antakya, Turkey

GPS: 36.201553, 36.165468

Habibi Najjar is referred to in the Surah 36:20-27. There is an inscription in the mosque which reads that it was rebuilt in 1275 CE after Baibars had converted the original building to a mosque. That mosque was demolished during an 1853 earthquake. It was rebuilt on its earlier foundation by the Ottomans, but the minaret was left standing and is the oldest surviving part of the mosque that is visible. This mosque has a Between facing qibla.

Sal Mosque, 700-799 CE / 81-183 AH

Sal, Jordan

GPS: 32.570451, 35.911254

This small village mosque dates to Umayyad times. It is still in use today. It faces the Between qibla.

Barwada Mosque, 700–799 CE / 81-183 AH

Gujarat, India

GPS: 21.692053, 72.270851

An article in The Times of India (November 6, 2016) proclaimed that the Barwada Mosque was the oldest mosque in India. This report was picked up by other news services, and even Wikipedia suggests that it is the oldest mosque in India, dating it as early as 610 to 623 CE. This date is not based on anything found at the mosque site, nor even a mention in ancient manuscripts. Rather, the date was arrived at by assuming that the qibla direction was Jerusalem, and thus The Times of India calculated that the mosque had to be built during the short time-period when Muslims faced Jerusalem, before the qibla was changed to Mecca in the Hijaz. However, it appears that this mosque faces 286°, which is closest to the Between qibla.

Yamama Great Mosque, 700-799 CE / 81-183 AH

Yamama, Saudi Arabia

GPS: 24.192165, 47.352019

For years it was thought that this mosque had been lost. But the Saudi-French Mission during a 2011-2012 survey identified a large building, which when excavated in 2012, proved to be the Yammama mosque. What makes this mosque special is that it is located south of the Between position, meaning that it has to point northward to the Between qibla. This qibla is not some mistake or error. This mosque fits nicely into the pattern of Between facing mosques that were built at the time when Ḥajjāj ibn Yūsuf was the governor.



Bushra Great Mosque, 700-799 CE / 81-183 AH

Bushra, Jordan,

GPS: 32.558159, 35.894752

This village mosque is known as the Bushra Great Mosque. It is in a small village near Irbid in Jordan. It dates back to Umayyad times, and faces the Between position.

Tibnah Umayyad, 700-799 CE / 81-183 AH

Tibnah, Jordan

GPS: 32.477252, 35.727

The Tibnah village mosque dates to Umayyad times. Known as Majid al-Zidani, it has a Between qibla.

Aydoun Grand Mosque, 700-799 CE / 81-183 AH

Aydoun, Jordan

GPS: 32.506175, 35.857349

This village mosque, built by the Umayyads, has been rebuilt over the years but maintained its Between qibla.

Qasr Uweinid, 700-799 CE / 81-183 AH

Desert Castle, Jordan

GPS: 31.784907, 36.733661

The medieval Arab historian el-Maqdisi mentions Uweinid as being on the caravan and postal route from Amman to Arabia via Wadi Sirhan. The Roman fort was designed with a central court and rooms on the inside of the outer walls. None of these building is reported to have stood more than one story high, except for the tower inside the fort. Qasr Uweinid was dependent on the Azraq Qasr, which stood a few miles away. No qibla is known and we will have to wait until the site is surveyed and excavated.

Qasr Ain as-Sil, 700-799 CE / 81-183 AH

Azraq, Jordan

GPS: 31.894204, 36.845879

Qasr Ain as-Sil is a small Umayyad house with an adjoining bath house, located 1.75 km northeast of the Azraq castle. Excavations by the Department of Antiquities in 1984 suggest that the Qasr Ain as-Sil was first built in the Umayyad period. Once again, the entire structure faces a Between qibla.

Azraq Fort Mosque, 700–799 CE / 81-183 AH

Azraq, Jordan

GPS: 31.894204, 36.845879

Azraq is located on a key caravan junction with converging roads from Saudi Arabia, Jordan, Iraq, and Syria, with large pools of fresh water. Originally a Roman fort occupied this spot, attested by Latin and Greek inscriptions from the 3rd and 4th centuries referencing Diocletian. The fort appears to be Umayyad with a Petra qibla. The free-standing mosque in the center of the courtyard has a Between qibla.

Shanga Friday Mosque, 750–799 CE / 133-183 AH

Shanga, Kenya

GPS: -2.125483, 41.065378

The early mosque is 1.6 x 2.6 meters, and probably served visiting Arab merchants. Later a larger mosque was built on the same site. The early site was determined by holes in the ground where posts had been pounded in. There has been some controversy around the claim that this was a mosque. Its qibla direction is unknown.

Blue Mosque, 700–799 CE / 81-183 AH

Mazari Sharif, Afghanistan

GPS: 36.709000, 67.110842

Officially it is known as the Sultan Ahmed mosque. The original mosque was destroyed or hidden under earthen embankments during the invasion of Genghis Khan (1220 CE). In the 15th century, Timurid Sultan Husayn Bayqarah Mirza built the current Blue Mosque. A site plan made in the 1910s shows an earlier, smaller walled precinct which was razed to create park lands later, although portals to this precinct remain as gateways. This mosque faces the Between qibla.

Qasr Aseikhin, 750–799 CE / 133-183 AH

Desert Castle, Jordan

GPS: 31.946150, 36.951919

This qasr is located north-east of Azraq on the top of a hill and is visible from quite a distance. The site was used by the Nabataeans in the 1st century CE and then by the Romans. The qasr does not appear to adhere to any qibla and has been badly damaged by treasure seekers. The external mosque faces Mecca, but Creswell claimed that the mosque shows evidence of being reconstructed.

Beni Hasan Mosque, 750–799 CE / 133-183 AH

Ain Beni Hasan, Jordan

GPS: 32.270165, 36.055454

The prayer room is about 10 meters wide and 3.5 meters deep, with a central door in the north, and a mihrāb in the south wall. In 2014 Rjoub and Housan dated this as an Umayyad mosque. The qibla faces east of Mecca.

Fenghuang Mosque, 700-799 CE / 81-183 AH

Hangzhou, China

GPS: 30.245200, 120.170538

This mosque is the third oldest mosque in China, predated only by the Great Mosque of Guangzhou and the Great Mosque of Quanzhou. It was erected sometime in the 7th century under the Tang Dynasty. The mosque was destroyed in the Song Dynasty (960-1279 CE) and was rebuilt between 1314 and 1320 CE by a Persian missionary named Aladin during the Yuan Dynasty. It was rebuilt again in 1451 and 1646. Needless to say, its original qibla direction cannot be determined.

Be'er Ora Qiblatain, 700–799 CE / 81-183 AH

Be'er Ora, Israel

GPS: 29.716765, 34.984862

This open-air mosque has two mihrābs, one facing east and another facing south. Because neither qibla direction is clear, Gibson classified this mosque qibla as unknown. However, he also noticed that the angle between the mihrābs was similar to the angle between a Petra qibla and a Mecca qibla. Gibson believes that since the mosque is made of rough stones on the ground the builder's orientation may have been inaccurate, but the eastern qibla was intended for Petra and the southern qibla was intended for Mecca. Turning the mosque a bit counterclockwise would fix the issue.

Jerash Small Mosque, 700-799 CE / 81-183 AH

Jerash, Jordan

GPS: 32.28125, 35.892972

A mihrāb was found in the south wall of a Roman atrium-house. The entrance is at the southeast corner, and a square platform inserted into the southwest corner has been interpreted as a minbar.

Sahi Ramdah Mosque, 700-799 CE / 81-183 AH

Bowshar, Oman

GPS: 23.543240, 58.398363

Bowshar is an old village in Oman, inland from Muscat. The locals pride themselves on their history, reaching back to the time of the prophet Muḥammad. It is interesting that their new mosque, built on the foundations of a still older mosque, faces Petra.

Ibra Qiblatain Mosque, 700–799 CE / 81-183 AH

Bowshar, Oman

GPS: 23.543240, 58.398363

In 6 AH, Mazin bin Ghadouba returned to his hometown after a visit to Mecca/Petra and built a mosque on this site. Since then, there have been several reconstructions, the last finished in 1979. However, the modern mosque maintains two mihrābs. If worshipers face the qibla wall, the larger mihrāb, they pray toward Petra. Mecca is the small mihrāb in the corner.



Yogharta Mosque, 700-799 CE / 81-183 AH

Beni Bouabdellah, Morocco

GPS: 34.821261, -2.503175

Dr. Edouard Broussalian alerted Dan Gibson to a small mosque in Morocco named after Yogharta who was a Berber hero. This mosque has a Parallel qibla.

Bazaar Qaisariya, 700-799 CE / 81-183 AH

Erbil, Iraq

GPS: 36.190358, 44.010229

The old city of Erbil was built on a large, flat, walled hilltop. In the old city there was a section known as Suk Qaisariya, or the Castle Bazaar. The original qasr is gone, but many of the oldest buildings are oriented toward a Between position.

Erbil Grand Mosque, 700-799 CE / 81-183 AH

Erbil, Iraq

GPS: 36.191444, 44.009583

The main mosque on this citadel used to be known as Masjid al-Kaff but today is known as the Grand Mosque. There is an inscription stating that it was completely renovated in 1719-1720 CE under the supervision of Abu Bakr ben Mulla Omar. It is impossible to determine the original qibla direction.

Al-Sawaf Mosque Grounds, 700-799 CE / 81-183 AH

Erbil, Iraq

GPS: 36.183528, 44.003195

The original mosque at this location was torn down and a new modern mosque built. The modern mosque faces Mecca, but the grounds around the mosque still face Petra, giving us an idea of the orientation of the original mosque.

Ulugh Beg Complex, 700-799 CE / 81-183 AH

Samarqand, Uzbekistan

GPS: 39.654781, 66.975731

There are three separate structures at this location. Each is an Islamic school, one being the site of the oldest Islamic building in Samarqand. The original buildings were replaced in the 1600s, each being torn down in turn and rebuilt on the same foundation. These three Islamic buildings are all oriented toward Petra, which was the qibla direction used for several older buildings in Samarqand.



Job's Tomb Shrine, 700-799 CE / 81-183 AH

Salalah, Oman

GPS: 17.111902, 53.993778

A great deal of work has been done on this site recently, removing the mosque, and leaving just the shrine. Gibson classified this site as Unknown since there was little to measure of the original building.

Bibi Samarkand, 700-799 CE / 81-183 AH

Samarkand, Uzbekistan

GPS: 39.660703, 66.980085

No record exists of the original mosque on this site. However, in 1399 CE, Timur (Tamerlane) tore down the old mosque and built a gigantic mosque for his new capital. In the 15th century it was one of the largest and most mag-



nificent mosques in the Islamic world. At that time the locals had a quaint legend which described that the Hanafi who used the mosque prayed due west and the Shafi'i who used the same mosque prayed due south. In the end they agreed on a qibla between the two. This story may have satisfied some in the 15th century, but today we can see that the qibla faces Petra.

Kilwa Mosque, 700-799 CE / 81-183 AH

Kilwa, Tanzania

GPS: -8.959146, 39.498294

Located in the jungles of Tanzania, this is the earliest remaining mosque on the East African coast. There were several distinct stages of construction. The earliest was the south mosque, and the latest the northern mosque built in the 11th and 12th centuries. It is notable that there is a five degree difference between the Petra qibla of the southern mosque and the Meccan qibla of the later north section.

Afrasiab Phase 1 Mosque, 700-799 CE / 81-183 AH

Samarkand, Uzbekistan

GPS: 39.669483, 66.990691

This mosque is referred to in texts, but Gibson has not located it on the ground. This mosque is reported to have been 115 x 84 meters. Note: Karev believes it was originally a palace, and later become a mosque. It is dated to the mid-8th century. The qibla direction is unknown

Um Qussa 2, 700-799 CE / 81-183 AH

Beidha, Jordan

GPS: 30.375048, 35.453166

This small mosque, 6.50 x 9 m (with mihrāb), is located north of Petra, just outside of al-Beidha or Little Petra and has a Between qibla.

Mosque of Mansur, 762 CE / 145 AH

Baghdad, Iraq

GPS: 33.300737, 44.411652

All traces of this mosque have disappeared. The entire circular city was built by caliph Mansur with a Meccan facing mosque at its center. There was no mihrāb, so one wall was used as the qibla wall.

Al-Bara Mosque, 750-799 CE / 133-183 AH

Al-Bara, Syria

GPS: 35.688414, 36.531234

This mosque is mentioned in the Israeli Early Islamic Database. The qibla direction was calculated from archeological drawings of the mosque. The mihrāb faces Mecca.

Qasr Ukhaydir, 764 CE / 146 AH

Kufa, Iraq

GPS: 32.439732, 43.602775

Approximately 120 miles south of Baghdad, this qasr complex contains a mosque, palace, and bathhouse, all enclosed in a limestone masonry wall 2.6 meters thick and 19 meters high. This qasr and its mosque are very poorly aligned, facing east of Mecca.



Ribat Fortress, 770 CE / 153 AH

Susa, Tunisia

GPS: 35.827625, 10.638728

The foundations were laid in 770 CE, and it was completed in 822 CE. The southern side of the second floor is occupied by a mosque with a mihrāb in its center, facing directly south. The other qiblas in North Africa tend to face about 155 degrees. Nevertheless, Gibson classified this as a Parallel qibla.

Tauste Graveyard, 772 CE / 155 AH

Tauste, Spain

GPS: 41.916889, -1.254817

Muslims are usually buried on their side facing the qibla. Here in Spain, they face a Parallel qibla of approximately 150 degrees.

Ishfan Grand Mosque, 772 CE / 155 AH

Ishfan, Iran

GPS: 32.669696, 51.685189

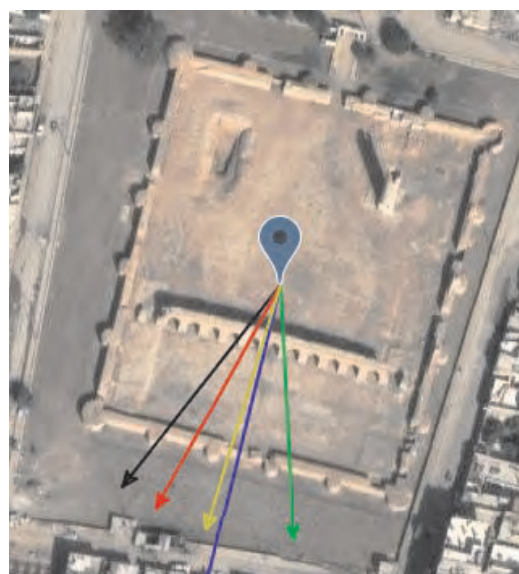
The current mosque on this site was built in 1028 CE and faces Mecca. No evidence remains of the original mosque or its qibla.

Raqqa Mosque, 772 CE / 155 AH

Raqqa, Syria

GPS: 35.951949, 39.020931

The Great Mosque of Raqqa is located in the northern section of the city's heart. Its plan is rectangular (108 meters x 92 meters) with 1.7m thick mud brick walls fortified with semi-circular towers at the corners. All that remains today are the baked-brick minaret and prayer hall facade with eleven arches that were added by Nur al-Din al-Zanki during the 1165 CE renovation of the mosque. The whole building and complex face the Between qibla.



Malek Mosque, 780 CE / 160 AH

Zoozan, Iran

GPS: 34.355441, 59.876897

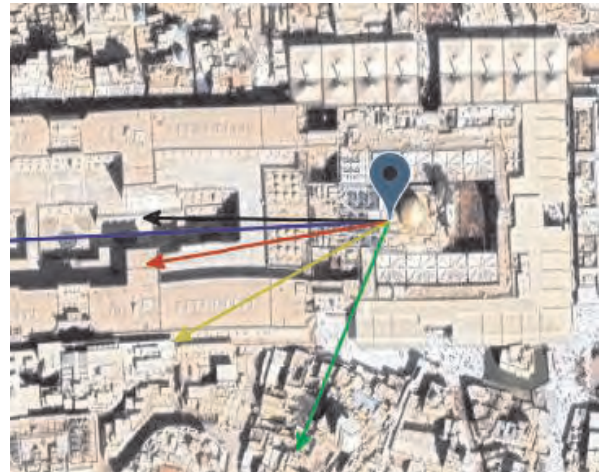
This mosque is in the plains of Zoozan some 41 km from the historical city of Khargard. The mosque belongs to the Khwarazmi period but faces Petra.

Ali Shrine, 786 CE / 169 AH

Najaf, Iraq

GPS: 31.995885, 44.314421

The Abbāsid caliph Harun al-Rashid built the first structure over the tomb of Imam ‘Ali in 786 CE, which included a green dome. Caliph Al-Mutawakkil flooded the site in 850 CE, but Abu’l-Hayja, the Hamdanid ruler of Mosul and Aleppo, rebuilt the shrine in 923 CE, which included a large dome. This is the famous tomb of Ali, honored by the Shia, and thousands of people make pilgrimage here each year. Its qibla orientation is about almost halfway between Petra and Jerusalem.



Abdul Qader Yagouri Mosque, 700-799 CE / 81-183 AH

Bani Abbas, Algeria

GPS: 30.133570, -2.164013

The original mosque on this site no longer exists. The current mosque dates to the 14th or 15th centuries. The qibla is poorly aligned. Gibson classified it as a Parallel qibla.

Cordoba Mosque, 784 CE / 168 AH

Cordoba, Spain

GPS: 37.879041, -4.779551

The Great Mosque of Cordoba was considered a wonder of the medieval world by both Muslims and Christians. Construction of this mosque began during the reign of ‘Abd al-Rahman I, who escaped from Syria to the Iberian Peninsula after his family was massacred by a rival political dynasty. The qibla of this famous mosque has puzzled visitors and researchers for many years, and many suggestions have been given to explain its qibla direction. Gibson noted that there are eight previous surviving mosques in North Africa that used a similar Parallel qibla.

Tepe Madresh, 785 CE / 167 AH

Tepe Madresh, Iran

GPS: 36.165943, 58.811741

During excavations in the 1930s, several levels of mosque floors were uncovered, some with mihrābs, including a square one. Today the site has been built over by an expansion of the mausoleum. The qibla direction of the original building was never noted and so is classified as Unknown.

Ghaen Jamia, 796 CE / 181 AH

Ghaen, Iran

GPS: 33.725782, 59.193121

The original mosque on this site was constructed in 796 CE. The mosque was rebuilt in 1086 CE by Safkosh during the period of Shah Soleiman Safavid, with a plaque dating to 1263 CE. The qibla of the original mosque is unknown.

Shrine of Kazmiyya, 799 CE / 183 AH

Baghdad, Iraq

GPS: 33.380388, 44.338125

The original building predated the building of Baghdad. After establishing the city, al-Mansur used this cemetery as the burial ground for the caliph's family. In 799 CE Imam Musa, the seventh imam, died and was buried at the actual spot of the shrine. The shrine then became a pilgrimage site for the Shia. It does not appear to have a qibla direction.

Dougga Mosque, 800 CE / 184 AH

Dougga, Tunisia

GPS: 36.422733, 9.218833

Dougga or Thugga was a Berber, Punic, and Roman settlement. The Dougga mosque qibla has a Parallel qibla.

Al-Rabadha Area C Mosque, 801 CE / 185 AH

Al-Rabadha, Saudi Arabia

GPS: 24.632398, 41.289831

This site is an early Islamic city situated on the pilgrimage route running between Al-Kufa in Iraq and Mecca. 20 years of excavation have revealed a well-developed city with large houses, fortified walls, watchtowers, mosques, kilns, factories, and two large reservoirs of different shapes. The Area C mosque is about 20 meters square and has a semicircular mihrāb. Gibson classifies this as Between.

Kharab Sayyar Mosque, 801 CE / 185 AH

Kharab Sayyar, Syria

GPS: 36.589464, 39.561229

Kharab Sayyar was a small urban center that gained importance as a fortification along the Byzantine border between the 9th and 10th centuries. It is surrounded by a quadrangular city wall, and it includes a mosque, a bath house, and private houses. The houses are sumptuously decorated with carved stucco wall panels showing an abundant range of decorative themes. The entire town is roughly oriented towards Mecca.

Siraf Site C Mosque, 802 CE / 186 AH

Siraf, Iran

GPS: 27.667838, 52.341286

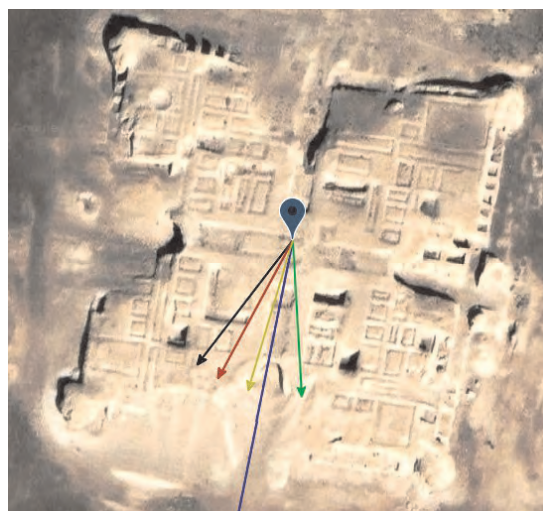
Remains of a mosque were found at this site. The qibla orientation is unknown.

Heraqlah, 806 CE / 190 AH

Heraqlah, Syria

GPS: 35.956730, 38.933084

This strange structure has four corner towers, a circular wall, and a small circular moat. The monument is almost entirely built out of stone with four outer walls, buttresses, and a gate in the center of each wall. The entrances lead into a long, vaulted hall with ramps to give access to the top of the monument. The whole complex may have been a victory monument to caliph Harun al-Rashid after his victory over the Byzantines at Herakleon. This monument is oriented toward the Between qibla.



Qasr Susiya, 809 CE / 193 AH

Susiya, Palestine

GPS: 31.405529, 35.102917

At this site a small qasr was built over top of a much larger, earlier pre-Islamic building. Archeologists have uncovered the foundations of both buildings. Gibson classified the qasr as Between.

Imam Riza Shrine, 817 CE / 201 AH

Mashhad, Iran

GPS: 36.287371, 59.614476

The Imam Riza Shrine Complex was developed on the site of the eighth Imam's grave in 817 CE in the small village of Sanabad. In the 10th century the town acquired the name Mashhad or 'Place of Martyrdom' because of the burial of other Muslim martyrs at the site. It soon became one of the most sacred sites in Persia. It has been renovated many times since its initial construction. The earliest inscription is from 1215 CE. Today it faces Mecca.

Al-Asha'ir Mosque, 820 CE / 204 AH

Zabid, Yemen

GPS: 14.195921, 43.312618

There are several conflicting reports on the date of the original mosque on this site. The mosque underwent several renovations. According to Ibn al-Dhibir, in In Order to Benefit, the last renovations was in

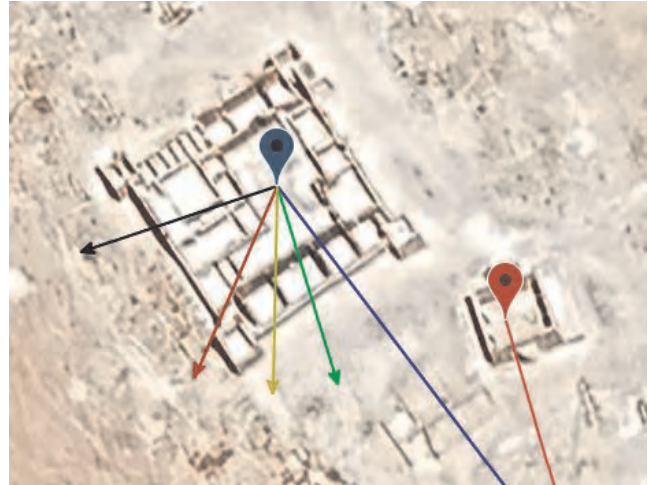
1486 CE. Archnet dates this mosque to around the 9th century and claims it was an Abbāsid mosque. The qibla of this mosque misses Mecca by 13 degrees. Gibson lists this mosque's original direction as unknown.

Qasr Hallabat and Mosque, 827 CE / 212 AH

Desert Castle, Jordan

GPS: 32.092925, 36.327991

Umayyad caliph Hisham ibn Abdul Malik ordered the demolishing of a Roman fortress in the 8th century CE to be replaced by a new, grand palace. It is unclear if this happened. A mosque was built, but the Roman fortress seems intact. An inscription dates some construction to 1134 CE. The main fortress does not seem to have a qibla, probably due to its Roman origins. The mosque on the right faces Mecca.



Moulay Idriss II Tomb and Mosque, 828 CE / 213 AH

Fez, Morocco

GPS: 34.064870, -4.974803

This shrine/religious complex contains the tomb of Idris II (or Moulay Idris), who ruled Morocco from 807 to 828 CE. He is considered the main founder of the city of Fes and the first Moroccan Islamic state. The complex also contains a mosque with a Parallel orientation.

Rahba Mosque, 830 CE / 215 AH

Rahba, Syria

GPS: 35.00676, 40.424521

Marie-Odile Rousset, who excavated here, named her report *La mosquée de Rahba*. This site was known as Rehobath on the River in ancient times. The main attraction is the castle. After the excavation, the mosque was filled with sand, but one can still see that it faces a Parallel qibla.

Merida Fort Mosque, 835 CE / 220 AH

Merida, Spain

GPS: 38.914912, -6.346902

This fortress was built by Umayyad Emir Abd Rahman II in 835 CE as a headquarters for the Umayyad administrative offices and as a residence for the local governor. It was also a staging point for sending raids into the Christian kingdoms of the North. The mosque has a Parallel qibla.

Grand Mosque of Kairouan, 836 CE / 221 AH

Kairouan, Tunisia

GPS: 35.681711, 10.103819

The Great Mosque of Kairouan is also known as the Uqba ibn Nafi' Mosque. As it stands today, this mosque was built by the Aghlabid governor of Kairouan, Ziyadat Allah, between 817 and 838 CE. He erected the building on the site of an older mosque, originally constructed by 'Uqba ibn Nafi in 670 CE, during the Arab conquest of North Africa. Although the current mosque retains virtually no trace of the original 7th century building, it is still often referred to as "Mosque of Sidi 'Uqba," or "Mosque of 'Uqba Ibn Nafi." Gibson classified this mosque as Parallel.

Great Mosque of Samarra, 847 CE / 232 AH

Samarra, Iraq

GPS: 34.205926, 43.879850

Caliph al-Mutawakkil commissioned the construction of the Great Mosque of Samarra in the mid-9th century. While the outer wall still stands, little remains of the interior today. This sizable rectangular structure measured approximately 38,000 square meters and was encompassed by an outer baked brick wall supported by a total of forty-four semi-circular towers. In its time, it was the world's largest mosque. This mosque faces Mecca, as do the other Abbāsid mosques from this time onward.



Mezquita de Cordoba, 848 CE / 233 AH

Cordoba, Spain

GPS: 37.879064, -4.781285

An inscription was found here dating to 855 CE, indicating the presence of a mosque. Former research puts the construction date at 848 CE. It was a single hall with a qibla wall and a miḥrāb. Direction unknown.

Great Mosque of Susa, 850 CE / 236 AH

Susa, Tunisia

GPS: 35.826878, 10.639742

The Great Mosque of Susa, Tunisia is close to the Ribat Fortress. It has a parallel qibla.

Sabz Pushan Mosque, 850 CE / 236 AH

Eshaqabad, Iran

GPS: 36.033030, 58.999801

A square miḥrāb was found in Room 3C1 during an archaeological excavation. It was dated to 850 CE but the qibla direction was not recorded, so it remains unknown.

Surt Old Mosque, 850 CE / 236 AH

Surt, Lybia

GPS: 31.207693, 16.588718

Excavations were carried out under the direction of Geza Fehervari between 1977 and 1981. The mosque has a parallel facing qibla.

Great Mosque of Sfax, 850 CE / 236 AH

Sfax, Tunisia

GPS: 34.735887, 10.760843

This mosque dates to the construction of the city wall in 850 CE. It was specifically commissioned by Imam Sahnoun, a Maliki jurist from Kairouan. The mosque is in the center of the ancient city surrounded by the most important production centers and markets. It faces a Parallel qibla.

Ba-Yazid Mosque, 856 CE / 242 AH

Bastam, Iran

GPS: 36.791600, 46.017300

A square miḥrāb was found at this site, qibla direction unknown.

Abu Dulaf Mosque, 859 CE / 245 AH

Samarra, Iraq

GPS: 34.360868, 43.801440

Al-Mutawakkil relocated the Abbāsid caliphate temporarily from Samarra to a new settlement that he named Ja'fariya (al-Mutawakkil). The Mosque of Abu Dulaf became the new main congregational mosque. It faces slightly east of Mecca. This mosque had a miḥrāb and a square minaret.

University of al-Qarawiyyin Mosque, 859 CE / 145 AH

Fez, Morocco

GPS: 34.064910, -4.973497

This is one of the oldest universities and is among the largest mosques in Africa. The mosque is surrounded by madrasas. Gerbert of Auvergne (930-1003 CE), who would become Pope Sylvester II, was once a student at al-Qarawiyyin. The mosque has a Parallel qibla.

Mosque of the Three Doors, 866 CE / 252 AH

Kairoun, Tunisia

GPS: 35.678909, 10.103867

Previously known as the Mosque of Ibn Khayrun, it was colloquially named after the three portals on its west side. The structure underwent a major renovation sponsored by the Hafids during the 15th century CE. Like other North African mosques, this mosque has a Parallel Qibla.

Shibam Aqyan, 871 CE / 257 AH

Shibam, Yemen

GPS: 15.509424, 43.902729

This 12th century mosque is built on the site of one of the oldest mosques in Yemen. Before Islam, this was the site of a Himyarite temple. The older, original mosque used much of its material from pre-Islamic structures. Although Gibson believes this is a Petra facing mosque, the Qibla Tool classifies it as Jerusalem since that designation is a couple of degrees closer.



Ibn Tulun Mosque, 876 CE / 263 AH

Cairo, Egypt

GPS: 30.028684, 31.249500

Ahmad ibn Tulun refused to pay the Abbāsids taxes and established himself as an independent ruler. His family ruled in Egypt for 135 years, until 905 CE. Ibn Tulun founded a new royal city on an outcrop of rock called Jabal Yashkur. As all Abbāsīd mosques of this era, this mosque faces towards Mecca.

Badajoz Mosque, 880 CE / 267 AH

Badajoz, Spain

GPS: 38.883681, -6.969402

Excavations were conducted by Fernando Valdés Fernández. This was a private mosque constructed between 880 and 890 CE. In the 13th century the mosque was converted into Mary's Cathedral. Only part of the structure is still standing, but the mosque had a Parallel qibla.

Dehistan Mosque, 660-899 CE / 184–286 AH

Dehistan, Turkmenistan

GPS: 38.266425, 54.621741

Dehistan/Mishrian was the principal city of Western Turkmenistan from the 9th to the 14th centuries. Located on a major caravan route from Gurgan in northern Iran to Khorezm, its finest buildings were constructed by the Khorezmshahs. Major surviving monuments include parts of a minaret built by Abu Bini Ziyad in 1004-1005 CE, and another built 200 years later, which formed part of the Parallel facing mosque of Muḥammad Khorezmshah. This still has a superbly decorated portal, 18 meters high. The city was strongly fortified but declined and was abandoned in the 15th century.

Kyz Bibi Mausoleum, 800-899 CE / 184-286 AH

Merv, Turkmenistan

GPS: 37.659169, 62.153191

This is the mausoleum of a woman called Mastura-Khanym, also known as Kyz-Bibi. According to a legend, the locals wanted to marry her against her will, but she hid in the desert to avoid such a sad

future and stayed there as a hermit. Later she discovered a gift for healing and helped infertile women. This mausoleum faces Petra.



Merv Great KyzKala, 800-899 CE / 184-286 AH

Merv, Turkmenistan

GPS: 37.655118, 62.152562

This structure faces Mecca.

Merv Little KyzKala, 800-899 CE / 184-286 AH

Merv, Turkmenistan

GPS: 37.653499, 62.152756

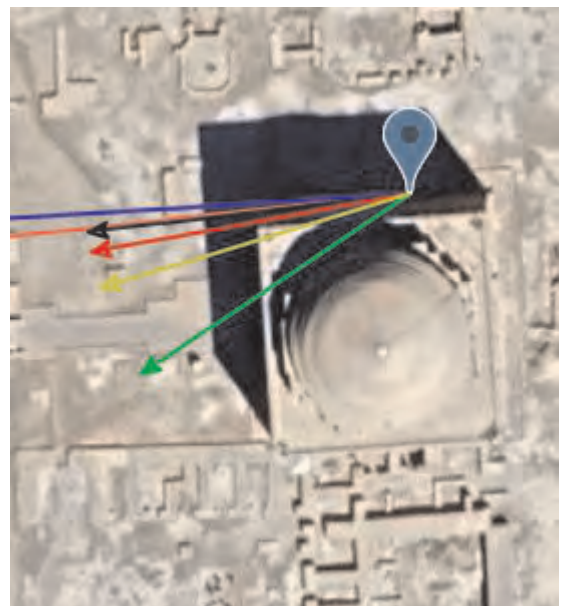
This structure faces the Between qibla.

Sultan Sanjar Mosque, 850-899 CE / 236-286 AH

Merv, Turkmenistan

GPS: 37.664399, 62.163723

A new city was established beside Gyaour Hala in the mid-8th century, known at that time as Marv al-Shāhijān. It survived until it was sacked by the Mongols in 1221 CE. The congregational mosque was near the center of the city, and beside it was the Sultan Sanjar Mausoleum. Today the mausoleum is the most striking structure, and the surrounding mosque and city center complex is mostly covered over with the sand. No mihrāb has been discovered in the mosque but the western wall faces Jerusalem. Some have suggested that the mosque is oriented in a north-south direction.



Um Qussa 1 Mosque, 800-899 CE / 184-286 AH

Beidha, Jordan

GPS: 30.374861, 35.454722

This rectangular mosque has a mihrāb in the center of the south wall, in axis to the door in north wall. It has a Mecca facing qibla.

Nimes Graveyard, 800-899 CE / 184–286 AH

Nimes, France

GPS: 43.833353, 4.351409

Street excavation in the city of Nimes, France in 2016 uncovered an early Islamic graveyard from the 8th century. Among the bodies, three males were placed on their right side and facing southeast. Working from the archeologist's drawings, Gibson determined that the bodies faced an average orientation of 148.22 degrees, which is close to other Parallel qiblas.

Khirbet Burz, 800-899 CE / 184–286 AH

Sama Rusan, Jordan

GPS: 32.623889, 35.799861

This is an openair mosque alongside a church. The mihrāb protrudes on the south wall but appears to have been added later. Perhaps the builders assumed the church faced east, and so they set their qibla on the south side. This resulted in a qibla of 156 degrees, while a true qibla to Mecca would have been 161.29 degrees.

Zaragoza Mosque, 800–899 CE / 184–286 AH

Zaragoza, Spain

GPS: 41.654499, -0.875786

There is now a church built over the Zarazoga mosque. However, the orientation of the church is the same as the original mosque which would have faced southeast, at 144 degrees, one of the popular Parallel qibla directions.

Bab al-Mardum Mosque, 800-899 CE / 184–286 AH

Toledo, Spain

GPS: 39.856273, -4.026072

Originally there was a mosque on this site. An inscription was found of a later structure dated to 1041 CE. The qibla direction is unknown.

El Naranjal de Almagro, 800-899 CE / 184-286 AH

Cordoba, Spain

GPS: 37.875339, -4.793393

This ruined mosque has been dated by historical texts, inscriptions, datable objects, C14, stratigraphy, construction techniques, and pottery to around 801-899 CE. The mosque was 16x9.5 meters with a horseshoe shaped mihrāb. The qibla is unknown.

Volubilis Mosque, 800–899 CE / 184–286 AH

Volubilis, Morocco

GPS: 34.072221, -5.555805

The name of Volubilis is known both from the ancient texts and from the epigraphy of the town. It probably derives from the Berber word ‘Oualili,’ the name of the Oleander plant. In Arab sources, and on early Arab coinage from the site, the name was changed back to ‘Walila.’ From the 19th century onward, the ruins were known as ‘Ksar Faraoun,’ or the castle of the Pharaohs. A possible mosque has been found, but since no mihrāb was evident, the qibla remains unknown.

Afrasiab Phase 2 Mosque, 800-850 CE / 184–236 AH

Samarkand, Uzbekistan

GPS: 39.669483, 66.990691

This mosque is dated to the early 9th century, qibla unknown.

Arja Copper Mine Mosque, 800–899 CE / 184–286 AH

Arja, Oman

GPS: 24.377190, 56.450441

A semicircular mihrāb was found at the copper mines near Sohar, Oman. It was dated through objects, C14, stratigraphy, construction techniques, and pottery to the 9th to 11th centuries. The mosque was about 4x5.6 meters. The qibla direction is unknown.

Basra Great Mosque, 800–899 CE / 184–286 AH

Basra, Iraq

GPS: 30.505133, 47.814902

There is very little left of this mosque, but there is evidence that it was made of stone with a minaret. From the ground-plan it seems that this mosque faced the Between qibla.

Khirbat Abu Suwwana, 800-899 CE / 184–286 AH

Ma’ale Adumim, Palestine

GPS: 31.766268, 35.300383

This is the site of an old Arab village which has been built over by modern housing. A mihrāb was found at this site, direction unknown.

Eshtemo’a, 800-899 CE / 184–286 AH

As-Samu, Palestine

GPS: 31.401072, 35.067306

A semicircular mihrāb was found in the old synagogue of Esthemoa, qibla direction unknown.

Jarash Mosque, 800-899 CE / 184–286 AH

Jarash, Saudi Arabia

GPS: 18.202619, 42.824009

This mosque is in Jerash, Saudi Arabia (not Jordan). It was dated through soapstone vessels on the surface of the site. From this site, the qibla is close to either Jerusalem or Petra. Gibson classified it as a Petra qibla.

Sderot Old Mosque, 800-899 CE / 184–286 AH

Sderot, Israel

GPS: 31.534786, 31.534786

An old mosque with a semicircular mihrāb was uncovered at this location. The angle to Petra, Mecca, and the Between qiblas are all very close. It is impossible to determine which qibla was intended, so it was classified unknown.

Magokki Attor, 800-899 CE / 184–286 AH

Bukhara, Uzbekistan

GPS: 39.773227, 64.418328

Because of its orientation, Pander (2004) speculated that this mosque was built in the 9th century. It was also the location of the first synagogue in Bukhara. Regardless of its origin, it faces Petra.

Asnaq Friday Mosque, 800-899 / 184–286 AH

Asnaq, Iran

GPS: 38.061951, 47.189280

This village mosque is oriented toward Mecca. Locals claim that it is very old, but it has never been dated.

Masjid i Jami' Fahraj, 800-899 CE / 184–286 AH

Fahraj, Iran

GPS: 31.764283, 54.581417

This congregational mosque is significant as one of the oldest extant mosques in Iran, representing an important evolutionary stage in mosque construction from post and lintel systems to wooden roofs on arcades. It is poorly oriented as its qibla faces 22 degrees southeast of Mecca.

Nine Domed Mosque, 800-899 CE / 184–286 AH

Balkh Province, Afghanistan

GPS: 36.730042, 66.885285

Also known as No-Gumbad Mosque, referring to the nine domes or vaults which covered the original structure. This Mecca facing mosque is aligned with a qibla on the northeast-southwest axis and measures 20 meters per side on the exterior. Inside, the prayer hall is divided into nine bays—three rows and three aisles—with triple archways. A saint known as Hadji Piyade is buried in the small domed tomb standing immediately before the mosque entrance, giving it the alternative name “Masjid-i Hadji Piyade.”

Siraf Congregational Mosque, 800-899 CE / 184–286 AH

Siraf, Iran

GPS: 27.667298, 52.335089

This port city mosque faces Mecca in Saudi Arabia. Two other mosques in the city (found at Site F and Site M2) do not have enough information to classify a qibla direction.



Al-Balid Mosque, 800-899 CE / 184–286 AH

Salalah, Oman

GPS: 17.005985, 54.130585

Al-Balid, the ancient Zafar, was a prosperous port and trading center. Arab travelers, including Ibn Mujawir (1232 CE) and Ibn Battuta (1329 and 1363 CE) visited the city and described its people and economy. Shifting economic, ecological, and political conditions along the North Indian Ocean led to its slow decline by the mid-16th century. The old Congregational Mosque in Al-Balid faced just south of Mecca.

Djerba small mosque, 800-899 CE / 184–286 AH

Houmt Souk, Djerba, Tunisia

GPS: 33.874462, 10.866349

Hidden behind the larger modern mosque, this old mosque faces a Parallel qibla. The modern mosque faces Mecca. Note the early graves around the mosque.

Kashan Jamia, 800-899 CE / 184–286 AH

Kashan, Iran

GPS: 33.983487, 51.443178

Some etymologists argue that the name of the city of Kashan comes from the Kasians, the original inhabitants of the city, whose remains date back some 9,000 years. Later the name was changed to “Kashian.” There are many notable mosques in the center of Kashan. The Kashan Mosque is the least

notable, but what makes it important to this survey is that its qibla seems to face the Between position. This orientation is different from the other mosques in Kashan. Its origin could be attributed to an earlier mosque on the site.

Soltani Madrasa, 800-899 CE / 184–286 AH

Kashan, Iran

GPS: 33.982860, 51.447866

Madrasa Sultani and mosque complex located in the heart of Kashan. This mosque is also known as the Shah Mosque. The orientation of this mosque may have been copied from other mosques, or else it could have originated with an earlier mosque on the site as it faces close to a Petra qibla.



Agha Bozorg, 800-899 CE / 184–286 AH

Kashan, Iran

GPS: 33.978204, 51.445279

This mosque orientation is similar to the previous mosque. It faces very close to a Petra qibla. Perhaps an earlier mosque stood on this site.

Sorkhe Mosque, 800-899 CE / 184–286 AH

Sorkhe, Iran

GPS: 35.464113, 53.213335

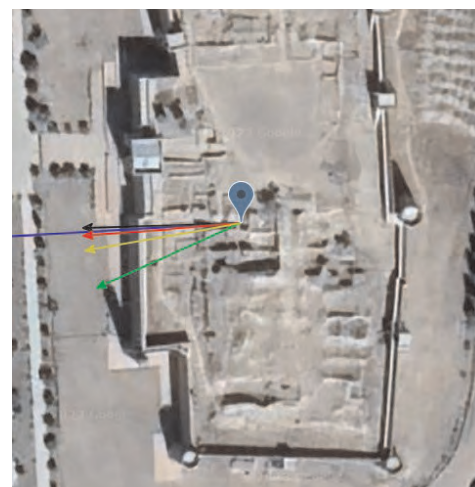
Information on this mosque is based on local memories. The mosque has since been removed but some details were noted by architectural, history, and art students. The Between qibla is calculated from the south wall. Locals say that this mosque had two qiblas in the same mosque.

Hulbuk Fortress Mosque, 800-899 CE / 184–286 AH

Hulbuk, Tajikistan

GPS: 37.777524, 69.556695

There are remains of a large mosque in this castle. The castle walls have been restored, but the inside is still in ruins. The mosque faced Petra. (Photo right)



Al-Mabiyyat, 800-899 CE / 184–286 AH

Al-Mabiyyat, Saudi Arabia

GPS: 26.503742, 38.053196

Dated according to writings and luster-ware sherds, Chinese ceramics, and soapstone vessels, it existed from 750 CE into the 11th century. There is a qibla wall with a miḥrāb facing a Between qibla direction.

Al Rabadha Mosque, 800-899 CE / 184–286 AH

Al Rabadha, Saudi Arabia

GPS: 24.631142, 41.290238

Earlier mosques in this city have already been addressed. This mosque is about 9 x 12 meters. Gibson classified it as Between.

Asham, 800-899 CE / 184–286 AH

Asham, Saudi Arabia

GPS: 19.610885, 41.211123

This mosque is dated from gravestone inscriptions 853 CE onward, plus pottery from the 6th-12th centuries, and a foundation inscription for a renovation from 1023 CE. A miḥrāb was found, and a foundation for a minaret. Gibson classifies it as a Between qibla.

Askhab Mausoleum, 800–899 CE / 184–286 AH

Merv, Turkmenistan

GPS: 37.653419, 62.171424

This mausoleum faces Petra.

Biroon Mosque, 800-899 CE / 184–286 AH

Abarkuh, Iran

GPS: 31.124929, 53.295318

Information for this mosque was taken from a blueprint of the old mosque, before it was torn down and replaced with the current structure. Apparently, it dated back to Abbāsīd times while the Abarkum Congregational Mosque in the center of town dates only back to the Timurid era. The Congregational Mosque faced the Between qibla, and apparently the local Biroon mosque did the same.

Wasit Upper Mosque, 912 CE / 300 AH

Wasit, Iraq

GPS: 32.190400, 46.303899

The early mosque at this location was commissioned by Ḥajjāj ibn Yūsuf, with the very first Between qibla. The later mosque in Wasit was built around 912 CE, this time with a qibla facing Mecca.

Great Mosque of Mahdia, 916 CE / 305 AH

Mahdia, Algeria

GPS: 35.503972, 11.071964

Jami' al-Kabir, the Great Mosque of Mahdia has gone through multiple incarnations. Originally built in 916 CE by Obayd Allah El-Medhi, who led a military campaign from Egypt, its qibla wall collapsed into the sea in the 11th century and was reconstructed. The mosque was almost destroyed in 1554 CE, along with the ramparts on which it was built. Early in the 18th century Youssef Sahib ordered the mosque to be rebuilt with a new prayer hall, a free-standing minaret in the Moorish-Andalusian style (which never existed in the original mosque), and two courtyards flanking the main structure. A narrow courtyard was also added in front of the entrance elevation facing the city. Between 1961-1965, a major restoration project led by A. Lezine removed the 18th century additions and rebuilt the mosque according to excavations of the original Fatimid mosque. Only the parts of the elevation facing the city with the entrance portal belong to the original mosque. This mosque has a Parallel qibla.

Ajdabiya Fatimid Palace, 922 CE / 310 AH

Ajdabiya, Libya

GPS: 30.757695, 20.220012

Dated according to historical texts, mosque parallels, inscriptions, datable objects, a copper coin, and inscriptions from 922-932 CE. This Fatimid palace has no identifiable mosque or qibla direction. Classified as Unknown.

Medjez el Bab, 944 CE / 333 AH

Beja, Tunisia

GPS: 36.725183, 9.182850

Béja is a city in Tunisia located 105 km from Tunis, between the Medjerdah River and the Mediterranean, with imposing ruins of an old Roman fortress. The oldest mosque in the town is the Great Mosque of Béja which was built in 944 by the Fatimidis. Near a Christian basilica is another mosque, the Bey's Mosque, which was built in 1675 by Murad II Bey for Hanafi Muslims of the city. In 1685 Mohamed Bey El Mouradi added a Madrasa to the mosque. It has a Parallel qibla.

Al-Naqah Mosque, 973 CE / 362 AH

Tripoli, Libya

GPS: 32.895391, 13.178872

The 'Camel Mosque' in the old quarter of Tripoli has many legends about the origin of the name. This hypostyle mosque has a sanctuary covered with 42 small domes rising over 36 columns. There used to be a double colonnade on each side and a qibla on the southeast side, but this was destroyed in World War II. A square (5.6 m) crenellated minaret rises along the northeast wall of the sanctuary. This mosque has a Parallel qibla.

Janad Later Mosque, 1011 CE / 392 AH

Janad, Yemen

GPS: 13.668710, 44.166391

According to Mu'adh bin Jabal, one of the Companions of the Prophet, a small mosque was built in 6 AH in Janad, which is close to Ta'iz in Yemen. However, nothing remains from that time. The latest mosque has a poorly set qibla that faces too far west. The qibla of this mosque faces closer to Mecca than any of the other qibla directions, so Gibson has classified it as a Meccan qibla.

Salé Mosque, 1038 CE / 419 AH

Sale, Morocco

GPS: 34.040336, -6.827343

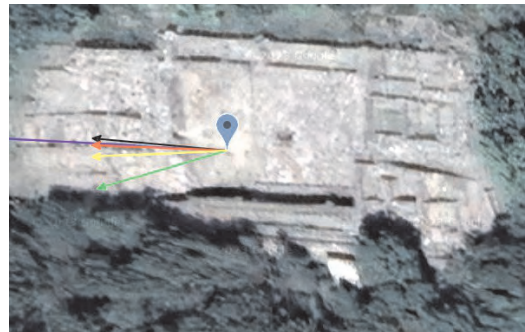
The Great Mosque of Salé was built under the orders of Temim ibn Ziri from 1028 to 1029 CE and was restored and enlarged in 1196 CE under Abu Yusuf Yaqub al-Mansur's orders. This renovation made it the third largest mosque in Morocco, after the Hassan II Mosque in Casablanca (largest) and the mosque of the University of al-Qarawiyyin. It has been destroyed and rebuilt many times since that date. This mosque has a Parallel qibla.

Odigram Mosque, 1048 CE / 440 AH

Raja Gira, Pakistan

GPS: 34.743141, 72.314213

In 1984 an inscription in Arabic engraved on black marble was found by chance on the slopes of the hill below the castle of Raja Gira in Pakistan. The inscription attests to the foundation of a mosque in 1048–1049 CE, ordered by Amir Nustagin, a Ghaznavid general who is known to history only through this inscription. Excavations brought to light a hypostyle mosque with supports originally in wood. The mihrāb was square and the qibla faces Petra.



Nitl Mosque, 1100 CE / 494 AH

Nitl, Jordan

GPS: 31.652248, 35.861363

This long rectangular mosque, with small courtyard in the north, used pre-existing walls and was directly adjacent to the south pareklesion of the Ghassanid church of Saint Sergius. It was accessible from the northeast corner of the courtyard by four steps. The prayer hall was accessible by a well-preserved door in the north wall facing the mihrāb in the south wall. Ajlouni (1992) dated the shape of the mihrāb to the Umayyad period. It faces a Between qibla.

Hamdani Mausoleum, 1140 CE / 535 AH

Merv, Turkmenistan

GPS: 37.679308, 62.170424

This mausoleum faces close to either Petra or Jerusalem. It is too close to tell which one. The nearby mosque predates the Mausoleum of Yusef Hamadan, who is buried close to it.



Udayas Graveyard, 1150 CE / 544 AH

Udayas, Morocco

GPS: 34.029870, -6.841498

It is always difficult to measure graves as there are variations from one to another. These graves have a qibla that averages about 143 degrees, which is a Parallel qibla.

Kasbah Citadel Mosque, 1151 CE / 544 AH

Udayas, Morocco

GPS: 34.032106, -6.836129

A modern marble plaque on the facade indicates this mosque was built by Al-Moumen bin Ali in 544 AH. It also states that the mihrāb was oriented in keeping with the Almohad theory that interpreted a hadith as saying there is another qibla between the Mashriq and the Maghreb. The mosque faces to the south and was classified as a Parallel qibla.

Taza Great Mosque, 1142 CE / 536 AH

Taza, Morocco

GPS: 34.212503, -4.018969

The Great Mosque of Taza was founded by the Almohads in 1142 CE to mark their presence in the strategically important region between the Rif and Middle Atlas mountains. Taza was later taken by the Marinids, who immediately made major additions and reconstructions to the Great Mosque. It has a Parallel qibla.

Meknes Grand Mosque, 1150 CE / 552 AH

Meknes, Morocco

GPS: 33.894839, -5.564855

Like many grand mosques in other Moroccan cities, this mosque is located at the center of the old city and anchors its important commercial and religious district, which contains the city's main souq and its major historic madrasas, all located near the mosque. This mosque has a Parallel qibla like others in North Africa and Spain.

Koutoubia Mosque, 1184 CE / 580 AH

Marrakech, Morocco

GPS: 31.623757, -7.993366

There are two very similar mosques built on the same site. Abd-al-Mu'min built the first mosque on the site of Ali bin Yusuf's former palace (north). The second mosque (south) was only fully completed during the reign of Abd-al-Mu'min's grandson Abu Yusuf Ya'qub al-Mansur in 1190 CE / 585 AH. Dan Gibson classified both mosques as Parallel.

Kasbah Mosque, 1184 CE / 580 AH

Marrakech, Morocco

GPS: 31.617706, -7.988705

The Kasbah Mosque (also known as the Mansouria Mosque or Mosque of Moulay al-Yazid) was built by the Almohad caliph Yaqub al-Mansour in 1185-1190 CE as part of the newly created imperial citadel district which was to be the residence of the caliph and the seat of government. Today, the mosque is still in use for prayer and non-Muslims are not permitted to enter inside. Dan Gibson classified this mosque as having a Parallel orientation.

Hassan Tower Mosque, 1195 CE / 590 AH

Rabat, Morocco

GPS: 34.023814, -6.822614

The Hasan Mosque was commissioned by Ya'qub al-Mansur to serve as the principal congregational mosque of the Almohad empire when he celebrated a major victory over the Christian forces in Spain. The mosque was to be one of the new city's monuments to his victory, and it would have been the largest Umayyad mosque in the world if fully constructed. Later the project was abandoned in favor of the more developed neighboring city of Salé. The mosque was never completed and remains in a partially constructed state to this day. This mosque had a Parallel qibla.

Grand Mosque of Tangier, 1196 CE / 592 AH

Tangier, Morocco

GPS: 35.785840, -5.809504

The Great Mosque of Tangier is a 19th century construction that stands in what was once the center of Tangier. After the Muslim conquest of Tangier in the 8th century, a church was converted to a mosque by the Marinid Dynasty and remained so until the late 15th century. Sultan Sulayman completely rebuilt the mosque in 1815 due to its poor physical condition, creating the building that stands in Tangier today. It has a Parallel qibla.

Sultan Yacoub Tomb and Mosque, 1199 CE / 595 AH

Sultan Yacoub, Lebanon

Tomb GPS: 33.644314, 35.859829

Mosque GPS: 33.644400, 35.859984

The complete story of this tomb and mosque can be found at: https://nabataea.net/explore/cities_and_sites/sultan-yaqub-tomb/. In short, Sultan Ya‘qūb, nicknamed Al-Mansouri, was more of a pious historian than the Sultan of Morocco. The story goes that he visited Islamic places in the Levant, where he lived until his death. His mosque and tomb both were built facing Petra, even though 600 years had passed since the time of the prophet Muḥammad.

Mansouri Great Mosque, 1294 CE / 693 AH

Tripoli, Lebanon

GPS: 34.434520, 35.842500

According to an inscription in the mosque, the Mansouri Mosque was named after the Mamluk sultan who conquered Tripoli from the Crusaders in 1289 CE. Located on the site of what was once a Crusader suburb at the foot of the Citadel of Tripoli, this mosque is often mistaken for a remodeled Christian church. Two elements, the door and possibly the minaret, belong to an earlier structure, possibly a Christian church and perhaps an earlier mosque. It is possible that the original mosque on this location was an Umayyad plan, then converted into a church, and later converted back into a mosque by the Mamluks. Outside of the mosques main entrance are two ancient granite columns, just above waist high, embedded in the pavement, with no indication of what previous building they came from. The prayer hall covers the entire qibla side of the building. The qibla wall has three mihrābs--a main, central one with a rosette above it, and one on either side. What is particularly striking with this mosque is the qibla direction, facing 182 degrees, towards the city of Petra, even at this late date.



Herat Great Mosque, 1200 CE / 596 AH

Harat, Afghanistan

GPS: 34.344932, 62.193025

The mosque foundation was laid in 1200 CE. What makes this mosque unique is that its qibla seems to face Jerusalem or possibly Petra. The mosque was built on the site of two smaller Zoroastrian fire temples that were destroyed by earthquake and fire. The dates are confirmed both by an inscription on the eastern Ghurid portal uncovered in 1964 during a restoration, and by the 16th century Timurid historian Khwandamir in his *Khulasat al-Akhbar*. No one knows why this mosque qibla was set close to Petra or Jerusalem.

White Mosque, 1318 CE / 718 AH

Ramla, Israel

GPS: 31.927568, 34.865970

The White Mosque is an Umayyad mosque, but only the original minaret is still standing. According to local tradition, the northwest section of the mosque contains the shrine of Nabi Salih. Today only

the minaret survives, but it is possible to work out the foundation of the mosque and measure the qibla direction. It faces too far west to be classified as a Petra or Between qibla, so Gibson classified it as Unknown.

Friday Mosque, 1337 CE / 737 AH

Abarquh, Iran

GPS: 31.130353, 53.285296

This Congregational Mosque dates to the Timurid era. Because this building has a Between qibla, there may have been an earlier mosque on this site. Apparently the Biroon local mosque also used to face the same direction, but it has been replaced by a modern building.

Guangzhou Mosque, 1350 CE / 751 AH

Guangzhou, China

GPS: 23.125902, 113.253737

It is thought to be the earliest surviving mosque in China and has a freestanding minaret. Chinese manuscripts from 1206 CE claim that the mosque was originally built by an uncle of the prophet, Abu Waqqas, on the first Muslim mission to China in the 630s. The mosque was rebuilt in 1350 CE and again in 1695 after a fire. In his early research, Dan Gibson classified this mosque as a Petra mosque, but once he discovered the Between qiblas, he reclassified it as Between.

Ghaen Jamia, 1393 CE / 796 AH

Ghaen, Iran

GPS: 33.725782, 59.193121

The original mosque on this site was constructed in 1393 CE. The qibla of that mosque is unknown and Gibson has classified it as Unknown. However, the mosque was rebuilt in 1675 CE by Safkosh, during the period of Shah Soleiman Safavid. This mosque faces a Between qibla.

Mianchal Mosque, 1500 CE / 900 AH

Kashan, Iran

GPS: 33.985076, 51.448252

The Mianchal Mosque is part of the historic old bazaar of Kashan. It has been remodeled and revised over the years but still maintained a Between qibla all the while. This qibla which must have originated from the first mosque on this site. The Mianchal School was built in the Safavis era. There is an entrance from the suq. Originally the mosque stood alone near an open-air market. Eventually the market became a bazaar and later it was combined with other bazaars to create a very large bazaar which incorporated the mosque and madrasa within it. It is important because in 1500 CE it was rebuilt still using the Between qibla.

Appendix 3

Testing David King's Qibla Theory Statistically

Walter Schumm, Zvi Goldstein

Background

As has been discussed throughout this book and elsewhere (Schumm, 2020; Schumm and Goldstein, 2021), Professor David A. King has taken exception to Dan Gibson's qibla theory. Just as we think that Gibson's theory deserves evaluation, so we think that King's theory deserves an evaluation. If the two theories are compared in terms of parsimony, we think that Gibson's theory is far better. Gibson has five qiblas – primarily four – Petra, Mecca, Between, and Parallel (Jerusalem being the fifth, though seldom used) and one theme – that the ancient Muslims aimed their qiblas geographically. King's theory argues that they did not aim their qiblas geographically but rather in at least ten directions, based on north, south, east, west, solstices, and angles of the Ka'ba (i.e., 0, 65, 90, 115, 155, 180, 245, 270, 295, and 335 degrees). Since a circle has 360 degrees, Gibson might be right by chance (if errors of plus or minus five degrees are allowed) up to 14% ($50/360 = 13.89\%$) of the time. On the other hand, King might be right by chance up to 29% ($100/360 = 27.78\%$) of the time. Everything else equal, King's theory should prevail over Gibson's just by random chance. Our general hypothesis was that Gibson's theory would predict qiblas with more accuracy, more often than King's theory.

Methods

Previously in chapter three we have examined Gibson's theory, using azimuth errors of plus or minus certain degrees. Here we shifted to absolute values of azimuth errors because King's theory was not clear on what would make an error plus or minus. If the mosque's azimuth was 268 degrees and that was two degrees close to King's 270 degrees, should it be deemed minus two degrees or plus two degrees? Since that wasn't clear, we used absolute values of all errors, for both theories. First, we used descriptive results, based on the per-

centage of times King's theory was better, the same, or worse than Gibson's theory, for all 88 Petran and Meccan mosques/sites and for the Petran and Meccan mosques/sites by themselves. Second, we compared the absolute difference errors for King's theory versus Gibson's theory, obtaining t-values, two-tailed significance levels, and effect sizes. For all of the paired samples t-tests, the correlations across both sets of errors were positive, as assumed for paired samples t-tests. Third, we calculated correlations between the average dates of the sites with the relative accuracy of King's versus Gibson's theories. On 29 April 2020, the Committee on Research Involving Human Subjects, the Institutional Review Board (IRB) at Kansas State University, determined that research proposal 10141 "Assessing Early Islamic Qiblas" was a non-research application and did not meet the criteria in 45 CFR 46 for the definition of research involving human subjects, and therefore did not require further review by the committee.

Results

Descriptive Statistics. Of the ten azimuths proposed by King, only eight were close to accurate for the 88 mosques/sites (65 and 115 were not close to any sites' qiblas). The azimuths of 0, 90, 245, 295, and 335 were associated with less than ten percent of the 88 sites, each, with 0, 90, and 295 associated with less than five percent of the qiblas. Three azimuths were represented by over 76% of the 88 sites, with 180 degrees associated with nearly 49% of the 88 sites. A chi-square test with seven degrees of freedom = 116.91 ($p < .001$), indicating that the distribution of King's azimuths was not uniform or equal across the ten angles. Overall, if you guessed "due south" you would be close to correct nearly half of the time for the 88 sites, which probably inflates the success of King's theory.

The relative results in terms of qibla errors for King's theory versus Gibson's theory are presented in Table 1. For all 88 mosques/sites, King's azimuth errors were smaller than Gibson's in 17 (19.32%) cases and tied at zero error for two (2.27%) of other cases. Thus, King's theory led to more accurate or equally accurate results for 21.59% of the qibla sites. Of course, the converse would be that Gibson's theory led to more accurate results for 69 sites or 78.41% of the total sites. The best more accurate case for King's theory was 13.90 degrees better than Gibson's error. However, for 18 of the 88 sites (20.45%), Gibson's accuracy was between 14.20 to 27.19 degrees more accurate than King's. Of the 19 sites for which King's theory tied or beat Gibson's theory, eight (42.1%) of the sites faced due south (180 degrees).

For the 60 Petran sites, King's theory predicted more accurately than Gibson's for 11 of 60 sites (18.33%) and was tied for one site (1.67%), thus, being as or more accurate 20% of the time. However, conversely, Gibson's theory was more accurate for 80% of the sites. The best example of King's theory working better was a 9.10% lower error rate than for Gibson's theory, but 25 of the 60 sites (41.67%), Gibson's errors were between 9.45 and 27.19 degrees more accurate than King's. For the 28 Meccan sites, King's theory predicted more accurately

than Gibson's for six (21.43%) of the sites and there was one tie at zero (3.57%), thus, being as or more accurate for 25% of the sites. Conversely, Gibson's theory was more accurate for 75% of the sites. The best example of King's theory working better was a 13.90 lower error rate than for Gibson's theory, but five of the 28 (17.86%) sites featured a lower error rate for Gibson's theory, being between 15.50 and 22.91 degrees more accurate than King's.

Table 1. Percent of the Time King's versus Gibson's Theories are More or Less Accurate Predicting Qibla Errors

Degrees	All Sites (n = 88)		Petra (n = 60)		Mecca (n = 28)	
	King	Gibson	King	Gibson	King	Gibson
0 (tied)	2.3%		1.7%		3.6%	
1	5.7%	5.7%	6.7%	1.7%	3.6%	14.3%
2	1.1%	5.7%	1.7%	6.7%	0.0%	3.6%
3	1.1%	2.3%	1.7%	1.7%	0.0%	3.6%
5	5.7%	11.4%	3.3%	11.7%	5.0%	10.7%
7	3.4%	10.2%	3.3%	11.7%	3.6%	7.1%
10	1.1%	12.5%	1.7%	11.7%	0.0%	14.3%
12	0.0%	5.7%	0.0%	6.7%	0.0%	3.6%
14	1.1%	4.5%	0.0%	6.7%	3.6%	0.0%
16	0.0%	6.8%	0.0%	8.3%	0.0%	3.6%
20	0.0%	6.8%	0.0%	6.7%	0.0%	7.1%
25	0.0%	3.4%	0.0%	1.7%	0.0%	7.1%
30	0.0%	3.4%	0.0%	5.0%	0.0%	0.0%
35	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

This chart may be read as follows: When the scores are tied, both theories predicted the same azimuth, which occurred for two sites. For the 88 sites, King's theory worked better by 0.01 to 1.00 degrees for one site while Gibson's theory worked better by 0.01 to 1.0 degrees for five sites. King's theory worked better by 1.01 to 2.00 degrees for one site while Gibson's theory worked better by 1.01 degrees for five sites.

Paired Comparisons.

Table 2 presents the results for comparing errors for all 88 sites. Table 3 presents results for comparing 60 Petran sites while Table 4 presents results for the 28 Meccan sites.

Table 2. Comparing Accuracy of King's Theory versus Gibson's Theory for 88 Sites (Petran and Meccan)

Theory	Mean Error	SD	N	t	df	p	d
King	11.04	8.17	88	7.65	87	< .001	0.815
Gibson	4.32	3.99	88				

The paired samples t-tests used two-sided tests of significance; Cohen's d was used to measure effect sizes; the Hedges' corrections was 0.808. Using nonparametric tests, the comparison for the theories was also significant by a related-samples Wilcoxon signed rank test (comparing medians, $p < .001$) and a related-samples Friedman's two-way analysis of variance by ranks (comparing distributions, $p < .001$).

Table 3. Comparing Accuracy of King's Theory versus Gibson's Theory for 60 Petran Sites

Theory	Mean Error	SD	N	t	df	p	d
King	11.24	7.80	88	7.65	87	< .001	0.937
Gibson	3.69	3.22	88				

The paired samples t-tests used two-sided tests of significance; Cohen's d was used to measure effect sizes; the Hedges' corrections was 0.925. Using nonparametric tests, the comparison for the theories was also significant by a related-samples Wilcoxon signed rank test (comparing medians, $p < .001$) and a related-samples Friedman's two-way analysis of variance by ranks (comparing distributions, $p < .001$).

Table 4. Comparing Accuracy of King's Theory versus Gibson's Theory for 28 Meccan Sites

Theory	Mean Error	SD	N	t	df	p	d
King	10.60	9.03	88	3.08	87	.005	0.581
Gibson	5.68	5.07	88				

The paired samples t-tests used two-sided tests of significance; Cohen's d was used to measure effect sizes; the Hedges' corrections was 0.565. Using nonparametric tests, the comparison for the theories was also significant by a related-samples Wilcoxon signed rank test (comparing medians, $p = .004$) and a related-samples Friedman's two-way analysis of variance by ranks (comparing distributions, $p = .004$).

Correlations with Average Dates of Construction.

For all 88 sites, the Pearson zero-order correlation was -0.131 ($p = .223$, two-tailed); for the Petran sites, $r = -.243$ ($p = .061$, two-tailed), while for the Meccan sites, $r = .335$ ($p = .082$, two-tailed).

Limitations

The same limitations apply to the methods and results of this chapter as for chapter three.

Discussion

Our results indicated that Gibson's theory was more likely to generate fewer and less substantial qibla errors than was King's theory, based on both our descriptive results and the paired-samples t-test comparisons. For the 28 Meccan sites, over time, Gibson's theory explained qiblas more accurately, though the results were only significant if one used a one-tailed statistical test. For the Petran sites and the total sites, the reverse seemed correct, that King's theory performed better for later times, a result we have observed elsewhere. One reason that some may support King's theory over Gibson's is that King's theory predicts qiblas as or more accurately than Gibson's theory for some of the sites used in our study and, second, if one's focus of study was on mosques of later construction (i.e., 800s versus 600s CE), his theory works better for those later times. However, Gibson's theory more accurately explains qiblas more often than King's theory and the paired-samples comparisons were all statistically significant ($p < .01$ or better). In short, Gibson's theory works better than King's for the 88 sites considered in our analyses. However, old theories die hard and since the results support King's theory some of the time, adherents to King's theory will probably continue to support it, despite the substantial evidence against it.

Conclusion

As we reported in chapter three, taking the results here and from Schumm and Goldstein (2021) both Gibson and King appear to be partially correct. King is correct that later mosques may have faced Mecca in ways other than geographically, while Gibson is correct that early Islamic mosques/sites did tend to face Petra and did so most often within the first or second centuries of Islam's history, even though some sites faced Petra geographically much later than that. Thus, in a sense, both Gibson and King offer correct explanations for Muslim qiblas, just for different times in early Islamic history. Since Gibson's thesis is the more controversial one, those results may be more significant in terms of revising the history of early Islam. As we noted before (2021, p. 5) and in chapter three, Feras Hamza (2015) reminded us that by the year 711 (C.E.) "the Islamic state had become an empire stretching from Spain to India, heralding the advent of a major world civilization" (p. 537) and we concluded that "discovering that Islam's empire had expanded tremendously while Petra remained its holiest city would be truly a remarkable finding, so remarkable that some may find it unacceptable, no matter the level of statistical/scientific evidence" (p. 5). However, it remains correct that King's theory seems to work some of the time for some of the mosques even better than Gibson's theory, so

his theory should not be dismissed out of hand and may retain considerable merit for explaining qiblas of later, more recently constructed mosques while, at the same time, not providing enough evidence to allow scholars to dismiss Gibson's theory about earlier qiblas. Indeed, Gibson's theory wins out in terms of parsimony as well as the results of our statistical testing. Unless a better explanation comes along other than King's theory, our results strongly confirm Petra as the first holy city of Islam.

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Rate Distortion Theory

In 2022, Peter Harremoës released a paper on *Rate Distortion Theory for Descriptive Statistics*. He explained that Rate Distortion Theory was developed for optimizing lossy compression of data, but it also has applications in statistics. In the paper he demonstrated how rate distortion theory can be used to analyze a complicated data set involving the orientations of early Islamic mosques. This analysis involved testing, identification of outliers, choice of compression rate, calculation of optimal reconstruction points, and assigning "descriptive confidence regions" to the reconstruction points. To do this he analyzed data from the orientation of 160 early mosques compiled by Dan Gibson. Using rate distortion theory Harremoës identified two confidence regions, one directly over the city of Petra, and the other, over the Ruwafa temple in northern Arabia in the area Gibson identified as the 'between qibla.' See: Harremoës, Peter. "Rate Distortion Theory for Descriptive Statistics." *Entropy* 25, no. 3 (2023): 456. doi:10.3390/e25030456

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