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Note: The cover photo depicts a medical lecture at Qasr al-Aini Medical School in Cairo, c. 1830s. Obtained online from <http://www.medicine.cu.edu.eg/beta/en/history/el-aini-triology.html>
Abstract

My thesis is about a modern form of Qur’anic hermeneutics called i’jaz ‘ilmī, which translated from Arabic means “scientific inimitability.” This genre of literature illustrates the ways in which all discoveries of modern science and scientific knowledge are contained within the Qur’an. This fact, in turn, demonstrates that the Qur’an is an inimitable miracle from God.

In my text, I excavate the intellectual history behind this field of exegesis, discussing the fact that it ultimately sprung out of the nineteenth century colonial encounter between Europe and the Global South (discounting South America). In order to fully examine this phenomenon I have drawn upon a number of historical moments, intellectual movements, and mediums, including the medieval Muslim translation movement, the Enlightenment, Colonial British travel photography, and the cholera epidemics of the nineteenth century.

What I present here is a reflection on how to understand the paradoxical mixing of religion and science seen in this discourse, along with a theoretical strategy and a narrative for how to comprehend and contextualize it. These works present a discrete form of scriptural reasoning, which may be best understood through the lens of post-colonial theory. Seeing it in this light, it is clear that this discourse of scientific inimitability problematizes and menaces the normative scientific understanding of the world by questioning the boundaries of truth and forcing reflection in its readers. The genre presents a Qur’anic translation and reclamation of modern science, and is the product of a long historical process of epistemological shifts, impositions, and absorptions between and within different cultures. Overall, my piece is at once a map and a chronology, outlining the history, evolution, and structural relationships that led to this Qur’anic rebellion against a deep rooted intellectual project of colonial domination and control.
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Finally, I would like to thank my friends, roommates, and family, who have been supportive throughout this entire process. And of course Cara, who has heard it all. I love all of you; thank you for your support.
I. Coffee and Conversion

I first came across the body of literature detailing the scientific inimitability of the Qur’an while checking out of a Muslim bookstore in Brooklyn, New York. It was the height of summer, and the air conditioner rattling above my head blended with the din of the traffic outside, pouring a cool wave of relief across the back of my sweating neck. I had received a grant to carry out a summer research project on the contemporary use of Islamic healing practices in New York City, and thus found myself wandering the streets looking for books on the topic. Luckily for me, Atlantic Avenue housed a few of the largest Muslim bookstores in the city, and I was excited to start my research off well and leave with at least four or five new books to pour over on the train ride home. Although the store was initially not that helpful—only one of their books on medicine was in English—what started out as innocuous small talk with the cashier eventually led to a whole new world of questions and study.

He was a middle aged man named Imran, an immigrant from Malaysia and, according to him, a former robotics engineer. “There’s a lot of science in Islam, you know that?” he asked me, “People say that religion can’t have science, but it’s there.” I shook my head no, feeling like a hapless researcher trying to learn anything that might be helpful to his topic: “Tell me about it.” What my simple statement set up was the start of twenty minute long conversation about the presence of modern science in the Qur’an, which proves that it is a miraculous book and miracle of God. As he talked, a number of the employees left their stations stacking books and sweeping to chime in: “It explains tectonic plates!” “The structure of the solar system!” “How babies grow!” Eventually, the manager stepped out of his office having noticed a distinct lack of activity, sending the employees running back to their jobs, and giving me a chance to nurse my hand, which had a cramp from trying to write down all the information that had been thrown at me.
“Give him one of the books on it,” Imran insisted, and within a few seconds a small book was thrust into my hands by another employee. Titled *A Brief Illustrated Guide to Understanding Islam*, the cover depicts one of the most globally recognized symbols of Islam: *al-Masjid al-Haram*, the mosque in Mecca where the large stone Ka‘ba is located and all prayers are directed (Fig 1). It is the holiest site in Islam, and on the cover of the book has an oversized photograph of the planet Earth superimposed above it. Orbiting the photo is an illuminated Qur’an, which leaves a star trail behind it as it flies off the page directly towards the viewer. Imran addressed me, smiling:

“You read it, and come back when I’m not on work. We’ll get coffee so we can talk more about Islam.” I thanked him for the offer, and smiling back, departed.

The book I held as I walked towards the next store was the door to the world of books pertaining to *i‘jaz ‘ilmi*, a modern genre of writing which tries to prove the Qur’an is inimitable using scientific discourse and evidence. The body of work, which focuses on miracles of science (*al-mu‘jizat al-‘ilmiyya*), goes about this task by examining verses from the Qur’an and illustrating the ways they line up with a modern scientific understanding of the world. The topics
the books delve into vary from astrophysics to botany, geology to medicine, and yet each one carries the same message: the Qur’an is a revelation from God, and contains all knowledge for humanity, including modern science. It reminded me a lot of Christian works on intelligent design, such as the articles released by the theory’s main proponent, The Discovery Institute. In many aspects the two genres are analogous; both mix science and religion in new ways, and deal with much of the same materials and theories, albeit from different theological angles. Books in the *i’jaz ‘ilmi* genre are often distributed by Muslims carrying out *da’wa*, the invitation of non-believers to Islam. In my own case, it was clear that the attention of the workers in the store was directed at me for that very reason—there was an obvious, if friendly, pressure from Imran and the other employers that I should give up my own faith and become a Muslim.

Although I never took up his invitations to coffee or conversion, I was nonetheless fascinated with the book he gave me. It is an incredible hybridization of science and religion, two forces often drawn in contrast to one another in Western Liberal/post-Enlightenment thought. The author, I. A. Ibrahim, is earnest and it is clear from the narrative that he finds no cognitive dissonance in blending these two systems. It makes perfect sense, as far as he is concerned, to cite scientific journals and papers to find evidence for the power and presence of God on Earth. I, on the other hand, did not see the connections; the writing seemed reductive, contradictory. I could not stop asking myself how someone could use a method steeped in objectivity and materialism to prove the existence of God’s presence on Earth. The modern scientific method revolves around the constant search for verifiable, measurable data that can be observed, catalogued and understood within the frames of measurement humans have created, while the dynamic of faith

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1 See, for example: Stephen C. Meyer’s, “Not by chance: From bacterial propulsion systems to human DNA, evidence of intelligent design is everywhere,” Available online through the Discovery Institute’s website <http://www.discovery.org/a/3059>.
is almost the opposite: namely faith in the power of something beyond our ability to know. More to the point, how could a text designed to empower one world view (in this case, faith) use the authority/credibility of the world view (modern science) it ultimately writes against in order to empower itself? Articulating this question in my mind only led to others: where did this text come from? Were there others like it? If so, how did they develop? What historical events and dynamics informed their creation and dissemination?

What I present here is a reflection on how to approach this discourse’s paradoxical mixing of science and religion, along with a theoretical strategy and a narrative for how to comprehend and contextualize it. This discourse is a discrete form of Qur’anic hermeneutics and scriptural reasoning, which may be understood through the lens of post-colonial theory. Seeing them in this light, it is clear that the *i'jaz ilmi* corpus problematizes and menaces the normative scientific understanding of the world. The genre presents a Qur’anic translation and reclamation of modern science, and is the product of a long historical process of epistemological shifts, impositions, and absorptions between and within different cultures. This genre is a direct textual response to the enjoinment of certain modes of thinking about the world—mainly medicine/science—that took place during the colonization of Muslim lands carried out between the very late eighteenth to mid twentieth century by European powers.

This story I tell here revolves around ideas of discourses, knowledge, and the umbrella concept of epistemology. All of these words deserve further contextualization. For my purposes, epistemology (and its derivative terms “epistemic,” “episteme,” etc.) is a way of seeing the world, the “baggage” one carries through every act of knowing, learning, and teaching. It is the lens through which one looks and understands things, how people know what they know. It is articulated and disseminated through certain modes of speech, or discourses, which are best
summed up as ways of speaking knowledge. Knowledge as a category is neither static nor monolithic. Quite the contrary, it is vibrant and, above all else, created. It arises out of an intertwined system of seeing and speaking, of creating facts by examining and then explaining; facts that lay claim to and circumscribe objects, peoples, religions, and even other discourses with layers of meaning. Knowledge is active, powerful, and indispensable. It is the most basic instrument people use to navigate through the world…and to dominate it.

In order to better understand the problems present in this hermeneutical body of literature I have assembled a conceptual mosaic, a series of seemingly disparate historical vignettes and theories that ultimately join together to create a new way of knowing this genre. One point of entry into this project is a survey of the dynamics that characterized medieval Islamic intellectual history, specifically in the world of medicine and science. This is explored in the first chapter, which provides a historical example of the sorts of epistemic changes that are integral to understanding the development of i'jaz 'ilmi. Beyond this, the shifts and appropriations of knowledge during this time period act as a model and set the stage for the dynamics of textual (re)interpretation and translation seen in this form of exegesis.

The second chapter moves into a discussion of the colonial encounter, exploring the ideas of dependency, “tradition” as a value carrying label, and how representations are created and circulated by those that colonize and dominate. I use this section to parse out and problematize the mechanics and methods of colonialism, the ways the Muslim colonial subject was circumscribed by colonial discourse, and what justified the deployment and imposition of civilizing thought systems and practices such as modern medicine and science. I focus especially here on the trope of static and stagnant Islamic history, which has been so widely circulated and
taught as fact that even modern Muslim historians have come to propagate this myth in their own writings.

The next chapter probes the roots of the power which allows colonial officials to create representations of colonial subjects in the first place. I illustrate the connections between knowledge and power, and move into a short discussion of the way in which knowledge and the state are linked. This chapter focuses heavily on the Enlightenment and the role of Enlightenment epistemologies in the creation of the modern state and the deployment of colonial discourses. This mode of thinking had a large impact on a number of historical events, including the French state bringing medical knowledge into its purview during the eighteenth century. This moment reifies many of the trends discussed in the chapter, and acts as both a moment of reflection on how these dynamics played out historically as well as a bridge into the medical world.

Examining the field of colonial medicine is a way to particularize the relationships between power, the state and its subjects. Ideas about sickness and healing bodies run across cultures, and have been historically used as evidence to highlight the difference or similarities between peoples. The role of medicine as a civilizing force is important to understanding the colonial encounter of the nineteenth and twentieth centuries, and was integral in imposing certain ways of seeing the world onto colonized peoples and simultaneously controlling their bodies. These acts of epistemic control and imposition are directly tied to the emergence of *i'jāz ilmi* as a distinct genre of Qur’anic exegesis. Through a survey of the growth of modern western

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2 See, for example: Usamah Ibn Munqidh (d.1188), *An Arab-Syrian Gentleman and Warrior in the Period of the Crusades: Memoirs of Usamah Ibn-Munqidh (Kitāb al-i’tībār)*, trans. Phillip K. Hitti (New York: Columbia University Press, 1929), 162. In this text, the narrator talks about the medicine practiced by European crusaders, depicting it as superstitious and “curious.” For example, he mentions one case where, to treat a deranged woman “[The doctor] took a razor, made a deep cuneiform incision on [her head], peeled off the skin at the middle of the incision until the bone of the skull was exposed and rubbed it with salt.” Not surprisingly, “[The woman] expired instantly.”
medicine—first voluntary, then forced—as experienced by Muslim colonial subjects in the nineteenth century, a fuller understanding of what the authors within this genre are writing against is gained. I focus extensively on the cholera epidemics of this time period, discussing their emergence and the colonial response, which sought to combat them through regulating the Muslim pilgrimage to Mecca (Hajj) using European style quarantine stations and chemical sanitization processes.

This background sets the stage for understanding the textual mechanics of *i'jaz 'ilmī*, their chronology, and their place in the hierarchy of modern Qur’anic hermeneutics. For this project, I assembled a group of about a half dozen books and some short films, as well as number of secondary sources critiquing them, to discuss the genre. It is an eclectic mix, with a wide range in where and when the works were written or filmed. The large majority of the works are produced in either former colonies or centers of empire, with authors in Turkey, India, England, Saudi Arabia, France, and the United States producing works that deal with the discourse of scientific inimitability. A notable aspect of the texts, images, and films examined is that they all draw on a similar pool of scientific writing and present a (generally) monolithic wall of reasoning and examples. In fact, the writing and evidence given is so similar throughout this body of literature that after reading a few particular works they began to run together in my mind into one large book. In the same vein, this is a self-referential body of literature—all the works reference each other. The bibliographies (and websites, for a few) of the different books often list the other ones as sources or recommended reading. By connecting themselves to each other, they form the standards and dimensions of the genre; they self select what is representative of this

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3 It is important to note the use of the phrase, as it connotes a wide berth of works and is a category more than a specific form in same way that “Novel” or “Theater” is. Thus, when I talk about the *i'jaz 'ilmī* genre doing something or simply *i'jaz 'ilmī* I am talking about the group of works as a whole category or field.
family of writing and what is not. As a scholar, looking at works that function in this way allows for a fuller understanding—and critique—of the topography of the corpus. Using the lens of post-colonial theory, I ultimately propose my own reading of this body, outlining the way in which it plays with and menaces scientific ideas and knowledge. Overall, my piece is at once a map and a chronology, chronicling the history, evolution, and structural relationships that led to *i'jaz ilmi*: a Qur’anic rebellion against a deep rooted intellectual project of colonial domination and control.
II. Dynamic Truth: Translation, Naturalization, and Muslim Medicine

One important aspect of analyzing this discourse is to avoid framing my discussion of epistemic change during the colonial period as if were a completely original process. That is not to say that it was a repeat of something else, or completely unoriginal—it had its own unique historical dynamics, players, and texts, working themselves into and directing the action. Rather, what is important to remember is that the idea of shifting or imposed epistemologies is nothing new; the ways people see and understand the world changes over time. Indeed, shifting and growing epistemologies characterize any number of historical time periods, such as the Enlightenment. Within each macro level change in epistemological frameworks there are a number of smaller discourses that adjust and evolve, forcing the entire superstructure of thought forward. It is with this in mind, this drive towards the particular and away from discussing the nebulous term “epistemology,” that I will provide a historical example of how knowing is malleable, and truth gossamer. An examination of the changes in medical knowledge which took place beginning in the early years of the Islamic empire is a good location to begin.

Muslims have been practicing and thinking about medicine since the time of the Prophet. In fact, sections devoted to Muhammad’s habits and sayings (sunnah and hadith, respectively) on medicine and medical practice were included in compendiums of hadith such as Muhammad Al-Bukhari’s (d.870) canonical collection Sahih Bukhari. This work, literally “The Authentic Collection of al-Bukhari,” is the cornerstone of hadith collections, with all of the Prophet’s sayings in it having been highly researched and authenticated by the author. The terms sunnah and hadith deserve explanations as well. As noted, the sunnah are the traditions of the Prophet:

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how he lived his life and his habits as recounted by those who knew him. The *hadith* are his sayings (separate from revelation, i.e. not the Qur’an) which were memorized or recorded by those around him. The *hadith* and *sunnah* were researched and written down by authors beginning shortly after the Prophet’s death, being canonized over the course of the tenth and eleventh centuries. They, along with the Qur’an, form the basis of Islamic law and are used by many people as guides on how to live a pious life. In these works, medical knowledge was given a high value, and as time passed it only developed in importance, growing especially during the rise of the translation movement in the late eighth and early ninth centuries.\(^5\)

The movement consisted primarily of Greek texts translated into Arabic. Financed by royal authorities, these newly accessible texts deeply effected Islamic intellectual history and, in many ways, laid the groundwork for the immense volume of literature, science, and philosophy that was produced by medieval Muslim intelligentsia.\(^6\) These texts did not imbue the Muslim populace with a desire to create and seek knowledge that had not existed before coming into contact with Greek thought, and the Muslim intellectual tradition is not indebted entirely to Aristotle and Plato. As scholar A. I. Sabra is quick to point out, some well-known Muslim intellectuals such as Abu Hamid al-Ghazali (d. 1111) dismissed the knowledge gained by studying philosophical and scientific texts as inadequate tools to explain creation, ultimately endorsing a religious understanding of the world and the objects contained within it.\(^7\) Rather, the translation of these texts must be seen as an active process in which Muslims promoted an intellectual desire for new ways of understanding the world, leading to a point where “scientific knowledge came to

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7 Ibid, 239-40.
be absorbed and harnessed in medieval Islamic society.”

Through a process of naturalization, it mixed and adapted in its new setting to Muslim ways of seeing the world, enriching and changing thought and practice across a variety of disciplines.

One of the fields impacted was medicine—this absorption and appropriation helped create a system of medicine that in many ways was a continuation of Greek ideas about the body and how to treat it mixed with Muslim elements. The most important influences on this system came from Greek physician and philosopher Galen (d. 217), whose expansions upon Hippocrates’ (d. ca. 377 BCE) ideas and works form the basis of medical theory and still hold some sway even today. He is particularly remembered for his systematization of the humoral system and theorizing the impact of humors on health. The translation of the texts and subsequent appropriation of their ideas is noticeable when examining historical medical writings. For example, the medical advice and theories created and codified by famous Persian physician Ibn Sina (d.1037), more commonly known in the Latin west as Avicenna, in the late tenth and early eleventh centuries deal extensively with Greek medical theory and many treatments are geared towards balancing a patient’s humors. The geographic location and breadth of the Islamic world at this time assured many voices entered the medical field. As noted, Greek ideas about health were not the only ones integrated into the system of healthcare, and as scholar

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8 Ibid, 236.
10 Ibid, 10.
11 Ibid.
12 Ibid, 41.
Hakim Mohammed Said points out, Persian, Indic, and North African traditions were also integrated into practice and theory.\textsuperscript{13}

Concurrent with the rise of formal medicine as codified by physicians such as Ibn Sina was the development of a field religious medicine known as \textit{al-tibb al-nabawi}, or Prophetic medicine. Drawing off texts such as Bukahri’s collection, authorship began to amass around and create this field. As Ottoman bibliographer Hajji Khalifa notes in his \textit{Kāshf al-Zunun}, an encyclopedic list of over ten thousand books, works on \textit{tibb al-nabawi} went back to the early medieval period.\textsuperscript{14} Although these early works were essentially lists of sayings and medicaments—mainly the food eaten—by the Prophet, over time they began to change and expand, working to integrate the Greek derived medicine being practiced with the \textit{sunnah} and \textit{hadith} in order to create “a guide to medical regimen and therapy that was acceptable to pious Muslims.”\textsuperscript{15} A great spokesperson for this genre is Ibn Qayyim al-Jawziyya, a famous Syrian theologian, philosopher, and physician. A prodigious writer, one of his better known works is a book titled \textit{al-Tibb al-Nabawi}, or \textit{The Medicine of the Prophet}.\textsuperscript{16} It was composed some years before his death in CE 1350, and is widely cited by modern Muslim authors as a base text for the Prophetic medical field.\textsuperscript{17} This work is demonstrative of the naturalization process that took place as new forms of knowledge were consumed by a Muslim audience. By fusing Islamic medical practice with the system of Prophetic medicine outlined by the \textit{hadith} and \textit{sunnah}, he formalized the field, moving

\begin{itemize}
\item \textsuperscript{14} Hajji Khalifa, \textit{Kāshf al-Zunun} (Istanbul, 1941), Vol. 2, 1095.
\item \textsuperscript{15} Pormann & Savage-Smith, 71.
\item \textsuperscript{16} Although the literal translation would be “prophetic medicine,” the translator of the English edition I used titled it \textit{The Medicine of the Prophet}.
\item \textsuperscript{17} See, for example, Dr. Aliy Sulaimaan Ar-Rumaikhaan’s, \textit{Guidelines & Fatwaas Related to Sickness and Medical Practice}.\end{itemize}
the ideas of health and disease under the umbrella of Islam.\textsuperscript{18} The text works to justify the medical ideas adapted from the Greeks with the theological frameworks of the Qur’an as well as the pious life of the Prophet. As scholar Fazlur Rahman explains, his writings—and the development of Prophetic medicine overall—were an “attempt to spiritualize medicine, to set high religious value on it, and to bring it to the center of Islamic concerns.”\textsuperscript{19}

By using the \textit{hādīth} and \textit{sunnah} as source texts to deal with the same sicknesses and that the Arabo-Galenic system did, the full extent to which religious value was assigned is revealed. For example, the first half of the book deals with sicknesses and their treatments as prescribed by Ibn Qayyim al-Jawziyya. If the patient is complaining of diarrhea, honey would be prescribed because of its mention in the Qur’an and the use of it by the Prophet.\textsuperscript{20} Ibn Qayyim Al-Jawziyya frames honey as an important medical tool because “…it removes impurities from the veins, the intestines, and elsewhere…it cleanses the liver and the chest; it is a diuretic; and it is appropriate for a cough arising from from the phlegm.”\textsuperscript{21} Here, the integration of two epistemic modes is demonstrated. While as modern readers we might see this prescription as a double pronged use of both scientific and religious ideas, for the author and his audience no division was present—both forms of treatment existed in harmony with another, and there was no hierarchy of treatment options. For the practitioners and patients of this time period, knowing the body was as legitimate a way of knowing God as it was of knowing science. This is drawn in high contrast to

\textsuperscript{18} There are a number of \textit{hādīth} and verses of the Qur’an relating to medicine and health, including treatments of diseases and certain important medicines. One good example of this is the prophet’s mention of honey. It comes up in the Qur’an, where it is mentioned that it is a “healing [agent] for humankind” (Q.16:69). The Prophet also advocated practices such as cupping, cauterization, and bloodletting.


\textsuperscript{21} Trans. Johnstone, 23.
the situation in the nineteenth century, when God and medicine were ripped apart, and the system of Arabo-Galenic/Prophetic medicine was made “traditional” and subordinated to an imported and imposed system of colonial medicine. As will be seen, it was the imposition of this knowledge and the transformations it led to that defined the colonial project and ultimately set the stage for the emergence of the ḥijz ‘ilmi genre.
III. Tradition, Representation, and Dependency

Much of the language surrounding colonialism in the nineteenth century revolves around words such as “encounter” and “invasion.” These words conjure certain images to mind: armies disembarking in a foreign port, street signs written in various languages, and even more sinister images than this—pod people growing in basements, ready to attack at any moment. There is something legitimate in the use of words such as these to describe the colonial era, especially during the nineteenth century. European armies did invade foreign lands—such as Napoleon’s invasion of Egypt in 1798—and in many places, such as Lebanon or Morocco, European languages are still used alongside Arabic or other native tongues.\(^\text{22}\) The word “encounter” is especially appropriate. Defined as “a meeting face to face; a meeting (of adversaries or opposing forces) in conflict; hence, a battle, skirmish, duel, etc.”\(^\text{23}\) it encapsulates much of the dynamic of colonialism: the colonizers and the colonized meet face to face, and in many ways conflict with each other. Epistemologically, religiously, and culturally these two parties often found themselves in opposition, which led to much friction and ultimately characterizes the colonial era as one of oppression and destruction.

At the same time as these words do create a historical narrative and paint a picture of a certain timeframe, they also collapse many of the dynamics of the colonial era. One of these is that of exchange, both material and cultural. Much in the same way that, for example, many former British colonies still drive on the left side of the road, many methods of cooking and dress (including the word and concept of “pajamas” in its Western usage) were adopted from a colonial setting. These are just two examples, but their presence nonetheless leads to larger questions. If


\(^{23}\) OED, s.v. “Encounter.”
something as commonplace as pajamas has been created out of the colonial exchange/encounter, what else can potentially be created and destroyed because of these interactions? One answer is the creation of “traditional” cultural forms and practices.

The presence of exchanges between the two opposing groups ultimately works as a testament to the fact that there is an important and complex relationship between colonial officials and those they study, categorize, and live among. Scholar Leela Gandhi touches upon this in her work Postcolonial Theory: A Critical Introduction. As she explains it, the colonial experience created an “ambivalent and symbiotic relationship between coloniser and colonised.”

For each group, the other acted as a mirror to explain what they were and were not...what they could and could not be. As much as the colonizers longed for the constructed exoticism/barbarism of the colonies, many of the colonized simultaneously longed for the superiority, authority and power enjoyed by their rulers and epitomized in a Europe “infinitely deferred, always withheld from them.” Indeed, the colonizers needed their subjects (and vice versa) in order to define themselves and validate their knowledge of how to live a correct life.

Defining themselves because of/against those they rule, the colonial setting was constructed as a space of contested ideologies and ways of looking at the world. The European system of medicine and its conception of the body provides a good example of this. Through the colonial encounter, the idea of what medicine was changed a lot. For Europeans in a colonial setting, the field was defined by what it was not; mainly, Arabo-Galenic/Prophetic medicine, with its stress on spirituality and the healing power of God. The post Enlightenment medicine of these same Europeans had removed God from the equation, and moved medicine to the realm of


25 Ibid, 12.
provable, measurable science. Bodies were not vehicles through which to see God—they were vehicles for germs, infection, and possible cure. Medical practice became a method of seeing and knowing about the Other in order to know oneself.

The dependence of colonizers on their subjects for self understanding is an important historical trope, and acts on a broader level than colonizers/colonized: any group trying to define itself and what it stands for depends on other people. Self-definition, one can say, is only created by encountering the Other. As Stephen Greenblatt contends, this method of self-definition has deep historical roots. Referring to the Greek historian Herodotus, he claims that “to understand the central historical achievement of his own culture, as he conceives it, Herodotus must understand alien cultures.”

In other words, to codify his own Greek-ness he must track down, observe, and document all those not Greek. It is through his far flung search, his “…continual driving out to the boundaries, [his] interest in reaching the farthest point to which one can travel” that he can find what he is looking for: himself and his own values. In the colonial context this becomes the construction of the ‘white man,’ the ‘British Empire’ and their connected values in face of the ‘Mohammadean,’ or ‘coolie.’

It is with this framework in place that one of the most important results of the colonial encounter becomes apparent: the change of certain native cultural practices from being unremarkable to “traditional.” For example, in light of the colonial encounter, the systems of medicine developed and practiced by Muslim were consequently labeled as “traditional Muslim medicine.” Tradition is deployed as an epithet given to certain practices, beliefs, cuisines, etc. by members of a community, real or imagined, to deal with a sense of loss or nostalgia. Traditions


27 Ibid.
are often created in times of cultural change, and made in response to the need people have to create a stable identity for their community; traditions function to link people to an authentic state or time of being. This is one reason ideas such as nationalism or fundamentalism are often couched in language of tradition. They create an essential—whether it be, Muslim, Indian, or American—that unites and defines people and cultures.

The fact that traditions are created out of incidents of loss and change is brought home by the definitions of the word. Beyond the way it is generally understood today ("A long established and generally accepted custom or method of procedure, having almost the force of a law.") it is defined in the Oxford English Dictionary as "The action of handing over (something material) to another; delivery, transfer...A giving up, surrender; betrayal." 28 The word carries within it ideas of loss, movement, and most importantly, the presence of the Other. Deliveries, transfers, surrenders, and betrayals only happen with at least two parties present. Like the creation of identity through the lens of the Other, traditions are announced in opposition to something else. They are completely dependent on the social frameworks within which they exist. The way tradition is understood, though, masks this fact. Traditions are constructed and seen as trans-historical, and gain their authority through this. Seen as above and beyond newer (read: current) cultural forms, they are treated as sacrosanct, when in reality they are extant and manufactured. In this essay, I frame tradition as explicitly not what it says it is, and the claim to traditional authority and tradition in regards to the self-conception of the *i'jaz 'ilmî* corpus will be interrogated.

The creation of tradition demonstrates another important facet of the colonial encounter: it is an exercise in representations and power relationships between those that deploy

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28 OED, s.v. "Tradition."
colonial discourse and its subjects. Through their privileged position those in power gain the ability to represent the dominated, native, Other. Once created, these representations are circulated and taught back to the colonized in a cycle that Greenblatt calls “mimetic circulation—the movement and uses of [representational] machinery” such as texts, histories and images.\(^{29}\) The material that is culled to create this mimetic capital can come from anywhere. As Greenblatt states:

> Cultures are inherently unstable, mediatory modes of fashioning experience. Only as a result of the social imposition of an imaginary order of exclusion...can culture be invoked as as a stable entity within which there are characteristic representations that are ordered, exported, accommodated...Any element in the structure of a culture is potentially up for grabs. Any representation can be circulated, and it is the character of this circulation—secret or open, rapid or sluggish, violently imposed or freely embraced, constrained by guilt and anxiety or experienced as pleasure—that regulates the accommodation, assimilation, and representation of the culture of the other.\(^{30}\)

The potential for a certain culture or set of practices to be mined for mimetic capital is almost limitless; any aspect is available for appropriation in the creation and eventual teaching of new representations. Be it clothing, religion, or forms of speech, all are fair game in this process. One notable aspect of Greenblatt’s assertion is the fact that different mimetic forms have distinct and potentially divergent dynamics; some are completely passive, a matter of choice, while others are consciously constructed and enforced. The idea of consciously creating new representations of a people may seem somewhat odd—after all, why would someone work to represent another culture in way that is inevitably reductive? The most obvious answer is that the creative process simplifies things—it eliminates the necessity for meaningful interaction, or the possibility of setting aside or modifying one’s own worldview.

\(^{29}\) Greenblatt, 120.

\(^{30}\) Ibid, 121.
This account makes clear one other important aspect of the process of mimetic circulation: the possibility for colonizers to assert and create new “facts” without anything to back them up. One famous example of this is the book *The History of British India*, written by East India Company (EIC) secretary James Mill and published in 1818.\(^{31}\) The book is a history of Indian civilization, and outlines the laws and customs of the indigenous peoples as well as the history of the British presence in the area. As scholar Sheldon Watts points out, the main theme of the work is “that Indian society [remained] unchanged since remote antiquity.”\(^ {32}\) Although there was not real evidence to back this up, it nonetheless helped set the tone for the historical and contemporary discussion of Indian history, which is commonly framed by western historians in comparison to the European timeline and found either non-existent or lackluster.\(^ {33}\) Indeed, Mill’s representation became the main reference book on the subject of Indian history for the British Raj and, as Watts dryly notes “required reading for all EIC and later British government officials going out to India.”\(^ {34}\)

What Mill presents is a trope of static history—an absence of change or activity that eventually defined the ‘Indian character’ and India as a land devoid of historical development or richness. This trope is a common one in orientalist thought, and is especially important in regards to representations created by colonial powers about the Muslim world. Aside from the feminization and romanticization of the ‘East’ dissected by Edward Said, one common

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34 Ibid, 175.
representation regarding Oriental, and particularly Muslim, history is the idea that science and intellectual activity ended around the time that the Renaissance began in Europe. It is not uncommon to hear Western scholarship on world history talk about the ‘golden age’ of Islamic civilization and learning, focusing on Muslim inventions such as the astrolabe or algebra before the timeline ends around the early fourteenth century. After that, Muslims—it can be assumed by the conspicuous lack of information—stopped all intellectual activity and development until coming into contact with/assimilating the technologies of an ascendent, imperial Europe. This representation of the death of Muslim science/knowledge production has become so canonical that even Muslim authors and historians propagate it. As scholar Bassam Tibi points out, the last great work made by Muslims were created in the fourteenth century by “Ibn Khaldun…the very last great philosopher of high caliber that the Islamic civilization produced before it began to decline.” Like many representations circulating in the cultural ether, this is simply not true.

Scientific activity and textual production continued in the Muslim world throughout the time that Europe was undergoing its well chronicled Renaissance and, later, Enlightenment. Using Ibn Khaldun’s death in 1406 as a starting point and ending before the rise of nineteenth century European colonialism, a number of important intellectual figures can be seen working throughout the Muslim world. One of these is Serafeddin Sabuncuoglu, an Ottoman physician

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35 See Haywood, 82-83. This sprawling book on world history presents less than a page (as well as one large image) about medieval Muslim intellectualism, pointing out the invention of the astrolabe and discussing how Muslim science eventually enriched Western understandings of mathematics, etc.

36 This is worth noting as an example of what might be called a mimetic feedback loop. Essentially, as mimetic capital circulates, it is taught to the Other, who eventually spits it back to the teacher—in this case Western historical discourse—as learned and accepted fact.


and scientist writing in the late 1400s. His medical works are some of the first produced for consumption by a Muslims to deal extensively with pediatric surgery and anatomy; they are also notable for his discussion of female gynecological surgery and examination. His most well known work is the *Cerrahiye-i Ilhaniye*, an illuminated surgical atlas written in Istanbul in 1465 (Fig. 2 and 3). He is credited with a variety of medical inventions, including new types of scalpels and scissors used during circumcisions. Another notable scholar of this general time period was Taqi al-Din Muhammad ibn Ma’ruf, an Ottoman astronomer and mathematician born in the early 1500s and dying in 1585. His prodigious number of books range on topics from optics to algebra and geometry to astronomy. Another notable scholar working during the seventeenth century was Mulla Sadra, who died in 1641 and is known for his work in philosophy,

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40 Ibid.

metaphysics, and theology. His most well known work, *The Transcendent Wisdom in the Four Intellectual Journeys* (*al-Hikmat al-muta‘aliyah fi’l-asfar al-arba’ah*) is a compendium of Islamic Philosophy and commentary. Beyond this, a general trend of technological appropriation and exchange took place between the Islamic intellectual world and the European scientific world. For example, Taqi al-Din’s famous astronomical clock was constructed alongside samples of European mechanical clocks in possession of his patron. Regardless of these men and their work, for all intents and purposes they are historically invisible. The representation of a stagnant Islamic intellectual world is persistent in mass produced and widely circulated histories such as John Haywood’s *Atlas of Past Times*.

Mimetic capital circulates in wider circles than literature and narratives such as Mill’s aforementioned *History of British India*—it also heavily present in visual culture. Many artworks produced by Europeans about the colonial world, for example, use certain visual tropes and strategies to represent the land and people in certain ways. The photos of Francis Frith published in his work *Egypt and Palestine, Photographed and Described* show this very well. The images work to paint the world of the Holy Land as unchanged and quaint—stuck in a static, exotic world of men dressed in loose clothing and women who hide their faces from his camera which is, in itself, a reification of the technological (and therefore ‘civilizational’) gap between his position as empowered and able to create representations and the places he chooses to represent. One especially striking image is that of the city of Nazareth. The photo, titled *Nazareth from the Northwest*, depicts the city of Nazareth in Palestine (Fig. 4). The importance of the image is not

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lost on the British Christian audience the photographs were produced for: it is the hometown of Jesus. The image is interesting because of the way it works to represent the town as essentially unchanged since the time Jesus walked among the hills. It is shot with a large focus in the foreground, which is covered in large rocks, scrubby bushes, and cacti. The town snakes through the middle of the frame, beginning in the lower left hand corner and working its way diagonally backwards into the distance. Although it is clearly a living town with a large mosque in its center and a variety of buildings, it is framed in such a way that eye is drawn past it and into the pastoral hills and rolling, pristine farmland behind it. The importance is not the civilization and

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45 I make the claim of the presumed audience for a few reasons. A) The publisher and printer of the book were based in London and B) According to Frith, the works were made as a substitute for travel to the Holy Lands for those “whom circumstances forbid that luxury.” (Frith, page 6 of the introduction.)
the lives of those who live in the city. It is instead represented as being in the wild…untouched by
time and cultural trends (aside from the pesky minaret) since the beginning of the Christian age.
This image, along with the hundreds of others in Frith’s book, depict a distinct and interestingly
imperialistic view of the conquered lands—one that was disseminated to the public as unbiased
fact.

An important aspect of representations such as Frith’s is the power dynamic inherent in
the ability of the colonizers to make representations of their subjects; they are the ones able to
create truths and images, both literal and figurative. This fact begs an important question: where
does this power come from, and how is it constructed? What allows colonizers to come into a
certain area and being producing knowledge and representations about whole civilizations?
**IV. Knowledge IS Power**

The most basic answer leads us to view the solution in technological or purely material terms. The fact that colonizers were able to create a vast empire could easily be seen as a ‘guns vs. Spears’ situation—*Zulu* being played out again and again. It has the potential to be read as a narrative about technologically advanced Europeans armed with rifles, steamships, and quinine heading into the jungles of the ‘dark’ African continent and, due to their inherent superiority in this sense, gaining the power to shape and control representations and knowledge forms. This is not, however, a completely satisfactory answer to the question; it ultimately collapses the multifaceted nature of colonial control and domination. It particularly masks the dimension of intellectual control that is endemic to the colonial encounter. It was through exercises such as writing, anthropology, and teaching the native facts about him or herself that true control was exercised, and the root of colonial power is seen.

My own excavation of this system has its roots in a poststructuralist/post-colonial understanding of the bonds that lie between knowledge and power. As Leela Gandhi points out, “postcolonialism [shares with poststructuralism] a very specific understanding of Western domination as the symptom of an unwholesome alliance between power and knowledge.”

These two forces—intellectual activity and the ability to control—are inherently linked, and in my own work must be considered as partners in the imposition of European medical discourse onto the colonial Muslim populations.

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46 The movie *Zulu* (directed by Cy Enfield and released in 1964) portrays the extended battle between a group of British soldiers and an army of Zulu warriors that took place in 1879. In it, the British are able to defend themselves for a long period of time against a significantly larger native force due to their guns...their opponents carry animal hide shields and spears. A representative clip of this dynamic is available online, with time index 2:25-4:55 particularly indicative of what I am drawing attention to. Please see: <http://www.youtube.com/watch?v=1csr0dxalpI>

47 Gandhi, 25.
For many critics and historians, the cornerstone of this superstructure is the Enlightenment. This intellectual evolution of the seventeenth and eighteenth re-calibrated the way many people understood the workings of the world, and introduced a new system of measurement for the idea of truth. For the learned classes imbibing and enacting this philosophy, religious answers could no longer be found underneath every scientific or social event, and in this time period religion and science were separated. Magic and marvel lost their appeal for this privileged (and politically powerful) group, with empiricism and skepticism replacing many of the philosophies and practices that had existed up to that point; comets were no longer signs from God, and unicorn horns became narwhale tusks.\textsuperscript{48} Enlightenment thought had an indelible impact on colonialism and played a large role in shaping the ways in which Europeans saw and understood their colonial subjects. In the same vein, it also helped create the way people understand the world in the present day. As Talal Asad states: “The European Enlightenment is the historical site from which Westerners typically approach non-Western Traditions. That approach has tended to evaluate and measure traditions according to their distance from Enlightenment and liberal models.”\textsuperscript{49} The colonized subject and his culture could (and can, Asad insists) only be understood in contradistinction to European modes of thought and models of life.

There were a variety of consequences given this comparative dynamic. For one, it placed the West/Europe at the center of the intellectual and cultural world; all nations and peoples were compared and contrasted with Europe in order to be understood by Europeans. Through this habitual comparison, Europeans were made the baseline for Mankind, and everyone else was seen in contrast to this standard. European capitals grew into headquarters where knowledge

\textsuperscript{48} Datson/Park, 329-364.

about the colonies and their populations was produced and archived; the presence of institutes such as the School of Oriental (and later, African) Studies in London, the Institut National des Langues et Civilisations Orientales in Paris, the London School of Hygiene and Tropical Medicine or the Insitite of Oriental Studies for the Russian Academy of Science in St. Petersburg underscore this point. Implicated in this centering of Europe is the creation of knowledge networks, which connected Europe to its colonies through an intensive intellectual process of knowledge creation about the colonial world. Like the raw materials from African colonies that might make their way back to a European city to be processed, repackaged, and sent back to Africa to be resold along a certain trading route, ideas and facts traveled the same way. Through an urge to know about the native, academics, military officers, and missionaries alike created a native through their own lenses as colonizers, with this new subject’s cultural practices and religious beliefs losing value in terms of its relationships to European culture. This process created many of the stereotypes of the colonized world, and the ‘East’ itself as a feminine, mysterious space in direct opposition to the rational, enlightened ‘West.’

Notions of manhood and adulthood are especially important in the discussion of Enlightenment thought given the fact that this rhetoric is employed in writing from the time. One illustrative example is Immanuel Kant’s “An Answer to the Question: What is Enlightenment?,” which has become a touchstone for post-colonial studies as it can so easily be read onto the structures and dynamics of the colonial encounter. Both Gandhi (30) and Asad (201) indict this text as one of the most important in dictating and shaping the colonial episteme. As will be seen, these scholars are not the only ones which critique Kant—authors such as Michel Foucault are also partake in this task. For all of them, Kant’s conception of Man and His nature

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is rich for critique. “What is Enlightenment?” outlines Kant’s ideas of what Enlightenment thought entails, and right from the start is linked with ideas of childhood versus Manhood and maturity versus immaturity. As Kant puts it, “Enlightenment is man’s emergence from his self-imposed immaturity. Immaturity is the inability to use one’s understanding without guidance from another.”

Several issues may be drawn from this quotation. First, the Enlightened Man has a sense of “understanding,” and is defined from the outset as an intellectual being free from the control of others. The only person He must answer to is Himself, through His awakening and revolt against His own “self-imposed” immaturity. It is a conscious choice to become enlightened, Kant seems to say here. The Enlightened Man has the ability to live for Himself and is, in a sense, isolated from the unenlightened who choose not to think and instead allow themselves to be controlled.

The process of enlightenment is one of maturation, in which Man “emerges” from His own mental shackles, growing from a state of intellectual childhood to one of maturity and adulthood. Kant’s Enlightened Man is independent, mature, white, European, and able to set his own boundaries in life. He does not answer to people—they answer to Him. He is free while others are in chains.

Kant’s model of Man constructs a sort of teleology that came to fruition in those who embraced his conception. Self-improvement, the movement from ignorance to knowledge, is a duty, part of the natural progression from childhood to adulthood. Similarly, it was the duty of the Nation to help Her citizens and improve them, sculpting them into Men. The implementation of public schooling and requirements that members of a nation learn specific

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51 <http://www.english.upenn.edu/~mgamer/Etexts/kant.html> This is an English translation of the essay available thorough the University of Pennsylvania’s digital archives.

52 Ibid.
skills epitomizes this— it is *required* that people know how to read and write, *required* that they improve themselves and learn how to think.

This sort of teleological understanding of nation and Man is especially important in understanding the colonial world. It becomes the duty of the Enlightened Nation to teach Her colonial subjects, and improve their lot in life through the exportation of knowledge, culture, and values. This pedagogical mission is double edged, though. While it may seem noble to those doing the exportation, the terms of engagement between those employing colonial discourse and those it circumscribes will never be equal. Instead, it works to set up a power dynamic between these two groups. The Enlightened Men are mature, and those that they control (or those that allow themselves to be controlled, to bring it closer to Kant’s own language) are not—they are “…new-caught sullen peoples/Half-devil and half-child.”

This reading of Kant is especially important to my own project as it illustrates the root of colonial discourse, which the hermeneutical discussion surrounding the scientific inimitability of the Qur’an is constructed against. The understanding of the world created through the use and expansion of such teleological ideas acted as justification for control and the foisting of European modes of thought onto colonial subjects. Ultimately, this imposition gave way to the subordination of all modes of thinking and being in terms of its relationship to Europe and its Enlightened state. Leela Gandhi cuts to the heart of this, combining her own critique with Michel Foucault’s:

…the Kantian conception of ‘mankind’ is prescriptive rather than descriptive. Instead of reflecting the radical heterogeneity of human nature, it restricts the ostensibly universal structures of human existence to the normative condition of adult rationality—itself a value arising from the specific historicity of European societies. It follows that this account of ‘humanity’ precludes the possibility of dialogue with other ways of being human and, in fact, brings into existence and circulation the notion of the ‘non-adult’ as ‘inhuman’. Needless to say, this move

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also instantiates and sets into motion a characteristically pedagogic and imperialist hierarchy between European adulthood and its childish, colonised Other.\textsuperscript{54}

It is from within this system that the modern phenomenon of \textit{i'jaz 'ilmi} emerges, and as will be seen, from within this hierarchy that it works to topple it.

One important aspect of understanding the ways in which Kant’s conception of man ultimately effected the colonial world is to examine how it became enmeshed with/helped develop the concept of the state and state power. Colonization and its discourse must, after all, be seen historically as the actions of states and their underlying ideologies. More than just soldiers or doctors who went to spread the word and thought systems of Enlightened Man, men and women carried flags to the colonies inseparable from the ideas they promulgated. It is this grafting of knowledge onto the authority of the state which gives knowledge its material power and the ability to effect the colonized subject.

The configuration of the relationship between the state, knowledge, and religion began to change in the seventeenth and eighteenth centuries with the rise of the modern state and the ebb of religion out of the public sphere and into the private.\textsuperscript{55} Religion and religious truth, rather than continuing to occupy an integral space in open public discourse and exchange, moved towards the private sphere of the home, where one’s personal beliefs were of no interest or impact to the function of society.\textsuperscript{56} This shift, Asad contends, was ultimately in the interest of emerging states with leaders who needed to control their populations and bringing peace to their lands after the “disorders of the Reformation.” \textsuperscript{57} This led to discourse of religious tolerance

\begin{itemize}
\item \textsuperscript{54} Gandhi, 31-2.
\item \textsuperscript{55} Asad, 205.
\item \textsuperscript{56} Ibid, 207.
\item \textsuperscript{57} Ibid, 205.
\end{itemize}
throughout Western Europe, particularly supported by philosophers such as Hobbes and Lipsius—as long as religion was out of the mix of state affairs and not disrupting the peace, it would be largely ignored.\footnote{Ibid, 206.} It should be noted, as Asad points out, that “religious toleration was a political means to the formation of strong state power…rather than the gift of a benign intention to defend pluralism.”\footnote{Ibid.} It was not as if all of the sudden every religious group was accepted into newly organized states; historical and contemporary persecution of religious minorities such as Russian Jews or Armenians in early Turkey illustrates this. Rather, what this toleration consisted of was the flight of religious knowledge and authority to the private sphere, and a subordination of religion to the state. In this Enlightenment context, religion became a matter of belief (based on personal experience with the Divine) rather than knowledge (which could, in this new epistemic framework, be proved rationally).

To fill the void of public authority vacated by religion, new forms of understanding came to the forefront of state mechanics. As Asad makes clear, “…religion was gradually compelled to concede the domain of public power to the constitutional state, and the domain of public truth to natural science.”\footnote{Ibid, 207.} These new forms of seeing the world gave way, as time passed, to new forms of knowing the world, with the rise of fields such as anthropology and colonial studies finding canonization—both spatially and ideologically—in the institutions and cities of major colonizing powers. This secular form of knowledge was indispensable to state actors and politicians, with knowledge growing into its own form of power and control. A telling example of this is the wedding of modern medical knowledge and the state.
In Michel Foucault’s *Birth of the Clinic* he lays out the growth and proliferation of the modern clinic system in post revolution France. He argues that the clinic, characterized by intensive individual care and practical medical training for students, gave way to a new method of seeing; the gaze (*le regard*) of physicians onto the bodies of their patients changed the way in which the body was understood and practiced upon.\(^{61}\) The medical field began to revolve around direct observation of the patient, with a discourse using thousands of new medical terms coming into being in order to describe and teach the new body developed in the clinical system.\(^{62}\) As it developed, this new form of practice, and its corollary theories about health, disease, and biology, was linked to the state. As Foucault notes, it was “necessary to conceive of a medicine sufficiently bound up in the state for it to be able, with the cooperation of the state, to carry out a constant, general, but differentiated policy of medical assistance; medicine becomes a task for the nation.”\(^{63}\) In this sense, the state brings medicine into its purview, with knowledge (in this case of the body) gaining the power and authority of the state apparatus. The state gained control of bodies through knowledge, and used this newly minted form of power to control its subjects, both at home and abroad.

Knowledge—especially medical knowledge—was one of the main exports to the colonial world because it was so tied up in the self-understanding of the Enlightened European of this time. It was a marker of distinction from the native subject, and tool for self-definition. Ultimately, it was integral to creating and maintaining a hegemonic system. It allowed for colonial discourse to represent its subjects in certain ways, and for colonial officials to teach them

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\(^{62}\) Ibid, xviii.

\(^{63}\) Ibid, 20.
new vocabularies for describing the world and themselves. This form of domination was well known and even recommended by some in European statesmen. As Foucault points out, the export of knowledge and ideas was a trope in the political world of revolutionary France. During a speech delivered in 1789, Boissy d’Anglas (a statesmen) espoused a rhetoric which illustrates the linkages between, knowledge, power, empire, and control. He stated that France should “make other nations tributaries not of [its] political authority, nor of [its] government, but of [its] talents and [its] knowledge.” Knowledge is the key to power, he says. Bring knowledge to other nations and they will become tributaries—subordinates to your culture and view of the world.

64 Ibid, 39.
V. Medicine as Export, Medicine as Control

In the colonial context, the export of European medical knowledge expanded state control over its subjects, and led to a change in the way the colonized thought about their own bodies and forms of knowing the world. Hygiene, infection, and notions about the body all became important centers of colonial policy, law, and identity construction. For colonial officials, their definition of health, disease, and medicine was a cornerstone of their identity. As David Arnold discusses in his work *Imperial Medicine and Indigenous Societies*:

Disease was a potent factor in the European conceptualisation of indigenous society. This was especially so by the close of the nineteenth century when Europeans began to pride themselves on their scientific understanding of disease causation and mocked what they saw as the fatalism, superstition, and barbarity of indigenous responses to disease...The emergent field of ‘tropical medicine’ gave scientific credence to the idea of a tropical world as a primitive and dangerous environment in contradistinction to an increasingly safe and sanitised temperate world.65

Ideas of disease and health were tools to separate and define groups: there were the sanitary colonists defined against the superstitious, primitive natives. More than a way of separating people, though, health and the practice of medicine in the colonial period was an arena where the competition between discourses about the body and its ailments could play out between the colonized and their European masters. Medicine became integral to the imperial project of ‘civilizing’ and subjugating the bodies and minds of native peoples. This story is one to which the end is already known: in the colonial world, Western medicine displaced Prophetic/Arabo-Galenic, Ayurvedic, and Unani medicine as the normative system of healthcare.66 This is not to say that it destroyed it, or that Prophetic medicine (as well as Ayurveda, etc.) is not practiced today. Rather, it was made “traditional” in response to imperialistic health policies and a shift in


66 Briefly: Ayurvedic medicine is a native Indian episteme about health and the body. Unani medicine is practiced in India as well, but is derived from the Arabo-Galenic/Prophetic Medical field.
how people understood the body and what is/is not normal. A number of historical vignettes attest to this shift in practice and thought.

The first recorded instance of the European style medicinal system being adopted by Muslims can be seen in the work of Sali ibn Nasr ibn Sallum. He worked as the court physician for the Ottoman Sultan Mehemet IV, who ruled between 1648 and 1687. Nasr ibn Sallum, included a number of translations of Latin medical works in his book, *The Culmination of Perfection in the Treatment of the Human Body* or *Ghayat al-itqan fi tadbir badan al-insan*. The selections he included were a departure form the Galenic medical system, and did not aim to balance the humors in the same way as other treatments he presented—rather, they discuss the same illnesses, but used compounded chemical medicines to combat the disease instead of using diet or regimen to balance the body, a mainstay of Galenic thought. His use of this new system is interesting, and is a clear example of cultural appropriation and importation. A number of new ways of understanding the body were introduced in this text, and as Emilie Savage-Smith points out, “the treatise not only reflects the new chemical medicine of the European Paracelsians, but also described for the first time in Arabic a number of “new” diseases, such as scurvy, chlorosis, [and] anaemia.” Certain modes of living, that before Nasr ibn Sallum’s text might have been seen as altered but not diseased, were all of the sudden transformed and given a value determined by a culture outside of the one that was adopting it.

Another notable text that Savage-Smith mentions in her work is the *Miscellany on the Art of Medicine*, a book written in 1814 by North African physician Ahmad ibn Muhammad al-Salawi.

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68 Ibid.

69 Ibid
This work, which discusses the most common diseases he treated, is interesting for a few reasons. One, it was written before any European style medical facilities had been constructed in North Africa. Secondly, his prescriptions lean more towards western medicine than Prophetic or Galenic; al-Salawi warns “against the use of some drugs approved by older authorities and occasionally advocating the methods used by European doctors.” Al-Salawi did not have long to wait for physical, structural evidence of European medical/intellectual hegemony to appear in the region. In 1827, Muhammad Ali, the Ottoman regent of Egypt, established the first Western style Medical academy in North Africa. Still existent today as Qasr Al-Aini (part of the University of Cairo) the academy was modeled after medical training academies in France similar to those discussed by Foucault. LaVerne Kuhnke gives a short outline of the curriculum in his work on Egyptian Public Health in the nineteenth century:

After the introductory first year, the students followed a four-year medical curriculum modeled on the one in force in France at that time. The core studies were anatomy, pathology, and materia medica, progressing to increasingly advanced levels throughout the four-year course. Physiology, surgery, and therapeutics entered the curriculum in the second year. The third and fourth years introduced clinical training in internal medicine and surgery, plus hygiene, toxicology, and forensic medicine.

This is striking on more than one level. Not only is the curriculum based on European medicine and medical theory, but it is also structured like a European school. Students were taught in French, had mandatory French classes, and although their lectures were translated into Arabic, the medical terms they learned were not and the standard terms used in Europe were utilized

70 Savage-Smith.


72 Ibid.

73 Ibid, 35.
The students were drawn from al-Azhar (a famous Islamic college in Cairo), and as such already had a good grasp on the sophisticated literary Arabic used in the translated lectures. The fact that these students were selected from an important seat of Islamic religious instruction is worth noting, as those most well versed in the religious arts of their time were selected to become those most well versed in the reigning secular art of the time period. The school was a transformative space where students raised in one tradition were slowly but surely pushed towards another, their views on the world shifting from the religious and Galenic to a specific form of scientific thought developed in Europe. Painstaking efforts were made to package this shift in world view carefully, and play off the (assumed extinct) scientific tradition in Muslim intellectual history. Large scale quotations from famous Muslim scientists were painted on the walls of the anatomical amphitheater, figuratively competing against the Qur’anic verses etched into the minarets of al-Azhar Mosque and other religious spaces the students would have seen.

In Qasr Al-Aini, the word of God was replaced with the word of Man.

Up to this point, these examples of shifting epistemes about health and medicine in the colonial-era Muslim world have not been driven by cultural or intellectual coercion; the French government did not mandate that the school be set up, and nobody forced Muhammad al-Salawi to include Western treatments in his repertoire. Rather, they are demonstrative of discursive soft power—a subtle co-option of one episteme by another, a remolding of one type of medical discourse in light of another. With the advent of cholera working its way west via the annual Muslim pilgrimage to Mecca (the Hajj), though, this would began to change: soft power became

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74 Ibid.
75 Ibid, 34.
76 Ibid, 35.
hard, and adoption was replaced coercion The threat to Europe and North America posed by the persistent cholera epidemics raging in India, the Hijaz, and the Levant became the impetus for the imposition of Western medical practice and theory onto the bodies of Muslim colonial subjects. State power and ideas about health combined in this time period to form a system aimed at controlling the hygiene and habits of colonial subjects. Driven by ambition and a “growing conviction of the the unique rationality and superior efficacy of western medicine” due to achievements such as the development of germ theory and vaccinations along with the construction of tropical medicine, this time period is especially helpful for examining the connections between the state, health, and control of bodies and minds.\(^77\) Cholera changed the ways in which discourses about health and the body were deployed, making them active rather than passive, and imposed instead of appropriated. In essence, the official colonial response to cholera and the regulation of the Hajj it brought about set the stage for the rise of \(i'jaz \ 'ilmi\) and host of other reactions.

Until 1817 cholera had been an endemic disease in the Bengal region of the Indian Subcontinent, not spreading to the the rest of India until that year.\(^78\) The reasons for this spread were and are debatable, although evidence has been shown that the famine and flooding that had been taking place across the subcontinent in 1815-16 most likely had a large impact on the situation.\(^79\) Regardless, by 1817 cholera had become an epidemic, and began to spread across the globe. This rapid transmission of the disease was facilitated by trade networks that worked to bind together disparate sections of the globe, for example London and Kolkata. These trading

\(^77\) Ed. Arnold, 12.
\(^78\) Watts, 175
\(^79\) Ibid, 179.
networks transformed into what Sheldon Watts has deemed “disease networks” along which people and their germs could travel vast distances and infect new populations.\textsuperscript{80} Trade networks, however, were not the only ones that helped spread the bacteria. During the nineteenth century, one of the most important vectors for the disease was the Hajj.

The Hajj is the large annual pilgrimage of Muslims to the holy city of Mecca in order to circumambulate the Ka’ba, the central shrine of Islam and the direction that Muslims pray daily.\textsuperscript{81} Considered one of the most important parts of Islamic practice, and for many Muslims it acts as a central component of their spiritual identity. The Hajj is mentioned in the Qur’an various times, including the following verses: “And announce the pilgrimage to the people: they will come to you on foot, and on every lean mount, coming from every recondite mountain pass, that they may bear witness to the blessings they have.”(Q.22:27-28)\textsuperscript{82} The pilgrimage is undertaken every year by multitudes of people. For example, in 1972 over one million people (1,042,007, to be exact) arrived in Saudi Arabia, a large increase over the 200,000 that arrived in 1877.\textsuperscript{83} Today many people fly, but in the nineteenth century they were arriving on boat or land. Although travel on the seas has always been possible, the increased ship traffic and availability of transport due to imperial trade networks allowed people to accomplish their pilgrimage faster, and by the early twentieth century the number of pilgrims arriving through maritime routes was

\textsuperscript{80} Ibid, xiv.


\textsuperscript{82} Thomas Cleary, The Qur’an: A New Translation (Starlatch, 2004), 163. For Qur’anic citations, the convention here will be “Q.[number of chapter or sura].[number of verse/verses or ayat/ayas].” For example, aya one of sura ninety-six would be cited as “Q.96:1.”

nearly five and half times that of the people arriving by land. The close quarters of the pilgrims traveling and the availability of live hosts for the bacteria to travel in increased the spread of the disease. The result of this intersection of commerce, empire, and disease was the transmission of cholera slowly west, first appearing on island ports in the Indian ocean in 1823 and eventually appearing in Mecca in 1831. Once here, the disease had the ability to travel along pilgrimage routes throughout the Muslim world, eventually becoming endemic to areas such as Egypt and current day Saudi Arabia. Thousands of people died every year on Hajj and in some epidemics, such as that of 1865, the proportions got even higher. As scholar David Edwin Long has calculated, up to 15,000 of the 90,000 of those on Hajj that year died. Flowing out of Makkah another 60,000 in Egypt died, and as the disease spread to Europe and North America the death toll reached up to 200,000 in major cities.

These staggering statistics and annual deaths due to disease because of the Hajj warranted a response by the colonial powers. Worried that the health of the colonized could affect the health of those in Europe, steps were taken to prevent the spread of disease throughout the colonial world. The first effort to block the disease from spreading through North Africa to Europe took place in Egypt. In 1831, L’Intendance Generale Sanitaire d’Egypte or the Egyptian Quarantine Board was created. Run primarily by European consuls, the Board played an important role in policing and maintaining hygienic standards in Red Sea ports and the Suez Canal until the responsibility was passed off to the Egyptian government in 1938. Within a few

84 Ibid, 127.
85 Peters, 301.
86 Long, 69.
87 Ibid, 70.
88 Ibid.
years, other boards were established, including the Constantinople Superior Board of Health in 1839. It was started by the Ottomans, and like its Egyptian counterpart was administered by foreign consulates in Constantinople and dealt largely with sea traffic and pilgrims coming through ports. Concurrent with the development of these health regulatory systems, European officials held a series of international health conferences in order to deal with the lurking threat of cholera and other diseases seen as emanating from the colonial world, emanating from the representation of the colonial native as dirty and disease ridden. The first of these meetings took place in 1851, and a second one was convened in 1859. Neither of these meetings did anything effective to combat the spread of disease, and due to the Ottoman Empire’s refusal to ratify a number of the proposals set forth in the meetings, no real progress was at first made in dealing with combating the spread of disease through the Hajj. It was not until 1865, as cholera became a world pandemic, that any real regulation was finally put into took place. The conclusions from that year’s meeting, the Third International Sanitary Conference, included promises by the Ottomans (then in control of Mecca and the majority of the lands effected by cholera carrying pilgrims, or Hajjis) to build quarantine stations in Egypt and other large ports. Although these efforts worked to protect Egypt and Europe they did nothing to quell the disease from rampaging throughout the holy cities in the Hijaz. In fact, between 1865 and 1892, there were eight epidemics of cholera in and around Mecca and Medina.

89 Ibid.
90 Ibid, 71.
91 Long, 71.
92 It is interesting to pause and note here that these conferences and the systems of regulations that they supported, stayed in existence—and held regular conferences—until evolving into the World Health Organization in 1948. (Peters, 315.)
93 Peters, 302.
The quarantine stations for pilgrims set up by the Ottomans and the other international Health Boards are the best place to look at the regulation of bodies and the imposition of western medical norms onto colonized subjects. It is in this space that there is a direct interaction between the colonized and its colonizers on both a physical and epistemic level. In the first sense, the bodies of the pilgrims had to be moved through the quarantine station before they are allowed to continue their journey into the Holy Land. These stations were set up in ports and regulated by foot soldiers in the employ of the state. The station acted as a processing plant, with each pilgrim being forced into a line where they bought a ticket. The ticket was needed in order to pass through a series of medical examinations and, if sick at all, through a fumigation room filled by a “sulphur burner,” an intriguing chemical re-framing of the ritual ablutions (undertaken before daily prayer) integral to the lifestyle of a Muslim pilgrim. Once through here, the pilgrims were shepherded into a field by a group of soldiers, where they set up tents and were put under observation for up to two days. This could be extended should any of the pilgrims on the journey die while on land. Soldiers watched over the pilgrims, keeping them in separate groups based on what ship they arrived in.

In a deeper sense, the quarantine station acts as a physical reification of the European medical epistemic framework and its imposition onto colonized bodies and in this case, their religion. The pilgrims entered into a heavily regulated physical space saturated by a certain discourse about their existence (they are dirty, vectors for disease) and the ways in which disease works and exists. They were kept apart to discourage infection, testifying to the ways in which germ theory and the work of scientists such as Prussian born Robert Koch came to affect the

94 I will focus especially on the quarantine station at Tur, in the Suez canal area.

95 Ibid, 311.
world. Most importantly, though, these quarantine stations were monuments to the power of the colonizing states over the lands and peoples under their control. The states had the ability to move bodies through space, and to co-opt thousands of years of religious and cultural practices in order to impose their will and world-view onto the globe. It is in the quarantine stations that the result of the link between the state and medical practice is made clear. It is here that “medicine became a demonstration of the superior political, technical, and military power of the West, and hence a celebration of imperialism itself.” In this scenario, the state and medical practice are one, with the gaze of the physician onto patients mimicking the gaze of the state onto its subjects. The end result of this conglomeration of power and healthcare has a had a few important and far-reaching effects.

First off, it conditioned and affected the way that the colonized subjects thought about their bodies and their own systems of health care. Evidence of this shift and the power dynamics behind it is available in literature from the time. For example, the following quotation about the quarantine station at Tur, taken from the writings of an early twentieth-century traveler sums it up well. It appears in the journal of Amin Rihani, a woman traveling through Egypt who happened to share a boat ride with a career nurse from Tur:

No greater service to Islam, to the world, in fact, could be rendered by medical science. Ever since the Tur Quarantine was established...Egypt has not had a single cholera epidemic. It is, moreover, teaching the Muslims sanitation and hygiene. They first balked at the idea of a quarantine, resented the interference with with the pilgrimage, and objected strongly to the disinfecting process; but they have gradually reconciled themselves to it, and now...the first thing that they ask for, when they arrive, is a bath.97

96 He discovered the bacteria that causes cholera in 1884 by studying water tanks in India.

97 Amin Rihani., 1922. Quoted in Peters, 313.
This quotation attests to several things. For one, it shows the change in the ways that people thought about their bodies and how to treat them. It is clear that, although once frowned upon, the Western system employed at the quarantine stations became normative and expected. Western styles of body care and hygiene, it can be inferred, were considered fine, or even sought after. It can also be read as a capitulation to state/colonial authority. This is demonstrated in the language of the quotation—the change from “objected strongly” to “gradually reconciled” sheds light on this, as does the fact the pilgrims were asking for baths when they arrived. Although this is a biased source and it must be understood as such, (perhaps it is an exaggeration?) it is nonetheless indicative of the general trend of displacement and subordination of native discourses of health with a colonial one. At Tur, the colonial body was reframed, sanitized, brought under the direct, bodily control of colonial discourse, remade through the lens of what is correct and good, European. The people that passed through places such as Tur, though, were never completely transformed by it—they left it continue their pilgrimage, to re-assert their own identities as Muslims even within the system of disciple imposed by the imperial state. This same dynamic is seen in i'jaz 'ilmī…it almost boxed into modern science, but critically, is not quite.
VI. Rebellion From the Center: I’jaz ‘Ilmi as Post-Colonial Discourse

Post-colonial theory stipulates that imperial power and resistance manifest themselves in many of the same spaces and in similar forms. One of these is the field of textuality, particularly writings produced by colonizers and the colonized. “Texts,” Leela Gandhi argues, “more than any other social and political product…are the most significant instigators and purveyors of colonial power and its double, postcolonial resistance.”\textsuperscript{98} This is true, if only given the nature of what texts are and how they function. They are physical reifications of abstract thoughts, facts, and knowledge forms. They are reproducible, widely distributable, and as scholars such as Benedict Anderson argue, able to shape national identity and culture through their mass consumption.\textsuperscript{99} They are also used as forms of social control; \textit{The History of British India}, as noted, was vital to how British government chose to exercise its authority in the subcontinent.\textsuperscript{100}

Simultaneously, writings offer a stage for resistance to this control. They create a space where ideas opposed to the normative or imposed ways of seeing the world are overturned and played with, rifled off to create something new and subversive. Conventional (read: imperial) literary and textual forms are adopted and tweaked to tell a different story and empower those people disenfranchised by the normative power structure. As post-colonial critics Chris Tiffin and Alex Lawson write, “Just as fire can be fought with fire, textual control can be fought by textuality…resistance then, quite appropriately takes place in—and from—the domain of textuality.”\textsuperscript{101} Works such as Chinua Achebe’s \textit{Things Fall Apart}, Ngũgĩ wa Thiong’o’s \textit{Petals of

\textsuperscript{98} Gandhi, 142.


\textsuperscript{100} Watts, 175.

Blood, or Salman Rushdie’s *Midnight’s Children* are all examples of postcolonial novels in which resistance to colonial forms of thought and history are confronted and/or ideas of nation and post-colonial existence parsed out in creative ways. Texts are powerful creations, and are to this day used as forms of resistance to epistemic imperialism and other lingering vestiges of the colonial era. In fact *i'jaz 'ilmi*, a subsection of a larger field of exegesis called *tafsir 'ilmi*, functions in this way. It confronts normative and imposed discourses about science and the body, and works to change the way their readers see and know the world they inhabit.

The phrase “*i'jaz 'ilmi*” translates from Arabic to English to mean “Scientific inimitability.” *'Ilmi* comes from the root word *ilm*, which literally means means “knowledge” or “knowledge of,” or “science.”102 *I'jaz* is the aspect of an object that makes it miraculous, and is an “Arabic theological and literary term for the matchless nature of Qur’anic discourse.”103 Another way to understand this “matchless nature” is the fact that the Qur’an is seen by many Muslims to be inimitable, or as the OED explains, “Incapable of being imitated; surpassing or defying imitation; without compare; peerless.”104 Many Muslim scholars and practitioners see the book as a *mu'jiza*, or “miracle” because of its inimitability. One of the primary aims of the *i'jaz 'ilmi* is to illustrate how modern scientific discourses and knowledge proves this concept; the work demonstrates the ways in which the Qur’an “knows” science, and they argue that it contains information, guidance, and knowledge about every major branch of scientific study. For example, the movie *The Qur’an Leads the Way to Science* posits that the Qur’an is an authoritative source on astronomy, geology, botany, human biology, zoology, anthropology, archeology, and even

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104 OED , s.v. “Inimitable.”
sociology.\textsuperscript{105} The fact that this knowledge is contained in the scripture at all (especially given the fact that it was revealed thousands of years ago before the rise and creation of modern science) is evidence of the miraculous nature of the text, and proof enough of the power of God and the divine nature of Muhammad’s mission as a prophet. The Qur’an is the original source of knowledge, many of the works seem to say; it is authoritative and trans-historical. As author I. A. Ibrhaim puts it in *A Brief Illustrated Guide to Understanding Islam*:

> The Qur’an, which was revealed fourteen centuries ago, mentioned facts only recently discovered or proven by scientists. This proves without doubt that the Qur’an must be the literal word of God, revealed by Him to the Prophet Muhammad (peace be upon him), and that the Qur’an was not authored by Muhammad (peace be upon him) or by any other human being. This also proves that Muhammad (peace be upon him) is truly a prophet sent by God. It is beyond reason that anyone fourteen hundred years ago would have known these facts discovered or proven only recently with advanced equipment and sophisticated scientific methods. Some examples follow.\textsuperscript{106}

This quotation cuts to the center of the assertions made by this body of literature—Islam and the Qur’an are inherently superior to Western epistemologies because the religious ways of seeing the world predate the secular; the Qur’an is ultimately *the* authoritative text through its role as the original progenitor of Western science and center of God’s last revelation to humanity. Examining the language of this quotation reveals a more than just its outlook. The tone makes clear that the author is committed to his work and faith, and does not see this as an exegetical work: it is a scientific/factual one. The use of the phrase “it is beyond reason” moves the terms of the discussion about science in the Qur’an from something debatable and makes it a statement of fact. There is only one way to understand it, he says: this way. It is beyond argument.

\textsuperscript{105} *The Qur’an Leads the Way to Science* (Istanbul: Okur Productions, 2005).

One of the other major aims of *i'jaz 'ilmi* can be seen in the subtext of Ibrahim’s quotation: conversion. The text has a double function, dependent on who is reading it: A) To prove to (or provide more evidence for) believers that the Qur’an is an inimitable text and is compatible with modern times because lines up with the normative, scientific way of understanding the world and B) to convince non-Muslims that the Qur’an is an inimitable divine text and, by extension, that Islam is a suitable religion for them because it lines up with and—on top of that—predates their way of thinking about the world.

The texts acknowledge that science is the ascendent lens through which many people view the world, and use its authority to boost their own. Ibrahim’s tone is unrelentingly logical, appealing to the epistemological sense of many people that might buy (or be given, as was the case with me) his text. It is only rational to see the Qur’an as divine given the fact that it contains modern knowledge, he says; there is no real point in arguing, but for everyone out there that might not believe it regardless, there is evidence to back it up. His quotation sets up the argumentative and evidence based nature of this body of literature, which is integral to their function and mechanical structure. It is important to note here that the presence of and importance of rationality in Islam (and hence, why people should convert) is a common trope that comes up in a number of the works I examined. For example, in Ibrahim’s book he states that “if we would like to know if a religion is true or false, we should not depend on our emotions, feelings, or traditions. Rather, we should depend on our reason and intellect.”

Further evidence for the fact that these texts aim to convert their readers can be seen in the fact that, concurrently with the appeal to logic and understanding, they act as primers on Islam and Muslim history. Many of the works present short sections on the beliefs and practices

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107 Ibid, 4.
of Muslims, the benefits of Islam (including “humanity, respect, love, compassion, justice, and civilization”), reasons the Qur’an is miraculous aside from its knowledge of science, and the inaccuracies of other scriptures in comparison to the Qur’an. Some of the works even explicitly campaign for the acceptance of Islam. One of these—self proclaimed on its bright orange cover as “Turkey’s best selling book on religion”—is *The Quran: Unchallengeable Miracle*. In it, scholar Caner Taslaman tells his reader what to do after having read about the scientific miraculousness of the text: “accept the the Quran is God’s word and His Miracle and [intend] to live as the Quran orders... This is what the Quran wants.” None of the other authors make their desire for conversion to Islam as plainly known as Taslaman does, and the majority of them spend their time laying out the evidence for the scientific facts which make the of the Qur’an a *mu'jiza*, constructing textually based arguments to support the evidence they give.

The arguments that they make center around textual analysis of the Qur’an. The authors carry out close readings of specific verses, and extrapolate meaning applicable to modern science from them. Essentially, they find a verse, and then explain the ways it relates to a modern scientific concept. They are highly dependent on rhetorical flourish and discursive maneuvers that read modern meaning and understanding into the verses they analyze. A good example of this can be seen in Taslaman’s work. In chapter eight, “Pulsars,” he discusses the ways in which the Qur’an predicts and explains the phenomenon of pulsars, or collapsed stars in the galaxy that emit electromagnetic waves detectable in regular pulses. He cites Q. 86:1-3: “By the heavens

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108 Sections on at least one of these subjects are observable in Moore et. al, Soliman, Ibrahim, Nurbaki, Bucaille, and Abbas. The list of benefits of Islam is from *The Qur'an Leads the Way to Science*.  
and the Knocker. How will you comprehend what The Knocker is? It’s a piercing Star.”\textsuperscript{111} These actions, he argues, can be seen as explaining the nature and existence of pulsars, which “knock” or “pulse” at a regular interval and are also stars. In my opinion, this reading of the verses cannot be seen as an explanation of scientific fact as he presents it.

His reading is a language game, and a subjective, interpretive exercise rather than an uncovering of objectivity. The fact that none of the other well known translations of the Qur’an use “the knocker” aside, he is bending the text (as well as using a reductive definition of pulsars, scientifically speaking) to support his point.\textsuperscript{112} It is almost a game of word association, and in this way is distinctly opposed to modern scientific inquiry, which works to establish facts that are beyond language and simple rhetorical twists and turns. And, although it could be argued—and has been seen in this paper in terms of the construction of knowledge and colonially imposed epistemologies—that facts are dependent on social context, the aim of modern science is nonetheless divorced from language games as such. The use of equations, formulas, and standard, scientific forms of measurement that transcend national borders (such as the metric system) seems to attest to a drive to move beyond geographic or linguistic fetters and establish a system not ultimately ruled by language. While this can be seen through a post structuralist lens as a doomed naiveté, the fact that the aim or desire of scientists is separate from the reality that science is dependent on its social context for meaning and validation is important to note.\textsuperscript{113} The

\textsuperscript{111} Taslaman, 59. The root of the word from which he derives knocking, “\textit{TaRaQa},” also means to strike or pulsate according to him.

\textsuperscript{112} Other translations of these verses do not use the term “knocker.” In Cleary: “By the sky and the Wayfarer: and what will let you know what the Wayfarer is? The penetrating star.” In Pickthall: “By the heaven and the Morning Star. Ah, what will tell thee what the Morning Star is? The piercing Star!” and in Yusufali: “By the Sky and the Night-Visitant (therein); And what will explain to thee what the Night-Visitant is? (It is) the Star of piercing brightness.” Note: aside from Cleary, which is in print (pg.295), the other translations I found online through the USC Center for Muslim Jewish Engagement. Accessed 4/14/10, <http://www.usc.edu/schools/college/crcc/engagement/resources/texts/muslim/quran/>.

dependence on language and semantics seen in Taslaman’s text and the *i'jaz ilmi* genre at large ultimately undermines the claim they can make to presenting “fact,” scientific or otherwise.

There are a variety of common verses and linked scientific ideas that fall under the category of scientific miracles and are explored by the cadre of authors analyzed. As seen in the Taslaman’s work, the examples and evidence are dependent on rhetorical associations and comparisons to draw their conclusions; any sort of “modern scientific” method is eschewed. One of the most common tropes is that the Qur’an predicts and outlines the big bang theory of the creation of the universe. There a few verses that are commonly cited in outlining this fact. The first is Q. 21:30: “Don’t the scoffers see that the skies and the earth used to be one solid mass, then we split them, and made all living things from water? Now won’t they believe?” The second is Q.67:3: “the One who created seven skies in correspondence; you see no disharmony in the creation of the Benevolent One. Now look: do you see any gap?” Using these verses, the big bang is narrated. The universe began at some point in the past as one solid mass, and then was split by God and then expanded a lot into what could be called seven skies: the troposphere, the asthenosphere, the solar system, etc. Other common things that cause (and prove) inimitability include mountains being on the edges of tectonic plates (Q.78:67), the creation of worldly object in pairs such as male female, positive/negative magnetic charges, proton and neutrons (Q.13:3, 36:36, 51:49), and the dynamics of fresh and salt water mixing at the mouths of estuaries (Q.25:53, 55:19-20).

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115 Cleary, 158.
116 Ibid, 280.
117 Respectively: Abbas, 41-2; Taslaman, 68; and Ibrahim, 17-19.
There is a large concentration in all *i'jaz ʿilmī* on knowledge pertaining to medicine and the functions of the body; authors such as Keith Moore, Abdul Majeed A. Zindani, and I.A. Ibrahim concentrate on fetal development and pregnancy as a process narrated step by step in the Qur’an. They read this as proof of the inimitability of the text due to the fact that ultrasounds, microscopes, and instruments that were used to extend and create the medical gaze did not exist at the time of the revelation.  

According to the authors, there are two main verses that summarize fetal development. The first of these is Q.39:6: “...God creates you inside your mothers, in successive formations, in three darknesses.” This passage introduces the idea of fetal development happening in different stages, and alludes to the steps of fertilization, the implantation of the fertilized egg into the uterine wall, and the subsequent grown and development of the fetus. According to Moore et. al, the the three darknesses described in this verse are “the anterior abdominal wall, the uterine wall, and the amniochorionic membrane,” which surround the fetus inside the uterus.  

It is important to note here that the discussions of fetal development in this genre are especially noteworthy because it is here that the majority of works I studied use images to supplement their text, providing ocular proof of their claims. For example, the veils of darkness are explained pictorially as

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118 Moore et. al., *The Qur’an and Modern Science*” Correlation Studies (Riyadh: World Assembly of Muslim Youth, 1990), 22. In this section, I’ll be focusing on the text and images from this book. Although, as noted, all of the authors I studied discuss this topic (and cite the same verses) this work has the longest section on it.

119 Cleary, 225.

120 Moore et. al., 23.
seen in Fig. 5 The second most important set of verses in the discussion of pregnancy is Q. 23:12-14:

We created the human being from an extract of earth then placed it as a drop [nutfah] in a secure repository; then We made the drop a clot [alaqah], then we made the clot a lump of flesh [mudghah], then We made the flesh bones [izam], then We clothed the bones with flesh [lahm] and then We produced another creature from it [nash‘ah]. So blessed is God, best of creators.¹²¹

This passage elucidates the stages of pregnancy alluded to in the first verse, making the ideas of the fertilization, etc. more explicit than before. The linguistic analysis of this passage is especially interesting. According to Moore (and the other authors), there are six distinct stages outlined. First is the nutfah stage, or drop. This is meant to be the sperm, which is deposited into the secure repository of the uterus, starting the whole process. After this comes the second stage, the clot or alaqah stage. As Moore, Ibrahim, Taslaman, and Abbas all explain, alaqah can also mean “leech,” and explains the congruent shapes of a human fetus at this stage of development and an adult leech; this is illustrated in Fig. 6. The third stage is the mudghah, which corresponds to the development of the fetus at its earliest stages. In Qur’anic Arabic mudghah means “chewed substance,” and some authors, such as Ibrahim, include images of embryos compared to chewing gum (see Fig. 7). The fourth stage is the izam stage, and explains the development of the skeleton inside the fetus (Fig. 8), and the fifth and sixth stages, or lahm and nash‘ah describe the development of the musculature system and the transformation of the fetus into a recognizable human form and its subsequent growth to a full baby (Fig. 9 and 10, respectively).

The images used to accompany the explanations are vivid and attention grabbing, with some of them (such as the nash‘ah stage as illustrated Fig. 10) straddling the line between medical/explanatory and pure aesthetic exploration. Some of the images might even seem ludicrous (Fig.

¹²¹ Cleary, 166. Original Arabic terms in brackets added by me.
5 and 6) given that the discussion is framed by the authors as scientific—their visual presence in the text undermines the seriousness of the works. The gut reaction to seeing those images for some viewers might be laughter or confusion. Why would Ibrahim compare a fetus to chewing gum? Who could ever take this seriously? Moving beyond laughter and disdain and looking at the images and their functions through an analytical lens paints a new picture; they can be read as visual reifications of the linguistic dependency on comparison and coincidence—would “the Knocker” be a pulsar if stars were not mentioned?—seen earlier in this discussion. More than that, though, the images can be seen as modern forms of *ayat*, the signs of the power and presence of God in the world attested to in the Qur’an.¹²² *Ayat*, singular *aya*, are instances in Qur’an where it pushes its readers to see the presence of God in the world, and through this understand the Qur’an as a miraculous text. A good example of a verse dealing with an *aya* is the start of Q.6:141, where edible plants and farming are framed as signs: “And it is God who originated gardens, trellised and untrellised; and the date palm, and the sowing of various edibles; and the olive; and pomegranates, similar or dissimilar.”¹²³ *Ayat* are used to make people think about God and appreciate His daily presence in the world and in revelation. Images work

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¹²² As seen earlier (p. 31), *ayat* also means the verses from the Qur’an.

¹²³ Ibid, 69.
the same way: they force personal witness, making their viewer confront and interact with what they present. The images in the text are designed to make the reader think, and see with their own eyes what the authors are talking about. They are evidence in the argument the authors build, adding a layer of complexity to the explanations and interpretations being carried out.

As briefly noted earlier, *i'jaz 'ilmi* is a subset of a larger body of exegetical, interpretive works dedicated to scientifically analyzing, discussing, and justifying the presence of God in the material world. This larger genre, the overarching umbrella category which contains *i'jaz 'ilmi* is called *tafsir 'ilmi*. The word “interpretive” is especially important in this definition—the word *tafsir* means to comment on or explain, and is used to refer to to Qur’anic exegesis.124 *Tafsir* is one of the most widely recognizable forms of Islamic literature and has been being produced since the medieval period.125 According to scholar Mustansir Mir, there are a number of historically well established types of *tafsir*: “*Tafsir riwa'i* takes transmitted report (*riwayat*) as its staple; *tafsir kalami* focuses on theological issues; *tafsir fiqhi* deals with legal matters; *tafsir nahwi* discusses issues of grammar; and

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tafsir adabi treats matters of language and style.”¹²⁶ Tafsir ‘ilmi, on the other hand, is an especially modern invention. An examination of the historical timeline looking for scientifically based tafsir makes this clear—they do not appear in any meaningful way until the late nineteenth century. Some medieval scholars could be cited as having engaged in a scientific form of exegesis. Fakhr al-Din al-Razi (d.1209), for example, thought that all branches of science were contained in the Qur’an, although his exegetical works do not tackle the topic in the same way that the modern tafsir ‘ilmi do.¹²⁷

The earliest modern example of this genre was written in the 1880s by physician Muhammad ibn Ahmad al-Iskandarani. His work, Uncovering the Luminous Qur’anic Secrets Pertaining to the Heavenly and Terrestrial Bodies, the Animals, the Plants, and the Metallic Substances, listed the verses that were related to the scientific discoveries and practice of his time.¹²⁸ The next notable example of tafsir ‘imli appeared in Egypt in the 1920s. Shayk Tantawi Jawhari composed a twenty-six volume commentary on the Qur’an which listed the verses he saw as pertinent to or explanatory of modern science. His work is full of tables, images, and graphs, and was written in

¹²⁶ Mustansir Mir, “Scientific Exegesis of the Qur’an: A Viable Project?” Islam and Science. (Summer 2004), <http://findarticles.com/p/articles/mi_m0QYQ/is_1_2/ai_n6160529/?tag=content;col1>


¹²⁸ Ibid.
order to convince his fellow Muslims of the importance of scientific progress, through which they could “regain political independence and power” from European colonizers. In this way he can be credited as the progenitor of *i‘jaz ‘ilmī*—his texts were the first to use scientific inimitability to resist colonial rule and discourses. His work is also notable as it is coming out of a distinct historical moment. The late 1910s and early 1920s were a period of protest against British colonial rule by Egyptians, who wanted to assert their rights as an independent nation; hundreds of “natives” died in rebelling against the government.

After Jawhari, sporadic publications continued in the 1930s and 1950s, but it was not until 1976 with the publication of Dr. Maurice Bucaille’s *The Bible, Qur’an and Science* that the field as observed today really began. His book’s main claim is that “the Qur’an [does] not contain a single statement that [is] assailable from a modern scientific point of view.” Originally written in French, it was translated into English, and today is widely available on the internet through websites devoted to giving basic information about Islam to potential converts or sites that deal with *i‘jaz ‘ilmī*. It is clear from the book’s wide availability and the amount of times it is

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129 Ibid.


mentioned or cited in critical articles on the genre as well as the bibliographies of various books and articles, including I.A. Ibrahim’s work, and an article by scholar Jalees Rehman.132

Other aspects of these texts also give away the fact that they are particularly modern. The most important is the name of the genre itself and its main subject: *i'jaz 'ilmi*. As mentioned, ‘ilmi means “knowledge of,” but has come to be used as “science.” *Ijaz ‘ilmi*, then, is a compound phrase meaning “scientific inimitability.” The linguistic structure of this phrase, though, is one derived from the grammar of modern European languages. In fact, it never appears in any medieval bibliographic references or dictionaries, including Ibn al-Nadim’s famed *al-Fihrist*.133 As Talal Asad discusses, there has been a huge transformation of modern Arabic since it came into

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133 In fact, the term is not even used until the late twentieth century, and does not appear in standard works about the field of Qur’anic exegesis. See: Khalifa, vol. 1, 120. Here, the author lists all the forms of Qur’anic exegesis viable at the time of his writing. He mentions “*i’jaz al-Qur’an*,” (works discussing for miracles of the Qur’an) but makes no mention of *i’jaz ‘ilmi* as a category.
contact with European languages and powers beginning in the nineteenth century, including the use of punctuation, paragraphs, sub-headings, and changes in sentence structure and literary styles. This phenomenon can be read in a number of ways. As Asad notes:

There are varieties of knowledge be learnt, but also a host of models to be imitated and reproduced. In some cases, knowledge of these models is a precondition of for the production of more knowledge; in others, it is an end in itself, a mimetic gesture of power, an expression of desire for transformation.

The use of the phrase *i'jaz 'ilmī*, then, becomes doubly complex and important. Not only is it revealed as a modern category, but it can also be seen as a direct response to the colonial encounter of the nineteenth century. It emerged because of the imperial project and the palpable power-dynamic between the two languages and the respective worlds they represent. English, French, or Italian were modern, powerful, and forward looking. In the eyes of colonial discourse—and those victim to its pedagogical program—Arabic was the language of the native, mired in the primitive uncivilized past. The creative response carried out by the colonized is at once unique and mimetic—new forms of seeing the world and religious texts were produced, but were produced boxed into the linguistic and epistemic frameworks of the colonizing oppressor.

As modern as these texts are, a number of criticisms have been leveled towards them from within the Muslim intellectual world. For one, some religions scholars, such as Muhammad Rashid Rida, Mahmud Shalut, and Sayyid Qutb, object to the artificial meanings read into the Qur’anic text. As noted, the main strategy of the authors writing these works is to line up the Qur’anic vocabulary with modern scientific terms, and many people object to the conclusions they draw based on rhetorical flourish and comparisons such as the fetus and the chewing gum;

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134 Asad, 191.
135 Ibid.
136 Wielandt.
the fact that the Qur’an was revealed in the seventh century means that its vocabulary is radically different from the meanings that are ascribed to it by the modern authors. The fact that Qur’anic Arabic is radically different from its contemporary form gives way to the second objection to the tafsir ‘ilmi—the Qur’an was self-consciously revealed to a seventh century audience as a text so that people “would understand.” Giving it a static modern meaning, then, does not make sense. This is not to say that the Qur’an cannot be interpreted for a modern audience—if this was true exegesis would have stopped in the medieval period—but rather that a verse cannot exclusively be about pulsars or Einstein’s theory of relativity because nobody in the original audience would have understood the references being made, and this would directly contradict the word of God. Furthermore, science is in itself elastic and discontinuous; every scientific fact is based on theories which can and do change as ways of “speaking true” in social contexts change. How could the meaning of a sacred, unchanging text, then, be tied (permanently) to an idea that is inherently unstable? The understandings of the texts that lead to these objections come out of readings that, like tafsir ‘ilmi itself, are inextricably linked (and constrained) by certain modes of thinking about the Qur’an and its interpretation. Examining the tafsir and its i‘jaz ‘ilmi subheading through a Muslim exegetical lens does not reveal their full richness and vitality.

Looking at them at through the lens of post-colonial theory, however, paints an entirely different picture. Using this theoretical framework, i‘jaz ‘ilmi are transformed from a simple

137 Ibid.
138 Ibid. The verse alluded to is Q.12.2: “We revealed [the Qur’an] as an Arabic recital so that you would understand.” (Cleary, 112)
139 “The theory of relativity was asserted by God almost 1400 years ago.” Abdel M. Abbas, His Throne Was on Water (Beltsville, Maryland: Amana Publications, 1997), 4.
140 Canguilhem, 14.
exegetical discourse into a revolutionary one which works to resist imposed colonial
epistemological systems that create and govern knowledge about science and the body. Through
their claim to original authority through the age of the Qur’an and the traditional knowledge it
carries, this hermeneutical practice menaces established discourses that center around objectivity,
materialism, and Enlightenment derived schools of thought such as western medicine. By
proposing and outlining a different way of understanding scientific and biological processes such
as pregnancy, the \textit{i'jaz ilmi} genre is at once undermining the claim to absolute authority of
Western/secular modes of thought and promoting Islam as an alternative path to knowledge and
understanding. Indeed, the claim that God and the Qur’an are the best path to knowledge is
made explicitly in many of the texts. Dr. Haluk Nurbaki, for example, closes his work with the
statement that “GOD ALMIGHTY IS THE SPEAKER OF TRUTH.”\footnote{Dr. Halûk Nurbaki, trans. Metin Beynam, \textit{Verses From the Glorious Koran and the Facts of Science} (Ankara: Turkish Foundation For Religion Publications, 1989), 392.} The texts work to
restructure the normal historical timeline of scientific discovery and advancement, which shoves
Muslims aside around the time that renaissance began in Europe. The \textit{i'jaz ilmi} corpus exists in
the margins of the western-centered intellectual world, and everyday attempt to claw its way into
the center.

This reading of the genre can be easily problematized. Looking at them as post-colonial
can produce a certain amount of cognitive dissonance for a reader. This is due to the structures
of the discourse, specifically its reliance on language and rhetoric which seems shaky, and more
importantly, the fact that it uses modern science—what it is rebelling against—to validate its own
authority. It is completely dependent upon the hegemonic and authoritative power that modern
scientific discourse carries in order to function; the Qur’an is proved a \textit{mu'jiza} through the use of
the epistemological framework that, through its commitment to materialism, is essentially
opposed to the Qur’an’s claim to truth. For example, the verses that are seen as alluding to the existence and importance of plate tectonics (such as Q.78:6-7) would not be particularly notable if modern scientists had not discovered and written about them before. Although this is spun in *i‘jāz ‘imli* as “modern geology [confirming] the truth of the Qur’anic verses,” it could just as easily be seen as the authors finding verses that they can graft the authority of modern geologic fact onto. There are other important instances where this structural disconnect, this dependence on the authority of the absorbed epistemology, can be seen. For example, in *The Qur’an Leads the Way to Science*, the narrator discusses the world of modern science, and only uses voices from western universities and professors to talk about modern advancements that support the Qur’an. Any indication of Islamic science or scientists is nowhere to be found.

The dependence on colonial authority and power goes beyond the use of scientific/academic voices or geologic theories: the texts also betray a dependence on colonial representations of Islam, bringing to light Greenblatt’s mimetic feedback loop and the extent that taught images about Muslims impact their writing and self-imagining. For example, I.A. Ibrahim responds directly to a number of negative stereotypes about Muslims in his text, explaining the views that Islam holds on terrorism, women, and human rights—three common flashpoints on contemporary polemics on Islam. In Taslaman’s work, he uses a variety of stock images to describe Islam in its early days. The best example of this is in a chapter where he discusses the fact that God revealed to Muhammad the intricacies of the Big Bang. In it, he mentions that, as always, the “unbelievers” did/do not believe that The Qur’an could contain this sort of information. What is the next best answer aside from God? Could Muhammad “have had a telescope concealed under the sand dunes, a telescope as sophisticated as the Hubble

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142 Ibrahim, 59-64.
telescope?” While his tone is intentionally mocking towards “the unbelievers,” the fact that he references “the sand dunes” immediately pulls from stereotypical images of “Islam”: desert, camels, caravans, sunset behind an oasis. While it is true that much of Saudi Arabia has a desert-like climate, the ideas and images connoted by his allusion seem inextricably linked to colonial discourses and portrayals of Muslims. This dependence on western voices and colonial representations seems to undermine the idea that *i’jaz ‘ilmi* can be read as subversive, and begs the question: how effectively can this corpus be read as empowering and post-colonial for the religious community/viewpoint if they are chained to the discourse that they are trying to replace? Could these text ever convert anyone?

As contradictory as it might seem, the fact that one discourse is chained and locked onto the other is the key to understanding this paradox. It is the inherent similarity and, most importantly, the slight difference between *i’jaz ‘ilmi* and conventional modern scientific texts that exposes the resistant and rebellious actions of the exegetical works. Both forms of literature are about scientific facts—the existence and truth of concepts such as plate tectonics, the big bang, relativity, or the stages of pregnancy are assumed and never questioned. Science is science and has proved itself capable of finding truth in the world. The point of departure then, is not the fact itself but the *origin* of the fact: when was it discovered, and how? By *i’jaz ‘ilmi* claiming across the board that all scientific knowledge is contained within the Qur’an, it departs from its enlightenment-derived doppelgängers and begins its mutiny against the discourse that, to this point, it was essentially a part of. By moving the source of scientific truth to God from Man, it raises questions and shakes the foundations of an oppressive discourse from within; it calls into question what is and is not true, and more than that, what truth even is. Through this, its actions

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143 Taslaman, 36.
can be seen as symptomatic of what scholar Homi Bhabha calls mimicry. This theory maps the behavior of certain texts and makes clear the ways in which literature and discourse create space for resistance and rebellion in a post-colonial context. He describes colonial mimicry as “at once a resemblance and a menace,” pointing out that “mimicry repeats rather than re-presents.” What he means by this is that a text engaged in mimicry does not attempt to make itself different from the discourses that it works to disrupt. Instead, it is “almost the same, but not quite,” and in this slight difference exposes itself as disruptive. As he puts it:

…mimicry emerges as the representation of a difference that is itself a process of disavowal. Mimicry is, thus the sign of a double articulation; a complex strategy of reform, regulation, and discipline, which ‘appropriates’ the Other as it visualizes power. Mimicry is also the sign of the inappropriate, however, a difference or recalcitrance which coheres the dominant strategic function of colonial power, intensifies surveillance, and poses an imminent threat to both ‘normalized’ knowledges and disciplinary powers.

Thus, a text using mimicry such as *i'jaz 'ilmi*, is able to talk out of both sides of its mouth. It is appealing to the a mindset steeped in colonial discourse, using manufactured representations—such as Taslaman’s telescope beneath the dunes—to describe itself, to take advantage of/poke fun at the colonial monopoly over fact and fact-making. It uses the authority seen in science and medicine to gain sovereignty, only to turn use that power to work against the same discourses. It is able to threaten “normalized knowledge” through its own counter claim to an original and unquestionable source of authoritative fact contained in the Qur’an and a religious way of seeing and speaking the world. Through this genre, the imposed discourse that helped create *i'jaz 'ilmi* are transformed. They are at once its mother, its playground, and its victim.


145 Ibid., 86.
VII. In Plain Sight: Conversion, Translation, and Truth.

The next question to ask is if the *i'jaz ilmi* is successful in fulfilling its implicit goals—does it challenge the normalized way of seeing and thinking about the world? Does it convert people? On an individual level, face to face with a single reader, the answer is yes. These texts do seem to play a role in conversion, which indicates that they change how people see the universe, and can bring non-believers to Islam. One easy place to look for information on conversion is the internet, where there are hundreds if not thousands of easily available conversion narratives scattered across sites with names such as “turntoislam.com” or “converttoislam.com”. YouTube is also a helpful place, as many people film their own testimonials or post videos and interviews with people who have decided to become Muslims. One video that caught my attention was a short interview with a Canadian science student named Steven. There is never any indication of who has made the video and for what reason—the only clue to its maker is its submitter, a user by the name of MuslimReverts, who hosts 130 videos on the site all related to conversion. It is obviously staged, and shot with a hand held camera. It has been labeled to come up in a lot of searches on the site—some of the tags that will bring it up as a search result include “peace, love, logic, and science.” The video opened with a shot of Steven reading a book in his chair (Fig. 11), as the narrator explained how he had decided to embrace the faith, which was “a perfect match to his logical mind.” Throughout the start of the interview, Steven is pictured holding a book, reading it deep in contemplation. A few seconds later, the shot cuts to him reading it to his

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146 Many Muslims refer to conversion as “reversion”—this comes out of the theological idea of *fitra*, which essentially states that all people are born Muslims and that is Islam is humanity’s natural state of being. Hence, conversion is the same as reverting back to Islam. This idea is seen alluded to in the name of the YouTube submitter as well as the title of the video.


148 Ibid.
interviewer, pointing out a few key points and illustrations to her. This book is none other than *A Brief Illustrated Guide to Understanding Islam*, one of the most available ambassadors of the *i*ṣ*aż ʿilmi* genre and the book that began this thesis. The work, one gleans from the video, is a source of information and guidance for him about his new faith, and played a role in his becoming a Muslim. Here *i*ṣ*aż ʿilmi* are seen working—they are active texts, playing a role in convincing people to change their faith and thinking.

On a more theoretical and structural level these texts are working as well. On the most basic level they are appropriating scientific discourse and placing it within the domain of scriptural reasoning, using it to prove Islam and that the the Qur’an is a *muʿjiza*. In many ways this dynamic could be seen as a structural analogue to the historical appropriation of Greek thought and medical theory by Medieval Muslim philosophers and physicians. As discussed, this process involved an adoption and expansion, in a sense a re-writing of medical science through the kens of Qur’anic hermeneutics. This reading is easily problematized, because while it may seem in the modern day this trend is continuing, there is one important difference: the system that the authors of *i*ṣ*aż ʿilmi* are grappling with was imposed during the colonial era, not slowly adopted. As the institutionalization of medical practice and its imposition onto colonial peoples seen through the response to cholera and the regulation of Hajj, the rules of the system and discourse confronting these authors is not and never was elastic. Muslim bodies were made
sanitary in the eyes of the nurses and doctors at Tur only after having undergone certain procedures and steps standardized by men of a certain time and place (removed from where their theories were put into practice). Beyond this, today this system of medicine has established itself as the authoritative voice on healing and sickness, and for many people is considered normative. This alone rules out the same sort of transformative process that took place historically; this discourse of scientific inimitability is not going to change the ways in which everyone in the world sees science and the body.

Perhaps, then, the best way to think of this genre is not as one that seeks to appropriate, but rather one that seeks to translate and subvert. As Talal Asad explains, “all good translation seeks to reproduce the structure of an alien discourse within the translator’s own language.” In the case of the *i’jaz ‘ilmi* genre, then, it is reproducing—through specific a form of Muslim scriptural hermeneutics—the structures of scientific discourse, both in Asad’s use of the term as literal language and my own as a mode of deploying an epsiteme. This seems apt, considering the importance that the genre gives to both scientific terms as well as its literal truth; *i’jaz ‘ilmi* does not dispute the facts of modern science, but rather its origin. This interpretation of the discourse seems even more appropriate given another of Asad’s conditions for what makes a good translation:

> [it] should always precede a critique…one based on some shared understanding, on a joint life, which it aims to enlarge and make more coherent. Such a critique—no less than the object of criticism—is a point of view, a (contra) version, having only provisional and limited authority.

Through its use of mimicry, *i’jaz ‘ilmi* critiques the discourse it shares with those it writes against. The process is complete: science is translated, reconfigured in a Muslim exegetical tradition, but

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149 Asad, 189.

150 Ibid.
preserved enough to still be considered scientific by those that have yet to be convinced of the ideas disseminated by the works. It is through this preservation, though, this maintenance of the discursive frameworks which keeps it sound in the eyes of potential converts, that the critique is released. This discourse is powerful and hidden, available for those who seek it out, but masked by its own complexities for the casual observer. It waits right where it is least expected, right around the corner, waiting to push its readers towards a restructuring of mind, a questioning of the nature of truth, and ultimately, the source of our existence.
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