

between Gods & Dogs

by

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ABSTRACT

between Gods & Dogs is an exhibition, comprised of two installations, that raises questions about belief, authority, knowledge, and power. *The Word That Binds Them* is an interactive installation involving books that have been put in positions of authority or treated as sacred by religions, political parties, academic institutions, and other communities. As viewers navigate the work, they are faced with questions surrounding power and ideological belief. The project involves consultations with the Internet Sacred Text Archive, research of citation rankings, and discussions with followers of various belief systems to inform the selections of books.¹ All of these texts play an important role in historical and present-day power structures. The work demonstrates how art—specifically interactive art—is rich territory for questioning and deconstructing systematic ideologies and our interactions with them as humans.

While *The Word That Binds Them* questions the beliefs, knowledge, and power we acquire from books, *Most Retrieved Words* questions what we might learn from an unexpected source—our canine companions. The project began by engaging the general public in order to collect sounds of their dogs barking and short writings describing what they have learned from their dogs. What can dogs teach us about freedom, play, curiosity, love, forgiveness, risk, danger, and other important concepts? The collected sounds are altered so that they embody qualities of sacred choral music. Visual content in the work is comprised of hundreds of videos of dogs that have been extracted from found footage. These individual videos are composited into an immersive four-channel video projection that contains thousands of dogs running in mass along the walls of the gallery. This paper outlines the methodologies used to create an art experience that inspects theological, political, academic, and nonanthropological sources of belief.

¹ “Internet Sacred Text Archive,” edited by John Bruno Hare, <https://www.sacred-texts.com>, accessed April 24, 2020.

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Part One:

THE WORD THAT BINDS THEM

documentation of this work is available at www.fczuke.com

CHAPTER 1: A System of Systems

I am concerned with the psychological systems that humans establish, navigate, and promote. Research is a significant element of my practice, and my creative output is informed by studying the processes that people use to arrive at their beliefs and the ways in which those beliefs manifest into action. My work often probes belief systems and their functions within societies. This inquiry leads to the principal question: how can we reveal, confront, and influence the systems in which we exist?

Through the investigation of belief systems, my work questions the ways in which people are empowered through belief and the human tendency toward *aggressive belief*.² If beliefs are like maps to guide one's path, a problem might occur when one presupposes that a single map can be used to navigate all territories. *Aggressive belief* ensues when one becomes hostile toward those who would dare to question their map's legitimacy or revise its coordinates. Neuroscientists have analyzed physiological responses of the human brain when one is confronted with ideas that are at odds with one's beliefs. An experiment at the University of Southern California's Brain and Creativity Institute suggests that certain areas of the brain "signal threats to deeply held beliefs in the same way they might signal threats to physical safety."³ If it is true that the brain responds to challenges to our beliefs in a way similar to physical threats, it is no wonder why humans defend their psychological cartography so viciously. Where is the boundary between the gentle

² The term 'dogma' might suffice here, but I use *aggressive belief* because I am specifically speaking to the psychological aggression and hostility that often accompany challenges to one's strongly held beliefs.

³ Jonas T. Kaplan, Sarah I. Gimbel, and Sam Harris, "Neural Correlates of Maintaining One's Political Beliefs in the Face of Counterevidence," *Scientific Reports* 6 (December 23, 2016): 39589, <https://doi.org/10.1038/srep39589>. The experiment showed that the anterior insula was triggered when participants' core beliefs were challenged. This region of the brain, which handles feelings of threat, uncertainty, and anxiety, is located within the insular cortex, which is believed to play a major role in human emotion. Furthermore, the insular cortex is closely connected to the amygdala. The researchers in this experiment state that, "the amygdala is especially sensitive to fearful and threatening stimuli. One interpretation of these activations in the context of our study is that these structures are signaling threats to deeply held beliefs in the same way they might signal threats to physical safety."

acceptance of an idea and a firm conviction? When does firm conviction lead to an assault on those who would challenge one's conviction? In an effort to explore these questions through art, certain thematic material has proved useful.

A common stereotype of aggressive belief is the religious fanatic: the person who protests the teaching of evolution in public schools; the one who believes Armageddon is coming next Thursday; the person who damns to eternal torment all those who disagree with their doctrine. I have discovered religious themes and metaphors to be rich material for exploring both religious and non-religious forms of aggressive belief. In 2019, I composed a list of the conceptual complexity that religious material offers to my practice.

- 1) **Questioning the cultural barrier.** Religious fanaticism is a stereotype of aggressive belief. Within art and academic environments, it is often acceptable to criticize—and sometimes mock—religious communities. Perhaps if my practice positions all forms of aggressive belief around religion, the cultural barrier between secular and religious communities will be questioned. It may be easy to turn religious fanatics into caricatures, but what similarities might be found between religious and secular communities in terms of their belief structures?
- 2) **Questioning sacred protection.** The English Oxford Dictionary defines 'sacred' as "protected by some sanction from injury or incursion."⁴ The Merriam-Webster defines the word as "unassailable, inviolable."⁵ Through my work, I challenge the notion that certain opinions are protected from questioning. Positioning sacred and secular issues around

⁴ "sacred, adj. and n.", OED Online, Oxford University Press, March 2020, <https://www-oed-com.www2.lib.ku.edu/view/Entry/169556?rskey=LEEjAp&result=3>, accessed April 25, 2020.

⁵ "sacred," Merriam-Webster.com Dictionary (April 14, 2020), <https://www.merriam-webster.com/dictionary/sacred>.

religious themes prompts a question: *what is sacred and what is secular?* If all of our beliefs are sacred, then is everything “unassailable” and “inviolable?” Or should we abandon the notion that certain beliefs deserve protection from others’ scrutiny and our own doubt? I find this question to be valuable in creating a discourse that might eventually lead to a proposition: *should we question everything?*

- 3) **A host of component issues.** Religious systems contain a host of issues and constructs that are each important and worthy of analysis in their own right. For example, religious systems often include hierarchies of leaders who possess specific authority. How does authority augment aggressive belief in sacred and secular communities? How might authority figures play a role in other belief systems? Who is enthroned in the hierarchy of a radical political party or a rigid academic community? What control do these individuals have over members below them and what must they yield to those above? The rich subset of issues and concepts within religion furthers the possibility that it will bear an abundance of useful material to my practice.
- 4) **Metaphors, motifs, and symbolism.** Religions have created a treasure trove of metaphors and symbols that are widely accessible and understood by audiences. Some of these ideas are shared across several different religions, such as the ascension motif.⁶ How might the ascension of a god-figure relate to the ascent of individuals in corporations or academia? Is the time required to ascend the ranks similar to the time demanded of those in purgatory? How might a work of art question, fulfill, or deny expectations surrounding these metaphors? How might these metaphors be challenged?

⁶ Edward T. Jones, “A Comparative Study of Ascension Motifs in World Religions,” in *Deity & Death*, ed. Spencer J. Palmer (Provo, UT: Religious Studies Center, Brigham Young University, 1978), 79-106. Jones’ article addresses the ways in which religions employ ideas of ascension and spatial elevation in order to depict relationships between gods and humans.

To materialize an immaterial system

In the summer of 2019, at the genesis of my MFA thesis project, I intensely researched what can broadly be described as systems theory. The majority of the literature I explored was not from art communities, but from the fields of sociology, psychology, and science and technology studies. One of the most valuable results of this research was an insight into how professionals in these fields have approached the study of systems and the language they have used to describe the functions and failures of systems.

Charles Perrow is a sociologist who has studied catastrophic systematic failures, such as the Three Mile Island nuclear meltdown in Pennsylvania in 1979. Perrow has identified two factors that play a major role in system failures: “interactive complexity” and “tight coupling.”⁷ *Interactive complexity* addresses the interactions between individual components within a system. The more complex these interactions are, the more possibilities there are for unforeseen interactions that result in failures. *Tight coupling* refers to events and processes within a system that must be tightly timed and coordinated for the system to function as a whole. Risk of failure is proportional to the precision and synchronicity required by the system. Clearfield and Tilcsik build upon Perrow’s ideas to address the ways that these two factors can be exploited by hackers and fraudsters, stating that the complexity of a technological system is proportional to the number of security flaws that might be exploited by wrongdoers.⁸ A common thread in these scholars’ discourses on systems theory is a focus on investigating individual components of a greater whole and finding ways that these individual components interact. Concepts like the ones put forth by these authors are fundamental to my practice as an artist who investigates systematic and

⁷ Charles Perrow, *Normal Accidents: Living with High-Risk Technologies* (Basic Books, 1984), 4-5.

⁸ Chris Clearfield and András Tilcsik, *Meltdown: Why Our Systems Fail and What We Can Do about It* (Penguin Press, 2018), 57-78.

aggressive forms of belief. I used this research to interrogate possibilities for what my thesis work might achieve. Is there a way to combine art with systems theory to study belief systems? By searching for “interactive complexity” and “tight coupling” within a belief system, can we anticipate its failures or hack its epistemological infrastructure?

One challenge I encounter in my practice is materializing intangible content. How do I approach immaterial ideas and concepts with something other than academic, philosophical, and esoteric language? How do I make a concept such as aggressive belief accessible to a general audience in an art experience? In the case of my thesis exhibition, the solution to this problem was not to find ways to materialize a belief system myself, but to seek out ways that these systems have already been materialized by others.

Writing is an action that utilizes a language system to produce a physical record of the writer’s thoughts. This record can serve as a transmission device for a particular belief system, such as the religious, political, and academic texts that believers disseminate. In this way, books act as physical containers for immaterial offerings. In my practice, the book became a solution to the problem of seeking a materialized form of belief. In thinking about the ways that scholars such as Perrow, Clearfield, and Tilcsik approached systems, and in examining the potential of blurring the secular with the sacred, I decided that my thesis exhibition must not be limited to one particular book, but would include a collection of books. In other words, I determined that the particular system at the heart of my work would not be just one system, but a system of systems. Like a systems theorist exploring the inner-workings of Three Mile Island, my task would be to dissect this set of texts to discover the connectivity between its individual components.

Selecting texts

The Oxford English Dictionary defines 'dogma' as "a tenet or doctrine authoritatively laid down, esp. by a church or sect."⁹ As mentioned above, authority is an important aspect of many religious systems and plays a role in perhaps all systems of aggressive belief. Authority and sacredness were the two most important factors when deciding which books to include in *The Word That Binds Them*. But how does one determine which books have been treated as sacred or as objects of authority? One way this question can be approached is by engaging followers of specific doctrines to assess their relationships to their foundational texts. I performed this task by approaching various faith and political communities. Many of these interactions happened online, in forums dedicated to the discussion of religious, historical, political, and academic content. While Christian, Muslim, and Jewish communities spoke to the authority of their respective holy books, other religious groups reported an absence of authority in their philosophies. For example, many followers of Hinduism rejected the presence of authority in their holy texts, the Vedas, and a general lack of rigidity in their religious teachings at large. In considering Hindu texts for inclusion in my work, there was also an issue of the Vedas existing not as one unified book, but as an enormous collection of rituals, hymns, histories, epic poems, and philosophies located in a variety of texts. These two factors are the reasons why *The Word That Binds Them* does not include a text from Earth's third largest religion.

Another consideration that guided the choice of specific books were citation rankings. In September of 2019, Cybermetrics Lab—a research group belonging to the largest public research body in Spain—published a list of the most cited global scholars according to data from Google Scholar. According to this list, philosopher Michel Foucault was named the most cited

⁹ "dogma, n.," *OED Online* (Oxford University Press, March 2020), www.oed.com/view/Entry/56479, accessed April 23, 2020.

individual.¹⁰ Although it might not be required to swear allegiance to Foucault to enter the gates of academia, this data certainly reveals a disproportionate influence on a community by one individual. I specifically chose to include Foucault's *Discipline and Punish*, which is one of the most cited books in all of the social sciences, for the significance of his writing as it relates to authority and power structures.¹¹ Charles Darwin, perhaps the most famous biologist, also appeared on the list published by Cybermetrics Lab. My decision to include his seminal work, *On the Origin of Species*, creates a scenario where two disciplines within academia—the humanities and the sciences—are represented by two of their most revered scholars. Academic texts are often inaccessible to readers without prior academic training. This creates situations where lecturers or other authors need to summarize the text so that it is understandable to those who lack the required training. In this way, academic writings can relate to sacred texts that depend on an authority figure or spiritual leader to interpret (e.g. Joseph Smith translating the Book of Mormon from golden plates into the vernacular).

Historical authorities are pertinent to the exploration of belief in *The Word That Binds Them*. What authorities might have existed in the past but are no longer as dominant as they once were? A book of particular interest is the I Ching, which is one of the oldest texts that appears in my work. Scholars have traced the origin of this text to the Western Zhou period of Ancient China (1045-771 BC). Legge notes that, at one time, a public official designated as “the Grand Diviner” was in charge of the rules for the three Yi—three systems of divination from which the I Ching is derived. Legge states that “there is abundant evidence that divination by the Yi was frequent,

¹⁰ “Highly Cited Researchers (h>100) According to Their Google Scholar Citations Public Profiles, 11th Ed.,” Webometrics Ranking of World Universities, <https://www.webometrics.info/en/hlargerthan100>, accessed April 23, 2020.

¹¹ Elliott Green, “What Are the Most-Cited Publications in the Social Sciences (According to Google Scholar)?,” (LSE Impact Blog, May 16, 2016), <https://blogs.lse.ac.uk/impactofsocialsciences/2016/05/12/what-are-the-most-cited-publications-in-the-social-sciences-according-to-google-scholar/>.

throughout the states of China, before the time of Confucius,” and goes on to describe how the divination text became a pillar of Confucianism.¹² A passage from Smith’s *The I Ching: A Biography* offers a rather straightforward account of the authority that the I Ching possessed throughout the history of China.

“From the Han dynasty (206 BCE-220 CE) through the Qing (1644-1912 CE), the Yijing remained a work of enormous and unchallenged scriptural authority; everyone in Chinese society esteemed it and employed it in some way, from emperors and officials to artisans and peasants. Commoners used pages from the book as a charm to ward off evil, and scholars gave it pride of place as first among the [Confucian] classics.”¹³

The I Ching is uniquely situated within *The Word That Binds Them* as a text that held extraordinary influence over centuries of East Asian history. By placing it alongside the other religious texts, a dialogue is created concerning the ways that societies have been shaped by divination as opposed to monotheism.

In considering political texts for inclusion, I determined that the Constitution of the United States, the supreme authority of the American legal system, should be included in an exhibition that addresses authority and aggressive belief and that takes place in the United States of America (in a conservative state). Karl Marx, who—like Foucault—is one of the most cited authors in the social sciences, was chosen to represent a leftist philosophy. In order to inform the selection of a conservative text, I turned toward the words and actions of current political leaders. There are several conservative politicians in the contemporary political sphere who express an affection for

¹² James Legge, *The Sacred Books of China: The I Ching*, Second Edition (New York: Dover Publications, 1963), 3-4.

¹³ Richard J. Smith, *The I Ching: A Biography* (Princeton, NJ: Princeton University Press, 2012), introduction.

the writings of Ayn Rand, including Donald Trump, Paul Ryan, and Daniel Hannan—the “intellectual architect of Brexit” who keeps a photograph of Rand on his desk.¹⁴ This information, paired with the recent spark of interest in Rand’s work following Hollywood’s trilogy adaptation of *Atlas Shrugged* (2011-2014), made Rand a culturally significant choice. *Quotations from Chairman Mao Tse-tung*, often referred to as the *Little Red Book*, is included not only for its elements of authority and strong ideology, but also in how this book has been treated by Chinese culture since its publication in 1964.

“People would sometimes greet each other using quotes from [Mao’s Little Red Book] or give the books as wedding gifts. For hundreds of millions of Chinese in the 1960s, it’s probably safe to say *Quotations* was the only book they owned. While statistics are imprecise, perhaps a billion or more copies circulated during the Cultural Revolution, making it the most widely distributed book in history besides the Bible.”¹⁵

This description of Mao’s book is useful in raising questions about physical manifestations of belief in religious and secular communities. What does it mean that the Bible is a common wedding gift in Christian families and Mao’s text is a common wedding gift in 1960s China? Are Mao’s teachings sacred? Is the doctrine of Christianity political? These questions are at the heart of exploring ways that belief manifests into action and essential to inspecting boundaries between the religious and the secular.

¹⁴ Jonathan Freedland, “The New Age of Ayn Rand: How She Won over Trump and Silicon Valley,” *The Guardian* (Guardian News and Media, April 10, 2017), <https://www.theguardian.com/books/2017/apr/10/new-age-ayn-rand-conquered-trump-white-house-silicon-valley>.

¹⁵ Isaac Stone Fish, “Why the Bestselling Chinese Book of All Time Is Out of Print,” *ForeignPolicy.com* (October 9, 2013), <https://foreignpolicy.com/2013/10/09/why-the-bestselling-chinese-book-of-all-time-is-out-of-print/>.

Fringe and “underground” communities often boast an attitude against authority and a rejection of conformity. But what authorities might exist in their own communities? Rifling through the Occult section of Reddit quickly reveals Aleister Crowley to be one of the most discussed authors within that community.¹⁶ Crowley’s fame—and infamy—situate him within the Occult similar to Foucault and Darwin within academia. Attributing authority and sacredness on the basis of fame prompts the question, “Who gives authority?” How much of the Occult community’s revere for Crowley stems from his fame in the British press as “The Wickedest Man in the World?” There are certainly prominent figures from other counter cultures, but Crowley is included in *The Word That Binds Them* for his influence on the Occult and the tension created between his paganistic legacy and teachings of the other religious texts.

A note on translations

One challenge in approaching a collection of belief systems from different cultures, times, and geographical regions is determining how to deal with various languages. A possible solution to this issue is to approach each text in its original language, but this creates two problems: it makes the text of each book inaccessible for many audiences and, in a way, it makes the work about the languages themselves. For the purpose of creating an art experience for an English speaking audience, I decided to rely on the work of those who have translated the texts into English. I chose specific translations based not on the standards of academic scholars, but on conversations with followers of each book’s teachings. For example, religious studies scholars conveyed that A.J. Arberry’s version was the standard academic translation of the Quran, but many Muslims expressed a favor for the Abdullah Yusuf Ali translation. I leaned in favor of the feedback

¹⁶ “The Occult: News for Armchair and Practicing Metaphysical Skeptics,” Reddit (<https://www.reddit.com/r/occult/>), accessed April 23, 2020.

I received from believers as opposed to academic scholars in an attempt to make the material I was dealing with as close to the standards of believers as possible.

An additional factor that guided my decision toward English translations of each text was the possibility that an American audience, specifically one comprised of young Midwestern college students, would experience ideas that are foreign to them. It is likely that some audience members have not been exposed to Chinese divination, the sacred Jewish and Islamic scriptures, the Occult, or nineteenth- and twentieth-century political manifestos. I believe the inclusion of texts from diverse cultures and languages creates a unique opportunity for a Midwestern audience to be exposed to new ideas first-hand. Perhaps this exposure challenges preexisting conceptions that audience members have of these cultures.

To summarize, the following list outlines all the texts that were chosen for inclusion in my work. This configuration could certainly be expanded in future exhibitions, but this is the collection established as of May 2020.

The I Ching, translated by Richard Wilhelm and Cary F. Baynes

The Tanakh, trans. by the Jewish Publication Society of America

The Holy Bible, King James Version

The Holy Quran, trans. by Abdullah Yusuf Ali

The United States Constitution, 1787

The Communist Manifesto by Karl Marx and Friedrich Engels, 1848

Das Kapital, Vol. 1 by Karl Marx, edited by Friedrich Engels, 1867

On the Origin of Species by Means of Natural Selection, Charles Darwin, 1859

Magick in Theory and Practice, Aleister Crowley, 1929

Atlas Shrugged, Ayn Rand, 1957

Quotations from Chairman Mao Tse-tung, Mao Zedong, trans. in China by the Central Compilation and Translation Bureau, 1964¹⁷

Discipline & Punish: The Birth of the Prison, Michel Foucault, trans. by Alan Sheridan, 1975

¹⁷ Zedong and Tse-tung are alternative spellings of the Chairman's given name. Zedong is based on *pinyin*, a Chinese romanization system, while Tse-tung is an older spelling based on the *Wade-Giles* system devised by Europeans.

Seeking interactive complexity

Influenced by the practices of systems theorists, *The Word That Binds Them* stems from an examination into the individual components of systems of belief. The components under analysis were the sentences, phrases, and words comprising the sacred texts mentioned above. The primary task in this examination occurred in the form of word frequency counts. Using digital copies of the texts, and programs such as Sublime Text Editor and Adobe Acrobat, I conducted frequency counts for hundreds of words. The findings of this task are detailed in **Table 1** and **Table 2**.

There are vast possibilities for what could be accomplished with this data, what findings could be expanded upon, and what else could be discovered about each book's contents. But for me, there was one discovery that was most significant. This discovery was made by a process of elimination where words with low frequency counts were removed from consideration. For example, if a word appeared less than five times in any book, it was removed. Next, words that appeared less than ten times in any book were eliminated. My goal was to determine which words appeared most consistently across all the texts. Out of every term for which I searched, there was only one that appeared more than thirty times in each book: **'power'**. Through this interpretation of the data, 'power' is a common unifier in the collection of books, and power became the center of my investigation into this system of systems.

Using a coding language known as 'regex', I began to extract every sentence in each book that contained the word 'power'. In the end, I collected over 3,000 sentences. As I organized and edited excerpts for clarity or concision, I was surprised by the poetry and—apologies for the pun—power of the phrases as they appeared out of context. By removing each phrase from its source, a sort of "fortune cookie" experience is created for the reader. Take, for example, these quotations from unnamed sources.

“Reason has no power over human beings.”

“There are people who dispense blessings to the whole world. Every increase in power that comes to them benefits the whole of mankind and therefore does not bring decrease to others.”

“It is an unequal struggle: on one side are all the forces, all the power, all the rights.”

“Now is the time to lay the foundations of power and mastery for the future.”

“Who dare deny that such a book may be possessed of unimaginable powers?”

Without knowing the context of these excerpts, how might these quotations inspire, frighten, disturb, validate, or undermine viewers and their beliefs? Some excerpts are cryptic, some are foreboding, and others are inspiring. The reader is left to consider the cultural, historical, and ideological settings that surrounded the birth of each passage. I believe that art is a field where we have opportunities to raise questions we don't often get to ask, and my question became, “What happens when viewers experience ideas from some of humanity's eminent ideologies without knowing the ideology from which they come?” That is a question at the heart of *The Word That Binds Them*.

CHAPTER 2: The Word That Binds Them

The Word That Binds Them is an interactive installation for 12 books, a touch-screen interface, a 17-channel sound system, laser printers, A5-sized paper, a computer-controlled winch system, a box of fire, an electrical relay, lighting rigs, custom pedestals, rope, custom software, and audio, networking, and electrical cable.¹⁸ The collection of books is comprised of texts that have been treated as sacred or as objects of authority. The back cover of each book is bound to a custom pedestal with twine (**Figure 1**). The pedestals are positioned in the center of the gallery so that viewers approach them from various locations. Five audio speakers are suspended with one-half inch diameter sisal rope from the ceiling, which is located thirty feet above the gallery floor. The speakers are aimed downward at the pedestals (**Figures 2 & 3**). One surface transducer is affixed within each pedestal so that the pedestals and books themselves become audio sources.¹⁹ Two theatre lights, one configured with an amber-colored filter and the other with a deep purple one, are installed on the ceiling. These lights turn on and off during the installation through an electrical relay switch. Numerous laser printers are positioned along a ledge near the ceiling, which print pages during the installation that fall and accumulate on the floor. In the corner of the gallery, a sixteen-inch cube is suspended from the ceiling (**Figures 4 & 5**). The cube is constructed of frosted glass and contains a flickering flame. The rope wrapped around the cube is connected to a winch system which raises and lowers the cube during the installation.

¹⁸ Of the twelve books that appear in the March 2020 version of *The Word That Binds Them*, eleven are listed on page 12 of this paper. The twelfth book is the dictionary (discussed on page 20).

¹⁹ Surface transducers allow any surface to become an audio source. Instead of the moving cone that most speakers use to produce sound, surface transducers involve a metal rod wrapped with coil. When electrical current is sent through the coil, the transducer vibrates and sound is conducted into whatever surface the transducer is attached to. This device was chosen for *The Word That Binds Them* in order to create the sensation that the voices are resounding *from* the books, as opposed to placing conventional speakers inside the pedestals, which would produce the sensation that the voices were emitting from *under* the books.

Interacting with 300 voices

In *The Word That Binds Them*, viewers are invited to interact with twelve sacred books. Interaction is a significant element in my work, and I am drawn to art experiences where both voluntary and involuntary forms of participation occur. Each of the pedestals are twenty inches tall, which is near the knee-height of most adults. This short height visually exaggerates the extreme tallness of the ceiling, but it also leads to complicated consequences of viewer interaction: on one hand, viewers dwarf the texts, their shadows are cast over the pages, and their bodies tower over the books; on the other hand, viewers must bend their bodies downward, toward the books, when interacting with them. By doing this, viewers become part of the spectacle—to onlookers, they become bowed figures (**Figure 6**).

When each book is opened, voices are emitted from surface transducers located within the pedestal that read, recite, chant, and sing excerpts from each book. As participants open and close various books, they add, combine, and subtract voices from various belief systems. There are similarities to Janet Cardiff's *The Cabinet of Curiousness* (2010), where participants are invited to open and close cabinet drawers that trigger audio when opened. Cardiff states that "the audience, assuming the role of a DJ, may experience the clarity of sound from one drawer or a cacophony of sounds from numerous drawers opened simultaneously as the cabinet is played like an instrument."²⁰ In a similar way, *The Word That Binds Them* creates a situation where visitors perform on an audio sampler of ideologies.

The voices emitting from each book belong to those who are prominent figures in spreading the teachings of each text, some of which include author Ayn Rand, Occultist Aleister Crowley, members of the 113th United States Congress, Chairman Mao Zedong, evolutionary

²⁰ Janet Cardiff and George Bures Miller, "The Cabinet of Curiousness | 2010", CardiffMiller.com, https://www.cardiffmiller.com/artworks/inst/cabinet_of_curiousness.html, accessed April 23, 2020.

biologist Richard Dawkins, the Saudi Imam and Quran reciter Maher Al Mueaqly, Jewish rabbis, and clergy members of the Roman Catholic, Eastern Orthodox, and Protestant sects of Christianity. As the voices resound from the books, they are also panned up and down the five suspended speakers, traversing the vertical length of the gallery. In this way, the voices all operate within an ascension metaphor—a religious device popular in Christianity, Islam, and Judaism. The voices depart the ground, climb to the summit, and slowly descend back toward Earth.

There are challenges to panning sound (spreading and moving sound across an audio system) vertically as opposed to horizontally. Due to the configuration of the ears on either side of the head, humans can localize sounds horizontally much easier than vertically.²¹ In order to accomplish an effect of vertical motion, the voices are subjected to a series of alterations as they move up the five loudspeakers. As the voices pan upward, they are gradually pitch-shifted and filtered so that they sound more elevated. This technique can be thought of as a sort of artificial doppler effect and was derived from my experiments informed by Roffler and Butler's research, which states that vertical localizations are more successful with higher frequencies.²²

At one point in the creation of *The Word That Binds Them*, I considered interacting with followers of the included ideologies to produce audio recordings of them reading from the texts. I decided against this due to the risk of producing highly contrived sound material that would have essentially been produced by voice-actors. As an instructor, I sometimes assign students a digital collage project. When I introduce this assignment, I discuss the power of collage with the class. I encourage them to explore the world for materials and to discover the creative possibilities of

²¹ For more info, see Adrian Tregonning, "The Vertical Precedence Effect: Utilizing Delay Panning for Height Channel Mixing in 3D Audio" (Master's thesis, NYU Steinhardt, 2014).

²² Robert A. Butler and Suzanne K. Roffler, "Factors That Influence the Localization of Sound in the Vertical Plane," *The Journal of the Acoustical Society of America* 43, no. 6 (1968): 1255-259.

combining images and sounds that are outside the mind of a sole maker. Drawing on this lesson from my own pedagogy, I archived found audio samples of individuals verbalizing each book's text, specifically collecting passages containing the word 'power'. In the end, I collected three-hundred samples, which contain voices from hundreds of individuals created over the span of one-hundred years.²³ The oldest audio sample was recorded with a wax cylinder in 1920 and contains the voice of Aleister Crowley speaking, reciting, and chanting Occultist poetry.

A note on language

Each audio recording retains the original language of each text. The internet was extremely useful in finding bilingual, side-by-side translations that aided the search for passages containing references to power. A fortunate aspect of my project is that religious and political leaders are very eager to disseminate their message to the masses in a variety of languages. As mentioned in Chapter 1, this project would have been incredibly difficult without the work of translators. There are several issues involved in translating texts, especially when they involve ideological belief systems. For example, there are not English word equivalents for each and every word, phrase, or concept found in other languages. Therefore, it must be conceded that while some non-English terms can translate to 'power', they might also translate to 'capability', 'influence', 'authority', 'command', 'competence', 'ability', etc. In the Quran, for example, translators interpret verse 20 of the Surah Al-Baqarah in a variety of ways.

"And if Allah willed, He could take away their faculty of hearing and seeing; for Allah hath power over all things."

-Yusuf Ali translation

²³ The internet was used for acquiring this media. I aimed to include content from diverse cultures and regions, but some geographical regions were ignored based on issues related to contemporary colonialism. For example, there is a wealth of recent audio recordings from Africa that contain voices of African preachers reading from a Bible that has been translated into their native tongue. This content is excluded from my project due to elements of recent and current theological conquest. Although colonialism is closely connected to the history of spreading ideologies throughout the world, I especially do not want to further the work of missionaries to replace African cultures with European or American ones.

“And if Allah had willed, He could have taken away their hearing and their sight. Indeed, Allah is over all things competent.”

-Sahih International translation

“If Allah willed, He could destroy their hearing and their sight. Lo! Allah is able to do all things.”

-Pickthall translation

“Had God willed, He would have taken away their hearing and their sight. Truly, God is powerful over everything.”

-A.J. Arberry translation

Although purists might disagree, I do not believe that the original texts are so difficult to translate that the English term ‘power’ has stripped the original content of its meaning. I believe that ideas of power are still conveyed in whichever translation these words occur, and I trust my decisions in choosing scholars who were informed by numerous experiences and interactions with the communities whose texts they translated.

Each physical book in the installation is presented in bilingual format in an effort to both retain its original language of publication and to make the text accessible to an English-speaking audience.²⁴ I specifically collected used books in order to bring elements of history and usage into the work. Each book shows signs of wear and age. This functions in tandem with the previously mentioned task of seeking physical manifestations of belief. The bends in the pages and broken spines are evidence of previous owners’ inspection—and perhaps absorption—of each book’s teachings. Some pages contain personal inscriptions which show evidence of being gifted. This

²⁴ Books were acquired through online shopping, local used bookstores, and—in one case—an undergraduate Chinese student who brought a bilingual copy of the I Ching back from China after winter break. Overall, I was surprised by how much enjoyed the task of collecting, and this project gave me more appreciation for archivists and collectors. One of the most exciting finds was a copy of the Tanakh published in Berlin in 1910 (**Figure 7**). I wonder about the history of the sacred text, when it escaped Germany, and how close it came to being destroyed two decades later.

handwriting can be seen as evidence for a transaction where a material object (a book) and perhaps a non-material item (belief) was transferred to a recipient.

Of the twelve books that appear in *The Word That Binds Them*, one is at odds with the other eleven. A dictionary is placed against the north wall in the West Gallery, and within its hollowed-out pages a touch-screen interface is embedded (**Figure 8**). Participants are invited to interact with the book by cycling through pages of words from within the dictionary. A participant may send one of the words into the installation by pressing the ‘submit’ button. Upon submitting a word, the purple light is extinguished, all voices are silenced, and the box of fire ascends to the ceiling as a cacophony of three-hundred voices slowly swells to a climax. When the box reaches its apex, an amber-colored light suddenly illuminates the gallery and pages rain down from above (**Figures 9 & 10**). The pages contain passages from the texts that contain both ‘power’ and the dictionary word that the participant submitted.²⁵ Without knowing the specific source of each quotation, viewers are left to consider the belief system to which each passage belongs. This anonymity strips readers of their cultural and ideological presuppositions. In the dictionary, the term ‘submit’ has dual significance: on one hand it serves a utilitarian function for the participant to enter a word; on the other hand it poses a question regarding the participant’s relationship to the books. By interacting with the dictionary, and by requesting quotations from the texts, are viewers submitting themselves to the books’ teachings? *The Word That Binds Them* is a system that is fueled by the willingness of individuals to participate in an existing structure—a quality found in most systems of belief.

²⁵ For example, if ‘knowledge’ was submitted into the dictionary, the printed passages contain ‘power’ and ‘knowledge’ (**Figure 11**). The work thrives on elements of duration and crowd-sourcing: as more interactions occur, more pages cover the floor. At the end of the exhibition *between Gods & Dogs*, it became impossible to enter the work without treading on hundreds of pages.

Part Two:

Most Retrieved Words

documentation of this work is available at www.fczuke.com

CHAPTER 3: Most Retrieved Words

The Word That Binds Them began by investigating a set of belief systems, and it resulted in questions about the sources from which we obtain our beliefs and power. While each of the texts in the work are from different cultures, languages, histories, and regions, they are similar in that they each stem from the writings of human beings. In my first year at the University of Kansas, I worked as the Andrew W. Mellon Graduate Research Fellow for the Integrated Arts Research Initiative (IARI) at the Spencer Museum of Art. The most significant form of programming that I helped coordinate was *Terra Anima*, which included “dialogues about soils and terrestrial ecologies with an accompanying exhibition in the Spencer Museum of Art.”²⁶ During a roundtable discussion on the morning of Friday, September 29, 2017, Daniel Hirmas mentioned that—by interacting with another scholar on the study of worms—he realized that hearing was the one sense he had not employed in his studies of soils. After this experience, as an artist interested in sound and with a personal interest in the animal kingdom, I stored a question in the back of my mind: what can we learn from animals by listening? During my thesis year, while questioning what famous books can teach us about power, this question became, “What non-human sounds might embody knowledge and power?”

I spent the first 22 years of my life on a farm in the Granville Township of Platte County, Nebraska. This upbringing exposed me to thousands of experiences with non-humans that taught me important lessons about responsibility, care, danger, work, life, and death. The non-human with whom I had the longest relationship was a dog named Lily. Lily was a German Shorthair Pointer (GSP), a breed developed in 1800s Germany for the purpose of hunting. GSPs are known

²⁶ Integrated Arts Research Initiative and Spencer Museum of Art, *Inquiries*, edited by Joey Orr (Lawrence, KS: Spencer Museum of Art, The University of Kansas, 2019), exhibition catalogue.

for their strength, agility, energy, and eagerness for physical activity. Lily—who was never confined to a kennel or tied to a leash—demonstrated these qualities by traversing incredible distances in search of game, and she performed this task with excitement, happiness, and with agency as an individual. By watching her, I learned that she lived under circumstances that led to almost complete freedom. Not only was she free to explore, but she lived in a place that perfectly suited her physical attributes and desires to roam the landscape. Had Lily lived in an urban area or had she been a non-sporting breed in a rural area, she likely would not have enjoyed the same freedoms. She taught me that freedom not only includes a lack of physical restraint, but also depends on the compatibility of one’s surroundings with one’s unique interests and abilities. Inversely, a lack of freedom not only involves physical bonds, but also an environment where one’s unique attributes cannot be activated. Is an artistic person free if they read scripts as a telemarketer? Can someone with dreams of becoming a veterinarian be free while employed at a slaughterhouse? I did not learn these complexities of freedom from a famous author of a book, and I did not arrive at these conclusions by following the dogma of a religious sect; I learned by simply witnessing a dog in an environment where her potential and aspirations could be activated.

Collecting responses

In reflecting on the rich history of human-canine relationships, I began to formulate a challenge to anthropocentric bases of knowledge and power. In doing this, I sought a material, physical or intangible, that would serve a new work in a way similar to how books served *The Word That Binds Them*. While those books, and the voices resounding from within them, were containers for belief and power, the sound of a dog bark became another symbol. Drawing on elements of collage and social practice, I began a campaign to collect dog voices from the general public. Without knowing how I would use it in my work, I also asked a question: “What have you learned from your dog?” A website was launched in November of 2019 that served as a digital

platform for information about the project.²⁷ I shared this website and information about my project to several dog-related internet forums. The most rewarding exchange happened after I discovered a thread started by a user named “HakuroWolfsong”, where they detailed a tragic story about how their dog had just died. I was able to collect an audio excerpt of their dog from a short video that they had previously recorded. It was fulfilling to archive the voice of this person’s dog in my work, an act of immortalization, at a time where they had just lost their pet.

It was much more challenging to get people to respond through the submission form than I anticipated, and many of the responses to this project were collected manually. For example, if I found a YouTube video that someone had posted of their dog, I contacted them about the project and download the sounds from their video myself. I turned toward posting the question, “What have you learned from your dog?” to forums and recording the answers from the forums themselves. Most of the responses to the question were collected through Facebook groups devoted to the discussion of dogs and sharing of dog photos. I was amazed by the number of responses. I would post the question, with a brief description of my project, and often have hundreds of responses within a day. In contemplating ways to utilize these text responses in my project, I discovered that using them verbatim, as I did the sacred book quotations, presented some problems. For one, most of the responses lacked the poetry and ambiguity that one might find in the I Ching or Foucault’s *Discipline & Punish*. Another issue was the problematic ideologies that were presented in the responses. For example, one respondent on Facebook stated, “My dogs have taught me how I should be in relation to my master. Loving, obedient and loyal!” I am not sure what this individual—whose Facebook profile contained overtly Christian ideas—meant by “master”, but I was immediately reminded of Biblical passages such as “Wives, submit yourselves

²⁷ F. C. Zuke, “Immortalize Your Dog's Bark,” The Dogs Website (Wix, November 7, 2019), <https://thedogswebsite.wixsite.com/pupagogy>.

unto your own husbands, as unto the Lord,” and “Servants, be subject to your masters with all fear.”²⁸ Tracing interpretations of my prompt concerning canine-derived knowledge to faith is certainly interesting content for my practice, but the aims of *Most Retrieved Words* are less about critique and more about exposing an underrepresented form of knowledge and power. Therefore, I chose to treat the text responses in a different way: by analyzing all responses—of which there are over 2,000—for the most frequently appearing words. In terms of process, this relates to the way that text was analyzed for word frequency counts in *The Word That Binds Them*. The result of this task was a list of the 250 most commonly occurring words, with articles, conjunctions, and other popular grammatical devices omitted (**Table 3**). Many of these words are what one might expect (‘love,’ ‘patience,’ ‘loyalty,’ ‘responsibility,’ ‘companionship’), but some of them expose concepts that might be less predictable, such as ‘boundaries,’ ‘instincts,’ ‘stress,’ ‘impulsiveness,’ and ‘faith.’

While *The Word That Binds Them* took advantage of the height of the West Gallery, *Most Retrieved Words* was designed to take advantage of the length of the East Gallery. The visual content in *Most Retrieved Words* is derived from hundreds of videos of dogs that were extracted from found footage through a technique known as *rotoscoping*. The only requirement for selecting footage was that the dogs must be running in a horizontal relationship to the camera so that they could be composited into new videos comprised of hundreds of dogs running, in mass, along the walls of the East Gallery. In *between Gods & Dogs*, these videos are displayed on four separate projectors—two on the east wall and two on the north wall. Each dog appears in the southeast corner of the gallery, travels along the east wall, and turns the corner and runs the length of the north wall before disappearing at the northwest corner. A small bench is placed at the northwest corner and contains a single sheet of paper that lists the 250 words collected from my interactions

²⁸ These verses can be found in Ephesians 5:22 and 1 Peter 2:18.

with dog-owners (**Figure 13**). By placing the list at the terminus of the video projections, the text is positioned as an object powered by the rush of canine figures. When a viewer sits at this location, they too become a destination for thousands of charging dogs.

Royal and supernatural themes informed the craft of the visual content. Different shades of purple reference royalty and put the work in conversation with the illumination cast upon the books in *The Word That Binds Them*. Many of the dogs appear as ghostly remnants of their original selves, which speaks to the history of human-canine relationships, and the lingering memories of our past canine companions (**Figures 14 & 15**). These four-legged figures are not transparent wisps of smoke, but bright creatures that become vivid and electrified as they rush across the gallery walls. During the installation, the video material is altered by pulsating changes in brightness and the appearance of horizontal scan-like interruptions that are based on real-time sonic analyses of canine voices within the gallery (**Figure 16**). *Most Retrieved Words* includes an 8-channel sound system placed around the perimeter of the installation. As sounds move around the gallery and above each projection, these interruptions occur more dramatically.

Periodically, the video speed will slow to a pause and the mass of dogs will momentarily freeze. In this way, the projected video becomes a projected still image. I find this quality, and the spiritual aspects of the piece, to put the work in conversation with some of Bill Viola's video works. Jewett identifies a tension in Viola's work between video and the still image.

"The tension in Viola's work between the video medium and the still photograph or painting seems relevant as I consider how video art stands between the photographic tradition and the theatrical. Against a background of Viola's Buddhist practice, it seems that this tension between event and stasis, between movement and stillness, reflects his concerns not only with the aesthetics of video art, but also with a more didactic approach

to art generally—that the materiality of video creates effects, and that those effects instruct by promoting certain responses.”²⁹

Jewett unpacks the roles of event and stasis within the Buddhist themes of Viola’s work and makes an analogy to meditation. “One way to understand the process of meditation practice is as a way to notice when our thoughts stop to take a breath.”³⁰ In *Most Retrieved Words*, these momentary pauses create opportunities for viewers to notice individual dogs that are usually undistinguished within the mass of canine bodies traversing the gallery walls. In this way, these moments are meditations on the individual creatures which comprise the great history of human-canine relationships. By placing them alongside sacred texts and systematic belief, *between Gods & Dogs* casts canines as knowledge sources within the ancient system of humanity’s relationship with other beings.³¹

Sacred canine sound design

The collected dog sounds, of which there are three hundred individual voices, were used as material for composing musical phrases and textures in *Most Retrieved Words*. The creative process was informed by data acquired from a sonic analysis of the Art & Design Gallery. Using skills learned in Jason Pittman’s Architectural Acoustics class in Spring 2019, I determined the reverberation times for various frequency bands within the Art & Design Gallery. In other words, I

²⁹ Jamie Jewett, "Seeing the Mind, Stopping the Mind, the Art of Bill Viola," *International Journal of Performance Arts and Digital Media* 4, no. 1 (2008): 81.

³⁰ *Ibid.* 83.

³¹ As different events occur in each installation, and as each work changes in loudness and sonic activity, a conversation is created. At times, the voices of humans call attention to the sacred texts; at other moments, a chorus of dog barks assertively demand the attention of viewers. Although each installation functions on its own technological system, an illusion of synchronicity sometimes occurs. During the exhibition, several viewers reported an impression that their actions in *The Word That Binds Them* triggered events in *Most Retrieved Words*, but this was entirely coincidental.

determined how long various frequencies resounded within the gallery before they diminished. This process began by creating a 3D model of the gallery (**Figures 17-19**) with software known as EASE (Enhanced Acoustic Simulator for Engineers). This model was fit to the dimensions of the gallery and contained information about the surface materials of walls, ceilings, and floors. EASE interprets this information to produce a chart (**Figure 20**) which shows the reverberation times for various frequencies. According to this chart, 500Hz will linger for approximately 3.05 seconds inside the gallery, 100Hz for 4.01", 5000Hz for 1.58", etc. Within the field of architectural acoustics, this information is often used to inform construction decisions so that a space will meet target reverberation times. For example, if the Art & Design Gallery were being remodeled to accommodate a new lecture space, certain materials would be used to meet target reverberation times in order to enhance speech clarity.

For *Most Retrieved Words*, instead of attempting to modify the physical characteristics of the Art & Design Gallery to meet certain criteria, I altered the sounds of the dogs themselves. A fundamental strategy in this process was to apply artificial reverberation to particular frequencies within each dog's voice so that reverberation would be compounded when the voices resounded in the Art & Design Gallery. For example, by consulting the chart in Figure 11, I applied an artificial reverberation time of 3.05 seconds to frequencies around 500Hz, 4.01" to frequencies around 100Hz, etc. When these altered sounds are played through loudspeakers in the Art & Design Gallery, the result is a cacophonous environment of lingering canine voices. This sonic quality is similar to that of Gothic churches, which are renown for long reverberation times that make them prime venues for choral performances. In this way, *Most Retrieved Words* transforms the Art & Design Gallery into a sacred musical stage for a choir comprised of dogs.

Care as an intellectual virtue

Philosophers of epistemology have explored the idea that “knowledge is a kind of success from ability.”³² Greco states that these abilities, sometimes referred to as *reliabilist intellectual virtues*, offer us the “power...or competence to arrive at truths in a particular field, and to avoid believing falsehoods in that field.” Examples of these abilities include sight, hearing, memory, introspection, deduction, and induction.³³ In, “Why Should a Knower Care?”, Vrinda Dalmiya makes the case that the disposition to care should also be considered an intellectual virtue.

“My suggestion is that caring can be added to the above list of “sight, hearing, memory, introspection, deduction, and induction.” Caring as a reliabilist intellectual virtue is a competence to arrive at truths and avoid falsehoods in a particular field, and care-knowing is justified belief arising from the exercise of the (reliabilist) ability to care. Caring is as much a cognitive disposition as an ethical virtue.”³⁴

Most Retrieved Words functions within this dialogue by providing evidence for Dalmiya’s claim that care is an intellectual virtue. Those who participated in my project reported their own “arrivals at truths” by exposing the truths that they have gleaned by caring for their dogs. Furthermore, Dalmiya’s philosophy could be applied to participatory art forms in general. Had no one cared to participate in the making of *Most Retrieved Words*, I would not have been able to share the information the piece presents. Had more people desired to participate, perhaps the

³² John Greco, “A (Different) Virtue Epistemology,” *Philosophy and Phenomenological Research* 85, no. 1 (2012): 1.

³³ John Greco, ‘Virtue Epistemology’ in *A Companion to Epistemology* edited by Jonathan Dancy and Ernest Sosa. Blackwell Companions to Philosophy Series (Oxford: Blackwell, 1992), 520.

³⁴ Vrinda Dalmiya, “Why Should a Knower Care?” *Hypatia* 17, no. 1 (2002): 42.

work would present a more complete account of knowledge derived from human-canine relationships. In this way, a lack of care results in sacrificed potential.

I propose that Dalmiya's philosophy can be utilized in situations where one demands more than emotional intelligence, or rejects emotion outright, when attempting to arrive at truths. The word 'care' is derived from an Old English term, 'caru', meaning "burdens of mind" or "anxiety caused by apprehension of evil or the weight of many burdens."³⁵ It is no surprise then, that care is pigeonholed as an emotional state as opposed to a cognitive one. Conservative thinkers like Ayn Rand have claimed that, "man's emotional mechanism is like an electronic computer which his mind has to program."³⁶ Present-day conservatives often parrot the dominance of rationality over emotion, with campaigns such as "facts don't care about your feelings."³⁷ Through Dalmiya's perspective, I posit that caring about something is not merely a "feeling", and not a distraction from pursuing truth, but an actual tool for arriving at truth. One might even say that this "feeling" is required, for if one does not care to seek truth, how can they find it? *Most Retrieved Words* provides evidence that caring for creatures less powerful than us is a virtue for learning and knowing. The most highly cited scholar in the humanities claims that "power and knowledge directly imply one another."³⁸ If we can know things by caring for others—whether they are humans or dogs—and if knowledge implies power, then perhaps caring simply makes us more powerful.

³⁵ Douglas Harper, ed., "Care (n.)," Etymonline, <https://www.etymonline.com/word/care>, accessed April 24, 2020.

³⁶ Ayn Rand, *The Virtue of Selfishness: A New Concept of Egoism* (New York: Penguin Books, 1961), 19.

³⁷ "Facts don't care about your feelings" is a slogan promoted by right-wing rhetorician Ben Shapiro. The phrase is pinned to the top of their Twitter account as of April 2020 and they have published a book with the slogan as its title. The slogan is often used by Shapiro's followers to misappropriate and water-down science in order to justify attacks on the LGBTQ community.

³⁸ Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan, 2nd Vintage Books ed. (New York: Vintage Books, 1995), 27.

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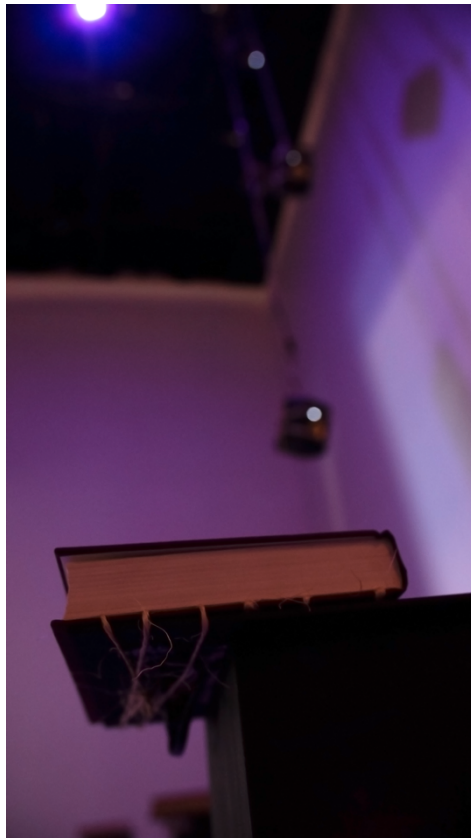
FIGURES

(This thesis is also available, with a more appropriate page orientation for Figures, at www.fczuke.com)

FIGURE 1: Rear Cover of Book Bound to Pedestal



FIGURES 2 & 3: Speakers Aimed Downward at Gallery Floor



FIGURES 4 & 5: Box of Fire



FIGURE 6: Viewers Interacting with Books



FIGURE 7: Interacting with the Tanakh

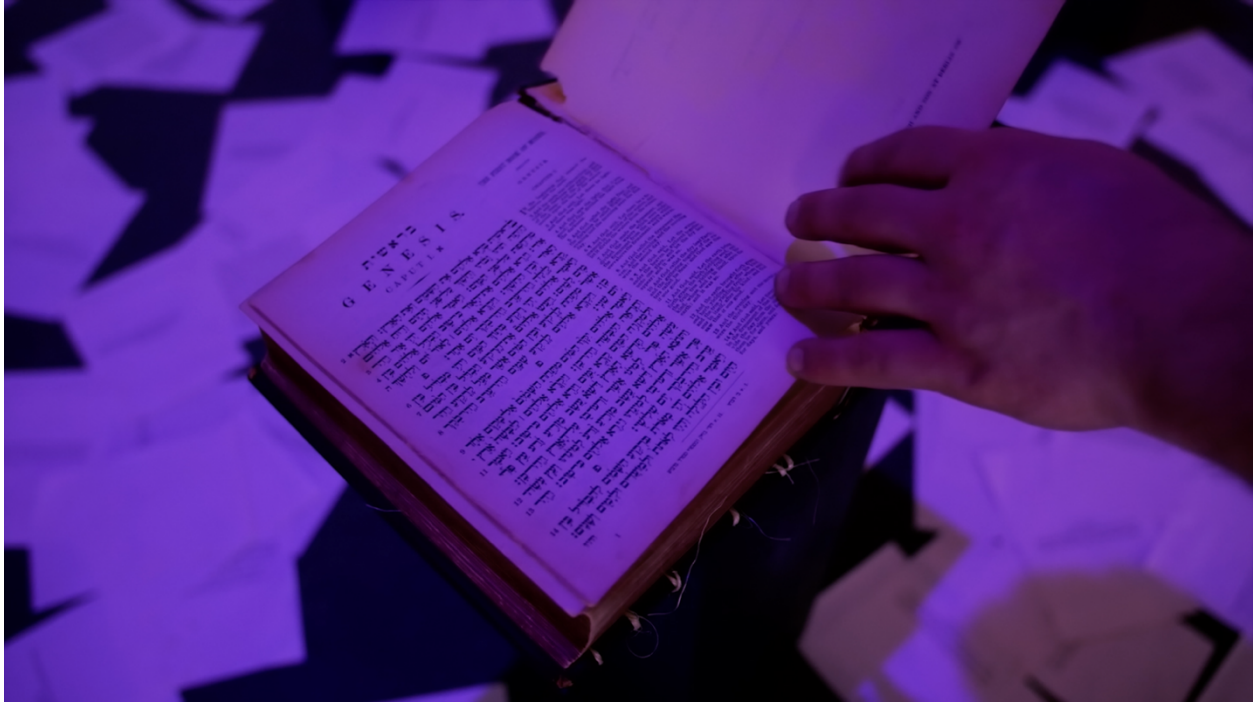


FIGURE 9: Raised Box of Fire, Light Triggered



FIGURE 10: Falling Pages

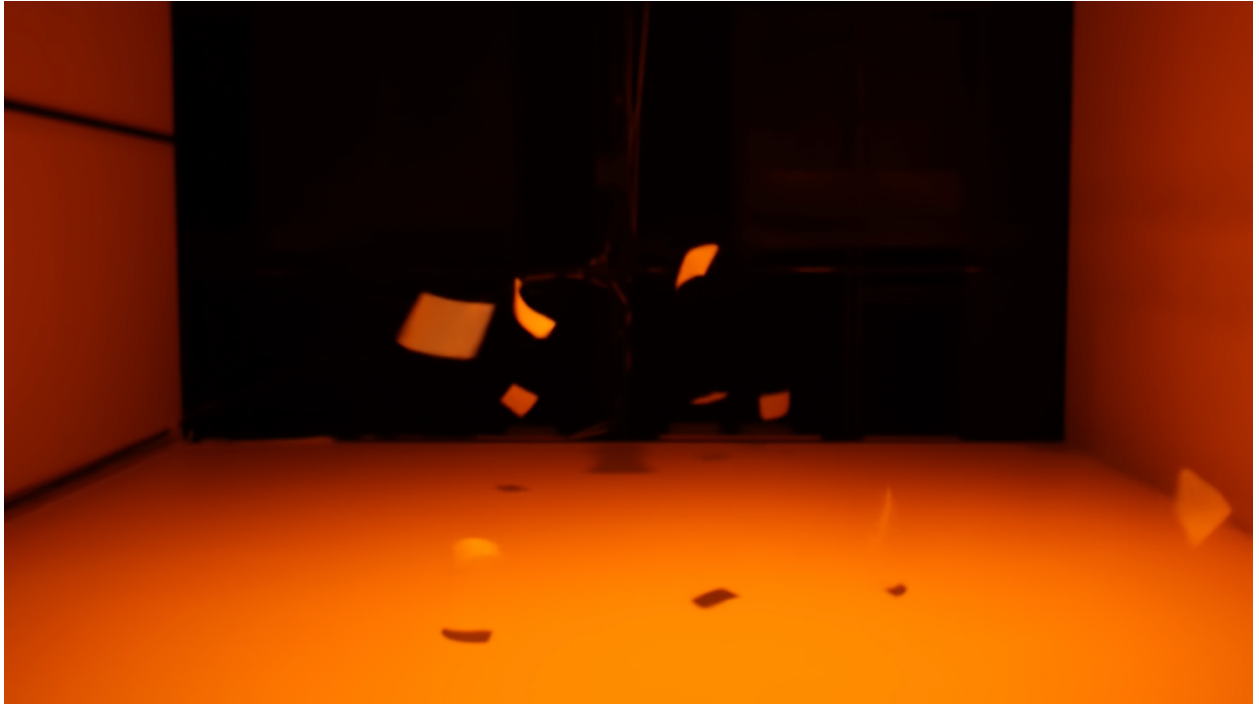


FIGURE 11: Pages on Floor



FIGURE 12: Installation Shot of The Word That Binds Them



FIGURE 13: Bench at End of Projections



FIGURES 14 & 15: Two-channel Stills from Projection

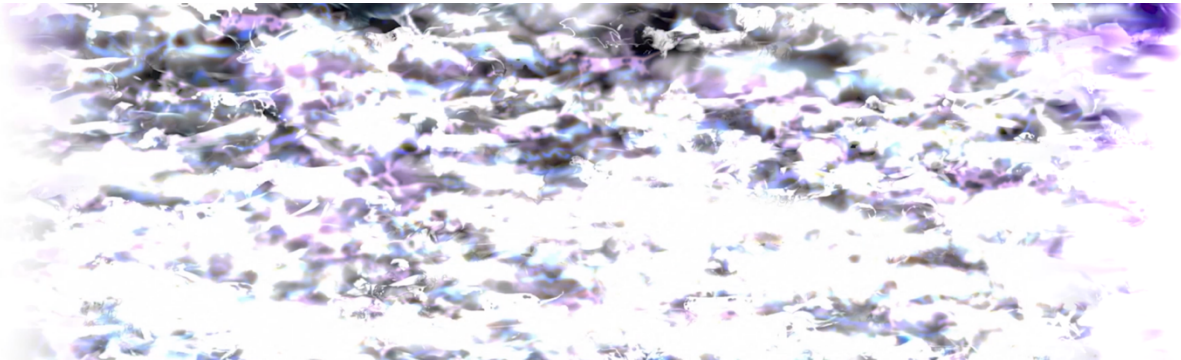


FIGURE 16: Interruptions Based on Spectrograph of Canine Voices



FIGURES 17, 18, & 19: 3D Modeling of Art & Design Gallery in EASE

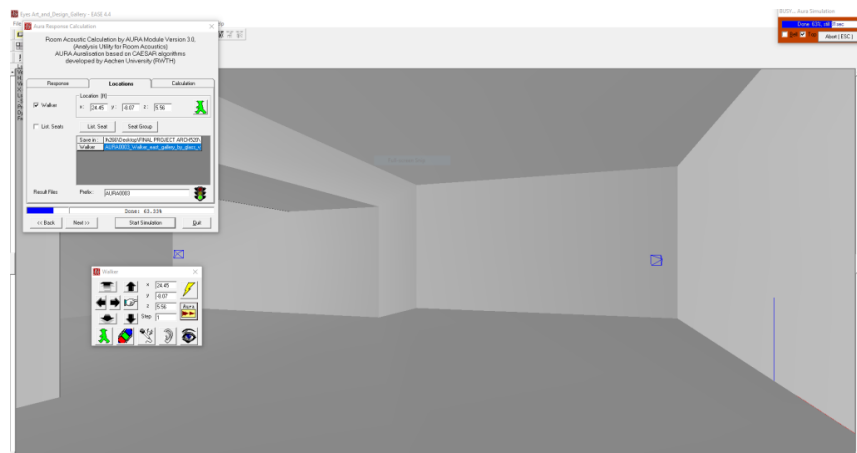
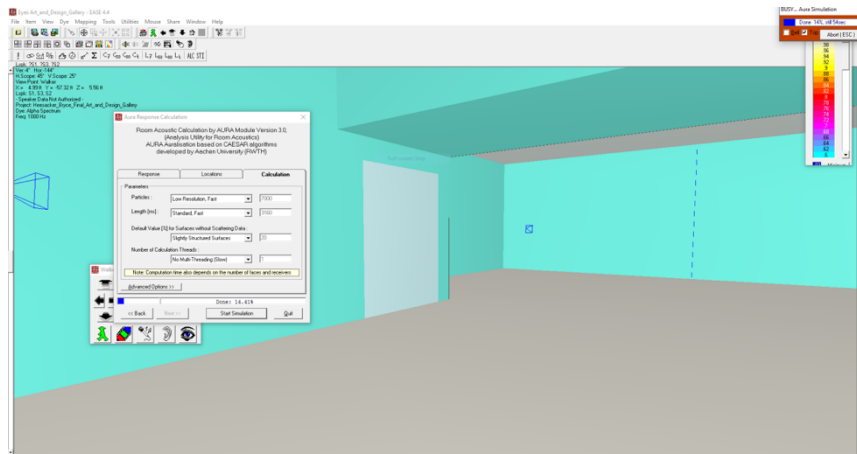
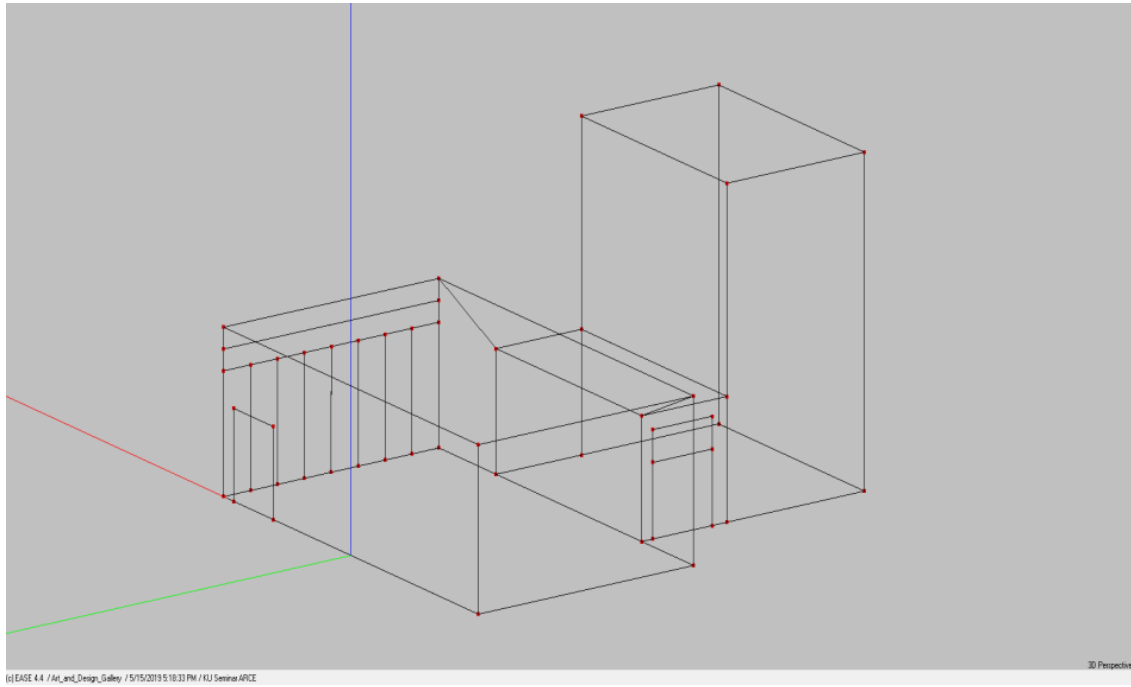
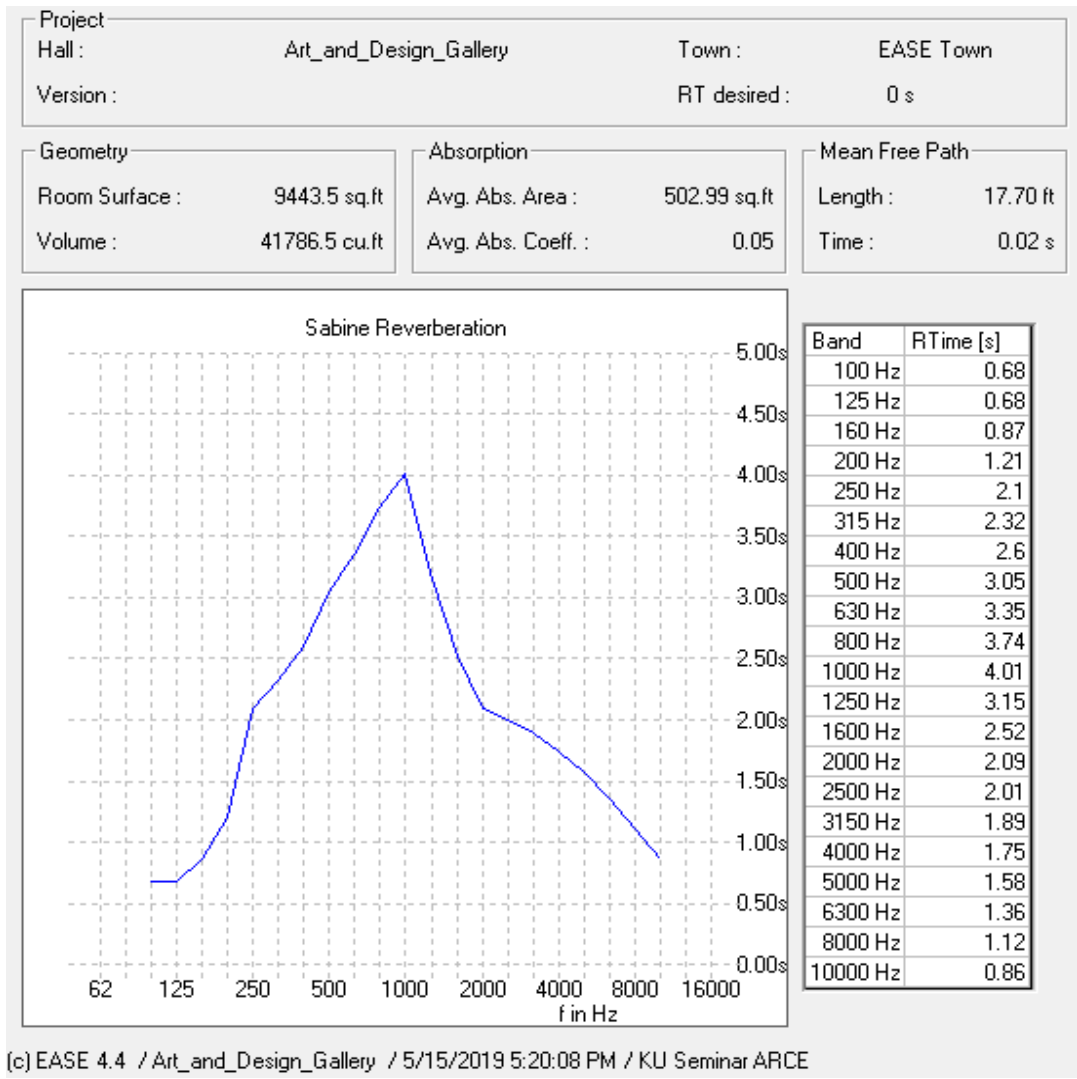


FIGURE 20: Reverberation Times of Art & Design Gallery Based on EASE Modeling



TABLES

(This thesis is also available, with a more appropriate page orientation for Tables, at www.fczuke.com)

TABLE 1: Word Frequency Counts in Sacred Texts

The findings for word frequency counts are detailed in **Table 1** (pgs. 49-51), which shows search terms organized in the order for which they were searched as opposed to an alphabetical sequence. This organization puts several similar or contrasting words next to one another. For example, columns M and N contain results for 'love' and 'war'. It may be of interest to the reader to compare books for similarities and differences. Table 1 also contains a row for the English Popularity Ranking (EPR) of each word. This data is useful in reconciling differences in peculiarly high or low frequencies that simply result from the frequency of that word across the entire English language. *The EPR system used in Table 1 is based on the top 5000 most popular words from the EPR list published by WordFrequency.info. This data is based on an analysis of 450 million words found in the Corpus of Contemporary American English.³⁹ Words that do not appear on the list of 5000 were assigned a value of 5001 and colored red. In columns containing more than one word, only the most high EPR is included.

WORD FREQUENCY COUNTS	God	Authority	Listen Hear	Power	Believe	Know	Learn	Obey	First	Fight	Peace	Love	War	Nation National	Freedom	Hope	Evil	Good Better Best	Bad Worse Worst	Woman Female	Man Male	People	Hate
The I-Ching	23	13	7	178	9	48	8	14	78	10	32	15	9	4	65	16	57	338	22	28	622	156	6
The Torah	3338	4	654	115	41	898	38	15	579	98	342	320	97	568	30	62	537	585	39	418	3153	1915	91
The Bible (KJV)	4800	38	403	293	321	712	60	119	627	116	452	654	111	484	64	131	618	958	49	563	4387	2156	170
The Quran	3172	56	163	210	875	688	7	78	53	69	54	88	7	58	38	17	397	508	18	160	559	537	11
U.S. Constitution	0	7	9	42	3	9	0	0	0	0	4	0	6	2	5	0	0	2	0	0	3	10	0
Karl Marx	33	27	50	1104	38	161	46	7	549	20	22	30	36	248	258	10	18	265	96	207	709	246	1
Origin of Species	4	15	18	93	276	272	7	1	210	7	1	4	149	0	19	21	1	232	5	61	196	5	3
Mozick	286	17	26	195	22	281	55	36	176	6	14	225	8	5	46	7	28	128	22	76	356	63	9
Atlas Shrugged	181	38	247	400	316	2598	239	97	684	210	35	407	3	156	176	152	221	815	188	273	2223	577	122
Quotations from Mao	3	14	20	53	4	68	51	4	46	84	25	5	71	86	24	8	2	77	20	19	48	338	1
Discipline and Punish	29	28	19	541	19	215	39	36	141	6	8	7	7	12	28	8	22	95	37	17	220	86	6
TOTALS:	11,866	257	1,607	3,224	1,921	5,941	550	407	3,152	626	989	1,755	504	1,623	753	432	1,901	4,003	496	1,822	12,476	6,089	420
EPR*	3202	835	195	272	213	842	305	5001	86	677	936	391	350	232	1151	483	3892	110	754	111	94	62	1535

Legend
0 Entries
Under 30 Entries
Entry appears at least 30 times in all texts

³⁹ "Word Frequency Data," Word Frequency: Based on 450 Million Word COCA Corpus, <https://www.wordfrequency.info/intro.asp>, accessed April 25, 2020.

WORD FREQUENCY COUNTS	Violence	Kill	Seven	Six	Three	Ten	One	Heaven	Fire	Water	Earth	Faith	Worth	Care Careful	Bury	Blood	Red	Black Blackness	White	Gold	Silver	Glory	Deeds	Night Dark
The I-Ching	7	6	2	210	40	8	462	130	53	132	124	6	14	34	0	14	3	3	4	6	0	1	13	21
The Tanakh	66	77	366	176	415	292	1474	437	472	585	761	9	15	12	133	361	97	28	46	438	300	251	47	379
The Bible (KJV)	68	132	465	204	488	333	2080	744	552	687	988	256	87	37	152	466	111	25	77	488	321	454	56	491
The Qur'an	8	7	33	13	22	12	456	312	149	92	400	57	17	7	1	23	3	7	14	11	7	62	137	125
U.S. Constitution	1	0	7	4	11	6	29	0	0	1	0	1	0	1	0	1	0	0	0	1	1	0	0	0
Karl Marx	21	8	17	82	133	95	1527	8	21	70	28	36	75	35	4	33	13	20	22	293	139	8	6	130
Origin of Species	2	6	9	25	90	16	650	0	1	125	37	3	16	26	3	19	17	16	21	1	0	1	1	4
Magick	4	10	14	21	77	23	733	37	96	93	127	11	24	39	2	62	35	59	20	50	8	29	7	36
Atlas Shrugged	120	61	43	69	310	121	1686	15	115	51	233	66	84	254	10	86	118	147	145	107	57	25	5	486
Quotations from Mao	2	0	2	2	25	15	134	0	2	1	4	3	4	11	1	8	22	2	1	0	0	0	2	3
Discipline and Punish	75	20	9	21	49	11	667	2	5	7	3	1	9	11	4	15	7	12	2	2	2	9	11	20
TOTALS:	374	327	967	827	1,660	932	9,898	1,685	1,466	1,844	2,705	449	345	467	310	1,088	426	319	352	1,397	835	840	285	1,695
EPR*	1041	425	736	426	135	841	51	2649	654	227	1730	1333	1360	435	2420	693	598	254	302	1262	2461	4151	5001	209

WORD FREQUENCY COUNTS	Word	Sin	Theft Thief Steal	Day Light Bright	Begin Beginning	End	Fate	Fall	Art	Music	Sound	Tongue	Speak	Lead	Follow	Friend	Enemy	Spirit	Time	Praise Worship	Forever	Punish Punishment	Guilty
The I-Ching	46	4	4	119	131	82	44	19	1	7	5	2	13	72	83	42	8	41	313	9	3	17	4
The Tanakh	998	439	48	1698	185	328	0	422	356	21	79	102	1109	160	141	71	295	247	561	324	1	71	88
The Bible (KJV)	1292	692	90	2076	331	384	0	595	**	76	126	201	1404	132	264	107	385	596	794	507	4	89	28
The Qur'an	102	136	4	615	6	47	2	57	125	8	21	34	125	61	204	63	40	36	75	63	67	195	11
U.S. Constitution	4	0	0	12	4	3	0	0	1	0	0	0	5	0	0	0	2	0	25	0	0	0	0
Karl Marx	177	11	25	850	135	191	8	209	42	1	15	4	74	66	273	40	11	39	1138	12	2	13	2
Origin of Species	14	0	0	75	17	24	0	14	3	1	4	4	24	46	93	1	15	2	223	9	0	0	0
Magick	263	5	8	199	51	76	3	34	102	23	33	10	47	35	84	10	11	269	153	18	0	2	3
Atlas Shrugged	597	50	28	699	126	241	30	165	42	66	522	6	449	118	158	281	117	138	944	50	16	60	185
Quotations from Mao	17	0	0	39	7	14	1	7	32	1	5	0	19	71	20	19	125	21	67	3	0	2	0
Discipline and Punish	42	3	40	132	89	96	10	21	48	0	5	2	37	32	75	5	19	13	227	8	1	657	58
TOTALS:	3,552	1,340	247	6,514	1,082	1,486	98	1,543	###	204	815	365	3,306	793	1,400	639	1,028	1,402	4,520	1,003	94	1,115	379
EPR*	245	3313	1798	90	164	279	2941	411	347	393	703	2893	336	319	326	266	1605	1184	52	3754	2099	3897	2077

** In the King James Version of the Bible, 'art' appears in a context irrelevant to the intentions of the search.

WORD FREQUENCY COUNTS	Innocent	True Truth	Attack Smite	Heart	Slave Servant Enslave	Control	Magic Magick	Life Live	Death Die	Birth Born	Avenge Revenge Vengeance	Child Children	Mother	Father	Parent	Fear	Force	Oppress	Judge Judgement	Year	Work Labor
The I-Ching	4	94	11	57	27	12	4	139	14	11	0	9	2	17	1	23	92	18	6	22	88
The Tanakh	39	140	0	780	1089	0	16	645	687	224	83	1777	164	982	0	357	32	108	254	847	665
The Bible (KJV)	40	343	141	949	1269	0	16	938	906	171	108	2033	260	1538	21	529	44	118	353	915	961
The Qur'an	4	449	26	165	150	0	2	197	118	29	4	119	63	132	25	295	20	4	44	52	119
U.S. Constitution	0	4	0	0	3	0	0	4	7	2	0	0	0	0	0	0	11	0	5	34	4
Karl Marx	2	128	24	16	294	64	5	398	132	35	5	490	33	26	45	23	258	33	22	495	7564
Origin of Species	0	93	13	1	74	0	1	476	19	34	0	18	14	6	205	10	20	0	24	98	241
Magick	7	269	17	57	41	48	707	254	113	21	4	92	44	48	5	32	191	5	10	51	322
Atlas Shrugged	42	258	25	64	128	146	7	1147	229	43	25	182	96	57	7	186	220	2	88	664	953
Quotations from Mao	0	25	36	6	18	2	0	48	18	2	2	3	1	0	0	12	65	9	7	33	533
Discipline and Punish	15	133	23	30	61	71	0	128	114	43	31	80	5	5	11	32	212	2	114	88	500
TOTALS:	153	1,936	316	2,125	3,154	343	758	4,374	2,357	615	262	4,803	682	2,811	320	1,499	1,165	299	927	3,299	11,950
EPR*	2799	493	792	461	2751	433	3440	114	418	1092	5001	115	230	268	328	988	373	5001	1119	54	117

WORD FREQUENCY COUNTS	Create Creator	Law	Great	Eyes	Eat	Drink	Question	Answer	Give	Receive	Beautiful Beauty	Take	Intelligence Wisdom Genius	Stupid Fool Dumb	Body	Sleep	Dream	Fantasy Fantastic	Save	Redeem
The I-Ching	35	64	250	15	10	15	18	6	88	21	9	90	25	7	19	2	0	0	10	0
The Tanakh	45	311	839	549	620	356	5	391	1063	74	68	1551	367	109	63	74	112	0	236	124
The Bible (KJV)	67	614	1211	624	791	439	34	665	1381	378	75	1972	501	157	207	115	120	0	365	142
The Qur'an	268	78	115	86	72	49	66	33	394	36	13	241	154	15	24	12	7	1	113	1
U.S. Constitution	1	54	4	9	9	9	4	1	3	5	0	11	0	0	2	0	0	0	0	0
Karl Marx	241	464	698	55	40	13	146	88	261	108	15	355	40	4	79	32	6	10	66	0
Origin of Species	113	130	414	53	11	1	23	16	138	14	27	87	0	0	49	2	2	0	15	0
Magick	59	190	171	51	18	12	80	45	126	28	29	137	131	26	213	10	14	4	35	8
Atlas Shrugged	74	277	527	663	71	75	387	897	944	115	59	786	104	69	374	97	29	6	179	14
Quotations from Mao	12	21	73	2	8	1	43	1	40	3	2	74	7	2	18	0	0	1	6	0
Discipline and Punish	26	299	203	39	4	1	64	13	108	25	3	162	16	4	390	12	19	0	12	2
TOTALS:	941	2,502	4,505	2,137	1,645	962	870	2,156	4,551	807	300	5,466	1,345	393	1,438	356	309	22	1,037	291
EPR*	333	288	160	243	544	1238	197	768	98	499	995	63	1424	2725	314	1176	993	2989	735	5001

WORD FREQUENCY COUNTS	Doubt	Trust	Eternal Infinite	Guard Protect Defend Shield	Ascend	Nothing None	Every Everything	Divine	Surrender	Victory	Defeat	Angel	Devil Demon	Money Currency
The I-Ching	13	25	9	29	4	72	105	14	1	12	5	0	2	1
The Tanakh	4	129	6	163	18	397	922	25	1	27	2	113	2	113
The Bible (KJV)	39	194	54	137	39	594	1245	25	0	12	2	305	116	140
The Qur'an	83	64	13	157	3	156	168	4	1	17	3	101	1	1
U.S. Constitution	0	4	0	4	0	1	12	0	0	0	0	0	0	6
Karl Marx	57	11	29	90	0	238	482	3	4	24	12	0	9	908
Origin of Species	176	14	30	22	8	53	125	2	0	14	0	0	0	3
Magick	24	16	86	92	4	88	278	71	8	8	3	175	46	13
Atlas Shrugged	82	77	14	288	1	983	733	3	98	34	39	28	5	365
Quotations from Mao	6	1	1	32	0	17	85	0	0	46	33	1	0	0
Discipline and Punish	79	20	24	60	2	32	107	4	0	10	2	0	0	14
TOTALS:	563	555	266	1,074	79	2,631	4,262	151	113	204	101	723	181	1,564
EPR*	1920	1855	5001	750	5001	316	172	4091	5001	1471	3358	4020	4956	233

Table 2: Appearance Coefficients (ac) and ac in Relation to English Popularity Rankings

Table 2 (pgs. 52-57) further dissects the data in Table 1 by taking into context the total number of words in each text and the English Popularity Ranking (EPR) for each word. The top portion of Table 2 contains values for *appearance coefficients*, abbreviated *ac*, which analyzes word frequency counts from Table 1 in relation to the length of each text. These values are derived from the **appearance coefficients equation**. This data helps reconcile the fact that longer texts contain more possibilities for words to appear (e.g. the United States Constitution—which is merely 2,318 words in length—will have fewer appearances of most words than the King James Bible, which is over 800,000 words in length). Finally, the bottom section of Table 2 takes into account both the length of each text and the EPR of each word. These values are derived from the **ac in Relation to EPR Equation**. The bottom portion of Table 2 is perhaps the most accurate form of analysis, as it takes into account word frequency, total text length, and the English Popularity Rankings. As is evident from the presence of red-colored cells, the overall range of values has been squashed so that only the most abnormally frequent words are revealed.

Appearance Coefficients Equation

$$\frac{\text{Total Appearances}}{\text{Total Words in Each Text}} \times 10,000$$

ac in Relation to EPR Equation

$$\frac{\text{Appearance Coefficient (ac)}}{\text{English Popularity Ranking (EPR)}} \times 10,000$$

Appearance Coefficients (ac)																						
	TOTAL WORDS IN ENTIRE TEXT	God	Authority	Listen Hear	Power	Believe	Know	Learn	Obey	First	Fight	Peace	Love	War	Nation National	Freedom	Hope	Evil	Good Better Best	Bad Worse Worst	Woman Female	Man Male
The I Ching	70,010	3.29	1.86	1.00	25.42	1.29	6.86	1.14	2.00	11.14	1.43	4.57	2.14	1.29	0.57	9.28	2.29	8.14	48.28	3.14	4.00	88.84
The Tanakh	620,386	53.81	0.06	10.54	1.85	0.66	14.47	0.61	0.24	9.33	1.58	5.51	5.16	1.56	9.16	0.48	1.00	8.66	9.43	0.63	6.74	50.82
The Bible (KJV)	837,221	57.33	0.45	4.81	3.50	3.83	8.50	0.72	1.42	7.49	1.39	5.40	7.81	1.33	5.78	0.76	1.56	7.38	11.44	0.59	6.72	52.40
The Quran	180,139	176.09	3.11	9.05	11.66	48.57	38.19	0.39	4.33	2.94	3.83	3.00	4.89	0.39	3.22	2.11	0.94	22.04	28.20	1.00	8.88	31.03
U.S. Constitution	2,318	0.00	30.20	0.00	181.19	0.00	0.00	0.00	0.00	38.83	0.00	17.26	0.00	25.88	8.63	21.57	0.00	0.00	8.63	0.00	0.00	12.94
Karl Marx	389,920	0.85	0.69	1.28	28.31	0.97	4.13	1.18	0.18	14.08	0.51	0.56	0.77	0.92	6.36	6.62	0.26	0.46	6.80	2.46	5.31	18.18
Origin of Species	157,053	0.06	0.96	1.15	5.92	17.57	17.32	0.45	0.06	13.37	0.45	0.06	0.25	9.49	0.00	1.21	1.34	0.06	14.77	0.32	3.88	12.48
Magick	152,316	18.78	1.12	1.71	12.80	1.44	18.45	3.61	2.36	11.55	0.39	0.92	14.77	0.53	0.33	3.02	0.46	1.84	8.40	1.44	4.99	23.37
Atlas Shrugged	569,477	3.18	0.67	4.34	7.02	5.55	45.62	4.20	1.70	12.01	3.69	0.61	7.15	0.05	2.74	3.09	2.67	3.88	14.31	3.30	4.79	39.04
Quot. from Mao	44,370	0.68	3.16	4.51	11.95	0.90	15.33	11.48	0.90	10.37	18.93	5.63	1.13	16.00	19.38	5.41	1.80	0.45	17.35	4.51	4.28	10.82
Discipline & Punish	113,103	2.56	2.48	1.68	47.83	1.68	19.01	3.45	3.18	12.47	0.53	0.71	0.62	0.62	1.06	2.48	0.71	1.95	8.40	3.27	1.50	19.45
TOTALS	3,136,313	316.6	44.7	40.1	337.5	82.5	187.9	27.2	16.4	143.6	32.7	44.2	44.7	58.1	57.2	56.0	13.0	54.9	176.0	20.7	51.1	359.4
Appearance Coefficients in Relation to English Popularity Rankings																						
EPR*		3202	835	195	272	213	842	305	5001	86	677	936	391	350	232	1151	483	3892	110	754	111	94
The I Ching		1.05	0.16	0.02	0.69	0.03	0.58	0.03	1.00	0.10	0.10	0.43	0.08	0.04	0.01	1.07	0.11	3.17	0.53	0.24	0.04	0.84
The Tanakh		17.23	0.01	0.21	0.05	0.01	1.22	0.02	0.11	0.08	0.11	0.52	0.20	0.05	0.21	0.06	0.05	3.37	0.10	0.05	0.07	0.48
The Bible (KJV)		18.36	0.04	0.09	0.10	0.08	0.72	0.02	0.71	0.06	0.09	0.51	0.31	0.05	0.13	0.09	0.08	2.87	0.13	0.04	0.07	0.45
The Quran		56.38	0.26	0.18	0.32	1.03	3.22	0.01	2.17	0.03	0.26	0.28	0.19	0.01	0.07	0.24	0.05	8.58	0.31	0.08	0.10	0.29
U.S. Constitution		0.00	2.52	0.00	4.93	0.00	0.00	0.00	0.00	0.33	0.00	1.62	0.00	0.91	0.20	2.48	0.00	0.00	0.09	0.00	0.00	0.12
Karl Marx		0.27	0.06	0.93	0.77	0.02	0.35	0.04	0.09	0.12	0.03	0.05	0.03	0.03	0.15	0.76	0.01	0.18	0.07	0.19	0.06	0.17
Origin of Species		0.02	0.08	0.02	0.16	0.37	1.46	0.01	0.03	0.11	0.03	0.01	0.01	0.33	0.00	0.14	0.06	0.02	0.16	0.02	0.04	0.12
Magick		6.01	0.09	0.03	0.35	0.03	1.55	0.13	1.18	0.10	0.03	0.09	0.58	0.02	0.01	0.35	0.02	0.72	0.09	0.11	0.06	0.22
Atlas Shrugged		1.02	0.06	0.08	0.19	0.12	3.84	0.13	0.85	0.10	0.25	0.06	0.28	0.00	0.06	0.36	0.13	1.51	0.16	0.25	0.05	0.37
Quot. from Mao		0.22	0.26	0.09	0.32	0.02	1.29	0.35	0.45	0.09	1.28	0.53	0.04	0.56	0.45	0.62	0.09	0.38	0.19	0.34	0.05	0.10
Discipline & Punish		0.82	0.21	0.03	1.30	0.04	1.60	0.11	1.59	0.11	0.04	0.07	0.02	0.02	0.28	0.03	0.76	0.09	0.25	0.02	0.18	
TOTALS		101.38	3.74	0.78	9.18	1.76	15.82	0.83	8.20	1.23	2.22	4.14	1.75	2.03	1.33	6.45	0.63	21.35	1.94	1.56	0.57	3.38

Appearance Coefficients (ac)																								
	People	Hate	Violence	Kill	Seven	Six	Three	Ten	One	Heaven	Fire	Water	Earth	Faith	Worth	Careful	Bury	Blood	Red	Black	White	Gold	Silver	Glory
The I Ching	22.28	0.86	1.00	0.86	0.25	30.00	5.71	1.14	65.99	18.57	7.57	18.85	17.71	0.86	2.00	4.86	0.00	2.00	0.43	0.43	0.57	0.86	0.00	0.14
The Tanakh	30.87	1.47	1.06	1.24	5.90	2.84	6.69	4.71	23.76	7.04	7.61	9.43	12.27	0.15	0.24	0.19	2.14	5.82	1.56	0.45	0.74	7.06	4.84	4.05
The Bible (KJV)	25.75	2.03	0.81	1.58	5.55	2.44	5.83	3.98	24.84	8.89	6.59	8.21	11.80	3.06	1.04	0.44	1.82	5.57	1.33	0.30	0.92	5.83	3.83	5.42
The Quran	29.81	0.61	0.44	0.39	1.83	0.72	1.22	0.67	25.31	17.32	8.27	5.11	22.21	3.16	0.94	0.39	0.06	1.28	0.17	0.39	0.78	0.61	0.39	3.44
U.S. Constitution	43.14	0.00	4.31	0.00	30.20	17.26	47.45	25.88	125.11	0.00	0.00	4.31	0.00	4.31	0.00	4.31	0.00	4.31	0.00	0.00	0.00	4.31	4.31	0.00
Karl Marx	6.31	0.03	0.54	0.21	0.44	2.10	3.41	2.44	39.16	0.21	0.54	1.80	0.72	0.92	1.92	0.90	0.10	0.85	0.33	0.51	0.56	7.51	3.56	0.21
Origin of Species	0.32	0.19	0.13	0.38	0.57	1.59	5.73	1.02	41.39	0.00	0.06	7.96	2.36	0.19	1.02	1.66	0.19	1.21	1.08	1.02	1.34	0.06	0.00	0.06
Magick	4.14	0.59	0.26	0.66	0.92	1.38	5.06	1.51	48.12	2.43	6.30	6.11	8.34	0.72	1.58	2.56	0.13	4.07	2.30	3.87	1.31	3.28	0.53	1.90
Atlas Shrugged	10.13	2.14	2.11	1.07	0.76	1.21	5.44	2.12	29.61	0.26	2.02	0.90	4.09	1.16	1.48	4.46	0.18	1.51	2.07	2.58	2.55	1.88	1.00	0.44
Quot. from Mao	76.18	0.23	0.45	0.00	0.45	0.45	5.63	3.38	30.20	0.00	0.45	0.23	0.90	0.68	0.90	2.48	0.23	1.80	4.96	0.45	0.23	0.00	0.00	0.00
Discipline & Punish	7.60	0.53	6.63	1.77	0.80	1.86	4.33	0.97	58.97	0.18	0.44	0.62	0.27	0.09	0.80	0.97	0.35	1.33	0.62	1.06	0.18	0.18	0.18	0.80
TOTALS	256.5	8.7	17.8	8.1	47.7	61.8	96.5	47.8	512.5	54.9	39.9	63.5	80.7	15.3	11.9	23.2	5.2	29.7	14.8	11.1	9.2	31.6	18.6	16.5
Appearance Coefficients in Relation to English Popularity Rankings																								
EPR*	62	1535	1041	425	736	426	135	841	51	2649	654	227	1730	1333	1360	435	2420	693	598	254	302	1262	2461	4151
The I Ching	0.14	0.13	0.10	0.04	0.02	1.28	0.08	0.10	0.34	4.92	0.50	0.43	3.06	0.11	0.27	0.21	0.00	0.14	0.03	0.01	0.02	0.11	0.00	0.06
The Tanakh	0.19	0.23	0.11	0.05	0.43	0.12	0.09	0.40	0.12	1.87	0.50	0.21	2.12	0.02	0.03	0.01	0.52	0.40	0.09	0.01	0.02	0.89	1.19	1.68
The Bible (KJV)	0.16	0.31	0.08	0.07	0.41	0.10	0.08	0.33	0.13	2.35	0.43	0.19	2.04	0.41	0.14	0.02	0.44	0.39	0.08	0.01	0.03	0.74	0.94	2.25
The Quran	0.18	0.09	0.05	0.02	0.13	0.03	0.02	0.06	0.13	4.59	0.54	0.12	3.84	0.42	0.13	0.02	0.01	0.09	0.01	0.01	0.02	0.08	0.10	1.43
U.S. Constitution	0.27	0.00	0.45	0.00	2.22	0.74	0.64	2.18	0.64	0.00	0.00	0.10	0.00	0.58	0.00	0.19	0.00	0.30	0.00	0.00	0.00	0.54	1.06	0.00
Karl Marx	0.04	0.00	0.06	0.01	0.03	0.09	0.05	0.20	0.20	0.05	0.04	0.04	0.12	0.12	0.26	0.04	0.02	0.06	0.02	0.01	0.02	0.95	0.85	0.05
Origin of Species	0.00	0.03	0.01	0.02	0.04	0.07	0.08	0.09	0.21	0.00	0.00	0.18	0.41	0.03	0.14	0.07	0.05	0.08	0.06	0.03	0.04	0.01	0.00	0.03
Magick	0.03	0.09	0.03	0.03	0.07	0.06	0.07	0.13	0.25	0.64	0.41	0.14	1.44	0.10	0.21	0.11	0.03	0.28	0.14	0.10	0.04	0.41	0.13	0.79
Atlas Shrugged	0.06	0.33	0.22	0.05	0.06	0.05	0.07	0.18	0.15	0.07	0.13	0.02	0.71	0.15	0.20	0.19	0.04	0.10	0.12	0.07	0.08	0.24	0.25	0.18
Quot. from Mao	0.47	0.03	0.05	0.00	0.03	0.02	0.08	0.28	0.15	0.00	0.03	0.01	0.16	0.09	0.12	0.11	0.05	0.12	0.30	0.01	0.01	0.00	0.00	0.00
Discipline & Punish	0.05	0.08	0.69	0.08	0.06	0.08	0.06	0.08	0.30	0.05	0.03	0.01	0.05	0.01	0.11	0.04	0.09	0.09	0.04	0.03	0.01	0.02	0.04	0.33
TOTALS	1.59	1.33	1.85	0.35	3.51	2.63	1.30	4.02	2.61	14.54	2.61	1.44	13.95	2.04	1.62	1.01	1.26	2.06	0.89	0.28	0.28	3.99	4.59	6.83

Appearance Coefficients (ac)																							
	Deeds	Night Dark	Word	Sin	Theft Thief Steal	Day Light Bright	Begin Beginning	End	Fate	Fall	Art	Music	Sound	Tongue	Speak	Lead	Follow	Friend	Enemy	Spirit	Time	Praise Worship	Forever
The I Ching	1.86	3.00	6.57	0.57	0.57	17.00	18.71	11.71	6.28	2.71	0.14	1.00	0.71	0.29	1.86	10.28	11.86	6.00	1.14	5.86	44.71	1.29	0.43
The Tanakh	0.76	6.11	16.09	7.08	0.77	27.37	2.98	5.29	0.00	6.80	5.74	0.34	1.27	1.64	17.88	2.58	2.27	1.14	4.76	3.98	9.04	5.22	0.02
The Bible (KJV)	0.67	5.86	15.43	8.27	1.07	24.80	3.95	4.59	0.00	7.11	***	0.91	1.50	2.40	16.77	1.58	3.15	1.28	4.60	7.12	9.48	6.06	0.05
The Quran	7.61	6.94	5.66	7.55	0.22	34.14	0.33	2.61	0.11	3.16	6.94	0.44	1.17	1.89	6.94	3.39	11.32	3.50	2.22	2.00	4.16	3.50	3.72
U.S. Constitution	0.00	0.00	17.26	0.00	0.00	51.77	17.26	12.94	0.00	0.00	4.31	0.00	0.00	0.00	21.57	0.00	21.57	0.00	8.63	0.00	107.85	0.00	0.00
Karl Marx	0.15	3.33	4.54	0.28	0.64	21.80	3.46	4.90	0.21	5.36	1.08	0.03	0.38	0.10	1.90	1.89	7.00	1.03	0.28	1.00	29.19	0.31	0.05
Origin of Species	0.06	0.25	0.89	0.00	0.00	4.78	1.08	1.53	0.00	0.89	0.19	0.06	0.25	0.25	1.53	2.93	5.92	0.06	0.96	0.13	14.20	0.57	0.00
Magick	0.46	2.36	17.27	0.33	0.53	13.06	3.35	4.99	0.20	2.23	6.70	1.51	2.17	0.66	3.09	2.30	5.51	0.66	0.72	17.66	10.04	1.18	0.00
Atlas Shrugged	0.09	8.53	10.48	0.88	0.49	12.27	2.21	4.23	0.53	2.90	0.74	1.16	9.17	0.11	7.88	2.07	2.77	4.93	2.05	2.42	16.58	0.88	0.28
Quot. from Mao	0.45	0.68	3.83	0.00	0.00	8.79	1.58	3.16	0.23	1.58	7.21	0.23	1.13	0.00	4.28	16.00	4.51	4.28	28.17	4.73	15.10	0.68	0.00
Discipline & Punish	0.97	1.77	3.71	0.27	3.54	11.67	7.87	8.49	0.88	1.86	4.24	0.00	0.44	0.18	3.27	2.83	6.63	0.44	1.68	1.15	20.07	0.71	0.09
TOTALS	13.1	38.8	101.7	25.2	7.8	227.4	62.8	64.4	8.4	34.6	37.3	5.7	18.2	7.5	87.0	45.6	82.5	23.3	55.2	46.0	280.4	20.4	4.6
Appearance Coefficients in Relation to English Popularity Rankings																							
EPR*	5001	209	245	3313	1798	90	164	279	2941	411	347	393	703	2893	336	319	326	266	1605	1184	52	3754	2099
The I Ching	0.93	0.06	0.16	0.19	0.10	0.15	0.31	0.33	1.85	0.11	0.00	0.04	0.05	0.08	0.06	0.33	0.39	0.16	0.18	0.69	0.23	0.48	0.09
The Tanakh	0.38	0.13	0.39	2.34	0.14	0.25	0.05	0.15	0.00	0.28	0.20	0.01	0.09	0.48	0.60	0.08	0.07	0.03	0.76	0.47	0.05	1.96	0.00
The Bible (KJV)	0.33	0.12	0.38	2.74	0.19	0.22	0.06	0.13	0.00	0.29		0.04	0.11	0.69	0.56	0.05	0.10	0.03	0.74	0.84	0.05	2.27	0.01
The Quran	3.80	0.15	0.14	2.50	0.04	0.31	0.01	0.07	0.03	0.13	0.24	0.02	0.08	0.55	0.23	0.11	0.37	0.09	0.36	0.24	0.02	1.31	0.78
U.S. Constitution	0.00	0.00	0.42	0.00	0.00	0.47	0.28	0.36	0.00	0.00	0.15	0.00	0.00	0.00	0.72	0.00	0.70	0.00	1.38	0.00	0.56	0.00	0.00
Karl Marx	0.08	0.07	0.11	0.09	0.12	0.20	0.06	0.14	0.06	0.22	0.04	0.00	0.03	0.03	0.06	0.05	0.23	0.03	0.05	0.12	0.15	0.12	0.01
Origin of Species	0.03	0.01	0.02	0.00	0.00	0.04	0.02	0.04	0.00	0.04	0.01	0.00	0.02	0.07	0.05	0.09	0.19	0.00	0.15	0.02	0.07	0.22	0.00
Magick	0.23	0.05	0.42	0.11	0.09	0.12	0.05	0.14	0.06	0.09	0.23	0.06	0.15	0.19	0.10	0.07	0.18	0.02	0.12	2.09	0.05	0.44	0.00
Atlas Shrugged	0.04	0.18	0.26	0.29	0.09	0.11	0.04	0.12	0.15	0.12	0.03	0.05	0.64	0.03	0.26	0.07	0.09	0.13	0.33	0.29	0.09	0.33	0.06
Quot. from Mao	0.23	0.01	0.09	0.00	0.00	0.08	0.03	0.09	0.07	0.06	0.25	0.01	0.08	0.00	0.14	0.51	0.15	0.11	4.52	0.56	0.08	0.25	0.00
Discipline & Punish	0.49	0.04	0.09	0.09	0.64	0.11	0.13	0.24	0.26	0.08	0.15	0.00	0.03	0.05	0.11	0.09	0.22	0.01	0.27	0.14	0.10	0.27	0.02
TOTALS	6.54	0.81	2.49	8.35	1.41	2.05	1.03	1.80	2.48	1.42	1.29	0.22	1.28	2.17	2.92	1.46	2.69	0.62	8.86	5.45	1.46	7.65	0.97

*** In the King James Version of the Bible, 'art' appears in a context irrelevant to the intentions of the search.

Appearance Coefficients (ac)																						
	Punish Punishment	Guilty	Innocent	True Truth	Attack Smite	Heart	Slave Servant Enslave	Control	Magick	Life Live	Death Die	Birth Born	Avenge Revenge Vengeance	Child Children	Mother	Father	Parent	Fear	Force	Oppress	Judge Judgement	Year
The I Ching	2.43	0.57	0.57	13.43	1.57	8.14	3.86	1.71	0.57	19.85	2.00	1.57	0.00	1.29	0.29	2.43	0.14	3.29	13.14	2.57	0.86	3.14
The Tanakh	1.14	1.42	0.63	2.26	0.00	12.57	17.55	0.00	0.26	10.40	11.07	3.61	1.34	28.64	2.64	15.83	0.00	5.75	0.52	1.74	4.09	13.65
The Bible (KJV)	1.06	0.33	0.48	4.10	1.66	11.34	15.16	0.00	0.19	11.20	10.82	2.04	1.29	24.28	3.11	18.37	0.25	6.32	0.53	1.41	4.22	10.93
The Quran	10.82	0.61	0.22	24.93	1.44	9.16	8.33	0.00	0.11	10.94	6.55	1.61	0.22	6.61	3.50	7.33	1.39	16.38	1.11	0.22	2.44	2.89
U.S. Constitution	38.83	0.00	0.00	17.26	0.00	0.00	12.94	0.00	0.00	17.26	30.20	8.63	0.00	0.00	0.00	0.00	0.00	0.00	47.45	0.00	21.57	146.68
Karl Marx	0.33	0.05	0.05	3.28	0.62	0.41	7.54	1.64	0.13	10.21	3.39	0.90	0.13	12.57	0.85	0.67	1.15	0.59	6.62	0.85	0.56	12.69
Origin of Species	0.00	0.00	0.00	5.92	0.83	0.06	4.71	0.00	0.06	30.31	1.21	2.16	0.00	1.15	0.89	0.38	13.08	0.64	1.27	0.00	1.53	6.24
Magick	0.13	0.20	0.46	17.66	1.12	3.74	2.69	3.15	46.42	16.68	7.42	1.38	0.26	6.04	2.89	3.15	0.33	2.10	12.54	0.33	0.66	3.35
Atlas Shrugged	1.05	3.25	0.74	4.53	0.44	1.12	2.25	2.56	0.12	20.14	4.02	0.76	0.44	3.20	1.69	1.00	0.12	3.27	3.86	0.04	1.55	11.66
Quot. from Mao	0.45	0.00	0.00	5.63	8.11	1.35	4.06	0.45	0.00	10.82	4.06	0.45	0.45	0.68	0.23	0.00	0.00	2.70	14.65	2.03	1.58	7.44
Discipline & Punish	58.09	5.13	1.33	11.76	2.03	2.65	5.39	6.28	0.00	11.32	10.08	3.80	2.74	7.07	0.44	0.44	0.97	2.83	18.74	0.38	10.08	7.78
TOTALS	114.3	11.6	4.5	110.8	17.8	50.6	84.5	15.8	47.9	169.1	90.8	26.9	6.9	91.5	16.5	49.6	17.4	43.9	120.4	9.4	49.1	226.4
Appearance Coefficients in Relation to English Popularity Rankings																						
EPR*	3897	2077	2799	493	792	461	2751	433	3440	114	418	1092	5001	115	230	268	328	988	373	5001	1119	54
The I Ching	0.95	0.12	0.16	0.66	0.12	0.38	1.06	0.07	0.20	0.23	0.08	0.17	0.00	0.01	0.01	0.07	0.00	0.32	0.49	1.29	0.10	0.02
The Tanakh	0.45	0.29	0.18	0.11	0.00	0.58	4.83	0.00	0.09	0.12	0.46	0.39	0.67	0.33	0.06	0.42	0.00	0.57	0.02	0.87	0.46	0.07
The Bible (KJV)	0.41	0.07	0.13	0.20	0.13	0.52	4.17	0.00	0.07	0.13	0.45	0.22	0.65	0.28	0.07	0.49	0.01	0.62	0.02	0.70	0.47	0.06
The Quran	4.22	0.13	0.06	1.23	0.11	0.42	2.29	0.00	0.04	0.12	0.27	0.18	0.11	0.08	0.08	0.20	0.05	1.62	0.04	0.11	0.27	0.02
U.S. Constitution	15.13	0.00	0.00	0.85	0.00	0.00	3.56	0.00	0.00	0.20	1.26	0.94	0.00	0.00	0.00	0.00	0.00	0.00	1.77	0.00	2.41	0.79
Karl Marx	0.13	0.01	0.01	0.16	0.05	0.02	2.07	0.07	0.04	0.12	0.14	0.10	0.06	0.14	0.02	0.02	0.04	0.06	0.25	0.42	0.06	0.07
Origin of Species	0.00	0.00	0.00	0.29	0.07	0.00	1.30	0.00	0.02	0.35	0.05	0.24	0.00	0.01	0.02	0.01	0.43	0.06	0.05	0.00	0.17	0.03
Magick	0.05	0.04	0.13	0.87	0.09	0.17	0.74	0.14	15.97	0.19	0.31	0.15	0.13	0.07	0.07	0.08	0.01	0.21	0.47	0.16	0.07	0.02
Atlas Shrugged	0.41	0.67	0.21	0.22	0.03	0.05	0.62	0.11	0.04	0.23	0.17	0.08	0.22	0.04	0.04	0.03	0.00	0.32	0.14	0.02	0.17	0.06
Quot. from Mao	0.18	0.00	0.00	0.28	0.64	0.06	1.12	0.02	0.00	0.12	0.17	0.05	0.23	0.01	0.01	0.00	0.00	0.27	0.55	1.01	0.18	0.04
Discipline & Punish	22.64	1.07	0.37	0.58	0.16	0.12	1.48	0.27	0.00	0.13	0.42	0.42	1.37	0.08	0.01	0.01	0.03	0.28	0.70	0.09	1.13	0.04
TOTALS	44.56	2.40	1.25	5.46	1.41	2.33	23.24	0.68	16.46	1.93	3.80	2.94	3.44	1.05	0.38	1.33	0.57	4.33	4.49	4.68	5.50	1.22

Appearance Coefficients (ac)																					
	Work Labor	Create Creator	Law	Great	Eyes	Eat	Drink	Question	Answer	Give	Receive	Beautiful Beauty	Take	Intelligence Wisdom Genius	Stupid Fool Dumb	Body	Sleep	Dream	Fantasy Fantastic	Save	Redeem
The I Ching	12.57	5.00	9.14	35.71	2.14	1.43	2.14	2.57	0.86	12.57	3.00	1.29	12.86	3.57	1.00	2.71	0.29	0.00	0.00	1.43	0.00
The Tanakh	10.72	0.73	5.01	13.52	8.85	9.99	5.74	0.08	6.30	17.22	1.19	1.10	25.00	5.92	1.76	1.02	1.19	1.81	0.00	3.80	2.00
The Bible (KJV)	11.48	0.80	7.33	14.46	7.45	9.45	5.24	0.41	7.94	16.50	4.51	0.90	23.55	5.98	1.88	2.47	1.37	1.43	0.00	4.36	1.70
The Quran	6.61	14.88	4.33	6.38	4.77	4.00	2.72	3.66	1.83	21.87	2.00	0.72	13.38	8.55	0.83	1.33	0.67	0.39	0.06	6.27	0.06
U.S. Constitution	17.26	4.31	232.96	17.26	0.00	0.00	0.00	17.26	4.31	12.94	21.57	0.00	47.45	0.00	0.00	8.63	0.00	0.00	0.00	0.00	0.00
Karl Marx	193.99	6.18	11.90	17.90	1.41	1.03	0.33	3.74	2.26	6.69	2.77	0.38	9.10	1.03	0.10	2.03	0.82	0.15	0.26	1.69	0.00
Origin of Species	15.35	7.20	8.28	26.36	3.37	0.70	0.06	1.46	1.02	8.79	0.89	1.72	5.54	0.00	0.00	3.12	0.13	0.13	0.00	0.96	0.00
Magick	21.14	3.87	12.47	11.23	3.35	1.18	0.79	5.25	2.95	8.27	1.84	1.90	8.99	8.60	1.71	13.98	0.66	0.92	0.26	2.30	0.53
Atlas Shrugged	16.73	1.30	4.86	9.25	11.64	1.25	1.32	6.80	15.75	16.58	2.02	1.04	13.80	1.83	1.21	6.57	1.70	0.51	0.11	3.14	0.25
Quot. from Mao	120.13	2.70	4.73	16.45	0.45	1.80	0.23	9.69	0.23	9.02	0.68	0.45	16.68	1.58	0.45	4.06	0.00	0.00	0.23	1.35	0.00
Discipline & Punish	44.21	2.30	26.44	17.95	3.45	0.35	0.09	5.66	1.15	9.55	2.21	0.27	14.32	1.41	0.35	34.48	1.06	1.68	0.00	1.06	0.18
TOTALS	470.2	49.3	327.5	186.5	46.9	31.2	18.7	56.6	44.6	140.0	42.7	9.8	190.7	38.5	9.3	80.4	7.9	7.0	0.9	26.4	4.7
Appearance Coefficients in Relation to English Popularity Rankings																					
EPR*	117	333	288	160	243	544	1238	197	768	98	499	995	63	1424	2725	314	1176	993	2989	735	5001
The I Ching	0.15	0.17	0.26	0.57	0.05	0.08	0.27	0.05	0.07	0.12	0.15	0.13	0.08	0.51	0.27	0.09	0.03	0.00	0.00	0.10	0.00
The Tanakh	0.13	0.02	0.14	0.22	0.22	0.54	0.71	0.00	0.48	0.17	0.06	0.11	0.16	0.84	0.48	0.03	0.14	0.18	0.00	0.28	1.00
The Bible (KJV)	0.13	0.03	0.21	0.23	0.18	0.51	0.65	0.01	0.61	0.16	0.23	0.09	0.15	0.85	0.51	0.08	0.16	0.14	0.00	0.32	0.85
The Quran	0.08	0.50	0.12	0.10	0.12	0.22	0.34	0.07	0.14	0.21	0.10	0.07	0.08	1.22	0.23	0.04	0.08	0.04	0.02	0.46	0.03
U.S. Constitution	0.20	0.14	6.71	0.28	0.00	0.00	0.00	0.34	0.33	0.13	1.08	0.00	0.30	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00
Karl Marx	2.27	0.21	0.34	0.29	0.03	0.06	0.04	0.07	0.17	0.07	0.14	0.04	0.06	0.15	0.03	0.06	0.10	0.02	0.08	0.12	0.00
Origin of Species	0.18	0.24	0.24	0.42	0.08	0.04	0.01	0.03	0.08	0.09	0.04	0.17	0.03	0.00	0.00	0.10	0.01	0.01	0.00	0.07	0.00
Magick	0.25	0.13	0.36	0.18	0.08	0.06	0.10	0.10	0.23	0.08	0.09	0.19	0.06	1.22	0.47	0.44	0.08	0.09	0.08	0.17	0.26
Atlas Shrugged	0.20	0.04	0.14	0.15	0.28	0.07	0.16	0.13	1.21	0.16	0.10	0.10	0.09	0.26	0.33	0.21	0.20	0.05	0.03	0.23	0.12
Quot. from Mao	1.41	0.09	0.14	0.26	0.01	0.10	0.03	0.19	0.02	0.09	0.03	0.04	0.11	0.22	0.12	0.13	0.00	0.00	0.07	0.10	0.00
Discipline & Punish	0.52	0.08	0.76	0.29	0.08	0.02	0.01	0.11	0.09	0.09	0.11	0.03	0.09	0.20	0.10	1.08	0.12	0.17	0.00	0.08	0.09
TOTALS	5.50	1.64	9.43	2.98	1.14	1.70	2.31	1.11	3.43	1.37	2.13	0.97	1.20	5.48	2.53	2.52	0.93	0.70	0.27	1.94	2.35

Appearance Coefficients (ac)														
	Doubt	Trust	Eternal Infinite	Guard Protect Defend Shield	Ascend	Nothing None	Every Everything	Divine	Surrender	Victory	Defeat	Angel	Devil Demon	Money Currency
The I Ching	1.86	3.57	1.29	4.14	0.57	10.28	15.00	2.00	0.14	1.71	0.71	0.00	0.29	0.14
The Tanakh	0.06	2.08	0.10	2.63	0.29	6.40	14.86	0.40	0.02	0.44	0.03	1.82	0.03	1.82
The Bible (KJV)	0.47	2.32	0.64	1.64	0.47	7.09	14.87	0.30	0.90	0.14	0.02	3.64	1.39	1.67
The Quran	4.61	3.55	0.72	8.72	0.17	8.66	9.33	0.22	0.06	0.94	0.17	5.61	0.06	0.06
U.S. Constitution	0.00	17.26	0.00	17.26	0.00	4.31	51.77	0.00	0.00	0.00	0.00	0.00	0.00	25.88
Karl Marx	1.46	0.28	0.74	2.31	0.00	6.10	12.36	0.08	0.10	0.62	0.31	0.00	0.23	23.29
Origin of Species	11.21	0.89	1.91	1.40	0.51	3.37	7.96	0.13	0.00	0.89	0.00	0.00	0.00	0.19
Magick	1.58	1.05	5.65	6.04	0.26	5.78	18.25	4.66	0.53	0.53	0.20	11.49	3.02	0.85
Atlas Shrugged	1.44	1.35	0.25	5.06	0.02	17.26	12.87	0.05	1.72	0.60	0.68	0.49	0.09	6.41
Quot. from Mao	1.35	0.23	0.23	7.21	0.00	3.83	19.16	0.00	0.00	10.37	7.44	0.23	0.00	0.00
Discipline & Punish	6.98	1.77	2.12	5.30	0.18	2.83	9.46	0.35	0.00	0.88	0.18	0.00	0.00	1.24
TOTALS	31.0	34.3	13.6	61.7	2.5	75.9	185.9	8.2	2.6	17.1	9.7	23.3	5.1	61.6
Appearance Coefficients in Relation to English Popularity Rankings														
EPR*	1920	1855	5001	750	5001	316	172	4091	5001	1471	3358	4020	4956	233
The I Ching	0.36	0.66	0.64	0.31	0.29	0.32	0.26	0.82	0.07	0.25	0.24	0.00	0.14	0.00
The Tanakh	0.01	0.39	0.05	0.20	0.15	0.20	0.26	0.16	0.01	0.06	0.01	0.73	0.02	0.04
The Bible (KJV)	0.09	0.43	0.32	0.12	0.23	0.22	0.26	0.12	0.00	0.02	0.01	1.46	0.69	0.04
The Quran	0.88	0.66	0.36	0.65	0.08	0.27	0.16	0.09	0.03	0.14	0.06	2.25	0.03	0.00
U.S. Constitution	0.00	3.20	0.00	1.29	0.00	0.14	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.60
Karl Marx	0.28	0.05	0.37	0.17	0.00	0.19	0.21	0.03	0.05	0.09	0.10	0.00	0.11	0.54
Origin of Species	2.15	0.17	0.96	0.11	0.25	0.11	0.14	0.05	0.00	0.13	0.00	0.00	0.00	0.00
Magick	0.30	0.19	2.82	0.45	0.13	0.18	0.31	1.91	0.26	0.08	0.07	4.62	1.50	0.02
Atlas Shrugged	0.28	0.25	0.12	0.38	0.01	0.55	0.22	0.02	0.86	0.09	0.23	0.20	0.04	0.15
Quot. from Mao	0.26	0.04	0.11	0.54	0.00	0.12	0.33	0.00	0.00	1.53	2.50	0.09	0.00	0.00
Discipline & Punish	1.34	0.33	1.06	0.40	0.09	0.09	0.16	0.14	0.00	0.13	0.06	0.00	0.00	0.03
TOTALS	5.95	6.37	6.82	4.63	1.23	2.40	3.20	3.35	1.28	2.52	3.27	9.36	2.53	1.43

**Table 3: 250 Most Frequently Appearing Words from Responses to
“What has your dog taught you?”**

1.	love	49.	walk
2.	me	50.	old
3.	taught	51.	kind
4.	unconditional	52.	children
5.	patience	53.	play
6.	life	54.	hard
7.	time	55.	look
8.	always	56.	attention
9.	no	57.	comfort
10.	truth	58.	meaning
11.	trust	59.	fun
12.	people	60.	fur
13.	loyalty	61.	small
14.	contain	62.	kindness
15.	imagine	63.	food
16.	more	64.	gift
17.	know	65.	outside
18.	live	66.	guardians
19.	enjoy	67.	walks
20.	unconditionally	68.	pure
21.	god	69.	responsibility
22.	now	70.	myself
23.	matter	71.	worth
24.	never	72.	world
25.	family	73.	earth
26.	years	74.	above
27.	better	75.	forgiveness
28.	care	76.	amazing
29.	good	77.	peace
30.	happy	78.	nature
31.	loyal	79.	laugh
32.	need	80.	outdoor
33.	friend	81.	important
34.	give	82.	animals
35.	humans	83.	acceptance
36.	feel	84.	stay
37.	tail	85.	greatest
38.	kids	86.	keep
39.	patient	87.	gave
40.	everything	88.	rescue
41.	times	89.	takes
42.	came	90.	human
43.	left	91.	wrong
44.	compassion	92.	lost
45.	home	93.	greet
46.	happiness	94.	gives
47.	think	95.	hope
48.	going	96.	moments
		97.	devotion

98. reminder
99. miss
100. companionship
101. thank
102. rescued
103. want
104. gentle
105. smell
106. sad
107. eyes
108. beloved
109. house
110. creatures
111. sick
112. elderly
113. anxiety
114. once
115. passed
116. thought
117. friends
118. respect
119. lucky
120. scratch
121. long
122. special
123. head
124. deeply
125. help
126. sometimes
127. riddle
128. boundaries
129. catch
130. complete
131. days
132. friendship
133. mind
134. puppy
135. playing
136. wagging
137. running
138. real
139. ride
140. together
141. laughter
142. roll
143. eat
144. smart
145. alone
146. wag
147. wet
148. why
149. support
150. compassionate
151. free
152. perfect
153. empathy
154. full
155. unselfish
156. sense
157. relationships
158. adopted
159. past
160. forever
161. saved
162. working
163. call
164. calm
165. weather
166. energy
167. protecting
168. devote
169. exceptional
170. awful
171. sharing
172. follow
173. heaven
174. death
175. value
176. intuitive
177. legs
178. blessed
179. wonderful
180. health
181. experienced
182. strong
183. instincts
184. hate
185. hear
186. enthusiasm
187. commitment
188. speak
189. beautiful
190. study
191. hurt
192. scary
193. lesson
194. bones
195. angels
196. sleep
197. perseverance
198. control
199. minds
200. ourselves
201. dignity
202. age
203. greater

- 204. stressful
- 205. cry
- 206. relationship
- 207. end
- 208. experience
- 209. giving
- 210. companions
- 211. caring
- 212. snuggles
- 213. medication
- 214. welcome
- 215. chase
- 216. please
- 217. persistence
- 218. conversation
- 219. creature
- 220. feelings
- 221. honored
- 222. honest
- 223. tears
- 224. ability
- 225. adopt
- 226. choir
- 227. guard
- 228. surprised
- 229. teeth
- 230. annoyed
- 231. impulsively
- 232. connected
- 233. presence
- 234. celebrate
- 235. future
- 236. mouth
- 237. affection
- 238. guide
- 239. sensitivity
- 240. believing
- 241. potential
- 242. transform
- 243. independence
- 244. listening
- 245. resilience
- 246. reason
- 247. trained
- 248. focused
- 249. dating
- 250. faithfulness

Table 4: Most Frequently Appearing Words in This MFA Thesis

Table 4 (pgs. 61-63) subjects this MFA thesis to the analytical techniques employed during the creation of *between Gods & Dogs*. The most frequently appearing words in this thesis are listed alongside their number of occurrences.

book -----	70	scholars -----	15
texts -----	62	University -----	15
systems -----	61	viewers -----	15
belief -----	52	installation -----	14
figure -----	52	times -----	14
art -----	45	academic -----	13
words -----	44	audio -----	13
dogs -----	40	believe -----	13
work -----	39	example -----	13
power -----	36	list -----	13
gallery -----	33	music -----	13
question -----	33	pages -----	13
authority -----	32	physical -----	13
interacting -----	30	political -----	13
care -----	28	possibilities -----	13
translation -----	28	thesis -----	13
sacred -----	27	com -----	12
Binds -----	26	cultures -----	12
religious -----	26	form -----	12
voices -----	24	knowledge -----	12
sound -----	23	participant -----	12
Table -----	23	press -----	12
appeared -----	22	public -----	12
contain -----	22	study -----	12
project -----	22	aggressive -----	11
material -----	21	canine -----	11
collected -----	20	https -----	11
frequency -----	20	ideologies -----	11
video -----	19	learned -----	11
communities -----	18	relationships -----	11
practice -----	18	similar -----	11
English -----	17	virtue -----	11
include -----	17	ways -----	11
individual -----	17	Accessed -----	10
responses -----	17	approach -----	10
creates -----	16	audience -----	10
design -----	16	based -----	10
experience -----	16	challenge -----	10
humans -----	16	data -----	10
language -----	16	dictionary -----	10
research -----	16	explore -----	10
Retrieved -----	16	followers -----	10
states -----	16	history -----	10
thank -----	16	ideas -----	10
used -----	16	Mao -----	10
information -----	15	original -----	10

pedestal -----	10	China -----	7
perhaps -----	10	components -----	7
Rand -----	10	consider -----	7
reverberation -----	10	Dalmiya -----	7
teachings -----	10	derived -----	7
wall -----	10	determined -----	7
www -----	10	edited -----	7
York -----	10	EPR -----	7
Ching -----	9	evidence -----	7
complexity -----	9	field -----	7
concepts -----	9	floor -----	7
content -----	9	Foucault -----	7
issues -----	9	influence -----	7
Oxford -----	9	intellectual -----	7
play -----	9	length -----	7
quotations -----	9	light -----	7
rankings -----	9	meaning -----	7
relation -----	9	occult -----	7
specific -----	9	particular -----	7
truths -----	9	passages -----	7
various -----	9	people -----	7
world -----	9	positioned -----	7
become -----	8	raises -----	7
comprised -----	8	record -----	7
counts -----	8	required -----	7
Crowley -----	8	role -----	7
different -----	8	selection -----	7
exhibition -----	8	significant -----	7
exposing -----	8	society -----	7
found -----	8	sources -----	7
Gods -----	8	submit -----	7
hearing -----	8	task -----	7
hundreds -----	8	toward -----	7
important -----	8	United -----	7
interest -----	8	values -----	7
mind -----	8	vertical -----	7
philosophy -----	8	writings -----	7
Popularity -----	8	Allah -----	6
process -----	8	became -----	6
religion -----	8	began -----	6
result -----	8	Christian -----	6
secular -----	8	cited -----	6
term -----	8	common -----	6
ability -----	7	creative -----	6
ac -----	7	discovered -----	6
around -----	7	discussion -----	6
arrive -----	7	divination -----	6
artist -----	7	EASE -----	6
Ayn -----	7	environment -----	6
box -----	7	epistemology -----	6
ceiling -----	7	factors -----	6
certain -----	7	failures -----	6
Chapter -----	7	feel -----	6

fire -----	6	gift -----	5
freedom -----	6	give -----	5
frequently -----	6	holy -----	5
functions -----	6	Hz -----	5
internet -----	6	inclusion -----	5
interpret -----	6	inspire -----	5
lack -----	6	investigation -----	5
members -----	6	involves -----	5
mentioned -----	6	James -----	5
Modeling -----	6	Jewish -----	5
occur -----	6	Karl -----	5
order -----	6	knowing -----	5
person -----	6	lived -----	5
placed -----	6	located -----	5
search -----	6	love -----	5
seeking -----	6	Marx -----	5
serve -----	6	mass -----	5
taught -----	6	master -----	5
theory -----	6	metaphors -----	5
treated -----	6	museum -----	5
Viola -----	6	note -----	5
visual -----	6	opened -----	5
according -----	5	opposed -----	5
Aleister -----	5	performed -----	5
altered -----	5	Perrow -----	5
analysis -----	5	phrases -----	5
archive -----	5	presented -----	5
Bible -----	5	problem -----	5
cabinet -----	5	produce -----	5
Charles -----	5	Professor -----	5
Chinese -----	5	program -----	5
companions -----	5	protected -----	5
conservative -----	5	quality -----	5
corner -----	5	reader -----	5
creatures -----	5	referred -----	5
digital -----	5	running -----	5
Discipline -----	5	several -----	5
east -----	5	shared -----	5
effect -----	5	sight -----	5
elements -----	5	sometimes -----	5
emotional -----	5	speakers -----	5
end -----	5	Spencer -----	5
excerpts -----	5	students -----	5
exist -----	5	takes -----	5
findings -----	5	technology -----	5
forums -----	5	turn -----	5
general -----	5	years -----	5

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