

JEFFERSON JOURNAL OF SCIENCE AND CULTURE

The scholarly publication from Jefferson Scholars Foundation

Issue 3, 2013

“To see differently in this way for once, to want to see differently, is no small discipline”



Jefferson Scholars Foundation

JEFFERSON JOURNAL OF SCIENCE AND CULTURE

Issue 2, 2013

Co-Editors-in-Chief

Sarah A. O'Halloran
Corlett W. Wood

Section Editors

Associate Editor Natural Sciences
William J. Dirienzo

*Associate Editors Arts &
Humanities*
Harold Smith Reeves

Associate Editor Social Sciences
Roberto I. Armengol

The Jefferson Journal of Science and Culture was founded on the belief that the cross-pollination of various disciplines is a crucial factor in the advancement of scholarship. To facilitate and focus such exchange, this journal is dedicated to publishing articles, which address a specific topic of broader interest. Scholars from various fields are expected not to dispense with the robes of their specialty, but to allow their disciplinary expertise to make an impact beyond its customary bounds.

Acknowledgements: The Editorial Board would like to thank the staff of the Jefferson Scholars Foundation, as well as the Jefferson Fellows for their support in creating this publication. We would also like to thank our peer reviewers, and our proofreader Melissa Maki.

JEFFERSON JOURNAL OF SCIENCE & CULTURE

Jefferson Scholars Foundation
112 Clarke Court
P.O. Box 400891
Charlottesville
VA 22904-4891

jeffersonjournaluva@gmail.com
www.jeffersonjournal.org

Copyright © 2013 by the Jefferson Scholars Foundation at the University of Virginia



Jefferson Scholars Foundation

Jefferson Journal of Science and Culture

Issue 3, 2013

Sarah O'Halloran

Editorial

Verlan Lewis

The Fallacy of Essential Ideological Constructs in American Political Science

Robert N. Spicer

When More Speech is Not Enough: An Argument for the Regulation of Political Deception Through a Campaign Ethics Council

Jacob Waldenmaier

Mystique of the Intellectual: Heroes of Ayn Rand's Dystopias and the Ron Paul Revolution

Valeria Guzmán-Verri

Form and Fact

Vsevolod Bashkuev

Silencing the Shame: Forgetting of the 1920s Syphilis Epidemic in Buryat-Mongolia as a Strategy of Post-Soviet Identity Construction

Brenda S. Gardenour Walter

Phantasmic Science: Medieval Theology, Victorian Spiritualism, and the Specific Rationality of Twenty-First Century Ghost Hunting

All papers are available to download from www.jeffersonjournal.org



Phantasmic Science: Medieval Theology, Victorian Spiritualism, and the Specific Rationality of Twenty-First Century Ghost Hunting

Brenda S. Gardenour Walter, PhD
Department of Liberal Arts
Saint Louis College of Pharmacy

Snapping on our televisions or logging on to the Internet, we enter into a digital magic circle where stories are woven and unwoven in rhythmic patterns.¹ Over the past twenty years, two of the most popular types of stories told within this magic circle have been “reality-based” forensic and paranormal investigation programs. In the first category are shows such *Forensic Files*, which ran on TLC and TruTV between 1996 and 2011, and A&E’s *Cold Case Files*, which aired between 1999-2006, both of which have remained popular in reruns and on the Internet. The basic premise of both programs is the same; specialized detectives go through dusty filing cabinets, pull out moldering homicide cases, and use modern science and technology, including DNA analysis, to reveal long hidden truths. Having solved the mystery at hand and gathered scientific proof of the perpetrator’s guilt, the restless spirit of the murder victim is pacified—for the victims of violent crimes must always become forlorn and vengeful ghosts in our culture—and the family of the slain finds therapeutic “closure” so that they, like the spirit of their loved one, might move into the light. In the second category are paranormal investigation programs such as A&E’s *Paranormal State* (2007-present), which use innovative scientific technologies, including thermal and digital cameras, electromagnetic frequency (EMF) meters, and electronic voice phenomena (EVP) recorders to investigate hauntings. If human ghosts are detected, psychics and local historians narrate their secret histories, and the wayward entities are guided through the process of crossing over. If non-human entities, or demons, are detected, then specialists in the form of demonologists and priests are brought in to exorcize the possessed and expel the entity from the home. With the departure of the ghost or demon, the living family within the previously haunted house is therapeutically cleansed, puts the uneasy past to rest, and moves on towards a brighter future.

¹ Johann Huizinga, *Homo Ludens: A Study of the Play Element in Culture*. (Boston: The Beacon Press, 1955).

The narratives of forensics and paranormal investigation programs parallel one another, both claiming to be “real” and “scientific” in their collection and analysis of evidence and its application to otherwise invisible worlds. Both types of narrative rely on the personal experience of eyewitnesses whose testimony is not only provided as entertainment but privileged as evidence, as well as the authority of specialized experts who must be trusted in order for the program’s fundamental arguments to be accepted.² The trusted experts on *Forensic Files* and *Cold Case Files* include the investigators whose authority stems from their collective years of experience in homicide or “on the beat,” the medical examiner whose academic credentials qualify him or her as the central authority on the body and its inner secrets, and the lab-coated DNA analyst whose training allows her or him to detect the invisible genetic fingerprint of the unseen perpetrator. This same expertise in detecting the invisible is shared by the various members of *Paranormal State*’s extended investigation team, which includes a seasoned ghost hunter with specialized first-hand knowledge of the paranormal, a pagan who is sensitive to “energies,” a psychic who senses and communicates with unseen beings, a demonologist who understands the theology and rituals necessary for the extermination of shadowy demonic entities, and a local historian who knows the secret stories of the community. A critical difference between forensics experts and their paranormal cognates, however, are the respective sources of their authority. Experts in forensics draw their authority from a scientific rationality that consistently applies theory to physical evidence in order to achieve repeatable results and uniform truth.³ The authority of ghost-hunting experts, however, is sourced in a paranormal rationality that conflates scattered elements of spiritual and quasi-scientific epistemologies, both of which that have competing—if not mutually exclusive—criteria for what constitutes valid evidence and methods for interpretation of that evidence.⁴

The specific rationality of paranormal investigation is complex, bifurcated in its epistemologies and processes. On the one hand, it is concerned with the qualities and behaviors of spirits, the nature of demons and the demonic, and the powers of entities to

² On the use of personal testimonies in paranormal accounts, see Annette Hill, *Paranormal Media* (London: Routledge, 2012), 272.

³ The scientific theory and analysis underpinning real world forensics investigation are simplified for a popular audience on these shows, which, due to their own conflated narrative structures, are themselves on the boundaries of fact and fiction. The science is real; the narrative is not. On uniformity in scientific theory, see Erich Goode, *The Paranormal: Who Believes, What They Believe, and Why it Matters* (New York: Prometheus Books, 2012), 69-75.

⁴ Erich Goode, *The Paranormal*, 32.

invade humans and their human spaces, all of which are dependent on the epistemology of faith and supported primarily by anecdote. On the other hand, it is concerned with the investigation of these unseen entities using cutting edge scientific technology for observation, experimentation, and the production of validated physical evidence, all of which are, on the surface, rooted in the epistemologies of science. The “scientific” nature of paranormal investigation, however, breaks down in how it defines valid evidence and how it analyzes that evidence, interpreting it not through integrated scientific theory, but instead through the application of selected elements of popular or even mythological science viewed through the lens of paranormal belief. The specific rationality of the paranormal, then, is neither truly faith nor truly science, but an entity unto itself, a mixture of both—an uncomfortable proposition for many modern Western thinkers for whom faith, which does not require evidence for validation, and science, which requires purportedly unbiased and validated evidence to reveal potential truth, should be mutually exclusive categories.

Despite the contradictory and illogical structure of paranormal rationality, those who believe in its premises nevertheless accept it as an integral and rational system.⁵ Faithful viewers of paranormal investigation programs can succinctly explain the cold and sulfuric nature of demons, the significance of an inverted cross or an Indian burial ground, the electromagnetic theory of ghostly energies and the power of sensitive equipment to detect them through shifts in atmospheric temperature and electrical frequency, all in a way that makes such arguments seem like common sense.⁶ This intertwining of proof and belief, as well as the application of popularized scientific principles to spiritual phenomenon inherent to the specific rationality of modern paranormal investigation programs has deep roots, the first of which extends back into the academic milieu of the thirteenth and fourteenth centuries, where theologians used the premises of medieval science, or natural philosophy, in order to both discern the supernatural and to validate the miraculous. The second root reaches back into the nineteenth century where Spiritualists, ardent believers in unseen entities, appropriated the language, theories, and rapidly advancing technologies of both

⁵ Erich Goode argues that the paranormal is common sense in that we naturally make connections between discrete ideas in order to create a whole that makes sense. See *The Paranormal*, 66-67

⁶ When shown a photograph that I took at Whitby Abbey that contained spherical anomalies, several of my students were quick to describe them as orbs, evidence of ghostly beings haunting the medieval ruins made famous in Bram Stoker's *Dracula*. These same students then explained to their colleagues, many of whom were skeptics, that ghosts were detectable as electrical energy trapped in old buildings.

erudite and popular science in the pursuit of proving the invisible world to skeptics and confirming to themselves what they had already accepted on faith alone. Medieval and Victorian ideas about the existence, nature, and proof of invisible beings have been integrated with digital technologies in modern, “reality-based” paranormal programming to create what seems to be a unified and scientific whole. Upon closer investigation, however, the specific rationality of the paranormal is revealed to be a rickety haunted house of disparate and illusory ghosts that dissipate in the light of history yet persist in the shadows of the modern imagination.

Discerning the Supernatural

Two elements of the specific rationality of modern paranormal investigation programming can be traced to the medieval university: first, the use of natural philosophy to discern natural from supernatural (thereby detecting the presence of the latter) and second, the construction of the category of evil and its attendant qualities. In the thirteenth century, the primary discursive language of the academy was that of Aristotle, whose works on logic, argumentation from universals, and the construction of categories proliferated in the west after their translation from Arabic into Latin.⁷ These, in addition to his works on natural philosophy, served as the foundation for the medieval university curriculum through the first seven years, or master’s degree, and into the graduate programs in theology, medicine, and law.⁸ Because of this, natural philosophers who “sought to explicate the natural world within the boundaries of Aristotle’s natural books,” and theologians who sought to explicate both the natural and supernatural realms in the context of scripture, Patristic sources, and other authoritative religious texts, shared a language of discourse predicated on an understanding

⁷ On the translation movement in general, see David Lindberg, *The Beginnings of Science in the Middle Ages: The European Scientific Tradition in Philosophical, Religious, and Institutional Context, 600BC to AD1450*, (Chicago: University of Chicago, 1992), 215 ff. See also Burnett, Charles. "The Coherence of the Arabic-Latin Translation Program in Toledo in the Twelfth Century," *Science in Context*, 14 (2001), 249–288. On the Arabic translation movement and the circulation of texts before the twelfth century in the Dar al-Islam, see Dmitri Gutas, *Greek Thought, Arabic Culture: The Graeco-Arabic Translation Movement in Baghdad and Early 'Abbasid Society*, (London: Routledge, 1998.)

⁸ For a thorough overview of the medieval university, see *A History of the University in Europe: Universities in the Middle Ages*, ed. H. De Ridder-Symoens (Cambridge: Cambridge University Press, 1992).

of Aristotelian methods and frameworks.⁹ Scholastic theologians incorporated not only the structures of Aristotelian argumentation but also the fundamental principles of his *libri naturales* in their discourse on issues of theology.¹⁰ For example, William of Auvergne's thirteenth-century treatise, *De Universo Creaturarum*, uses concepts drawn from Aristotle's *Physica* and *De Generatione et Corruptione* in his refutation of the Cathars, claiming that, should the Manichean prince of darkness exist in creation, he would have to live in "the middle of the earth," which "is the ultimate separation from light and likewise the ultimate of density and grossness."¹¹

Thirteenth-century moral and speculative theologians such as Thomas Aquinas found Aristotelian natural philosophy particularly useful in discerning the supernatural and miraculous from the natural and potentially demonic. According to Aquinas, "in the strict sense a miracle is something done outside the order of the entire created nature, under which order every power of a creature is contained."¹² "To act this way," he argues, "is possible for God alone, who is the founder of this order and not confined to it."¹³ Since only God, "infinite, incorporeal, and immense," might suspend natural law, He was the sole author of the supernatural.¹⁴ All other seemingly miraculous events were mere wonders, produced either spontaneously through natural action or intentionally through the

⁹ Edward Grant, *The Nature of Natural Philosophy* (Washington, DC: Catholic University of America, 2010), 95-96. Grant has consistently argued that modern science is beholden to medieval natural philosophy and to the structure of Aristotelian argumentation in the medieval university, in particular its willingness to ask hypothetical questions; see *God and Reason in the Middle Ages* (Cambridge: Cambridge University Press, 2001). For an alternative view on the nature of natural philosophy, see Andrew Cunningham, "The Identity of Natural Philosophy: A Response to Edward Grant," *Early Science and Medicine*, Vol. 5, No. 3 (2000), 259-278.

¹⁰ "...almost all theologians can be said to have acquired extensive knowledge of natural philosophy. Many undoubtedly regarded it as worthy of study in itself and not merely because of its traditional role as the handmaiden of theology." Grant, 6. On the subalternation of the sciences, see Steve Livesey, *Theology and Science in the Fourteenth Century: Four Questions on the Unity and the Subalternation of the Sciences from John of Reading's Commentary on the Sentences* (Leiden: Brill, 1989).

¹¹ William of Auvergne, *De Universo Creaturarum*, trans. Roland J. Teske, S. J. (Milwaukee: Marquette University Press, 1998). Cf. Aristotle, *Physica*: "Further, it is a law of nature that earth and all other bodies should remain in their proper places and be moved from them only by violence." (Book VIII, Part III). "If then in the case of the earth, supposed to be infinite, it is at rest, not because it is infinite, but because it has weight and what is heavy rests at the center and the earth is at the center..." Book III, Part V. *De Generatione et Corruptione*: "The 'simple' bodies, since they are four, fall into two pairs which belong to the two regions, each to each: for Fire and Air are forms of the body moving towards the 'limit', while Earth and Water are forms of the body which moves towards the 'centre'. Fire and Earth, moreover, are extremes..." with the earth being the most dense and fire being the most rarified. (Book II, Part III; *passim*).

¹² Aquinas, *Summa Theologica*, Question 114, Article 4.

¹³ Aquinas, *Compendium of Theology*, trans. Cyril Vollert (St. Louis and London: Herder Publishing, 1952), chapter 136.

¹⁴ Albertus Magnus, *Commentary on the Physics*, book 2, tract 2, chapter 2, 175, lines 63-65.

manipulation of natural elements by physicians or, more nefariously, demons. In the thirteenth century, discerning the supernatural from the natural became a central concern of the canonization process. In the early Middle Ages, the miracles of saints were faithfully accepted as mysterious Augustinian bubblings of the divine, evidence of God's continued and active presence in the natural world.¹⁵ As part of the canonization process elaborated in 1200 and applied for the first time in the case of Saint Dominic, however, purportedly miraculous events were to be vigorously investigated and proven as supernatural—and therefore truly of God—through the gathering of testimony. Using a standard set of questions called an interrogatory, witnesses to Thomas of Cantalupe's miracles were asked "if in the operation of these miracles herbs or stones were applied or any other natural or medicinal things" and whether these "miracles were above or contrary to nature."¹⁶ Only when an unexplained event, such as spontaneous healing at the shrine of a saint, could not be explained by natural or medical means was it ultimately deemed beyond natural law, divine, and therefore truly miraculous.¹⁷ Through close investigation and the application of specialized knowledge, then, it was possible to detect, and thereby prove, the presence of the divine supernatural.

Aquinas and many of his colleagues used Aristotelian cosmology and natural philosophy not only to discern the supernatural from the natural, but also to quantify and qualify the unseen categories of divine goodness, which had its source in the heavens, and its inversion, demonic evil, which was bound to the world below the moon. The hierarchy of divine goodness was headed by God in his Empyrean heaven beyond the sidereal sphere, where he surrounded by the blessed and descending choirs of angels awash in ethereal light, all of which was beyond nature, unobservable, and—like His miracles—incomprehensible to the fallible human mind.¹⁸ The Empyrean realm, like God himself, was immobile and invisible, "resplendent and free of all admixture," completely translucent and composed only

¹⁵ For Augustine, miracles were natural, as God had created nature and all within it. See *City of God*, books 21-22.

¹⁶ Robert Bartlett, *The Natural and the Supernatural in the Middle Ages* (Cambridge: Cambridge University Press, 2008), 10.

¹⁷ On earlier medieval beliefs regarding the miraculous, see Sr. Benedicta Ward, *Miracles and the Medieval Mind: Theory, Record, and Event, 1000 to 1215* (Philadelphia: University of Pennsylvania Press, 1987). See also Andre Vauchez, *Sainthood in the Later Middle Ages* (Cambridge: Cambridge University Press, 1997).

¹⁸ For Aquinas, human intellect, no matter how acute, "cannot reach to the divine essence" or comprehend the supernatural, the truth of which must be accepted on faith, "the evidence of things unseen." Hebrews 11:1 as elucidated by Thomas Aquinas in the *Summa Theologica*, Article One: "Faith is the substance of things hoped for, the evidence of things not seen."

of the light of God's love; just as the earth received its light "solely from the sun, the Empyrean should receive its light directly from God."¹⁹ Drawing on Aristotle's qualities of matter, theologians argued that all things associated with the divine were characterized not only by light and translucence but also warmth and weightlessness, the same qualities ascribed in different proportions to elemental air and fire, the lightest elements that ascended toward the fiery ring just beyond the moon and were therefore closest to the ethereal realms. Following Aristotelian contrariety, theologians then elaborated the inversion of supernatural divinity—the hierarchy of earth-bound evil, with Satan at its inverted peak buried at the icy core of the dry earth in Hell.²⁰ There, he was surrounded by his black-winged demons, wicked imps, learned practitioners of demonic magic, those who had signed the devil's pact, heretics, as well as hordes of less adept sinners.²¹ In response to the qualities of sanctity, the category of the "unholy evil" was assigned the qualities of darkness, opacity, coldness, and density, thereby bringing these entities into alignment with elemental earth and water, both of which were bound to the corrupt and cursed material world. Inversions of angelic or heavenly bodies composed of warm light and sweet-scented ether, with the power to heal bodies and souls, Satan and his demonic beings were described by theologians as manifesting in cold and slimy bodies or appearing as shadowy figures composed primarily of fetid, icy, earthly air—noxious and poisonous gases with the power to infect the human body and spread corruption.²² Imprisoned beneath the moon, the Devil and his demons roved all over the earth, manipulating nature and producing wicked wonders in order to tempt humans away from Divine light and chain them in darkness.²³ Such ideas about demons and other dark spirits, while quantified and qualified in academic terms, were nevertheless informed by

¹⁹ John Ruusbroec (1293-1381), quoted in Colleen McDannell and Bernhard Lang, *Heaven: A History* (New Haven: Yale University Press, 2001), 82; Thomas of Strasbourg, *Sentences*, in Grant, *Planets, Stars, and Orbs*, 373.

²⁰ On Aristotelian contrariety, see Stuart Clark, *Thinking with Demons: The Idea of Witchcraft in Early Modern Europe* (New York: Oxford University Press, 1999).

²¹ On the conflation of heretics and those who had signed a Satanic pact, see Alain Boureau, *Satan the Heretic: The Birth of Demonology in the Medieval West* (Chicago: University of Chicago Press, 2006).

²² On the multiple perceptions of demons in the Middle Ages, see Dyan Elliott, *Fallen Bodies: Pollution, Sexuality, and Demonology in the Middle Ages* (Philadelphia: University of Pennsylvania Press, 1998); Michael Bailey, *Battling Demons: Witchcraft, Heresy, and Reform in the Late Middle Ages* (Philadelphia: Pennsylvania State University Press, 2003).

²³ Saint Jerome, "The devil and the demons rove all over the earth." Quoted in Dendle, *Satan Unbound*. Aquinas argued that demons were essentially melancholy, unable to do physical penance, unable to rise into the light, forever doomed to the world below the moon. See *Summa Theologica*, Part One, Question 64, Article 3: "Consequently a twofold place of punishment is due to the demons: one, by reason of their sin, and this is hell; and another, in order that they may tempt men, and thus the darksome atmosphere is their due place of punishment."

generally held beliefs about unseen entities that swirled through the nighttime air, tormenting and seducing their living victims most violently in the darkest hours of the night.²⁴

The association of the color black, autumn, winter, coldness, physical and spiritual corruption, and fetidness with unclean beings, which for common folks and academics alike might include demons, imps, witches, ghosts and revenants, as codified by thirteenth and fourteenth century scholastics would have a long life in European culture.²⁵ In the fifteenth century, these shared assumptions shaped witchcraft treatises such as Johannes Nider's *Formicarius* and Kramer and Sprenger's *Malleus Maleficarum* (1486), both of which used Aristotelian categorical inversion and premises drawn from both natural philosophy and theology to prove the continued threat of witches and the existence of the midnight Black Sabbath or Satanic Mass, the purported celebration of the Christian Mass in reverse.²⁶ Soon after its initial publication, the *Malleus Maleficarum* was translated from the Latin into the vernacular and became an international best seller, in part because of the lascivious and misogynistic scenes it contained, and in part because it authoritatively reinforced many popular beliefs already held by its readership.²⁷ The popularity of the *Malleus Maleficarum* sparked a lively publishing debate between witch-believers and skeptics that continued into the sixteenth century, with King James arguing in his *Daemonologie* (1597) that witches and demons, invisible as the icy air, permeated English communities, and the skeptic Reginald Scot arguing in his *Discoverie of Witchcraft* (1584) that there was no proof of witchcraft, that belief in witches was nothing but medieval papist nonsense, and that extra-biblical spirits were but manifestations of a sick imagination.²⁸ In 1647, Witchfinder General Matthew Hopkins wrote the *Discoverie of Witches*, a quasi-legal treatise whose focus was the physical and

²⁴ For the relationship between learned and popular culture, which were part and parcel of one another on this particular topic, see Richard Kieckhefer, *Magic in the Middle Ages* (Cambridge: Cambridge University Press, 2000). On the medieval popular culture more generally, see Aron Gurevich, *Medieval Popular Culture: Problems of Belief and Perception* (Cambridge: Cambridge University Press, 1988). See also Jean Verdon, *Night in the Middle Ages* (Notre Dame: Notre Dame University Press, 2002).

²⁵ On revenants, see Nancy Caciola, "Wraiths, Revenants, and Ritual in Medieval Culture," *Past and Present*, 152 (Aug., 1996), 3-45.

²⁶ On Johannes Nider's *Formicarius*, see Michael D. Bailey, *Battling Demons: Witchcraft, Heresy, and Reform in the Late Middle Ages*. Pennsylvania State Press, Philadelphia, 2003. On the *Malleus Maleficarum*, see Christopher S. Mackay's critical edition published by Cambridge University Press (2006).

²⁷ Hans Peter Broedel, *The Malleus Maleficarum and the Construction of Witchcraft: Theology and Popular Belief*. (Manchester University Press, Manchester, 2003).

²⁸ While this back and forth was rooted to the binary between protestant and Catholic in England before the Civil War, the debate about witchcraft was being held throughout Europe. See, for example, "Witchcraft in Spain: The Testimony of Martín de Castañega's Treatise on Superstition and Witchcraft (1529)," trans. David H. Darst, *Proceedings of the American Philosophical Society*, 123: 5 (Oct. 15, 1979), 298-322.

logical proof, still dependent on medieval paradigms, of witches and witchcraft. While discourse on witchcraft persisted throughout the Early Modern period, by the eighteenth century it was no longer a topic of erudite discussion. Intellectual culture had come to espouse observation and experimentation as primary epistemologies and to reject the authority of Aristotle and theology as foundations for interpreting nature. Enlightened science was predicated on what could be seen and proven through the application of systematic experiments that produced consistent results. That which could not be proven in the physical realm was beyond nature, and therefore could not be proven to exist. As a part of this paradigm shift, God and His saints, the Devil and his demons, as well as miracles, hexes, witches and ghosts—none of which could be physically validated by scientific investigation—fell under the *new* category of supernatural. While many scientists and intellectuals eschewed the supernatural as superstition and folklore, belief in an unseen world swirling with icy spirits persisted in popular culture and, by the nineteenth century, became a topic of investigation for Victorian parlor science.

Proving the Supernatural

Nineteenth-century Spiritualists argued that the physical world was permeated by unseen forces, both human and inhuman; however, unlike their forebears who held that these invisible entities were to be avoided altogether and exorcized immediately should they find their way into human homes and bodies, Spiritualists actively sought verbal communication and physical communion with them in an attempt to reconnect with dead loved ones, to prove life after death, and in doing so, to be made whole in a mechanized and post-Cartesian world. Living in “an extraordinarily scientific age,” believers in the ethereal supernatural realms were aware that they appeared as backwards, superstitious, and medieval to their skeptical detractors, those who espoused materialism and subscribed to the dominant public discourse of science as the ultimate arbiter of fact and fiction.²⁹ In 1851, the prominent Spiritualist Andrew Jackson Davis wrote despairingly that “This is not a superstitious age, but one of THOUGHT—It is not an age of religious culture and illumination, but one of materiality and SCIENCE.”³⁰ Against such rampant materialism and

²⁹ Sheri Weinstein, “Technologies of Vision: Spiritualism and Science in Nineteenth-Century America,” *Spectral America: Phantoms and the National Imagination*, ed. J. A. Weinstock (Madison: University of Wisconsin Press, 2004), 124-140.

post-Enlightenment mechanism, Spiritualists like Davies argued that not everything that existed could be proven through scientific means, that spiritual phenomena should be investigated through the mind's eye and designated channels such as spirit boards and mediums, but might truly be proven only through personal experience. For Spiritualists, "Believing was seeing," and the expected truths would ultimately reveal themselves according to the specific rationality of the paranormal.

True believers held that the authority of acclaimed Spiritualists and mediums as well as the testimony of witnesses to spirit communications through automatic writing, materialization boxes, table tipping and tapping, and spirit boards (later popularized as Ouija Boards) constituted sufficient proof of the supernatural world; their detractors, however, claimed that such methods were invalid, not only because those who testified were (and always had been) confessed believers, but also because there existed no visible or tangible *proof* of such spiritual encounters. Realizing that any proof for the "definitive existence of spirit life" that would convince their science-minded skeptics would have to be visible and physical and not merely anecdotal, Spiritualists—many of whom were themselves scientists—utilized the modern theories of electricity and magnetism and the new medium of photography in an attempt to engage with the skeptical scientific community.³¹ One such man was Cromwell Fleetwood Varley, a fellow of the Royal Society of London who was both a respected electrical engineer responsible for much of the Transatlantic Telegraph and dedicated to proving the materiality of invisible electrical impulses, as well as a devoted Spiritualist, a self-proclaimed medium possessing mesmeric powers, who was dedicated to proving the material existence of spiritual bodies.³² Varley believed that spirits were related to electrical currents and magnetic forces and accordingly developed instruments for their detection. One of these instruments, a type of galvanometer, was designed with the help of his friend and colleague in the Royal Society, William Crookes, who was both a chemist and

³⁰ Andrew Jackson Davies, "Truth and Mystery" in *The Philosophy of Spiritual Intercourse: Being and Explanation of Modern Mysteries* (1851).

³¹ Weinstein, "Technologies of Vision," *Spectral America*, ed. Weinstock, 128. See also Antonio Melechi, *Servants of the Supernatural: The Night Side of the Victorian Mind* (London: Arrow Books/Random House, 2008).

³² On Varley and the connections between physical and spiritual electrical communications, see R. J. Noakes, "Telegraphy is an Occult Art: Cromwell Fleetwood Varley and the Diffusion of Electricity to the Other World," *The British Journal for the History of Science*, 32:4 (December, 1999), 421-459.

a member of the newly founded Society for Psychical Research (SPR).³³ Varley's test of the galvanometer at a séance proved inconclusive, yet he continued to argue that ghosts were attracted by other forces related to electromagnetics, perhaps the auric "odic force" proposed by Karl von Reichenbach.³⁴ For Varley and other Spiritualist-Scientists, the boundary between the natural-material world and the supernatural-spiritual realm was fluid; ghosts, being both a physical electrical force and imponderable soul, spanned both nature and super-nature and were therefore valid subjects for scientific inquiry. Spiritualism might be considered "an empirical way of elucidating new laws of nature," or "a way of extending, not undermining, existing sciences."³⁵ Science, after all, had long sought, discovered, and proven the existence of invisible forces such as gravity, air pressure, electricity, and magnetism. Before the invention and perfection of the microscope, microbes, too, were invisible to the naked eye, yet nevertheless very real. Why not ghosts? For believers like Varley and Crookes, the spirit world would one day be proven; all that was necessary was time, human ingenuity, and the advancement of scientific technology.

While academic and scientific believers and disbelievers plodded away in their attempts to prove Spiritualism and the invisible realm of occult phenomena as fact on one side or fiction on the other, the general public remained spellbound by the possibility that ghosts and darker forces might permeate the visible world. The idea that dead relatives might return to visit the living as vaporous and filmy white entities was especially compelling in an age when more traditional beliefs about the Christian afterlife were fraying at the edges. In 1861, a Bostonian named William H. Mumler developed a photographic portrait of himself in which a diaphanous image of his dead cousin appeared beside him.³⁶ Just as Reichenbach had been able to capture photographs of an invisible life force that he called "Od," which was composed of electricity, magnetism, and heat, so too might anyone wealthy enough to own a camera be able to capture unseen energy in the form of spirits. Soon after Mumler's "discovery," spirits of the deceased began to invade photographs on both sides of the

³³ For Varley's galvanometer, see R. J. Noakes, "Cromwell Varley FRS, Electrical Discharge, and Victorian Spiritualism," *Notes and Records of the Royal Society* 61:1 (January, 2007), 5-21.

³⁴ Karl von Reichenbach, *Odic Force or Letters on Od and Magnetism*, trans. F. D. O'Byrne (Montana: Kessinger Publishing, 2003).

³⁵ Noakes, "Cromwell Varley FRS," 7-8.

³⁶ Louis Kaplan, "Where the Paranoid Meets the Paranormal: Speculations on Spirit Photography," *Art Journal* 62:3 (Autumn, 2003), 18-29.

Atlantic, reuniting families in this world and the next. Spiritualists seeking definitive proof for life after death believed that “photography would help shift the burden of proof from potentially untrustworthy human observers to machines that could not be influenced by unconscious signals from experimenters.”³⁷ Skeptics, however, argued that these photographs could easily be faked, that they were created by and for other believers, and rejected them as invalid and not consistent with any sort of scientific evidence. By the fin du siècle, spirits had begun to manifest themselves in photographs as material emanations such as ectoplasm, thereby reinforcing the physicality of spirits and their very real connections to the sensitives who claimed to see, hear, and feel them. Despite these new and improved visual proofs that spirits were material entities detectable in the physical world, skeptics continued with their refusal to accept them as evidence, claiming once again that photographic images were easily manipulated. Even if they were not, they might argue, what could single photographs of wispy ghosts or ethereal ectoplasm *prove* without a viable and consistent *theory* of the paranormal? What theory might be systematically applied to a singular and unrepeatable piece of evidence? Only those who believed in spirits accepted such images, be they factual or fictitious, as proof of life beyond the veil of death; one hundred years ago, as today, seeing was believing only if you already believed.

A Persistent Icy Draft

The legacy of the medieval and Victorian traditions surrounding proof of the invisible world are evident in the specific rationality of the paranormal upon which modern ghost hunting programs such as *Paranormal State* are based. Just as medieval theologians willingly used concepts drawn from natural philosophy and learned medicine in order to illuminate issues of faith and to prove the miraculous, and Victorian Spiritualists used scientific theories and instruments to prove the existence of invisible electrical entities in which they already believed, so too do the members of Ryan Buell’s investigation team, the Paranormal Research Society (PRS), use theories drawn from both medieval demonology and Victorian parlor science as well as advanced scientific technologies in order to prove the existence of unseen entities in which they and many of their viewers have a preexisting faith.

³⁷ Noakes, “Cromwell Varley FRS,” 14.

Medieval elements of the specific rationality of the paranormal resonate throughout *Paranormal State*, but are especially strong in those episodes dealing directly with categorically evil beings such as Satan and demons, and the demonic infestation and possession of houses and individuals. “The Name,” “The Devil in Syracuse,” “I am Six,” and “Return of Six,” for example, each revolve around Ryan’s long term relationship with a demon (also known as a “bunny” on the show) named Belial, an entity so foul and dangerous that merely speaking its name might cause it to manifest fully.³⁸ Belial, one of Satan’s most powerful minions, is also one of Judeo-Christian culture’s most familiar evil entities, with appearances in textual sources from the *Tanakh* and *New Testament* to the *Lesser Key of Solomon*, a seventeenth-century grimoire composed in imitation of a fifteenth-century hermetic text of similar title, as well as in horror films such as *The Devil Rides Out* (Hammer Horror, 1968) and modern video games such as *Devil May Cry 4* and *Diablo III*.³⁹ On *Paranormal State*, Belial and his demonic associates conform to the medieval paradigm of canonical evil and are described as dark, icy cold, and sexually hungry for virgin flesh; cold spots, shadow figures, and the sulfuric smells are all indicators of a demonic presence. Following the medieval conception of the Satanic as an inversion of goodness, the demonic is denoted by upside down crosses; in “Devil in Syracuse,” for example, Belial inverts all of the crosses in the trailer home as a sign of his anger. “I am Six” and “Return of Six” feature reversed Latin and a mockery of all things canonically holy, including a parody of baptism, in which the virginal victim, a young woman named Lara, is held beneath the water in her bathtub while Belial attempts to rape her. Other demonic signifiers revolve around the number six (six major demons are implicated in this case) and the dreaded number 666, as well as the demonic flouting of the number three, the sacred number of the holy trinity, with scratches appearing in triples and the peak of demonic activity occurring at 3:00 A.M., the witching hour, in mockery of Christ’s death on the Cross. In fact, it is at 3:00 A.M. that the team hold “dead time,” in which all of the lights are turned off in the purportedly haunted location, candles are lit, and sort of séance is held in which the living attempt to communicate with the unseen world.

³⁸ “The Name,” airdate 10 December 2007. “The Devil in Syracuse,” airdate 17 December 2007. “I am Six,” airdate 27 October 2008. “The Possession: Return of Six,” airdate 13 April 2009.

³⁹ On the late-medieval and renaissance hermetic tradition, see the now classic Frances Yates, *Giordano Bruno and the Hermetic Tradition* (London: Kegan Paul, 1964); Deborah E. Harkness, *John Dee’s Conversations with Angels: Cabala, Alchemy, and the End of Nature* (Cambridge: Cambridge University Press, 1999); C. I. Lechrich, *The Language of Demons and Angels: Cornelius Agrippa’s Occult Philosophy* (Leiden: Brill, 2003). For a full elaboration on the hermeticism in *The Devil Rides Out*, see Dennis Wheatley’s 1934 novel of the same name.

Demonic cases such as “Return of Six” require specialized experts, including the demonologist-psychic Lorraine Warren and the Catholic priest Father Bob, who not only bless and cleanse the house but also perform the exorcism of Lara. Armed with holy water, communion wafers, and the Rite of Exorcism, Father Bob abjures the demons by name, commanding them to leave Lara, who feels pressure in her stomach—the bodily dwelling place of demons according to medieval scholars.⁴⁰ According to medieval theology bolstered by natural law, in normal cases of possession these holy Christian artifacts and rituals should counteract the inverted demonic “other” and bring about healing.⁴¹ Because Lara’s case is so severe, however, the PRS team determines to use experimental “scientific” means in order to aid the religious efforts of all involved. To this end, Ryan willingly subjects himself to the Ganzfeld Experiment, in which ping-pong balls are taped over his eyes and noise-cancelling headphones pump static into his ears; as he stares into a red light, he is meant to experience a sort of blindness. Through this sensory deprivation, parapsychologists such as Charles Honorton believe that the subject lies open to extrasensory stimuli and might be able to see entities and hear voices from the invisible world.⁴² In addition to the Ganzfeld apparatus, Ryan dons the Shakti Helmet, a device developed by neurotheologist Michael Persinger in the 1980’s; like Cromwell Varley before him, Persinger argued that electromagnetic frequencies might very well facilitate clairvoyance and spirit communication.⁴³ By combining the Ganzfeld experiment with the Shakti Helmet, Ryan hopes to attract the demons to himself while giving Lara a rest from possession and, through this, a glimpse at a future free from Satan’s grip. While Father Bob chants Latin, spooky music plays in the background, and the cameras switch between normal and night vision, Ryan narrates the demons’ voices and actions, thereby using “science” to validate their existence for viewers who already believe in them. Suddenly, Ryan hears a scream. All run to a newly-possessed Lara’s side and the medieval ritual resumes. Through masterful editing, this stew of religious signifiers, scientific “data,” bits of history and testimony, as well as the reactions of the participants are

⁴⁰ Caciola, *Discerning Spirits*, 157.

⁴¹ When clients are not Catholic, protestant ministers perform the necessary rites of expulsion and cleansing. All cases of the demonic, no matter the faith of the client, conform to the category of canonical evil elaborated in the medieval university and proliferated through witchcraft treatises and popular culture into the present.

⁴² Ray Hyman and Charles Honorton, “A Joint Communiqué: The PSI Ganzfeld Controversy,” *Journal of Parapsychology* 50 (December, 1986), 351-364.

⁴³ Michael A. Persinger, “The Neuropsychiatry of Paranormal Experiences,” *The Journal of Neuropsychiatry and Clinical Neurosciences* 13 (2001), 515-524.

woven together into a seemingly cohesive narrative imbued with meaning for believers. For skeptics, however, who neither operate within the specific rationality of the paranormal nor recognize its codes, such narratives are completely disjointed and utterly absurd.

The ghosts on *Paranormal State*, like demons, are described as cold and often manifest in the form of icy phantom winds, white orbs, or glowing mist. Unlike demons, however, human entities are conceptualized as forms of energy that, in cases of violent death or tragedy, become trapped in an earth-bound circuit and are unable to move on. Drawing on the theories of Victorian Spiritualists, Ryan and his team hold that ghosts behave like electrical forces, requiring energy to manifest and therefore draining a room of heat before appearing, and are also detectable by sensitive and purportedly unbiased electronic equipment. Because of the digital revolution, the PRS has at their disposal instruments far more advanced and readily available than Varley's homemade galvanometer and Mumler's daguerreotype camera. Armed with digital recorders, the PRS team attempts to collect electronic voice phenomena, or EVPs, in which the voices of the dead answer the questions and taunts of the living. Their audience and clientele are similarly armed; "Paranormal Intervention," for example, focuses on a woman obsessed with making EVP recordings in her quest to contact an entity named Mary and to discover a portal to the other side. In many episodes, electromagnetic frequency recorders detect fluctuations that might indicate the presence of an enduring electrical entity, while experimental "ghost attraction devices" use magnetic pulses to lure their invisible prey; "Laws of Attraction" even featured an experimental radar detector that could sense movement.⁴⁴ Digital video cameras, like their Victorian forbears, are used to obtain visual evidence of spirits moving in the shadows, while thermal cameras indicate the temperature fluctuations indicative of ghostly activity. The evidence from these mediumistic instruments is corroborated by the authority of a psychic, often Chip Coffey, who mediates between the seen and unseen, validating any historical research done by the team and the experiences of those being haunted, while narrating the voices of the demons or ghosts in question. As in the Victorian world, this evidence for the existence of ghosts is only convincing to those who already believe; to skeptics, the indiscriminate noises during "dead time" the electronic chatter of EVPs, and the scattered

⁴⁴ "Laws of Attraction," airdate 19 January 2009.

static and blips on other devices are merely natural phenomena easily explained through rational inquiry. Without faith, paranormal evidence is proof of nothing.

The sources of authority on *Paranormal State* range from medieval theology and the Catholic Church to the testimony of psychics and eyewitnesses to the theories and technologies of modern popular science. Proving the paranormal means gleaning evidence from all of these sources and stitching them together according to a specific rationality which is itself a Frankenstein's monster, constructed of varied and incompatible parts in order to create a corrupt and somewhat dysfunctional whole. Like the medieval scholastics and Victorian Spiritualists before them, modern paranormal investigation programs use popularized scientific theories and technologies to prove the existence of invisible and immaterial beings whose existence, in reality, must be taken on faith alone. In attempting to use rational scientific materialism to prove the irrational, spiritual, and immaterial, modern paranormal programs select different elements of both systems and, like their predecessors, compromise the systematic beauty of both. The result has been the creation of authoritative artificial body of knowledge accepted as true by believers—the specific rationality of the paranormal—which appears to be a cohesive system and yet is itself a haunted house of historical ghosts, an amalgamation of both fact and fiction.