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Shelley, Crichton, Stevenson, & Wells

I have reviewed this completed senior honors thesis with this student and certify that it is a project commensurate with honors level undergraduate research in this field.

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Comments on Sarah Phillips's Honors Thesis:

Sarah proved herself capable of independent, wide-ranging research, of very intelligent reading in primary and secondary sources, and of synthesizing the critical traditions and concepts of two quite different, if overlapping genres. She did a very fine job of describing that overlap and making it work in her analyses. After the most open-ended suggestions from me, she would go off and think and write, developing or expanding a point far beyond my expectations (though I have recognized her as a fine student from her course work). Her writing style is clear and unpretentious, yet quite sophisticated for an undergraduate. And her essay developed from a series of separate sections into a unified whole over the course of her revisions, developing very effectively the fine thesis that she had developed from her own research and reading. Though she jokingly wrote on her final draft, echoing Mary Shelley's comment about her first novel, that she'd created a monster, this is no hideous progeny but an offspring she can be very proud of.

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The Gothic and Science Fiction: Shelley, Crichton, Stevenson, & Wells

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ABSTRACT

The connection between science fiction and the Gothic has existed for nearly 200 years, beginning with the text also seen as the first science fiction novel, *Frankenstein*. This paper explores the connection between science fiction stories and the Gothic through five texts that incorporate the two genres: Mary Shelley's *Frankenstein* (1818), Michael Crichton's *Sphere* (1987) and *Congo* (1980), Robert Louis Stevenson's *Strange Case of Dr. Jekyll and Mr. Hyde* (1886), and H. G. Wells's *The Island of Dr. Moreau* (1896). The stories do not express a fear of technology as much as use technology to provide an avenue to analyze those aspects of human nature that are terrifying and disturbing. The isolated architects of each story's extreme events use science to create projections of their own shadow selves, and it is these creations that haunt the characters and allow commentary on that dark side of humanity. The connection between science fiction and the Gothic is related to the fact that scientific advancement is often frightening, but even deeper because it forces confrontation with the sides of human nature that most people would rather forget. The connection between the two genres, then, is deep and logical, and it is easy to see how the connection was established and why it is still pervasive even in contemporary popular fiction.

The Gothic and Science Fiction: Shelley, Crichton, Stevenson, & Wells

Michael Crichton's widely-popular fiction has made him one of today's best known authors. His writings range from non-fiction to historical fiction, but he is best known for his scientific thrillers. Crichton combines understandable scientific description with classic methods of terror and suspense to create smart novels that engage readers both mentally and emotionally. Although his books will not often be found in the Science Fiction section of the book store, his plots rely heavily on the presence of science and his novels are—and certainly should be considered—science fiction. Most people will readily accede that Crichton writes science fiction. Something that may not be as apparent, however, is that many of these science fiction novels are also Gothic. On initial examination, calling Crichton a purveyor of the Gothic may seem a bit of a stretch even for the few people who have an accurate concept of what the Gothic is. Upon closer examination, however, several of his novels fit the description of Gothic very well. Two of these are *Sphere* (1987) and *Congo* (1980). In his integration of science fiction and Gothic, Crichton repeats a combination that has been established for over one hundred years. The publication of *Frankenstein* by Mary Shelley in 1818 is marked by many as the birth of the science fiction novel (Freedman 253). This first science fiction novel is also indisputably Gothic, as are later science fiction stories such as *The Strange Case of Dr. Jekyll and Mr. Hyde* (1886) by Robert Louis Stevenson and *The Island of Dr. Moreau* (1896) by H. G. Wells. Of course, not all science fiction is Gothic and not all Gothic literature is science fiction, but it is apparent from the historical pervasiveness of this combination that there is something about the two which makes them combine particularly well. By examining these five works, one can see that, in order to express some themes prevalent in works of science fiction—such as tensions

between man, nature, and technology—the Gothic is ideal, and the nature of science fiction stories themselves inevitably signals the excessiveness implied by the Gothic label.

THE GOTHIC

To discuss these works as Gothic science fiction, each term must first be defined, Gothic in particular. It is often much easier to provide a list of works that are Gothic than to express in more abstract terms what the Gothic is. One quality of the Gothic that critics agree with is the use of fear. However, this quality alone provides a less-than-satisfactory description of what the Gothic is; after all, not all folk ghost tales or scary stories are Gothic, and the term is usually used to refer to literature that was particularly popular in the late eighteenth and early- to mid-nineteenth centuries (and even extending in part to the present day), which is certainly not the only occurrence of scary stories.

The best way to define the Gothic is to start at the beginning. Often cited as the first Gothic tale, Horace Walpole's *The Castle of Otranto*—published in 1764—was the first to call itself “A Gothic Story” (Hogle 1). At the time of its release, the term “Gothic” was a derogatory term “used to denigrate objects, people, and attitudes deemed barbarous, grotesque, coarse, crude, formless, tasteless, primitive, savage, and ignorant” (Frank 7). Artistically it signified that which was grotesque and ugly by the standards of classical beauty (Frank 7). 1764 in what is often referred to as the neoclassical period, a time in which culture was looking back to Roman models and the associated elements of balance and harmony. E. J. Clery points out that “[a]t the time, knowledge of Latin, classical history and literature, and appreciation of classical art, were the essential attributes of the ruling class” (x). Classical models formed the basis of art,

literature, architecture, and education. The associations of “Gothic” then implied a lack of these classical influences, and as a result something that was grotesque.

In the preface to the second edition of his book, printed in 1765, Walpole describes a blending of ancient and modern romance, “the former ‘all imagination and improbability’ and the latter governed by the ‘rules of probability’ connected with ‘common life’ (Hogle [quoting Walpole] 1). This juxtaposition of old and new, imagination and probability is at the center of Gothic tales. According to Frederick S. Frank, the Gothic was “a mode of perception or way of seeing another universe buried beneath the rationalism of the eighteenth century and religious skepticism of the nineteenth century” (6). In the waning days of the Enlightenment, then, the Gothic developed as a recognition that rationalism is not the only or best means of looking at the world (Haddox), but, rather than rejecting this view outright—as rationalism tended to do with more traditional and superstitious views—the Gothic tried to incorporate both the rational and irrational. This leads to the juxtaposition of ancient and modern that Walpole describes. Jerrold E. Hogle describes one of the main patterns in Gothic fiction as this “hyperbolically verbalizing [of] contradictory fears and desires” (5). The Gothic becomes a way for people to address these seemingly irreconcilable conflicts in their life and mind: that of the old and new, rational and irrational, natural and supernatural.

Since the conflicts addressed are often paradoxical, the only way of reconciling them is through extreme narratives (Hogle 4). This results in the characterizing of Gothic stories as excessive. Judith Halberstam describes Gothic literature as having a “vertiginous excess of meaning. Gothic, in a way, refers to an ornamental excess (think of Gothic architecture—gargoyles and crazy loops and spirals), a rhetorical extravagance that produces, quite simply, too much” (128). Edmund Burke explains the fear caused by this excessiveness in his *A*

Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful. In this treatise, Burke describes the sublime as that which is “productive of the strongest emotion which the mind is capable of feeling” and he claims that pain, danger, and terror are the most powerful (499). Since it is the most powerful emotion possible, the sublime is much more affecting than more pleasurable things, and the things that evoke this sublimity include not only pain, danger, and terror, but also astonishment, obscurity, solitude, vastness, and infinity. The sublime, then, is related to the Gothic’s preoccupation with producing an effect of terror and fear, and the excessiveness of the Gothic style in itself produces a sense of the sublime: driving readers into mental and emotional overload is related to Burke’s ideas of vastness and infinity as terrifying and certainly one way of evoking fear.

Also closely connected with the Gothic, as well as Burke’s ideas on the sublime, is the supernatural. Use of the supernatural is a device that functions in several ways in the Gothic. In the conflict between ancient and modern that occurs, the supernatural represents the traditional superstitious beliefs in conflict with contemporary rationality. The supernatural represents the ancient in a way that is the stark and irreconcilable opposite of modern reason. This use of the supernatural to represent the ancient also accomplishes the excessive style that the Gothic is known for: the supernatural allows for the achievement of extreme situations and emotions, which provides its link to the sublime and fear. Burke discusses the terror associated with obscurity and power (501-502), and the supernatural is certainly frightening for these reasons, as well as any physical harm which may be caused, but is perhaps a most versatile tool in the affective power it has in the unknown and unexplained. This is a tool that Ann Radcliffe in particular used, “retain[ing] merely the *suspicion* of the supernatural, making up for its absence by inventive use of effects of suspense and dread,” this in contrast to the *schauerromane* “which

dealt in unrestrained sensationalism” (Clery vii). Radcliffe used obscurity to create a supernatural atmosphere and the uncertainty in that obscurity to create suspense.

Another common aspect in much Gothic literature, and a way in which the supernatural is often incorporated, relates to hidden secrets. These secrets from the past haunt the characters, either literally as ghosts or other supernatural creatures, or by psychologically tormenting the characters (Hogle 2). Radcliffe’s *The Italian* personifies this haunting in the often-supernaturally described monk Schedoni, as can be seen on the first page, where he is described as “glid[ing] to a door that opened into the church, and disappear[ing]” (Radcliffe 1). These hauntings are a manifestation of the conflict between old and new, where the past comes to haunt and complicate the present, and this disjointedness—although seemingly irreconcilable—must be settled before life can move forward. The supernatural, then, is often used to bring to the forefront the central juxtaposition Walpole suggests by literally making the ancient and modern conflict, and it does so in the necessary excessive manner.

The setting of a Gothic tale also reflects this conflict. Conventionally, Gothic tales take place “in an antiquated or seemingly antiquated space” (Hogle 2). This antiquated space takes many different forms, including (but certainly not limited to) castles, abbeys, subterranean crypts, decaying laboratories, and primeval frontiers or islands. The hauntings often arise from within these spaces (Hogle 2). This not only further connects the setting with the ancient and the underlying conflict of the story, but in doing so causes the setting to almost become another character because of the close connection with the spirits or secrets.

The Gothic, cited as first emerging in 1764, has enjoyed periods of immense popularity, particularly during the early- to mid-nineteenth century. However, the style has persisted into present day literature. Clery comments on *The Italian*, “it is the work in which she [Radcliffe]

makes the most direct commitment to the pleasures of the imagination for their own sake, moving didacticism into the background. In this sense, it participates in a shift towards an escapist model of popular fiction which continues to hold good today” (xxx). Figures such as Richard Matheson, Anne Rice, and Stephen King are often said to be purveyors of contemporary Gothic (Oakes 3-4). According to Hogle,

The Gothic has lasted as it has because its symbolic mechanisms, particularly its haunting and frightening specters, have permitted us to cast many anomalies in our modern conditions, even as these change, over onto antiquated or at least haunted spaces and highly anomalous creatures. This way our contradictions can be confronted by, yet removed from us into, the seemingly unreal, the alien, the ancient, and the grotesque. (6)

This malleability not only allows the Gothic to change with time, but also enables it to be adapted to other locations and genres, creating hybrids such as American Gothic or science fiction Gothic.

SCIENCE FICTION

Science fiction is much easier to define than the Gothic, with the label itself more blatantly descriptive of the genre. Science fiction is, as it sounds, fiction in which science plays an important role. These fictions tend to be “based on speculative scientific discoveries or developments” (“Science Fiction”). Science fiction emerges as a genre as science and technology increasingly become a part of everyday life. The first science fiction novel is seen by many to be *Frankenstein*, released in 1818 as the Industrial Revolution is underway and scientific and technological advancement begins to become more salient (Dziemianowicz 216).

There are certainly conventions of character, and plot in science fiction, but these conventions do not function to define the genre (they are much more important for placing works in the many sub-genres). Defining a work as science fiction relies predominantly on the work fulfilling the characteristics of the label: concerned with science and a work of fiction. The science must not necessarily be feasible, and it is often this ability to extend science beyond its current limits that enables authors to explore more universal human issues. Carl Freedman points out that *Frankenstein* is science fiction not because Victor Frankenstein's experiment could have been carried out in real life (although the Preface does make that assertion), but because

the whole book breathes a rational, scientific atmosphere informed by such recent or contemporary scientific luminaries as Erasmus Darwin, Benjamin Franklin, and Sir Humphrey Davy; and that the novel (explicitly and implicitly) offers its imaginings as well within the possibilities of cognitively based speculation as established by the most advanced science of the day. (255)

In order to be science fiction, then, a work does not have to be a recounting of technological and scientific specificity and probability. What it must do is maintain a scientific air or theme, while not necessarily being *about* the science itself.

The genre has persisted in novel form, enjoying a period beginning in the early twentieth century in which it was widely disseminated in the pulp magazine format, and existing today not only in novel form, but also in comic books, television shows, movies, and video games.

Perhaps the most stereotypical science fiction is space fiction, in which the action occurs in outer space or on other planets, usually occurring at some point in the future when technology has progressed to enable living, traveling, and fighting in space on a large scale, and often involving alien life forms. Television series and movies such as the *Star Trek* and *Alien* franchises,

numerous video games such as *Halo*, and countless novels by authors such as L. Ron Hubbard (*Battlefield Earth*) and Orson Scott Card (*Ender's Game*) take up this theme. Somewhat less fantastic science fiction takes place on earth in the present or not-so-distant future and involves speculative science, such as robotics (seen in many novels by Isaac Asimov), genetics (as in Andrew Niccol's film *Gattaca* or Crichton's novel *Jurassic Park*), time travel (as in Wells's *The Time Machine*) or any number of emerging or hypothetical scientific fields (see Crichton's 2002 release *Prey*, based on the newly-emerging field of nanotechnology). As with the Gothic, science fiction is able to be adapted to modern conditions; since the main concern is with science, and science is constantly being updated and expanded, science fiction is able to grow along with it. These two very versatile genres "have long cross-pollinated" (Dziemianowicz 215-216).

GOTHIC SCIENCE FICTION

To see the interplay of science fiction and the Gothic, one must look no farther than the first science fiction novel, *Frankenstein*. The connection between the two genres is emphasized in the fact that the first science fiction novel is undeniably a Gothic novel, as well. Ellen Moers asserts that the novel "made over the Gothic novel into what today we call science fiction...[bringing] a new sophistication to literary terror" (216). Shelley took the fear behind the Gothic and combined it with the fears surrounding technological and scientific innovations (such as the increased mechanization of the Industrial Revolution) and theories. Percy Bysshe Shelley's 1818 preface to the novel not only asserts that the events are "not of impossible occurrence," but also refers specifically to Erasmus Darwin, the grandfather of Charles Darwin and an early evolutionary theorist, immediately establishing a connection to contemporary

scientific theory on which the science of the novel can expand, and touching upon a controversial and, for many people, terrifying concept. This first sentence of the preface to the first edition of *Frankenstein* at once establishes both the speculative scientific (science fiction) and frightening (Gothic) elements of the story (5).

David Oakes notes that “[t]he doubts and suspicions surrounding science and technology in American society have been reflected by Gothic fiction over the course of two centuries” (10). Oakes also suggests that the suspicion and fear aroused by these subjects is due in part to many people’s lack of understanding (9). This relates to the idea addressed by Burke that obscurity is terrifying (501). For many people, science and technology are a mystery, and therefore a source of suspicion and fear. It is only natural, then, that the Gothic be used to express this unease in texts concerned with science and technology. As Fred Botting points out, “[f]rom *Frankenstein* onwards scientific discovery is as much a threat as it is a promise” (279).

These representations of science and technology as threatening, however, uncover an even deeper concern: “Gothic representations are a product of cultural anxieties about the nature of human identity, the stability of cultural formations, and processes of change” (Botting 280). Botting uncovers a critical point in discussing science fiction Gothic, and that is what, exactly, are we afraid of? Science and technology are suspect and fearful, but the theme in most Gothic science fiction, and certainly in the five works to be discussed here, is more concerned with what happens when humans misuse this science and technology. Science and technology become a vehicle for expressing a deeper distrust and concern with human characteristics, such as egoism and arrogance, and the disastrous effects that science and technology enable these faults to generate.

FRANKENSTEIN

As an undeniably Gothic novel and quite possibly the first science fiction novel, *Frankenstein* is the logical starting point to analyze the relationship between science fiction and the Gothic. *Frankenstein* is science fiction: it is a work of fiction in which science plays a major part. Victor Frankenstein is a scientist, the events in the story occur as a result of his scientific experimentation, and as such science becomes closely related to some of the novel's themes. The use of science in the novel is, of course, much deeper than this simple description and shortly will be discussed further, but this basic description is sufficient for the pure purpose of establishing the novel as a work of science fiction. The novel is also Gothic: fear and terror is a central part of the plot, the conflict of ancient and modern manifests itself in several incarnations, and the most apparent of these is the creation of the superhuman monster, which produces both the excessiveness of style and supernaturalism that are so closely associated with the Gothic.

The central juxtaposition in the Gothic proposed by Walpole of ancient and modern is prevalent in *Frankenstein*. The story's action takes place in antiquated settings. The frame for the narrative is that Victor Frankenstein's story is being transcribed by Robert Walton in a letter to his sister. Frankenstein relates his tale to Walton on a ship stranded in a sheet of ice in the Arctic on its way to the North Pole. This framing setting is isolated and ancient—remaining unchanged by humans, and instead forcing humans to adapt to it, demonstrated by Walton's helplessly stranded ship. In Frankenstein's story, the majority of the action takes place in improvised laboratories (in Ingolstadt and on an island off Scotland), in and about the walled city of Geneva, and one of the key moments in the plot when Frankenstein is first reunited with his monster takes place on a glacier, mimicking the isolation and prehistoric setting in which the story finally finds itself. These antiquated settings conflict with the modern in Frankenstein's

actions. In the two laboratory settings, Frankenstein is attempting to execute something very modern and scientific: he is attempting to create life from inanimate matter. This endeavor is more advanced than anything contemporary science has accomplished, and the modernity of his aspiration and accomplishment provides a stark contrast to the antiquity of his location. His modern creation then haunts him in ancient and sublime settings: on the glacier, on the Scottish island, and in the Arctic. As Hogle has pointed out, the hauntings associated with the Gothic often arise from the antiquated settings (2), and this is certainly true for Frankenstein: the creature that signifies his secret and his bane haunts him and arises from antiquated settings, quite literally arising from the laboratory and using the environments of the other settings to shield and protect his approaches and escapes. Frankenstein describes the monster's awakening, saying

I collected the instruments of life around me, that I might infuse a spark of being into the lifeless thing that lay at my feet. It was already one in the morning; the rain pattered dismally against the panes, and my candle was nearly burnt out, when, by the glimmer of the half-extinguished light, I saw the dull yellow eye of the creature open; it breathed hard, and a convulsive motion agitated its limbs.

(34)

This waning night and the dying candle indicate an antiquated setting, and the infusion of life seen in the monster is as if he is drawing his life from his surroundings and combining in his person both the modern process of creation which Frankenstein has undertaken and the antiquity that has been a setting for the creation.

The question has often been asked, "What the does the creature represent?" One way the creature can be interpreted is as representing a fear of science. This interpretations is not

particularly satisfying, however, as it lacks depth and considerations of character. After all, the creature seems to have a greater sense of honor and community than Frankenstein: he strives to be good and does save a girl from drowning, even though he knows at that point that his appearance is repugnant (Rauch 240). In fact, Harold Bloom claims that the monster is “*more imaginative* than his creator. The monster is at once more intellectual and more emotional than his maker...the monster is *more human* than his creator” (215). The significance of the creature and theme of the novel is not that science is bad or even dangerous, but is an exploration of human interaction with science. Frankenstein does not attempt to give life to his creation for the benefit to mankind so much as he is driven by curiosity and the determination to prove that he can do it. His goals are self-serving. The arrogance and egoism with which Frankenstein acts and his irresponsibility are the causes of the creation of this monster, and are not any fault of science in itself. Jay Clayton recognizes this, saying that “the dangers of scientific hubris” are among the main themes of the novel (58). This is what Frankenstein seems to think is his great sin: he warns Walton against arrogance at the beginning and end of his tale, saying “Learn from me, if not by my precepts, at least by my example, how dangerous is the acquirement of knowledge, and how much happier that man is who believes his native town to be the world, than he who aspires to become greater than his nature will allow” and “Seek happiness in tranquility, and avoid ambition, even if it be only the apparently innocent one of distinguishing yourself in science and discoveries” (Shelley 31, 152). These exhortations are not espousing the evils of science and knowledge, but the arrogant pursuit of them.

Alan Rauch addresses Frankenstein’s hubris more specifically in the context of the community, pointing out that in order to accomplish his experiments, Frankenstein requires solitude and he does not share his knowledge with others (230). In doing so, he neglects his

responsibility as a scientist to contribute knowledge to the greater collaboration that is in service of a greater communal good: “in hoarding knowledge and storing it, so to speak, in one creature, [Frankenstein] seems to be missing the apparent point of science” (233). He physically isolates himself in order to accomplish his experiments: first leaving his family by going to Ingolstadt and there working in his private laboratory, then later leaving Clerval during their trip to Britain and creating another laboratory on an island off Scotland. This literal isolation alludes to his greater isolation from both the scientific and human communities. Frankenstein’s self-centeredness is also evidenced by his blindness to the true meaning of the monster’s threat “I shall be with you on your wedding-night” (116). Frankenstein is so cut-off that he does not even consider the possibility that Elizabeth will be the victim of the monster’s vengeance and not himself. His corruption of science and isolation from the scientific community stems from his early study of alchemists, who were concerned with achieving a result as opposed to contributing to a process (234). Rauch points out that “[i]n his enthusiasm to discover ‘the principle of life,’ Frankenstein is indifferent to the problems that trouble the living” (241).

In the novel, the creature haunts Frankenstein: following him, watching him, and wreaking havoc on Frankenstein’s life when he is not satisfied. As the creature has become educated, he has become aware of his own hideousness. He resents his creator making him such an abomination and then abandoning him. The monster is frustrated in his knowledge that he will always be isolated. Were it not for his education, he would not be driven to kill out of frustration and vengeance. According to Bloom, “Frankenstein’s desperate creature...is racked by a consciousness in which every thought is a fresh disease” (221). For the creature, education has in a sense been harmful to him since he is now forced to recognize that he is alone. In this isolation, the creature is a projection of Frankenstein’s own isolation. Bloom recognizes that

“Frankenstein and his monster are the solipsistic and generous halves of the one self” (215). By creating this monster that cannot join the human community, Frankenstein has created a projection of his own monstrous isolation from that community.

Frankenstein's concern with the Gothic tension between ancient and modern is expressed in how the title character reacts to this tension. Frankenstein attempts to reconcile the two, but does so in the wrong manner. His attempt to merge antiquated alchemy and modern science results in an abomination. He rejects community, society, process, and what science really stands for. Since his response is selfish and arrogant, his mistake is manifested in the creation of a monster that represents Victor Frankenstein's destructive possibility. Frankenstein fails to properly reconcile the ancient and modern in his life, and therefore he is forced to chase this monster unto death. The novel, then, urges reconciliation of these forces, not by disregarding science because of its dangers, but by embracing society and utilizing possibility for common good. More generally, it urges community over isolation and points out that science—although beneficial if applied in the proper manner—can be very destructive if one acts irresponsibly.

SPHERE

Michael Crichton's *Sphere* is another example of Gothic science fiction. The science fiction aspect of the story is apparent: the novel is about a group of scientists traveling to an underwater research facility to study what is originally said to be an alien spacecraft but turns out to apparently be an American spacecraft that has traveled through a black hole and back in time. Science and scientific observation and logical reasoning persist throughout the novel in their attempts to deal with their changing and increasingly unstable situation. This novel can be characterized as Gothic as well as science fiction. From the beginning the characters express a

sense of vague unease and creepiness in their situation, and this discomfort is continued until it escalates into terror. The characters are not only threatened with physical harm, but are also tortured by psychological demons. This prevalent terror is foreshadowed in the beginning of the book, when Norman reports “The fears unleashed by contact with a new life form are not understood and cannot be entirely predicted in advance. But the most likely consequence of contact is absolute terror” (18). This sets the tone for the rest of the novel, indicating that—although a very scientific undertaking is getting underway—fear and terror are going to assume prevalent roles in the narrative.

This shift is also indicated during Norman and Ted’s descent to the deep-sea habitat, about which Norman is particularly nervous: “Norman envied his [Ted’s] easy enthusiasm; he felt cramped and a little nervous” (47). This nervousness is related to the fact that they are moving into another world, but the significance of the descent is much more than going from the known terrestrial environment to the largely unknown marine environment to explore a mysterious spacecraft. The change is much more obscure. The name of the submarine in which they make their journey is *Charon V* and when they reach the river within the ocean each tips the pilot for luck (47, 49). This evokes the ancient Greek tradition of burying the dead with a coin in their mouth to give the ferryman Charon to take them across the river Styx to Hades (Morford 271). This descent, then, is symbolic of much more than a change of location. It indicates that they are going to another existence, another reality. The mythological allusion signals that the characters are leaving their realm of science and reason and moving to one much more supernatural.

The setting, although a high-tech research facility, is also antiquated and sublime. The facility is set at the bottom of the Pacific Ocean. This vastness is compounded by the depth:

light does not penetrate to its depth of about two thousand feet, obscuring the surroundings.

According to Burke,

To make any thing very terrible, obscurity seems in general to be necessary.

When we know the full extent of any danger, when we can accustom our eyes to it, a great deal of the apprehension vanishes...In nature, dark, confused, uncertain images have a greater power on the fancy to form the grander passions, than those have which are more clear and determinate. (501)

This obscurity creates a very sublime and primeval setting in which the modern facility is placed, again creating the tension between the ancient and modern. The manifestations that terrorize the characters later in the book spring from this environment: the school of jellyfish, a giant squid, and the whirling cloud. These descriptions of these appearances reflect a sublime presence. As the giant squid approaches the habitat, darkened in an attempt to avoid detection, Norman attempts—his eyes slowly adjusting to the darkness—to make out the creature:

For a moment, the great creature turned sideways to the habitat, and they could see its profile—the enormous glowing body, thirty feet long, with the huge unblinking eye; the circle of arms, waving like evil snakes; the two long tentacles, each terminating in a flattened, leaf-shaped section.

The squid continued to turn until its arms and tentacles stretched toward the habitat, and they glimpsed the mouth, the sharp-edged chomping beak in a mass of glowing green muscle. (226)

This description shows the sublimity of the creature, an amorphous mass of terrifying images emerging from the obscurity of the deep ocean. The description of the whirling cloud that attacks Beth functions similarly, saying “[a]nd now at last he could see something swirling the

muddy sediment behind her, in the darkness beyond the lights. It was like a tornado, a swirling cloud of muddy sediment. He couldn't see what was inside the cloud, but he sensed the power within it" (304). These two descriptions of the terrors encountered on the expedition epitomize the sublimity, particularly by their mysterious and obscure nature.

The conflict between the old and new is continued in the sphere. The sphere has an unknown origin, age, and purpose. What is known about it eventually, though, is that it enables one to manifest one's thoughts. This development causes the characters to challenge their old conceptions of reality which cannot account for what is happening. Norman explains to Beth Jung's concept of the shadow side of personality, describing it as the hateful and sadistic parts that "desire to kill and maim and rape and pillage" and suggests that, since they are mostly unacquainted with their shadow sides, this is what is released in their manifestations (273). This primitive side of the human psyche is brought out by the sphere, and the resulting conflict with the modern rational side is expressed in the supernatural manifestations that threaten to destroy the characters. Harry, who is the only member of the team able to manifest for most of the novel, unknowingly manifests his hopes and fears. Harry, who is an extremely ambitious mathematician, manifests an alien life form with whom the team communicates through the computer. The life form is originally communicating in code, which it is necessary for Harry—being the mathematician—to break. Harry, speaking as the alien life form "Jerry," then reverts to speaking childishly since he was not able to experience his childhood as he was a child prodigy. Harry has been continually expressing his nervousness with being in the habitat on the floor of the ocean and manifests the squid to prove himself right, and eventually manifests the squid when he is angry—like a child throwing a temper tantrum. He also manifests shrimp when he does not want to eat the calamari that has been prepared for dinner, a mysterious seaman to

rescue them after the first attack, and guards at his door while he sleeps when he begins to sense that he is in danger from his fellow scientists. Some of these manifestations are not particularly dangerous, but the squid is, and the damage caused by it is a result of Harry's insatiable ego and especially his unexpressed aggression. His lifelong attempts to be academic and scientific have left this unconscious side of Harry volatile. The sphere acts as a tool to draw out this underlying conflict of humanity in a way that forces the characters to confront it, otherwise it will destroy them. The whirling cloud that attacked Beth was an expression of her great suppressed fear: that of losing control. The cloud is a manifestation of the uncontrollable chaos that will destroy her, which is her greatest fear. This projection is similar to Harold Bloom's discussion of Frankenstein and his monster as being one and the same. The creatures and things that are created and terrorize the scientists are actually parts of themselves projected and manifested in these terrifying agents.

The novel suggests that the only way the characters can confront the conflict of ancient and modern is by working together. From the beginning, all of the characters are highly independent, ambitious, and even arrogant. All see the discovery in the context of how it can benefit themselves. All desire fame and recognition: Ted wishes to be remembered throughout history as a Neil Armstrong-like figure, the first to discover irrefutable evidence of extraterrestrial life; Harry wants to be the one to break the code, to be the first to establish communication with the unknown life form; Beth thinks she finds new species of several animals for which she will gain renown; and Norman, at first upset by the fact that his skills as a psychologist are not necessary, almost rejoices when things begin going wrong because he suddenly finds himself useful. Not only do they see subsequent discoveries selfishly, but since they do so, they hide important information from the others and work so hard to try and figure

out everything for themselves and gain their own glory independently. Ted and Harry can never agree on who proposed what ideas first, and if they had spent as much time working together as they had trying to outdo each other, it could have greatly improved their conditions. Norman points out that Harry does not want to be down there, so he manifests the squid to prove that he is right—that it is dangerous down there. This instance is an extreme example of the damaging effect the characters' egoism and arrogance has on the situation: if Harry were trying to work as a team rather than feeling the constant need to be right, there would have been no need to manifest the squid, and the lives of the six team members that were killed as a result of the manifestations could have been saved. Jerry tells them,

YOU SHOULD NOT BE DOWN HERE IN THE FIRST PLACE. YOU
PEOPLE DO NOT BELONG HERE. YOU ARE ARROGANT CREATURES
WHO INTRUDE EVERYWHERE IN THE WORLD AND YOU HAVE
TAKEN A GREAT FOOLISH RISK AND NOW YOU MUST PAY THE
PRICE. YOU ARE AN UNCARING UNFEELING SPECIES WITH NO LOVE
FOR ONE ANOTHER. (281)

It is determined that this manifestation is Harry's as well as the squid, and reiterates the fact that their arrogance is what is causing their problems; it does not allow them to confront and deal with their shadow sides, and therefore the manifestations continue. Once safe on the surface in the decompression chamber, the three remaining characters decide and execute together their plan to prevent the power of the sphere from wreaking havoc on the world, and at this point "they were working together in a way they never had before. All the time underwater they had been at odds, but now they functioned smoothly together, coordinated. A team" (364). They successfully erase the sphere from their memories and—for all intents and purposes—existence,

and it is at this point, once they have stopped isolating themselves from one another, they succeed. The fear, then, in this as well does not stem from science or technology or aliens, but again from how people act and react and how that affects the scientific and technological.

STRANGE CASE OF DR. JEKYLL AND MR. HYDE

Closely connected to this idea of the conflicted nature of the human psyche is Stevenson's *Strange Case of Dr. Jekyll and Mr. Hyde*. Mr. Hyde is the part of Dr. Jekyll that is "repressed and denied" (Lawler 249), much like the manifestations of the shadow personalities in *Sphere*. Stevenson's narrative is less apparently science fiction than Crichton's work, but remains science fiction nonetheless. As Donald Lawler points out, Stevenson's choice to use "chemicals rather than spells [to effect Jekyll's change] was critical because the substances remove the logic of the story from the realm of the fantastic into the scientific" (250). Once this scientific base is established (which is not discovered until later, but the mention of medicine as part of Dr. Jekyll's training and the referral to the dissecting room door indicates the importance of science early on [13, 18]), the story turns heavily upon creating a Gothic atmosphere until Jekyll's final letter.

The key to creating the Gothic atmosphere before Jekyll's exposition is in suspense and the unknown. Questions pervade the narrative, but with no answers: Who is this Mr. Hyde? What is he doing with Dr. Jekyll? Why is Dr. Jekyll acting so oddly? What is going on inside the lab? These questions, and the accompanying odd circumstances from which they spring, create a sense of unease in the beginning of the story. The withdrawal of Dr. Jekyll over the course of the narrative compounds this sense.

Dr. Jekyll's confession answers these questions, but does not alleviate the Gothic tone, in fact, it compounds it. Once the letter is read, the conflict of ancient and modern is apparent, and the suspicion and creepiness apparent early on takes on a supernatural element. When it is revealed that Mr. Hyde is the undeveloped, purely evil side of Dr. Jekyll, brought out by a chemical mixture, it is apparent that Hyde is that same primitive side of the human psyche with which *Sphere* is concerned. In this story as well, this primitive side is in conflict with the rational side represented by Jekyll. The conflict between ancient and modern in this case expresses itself primarily in the conflict between these two characters, these two parts of Jekyll. As in *Frankenstein* and *Sphere*, Mr. Hyde—the monster of the story—is a projection of his creator, in this case facilitated by ingesting a chemical draught. As with *Frankenstein*, the antiquated laboratory—filled with dust and cobwebs (39) and referred to as “the dissecting room” since it was used as such by its previous owner, a surgeon—gives rise to this conflict.

The breakdown of Jekyll's control over the science which he is using results in supernatural occurrences, such as the persistence of the primitive self seen when he begins changing without taking the draught. The story at this point becomes “a case study of degeneration” with Jekyll reverting to his primitive, shadow self as Hyde takes control (Lawler 252). Jekyll describes his reversion, saying “I knew myself, at the first breath of this new life, to be more wicked, tenfold more wicked, sold a slave to my original evil” (50). As this reversion progresses, Jekyll becomes more isolated from those around him. The second self that he has created is isolated from all people in its evil nature. Hyde is first characterized as someone that Enfield loathed at first sight, and Utterson says that Hyde awakened a “hitherto unknown disgust, loathing and fear” (9, 17). Lanyon's description of Hyde is that “there was something abnormal and misbegotten in the very essence of the creature that now faced me—something seizing,

surprising and revolting” (45). The vague sense of unease that everyone gets upon seeing Hyde is that he is inexplicably strange and seemingly unnatural, so this self can never fit in with society. Jekyll can, but the increasing difficulty of controlling Hyde’s appearance forces him into seclusion. By creating the socially unacceptable Hyde, who was a part of Jekyll that he enables to exist as essentially separate from himself, Jekyll removes himself from the community. Once he has allowed Hyde to be expressed, he has started himself down a path from which he cannot turn. Hyde is too terrible to be part of the community, but by exposing society to him, Jekyll has broken with the community and can never be reaccepted. Thus his isolation extends beyond simply being locked in his chamber or unable to rid himself of Hyde, but symbolizes his betrayal of the community, much like Victor Frankenstein’s, and the haunting by Hyde and ultimately Jekyll’s death is his punishment.

CONGO

The Gothic elements of Crichton’s *Congo* are much less apparent, but no less present, than those in *Sphere*. *Congo* is much more of a science fiction adventure novel than the others being considered, but it does have truly Gothic moments leading up to and particularly once the party has reached the Lost City of Zinj. The action of the story involves a party of scientists traveling to the Congo to find industrial-grade diamonds in the Lost City of Zinj: mythically home of King Solomon’s diamond mines. The expedition also brings with it a gorilla named Amy—in order to return her to the wild—which has been taught to communicate through sign language and whose terrifying nightmares suggest that she may have seen the city as an infant. The tension between ancient and modern is present throughout the entire book. The setting is perhaps the most obvious example of this tension. Even though this story may seem at first less

Gothic than the others, the setting is the most typically Gothic since they are looking for, and spend the last part of the novel in, the ruins of a lost city, and the jungle itself is referred to in several places as being like a Gothic cathedral (131, 159). The expedition is heading into a remote part of the Congo rain forest, taking with them a great deal of modern technology. As they make their jump into the forest, it is described as “jumping not only through the air, but through time, backward into a more primitive and dangerous way of life—the eternal realities of the Congo, which had existed for centuries before them” (140). Uneasiness is present throughout the novel, increasing with their arrival in the ruined city, whose “bland, characterless quality...grew more disturbing as they continued” (212). As they are fleeing the erupting neighboring volcano, they are described as “trudging lost souls in a grim sooty world that seemed like a description of hell; perpetual fire and darkness, where tormented souls screamed in agony” (306). The setting, then, is certainly antiquated and Gothic. Their presence, however, with all of their science and technology, provides the conflicting aspect of the Gothic tension: the novel opens with shadowy images and ominous breathing transmitted digitally via satellite from the original expedition sent to the site, melding the antiquated setting, terror, and technology from the beginning.

More than just exhibiting a tension between old and new, however, the conflict does cause extreme problems. The technologically advanced party, on their search for diamonds for their modern weapons, encounters many ancient aspects of this setting that confound their progress: the warring, cannibalistic Kigani, pygmies, and hippopotamuses to name a few. The aspect of this ancient landscape that haunts them, however, is the grey gorillas. Through a series of pictures on a wall in the ruins, the travelers discover that these gorillas were trained thousands of years ago to guard the diamond mines (249). The training has been passed down among the

generations, and this ancient past haunts the modern travelers, killing them off to protect the mines, even though there are no longer any masters to serve. These gorillas and Amy are analogous. Both are, of course, gorillas that have been taught. Where these gorillas have been taught to kill viciously, though, Amy has been taught to communicate. The grey gorillas do have a method of communicating amongst themselves, but Amy's method of communicating allows her to do so with other species. These two types of educated gorillas epitomize the tension between the ancient and modern: the grey gorillas have been taught to act primitively, and Amy has been taught to be modern. The grey gorillas do express the tension within themselves, as well. As gorillas, they represent the ancient, but their education is a modern feat of science just as Amy's (in fact even more so since it has been passed down among the generations). This education, however, is subverted by the fact that they have been trained to be primitive killing machines.

In *Frankenstein*, the monster is not taught to kill as these gorillas are. However, it is a result of his education that he kills. Once the creature has become educated, he becomes aware of his hideousness, his unnaturalness. After his failed attempt to win the sympathy of the De Lacys, he muses "I, like the arch fiend, bore a hell within me; and, finding myself unsympathized with, wished to tear up the trees, spread havoc and destruction around me, and then to have sat down and enjoyed the ruin" (92). His education by observing the De Lacys and reading some books awakens him to his loneliness, and this knowledge is what causes him to become violent. *Congo* depicts a much different type of education, but the effect is the same. The gorillas do not become violent because they are lashing out against a world which they have learned will not accept them, as Frankenstein's creature is doing; the gorillas are taught to be violent. Although the creature and the gorilla's educations differ, however, both educations produce violent

creations. This education by humans effectively makes the gorillas human creations. As a result, just as Hyde, the manifestations, and Frankenstein's monster can be seen as projections of their creators, these gorillas can be seen as projections of their creators, similarly allowing these creations to allow for commentary on those creators. The violent, uncaring nature of these creations makes them stark representations of the shadow side of human nature.

This subversion of the modern has contributed to isolation and a corruption of science. Since the education of these animals has persisted, the area which they inhabit has remained isolated. Their behavior is not compatible with human habitation. This corruption of science—to use a technique like education to turn a peaceful creature into a primitive killing machine—is central to the ancient and modern conflict and one of the overall themes of the novel. The fear expressed by these tensions is not a fear of science, but a fear of what people will do with it. The people who trained the gorillas have abused their scientific knowledge by creating a primeval killing machine that symbolizes isolation. It is shown in Amy that scientific knowledge and application can be positive, but the grey gorillas represent the fear of what happens when this knowledge is abused by humans.

THE ISLAND OF DR. MOREAU

Wells's *The Island of Dr. Moreau* similarly deals with the scientific interaction of people with animals. However, Dr. Moreau is not teaching animals, he is quite literally molding them into "humans" by a process called vivisection, which is a surgical procedure in which the live animal would be cut up and reformed, to heal into a new creation. His scientific process of experimentation of these animals makes the novel science fiction, but there is also an atmosphere of fear on the island that interacts with the science to make this story a work of Gothic science

fiction. On the island, Dr. Moreau has an assistant, Montgomery, who is an emissary of sorts between Moreau and these creations as Montgomery has much more sympathy and less disgust for them. When readers are introduced to Montgomery, he is returning to the island, bringing² animals—including a puma—with him and accompanied by his personal assistant, whom the narrator Prendick finds to be particularly odd and even disturbing. The atmosphere even before Prendick's arrival on the island and increasingly after which is one of "a nervous apprehension of the unspecified" (Dryden 164). On the ship, begins feeling ill at ease, especially with regard to Montgomery's servant, whom he thinks to have strange, animalistic eyes glowing in the moonlight (18). After the captain of the ship puts Prendick off and Montgomery allows him on the island, Prendick feels similar uneasiness seeing the people that help unload the launch. He says "there was something in their faces—I knew not what—that gave me a spasm of disgust" (26). This initial feeling of uneasiness is compounded by the terrorized crying he hears coming from Moreau's locked laboratory, seeing all of the strange beings in the forest, and having one of them chase him. The unexplained oddities give Prendick a strange and ominous feeling which contributes to the Gothic and supernatural atmosphere.

This Gothic atmosphere also expresses itself in a tension between the ancient and modern once Moreau has explained his work. His modern process of vivisecting the animals to create humans is in conflict with ancient, natural development. The conflict between these two things expresses itself in the degeneration of the animals after time. Later in the novel, it is this degeneration that causes the fear, because the animals have been trained to be tame—to worship Moreau and Montgomery, thereby presenting them with no danger—so when the animals revert back to their primal state, there is nothing to ensure the humans' safety. As in *Frankenstein* and *Congo*, education produces negative effects in these creatures. They are not, as in *Congo*,

educated to be violent, but the fact that they have been trained to be tame emphasizes their regression when that occurs. The fact that these animals have been altered in an attempt to make them physically like humans and educated to make them behaviorally like humans, comparisons must be made between the two. As Alan Lightman points out, “once one accepts the Darwinian notion that *Homo sapiens* has *evolved* from other creatures, humankind can be compared to other beasts with far more intimacy and force” (x). The creatures, in this sense, are again projections of their creator, through both their physical creation (as with Frankenstein’s monster, *Sphere*’s manifestations, and Hyde) and their education (as with Frankenstein’s monster and the gorillas of *Congo*). This projection expresses the fear and reality of evolutionary theory: the creatures regress to their primitive state, implying that humans struggle against the same regression (Lightman xi). Unlike *Congo*, the projections on Dr. Moreau’s island do not necessarily represent the violent side of human nature, but they do force acknowledgment of the animalistic, primitive nature of humans.

Moreau complains that all of the animals he believes he has successfully vivisected have begun, at some point in some way, to degenerate back to their animal form (89). This degeneration is not just the result of the conflict between ancient and modern. It is also again related to a sense of isolation. The island is isolated, and within the island Moreau is isolated behind the locked door within the House of Pain (Dryden 165). He cannot commune with these animals because of their degeneration, but he cannot commune with humans either. He has been driven from England by his lack of sympathy for living beings. When reports exposed his experiments on living creatures, he “was simply howled out of the country” (35). The public was so outraged by learning of his repugnant practices that he could not continue his work except in isolation. Once exiled, he does not change his opinions, but attempts to create his own

community that does not abhor his views. In doing so, he usurps the natural (ancient) order of things with his modern science, thus the creatures cannot remain human, but become degenerated abominations. As with Frankenstein, these actions remove Dr. Moreau from the human community. When the puma breaks free, then, Moreau feels the final blow for his scientific hubris, ultimately resulting in his death and the complete degeneration of all of his creatures.

CONCLUSIONS

Science is knowledge gained for the purpose of understanding, predicting, and controlling nature. In these stories, the science no longer functions in that way and becomes, therefore, supernatural: Frankenstein unwittingly creates a terrifying monster; the sphere changes the laws of physical reality and enables thoughts to take literal form; Dr. Jekyll begins transforming into Mr. Hyde at unexpected and increasingly frequent times; the mysterious attackers in the Congo are gorillas acting unnaturally; and Dr. Moreau's "people" inexplicably begin to degenerate shortly after he appears to have successfully created them. This translation of the scientific to the supernatural expresses a sense that science may not be as safe as one thinks, and therefore can be a source of terror. This newfound unpredictability allows for development of Gothic excess as well.

These works of Gothic science fiction do more than just express a cultural fear of science and technology. Science and technology are not feared in themselves, but in the hands of people who misuse them, making these stories less a critique of science but a critique of human nature. Since the creatures in these stories are projections of their creators, the terror caused by the creations is actually caused by the human creators. Science, then, is not the object of fear; it is

the instrument that forces the terrifying side of humans to be confronted. A recurring characteristic of these people that misuse science and technology is isolation. They are isolated from the human community and therefore their actions often (potentially) harm that community. The self-serving use of science by those who do not consider the greater good is more strongly criticized as opposed to the science itself. These isolated people are feared, compounding the Gothic effect of the science and technology.

Science fiction and the Gothic have historically been closely related. This connection begins with the first science fiction novel *Frankenstein* and continues to the present day. The thematic concerns expressed in these science fiction novels, particularly relating to the ability of people to handle science and technology and the consequences when they cannot, are closely related to the Gothic's concerns with human nature. Science fiction allows great freedom in enabling authors to explore (especially the terrifying aspects of) human nature. As such, the two genres compliment each other well and blend to create captivating stories greatly appealing to the audience's sensibilities and cultural concerns.

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