What literature tells us

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ABSTRACT. The use of chemical and biological weapons on the battlefield is considered by most commentators — and by international law — as more abhorrent than the use of nearly all other weapons, including ones meant either to kill secretly or to kill terribly, as do fire or burial alive. I ask why this is so. I explore this question through the study of imagery patterns in Western literature and campaigns against food contamination and environmental pollution. I find that the norm against chemical and biological weapons builds upon a taboo against poisons, a prohibition widely accepted in military manuals as distinguishing soldierly conduct from criminal conduct, especially those forms of conduct made criminal by the employment of treachery, invisibility, and transformation.

I. Introduction: Definition and approach

The massacre of innocent children, the gassing of Jewish captives, the napalming of civilian villages, the execution of prisoners of war, the destruction of a captured city: these acts of war are rightly regarded as specially heinous; so is the use of chemical and biological weapons by combatants or terrorists. Although some scoff at the distinctions established through the laws of war, claiming that war itself is the problem, attempts to limit the sufferings of war through customs, treaties, conventions, and codes have characterized human endeavor since the beginning of recorded history. Central to this attempt is the moral conviction that warriors should spare the innocent and the helpless. Despite the appalling rise of civilian casualties in 20th century wars, there is a strong belief among civilized nations that civilians should be sheltered, as far as possible, from deliberate attack. But why is the use of chemical and biological weapons on the battlefield considered by many more abhorrent than the inciner-

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ation by flamethrowers of Japanese soldiers in caves, or the burying alive of Iraqi warriors during the Gulf War?

To answer this question, we must go beyond chemical and biological weapons, and beyond the use of gas and germs in war. I have two responses. First, the norm against these weapons is part of the norm against poisons, a prohibition widely accepted in military manuals. It must also be noted that the use of poison in murder or assassination is considered especially heinous. But is that all there is to it? I think not. My second answer is that the revulsion against the use of poisons in any form, either in war or peace, is based upon deep cultural taboos which define what we are as a civilization, what we consider most threatening to our values and to the ways in which we define ourselves. My exploration of this question is centered on the study of imagery patterns in Western literature, which link the pain inflicted by poisons, and the treachery of the means by which they are used, to destructive human emotions and experiences: hatred, envy, jealousy, slander, ingratitude, madness, and sin. I also examine the ways in which poisoning has come to be associated with food contamination and with the destruction of the earth

through environmental pollution and degradation. This study will use literary sources to argue that revulsion against the domestic criminal use of poison carried over to public questions and controversies as well. It will use the word "poison" as a term which includes all forms of contamination, including naturally occurring harmful substances, pollutants, wastes, chemical and biological weapons, and radioactive products. An underlying characteristic of poisons is that they are a foreign and dangerous substance placed where they should not be, whether in the human body or the environment. They contravene the natural order. Ultimately, our journey will take us into the heart of darkness by examining images which dominate the religious and mythological imagination of Western man: the serpent, the devil, the Fall, hell, and witchcraft. "Poison" is a metaphor, a figure of speech for the way in which evil operates: silently, treacherously, catching the unwary and the innocent by assuming a harmless or desirable disguise. Poison as a metaphor is associated with a wide range of images and ideas. Some of these images and ideas lie so deep within the psyche and the myths of Western man, linked by pagan and Christian traditions in such terrifying associations that they remain operative as part of our consciousness in a secular world. Even those who have shed their faith have retained their fears.

But first, a definition of a norm is necessary. M. Argly in his *Psychology and Social Problems* defined it as follows: "One particular respect in which a group equilibrium develops is in the formation of norms-shared patterns of behaving, feeling and thinking. All social groups develop norms, particularly about matters connected with the group's main purposes and activities... When group members deviate from the norms, various kinds of persuasion, pressure and sanctions are exerted in order to make them conform." If we interpret social groups broadly, the definition would cover international behavior as well as behavior within specific communities or nations.

However, as we know, in wartime, all norms are at risk, endangered by *Kriegsraison*, the reasoning that the imperatives dictated by military operations override normal ethical considerations. In Western countries, war is now largely regarded as an abnormal condition, which may excuse a temporary suspension of the norms respected in peacetime.² Wars often begin with a pledge by the major belligerents that they will adhere to established norms of military conduct but end with

a total violation of those norms by all combatants. Faith remains, however, that these are unusual measures adopted to cope with abnormal times and that peace will bring about a restoration of the norm.

II. Origins of the taboo

The origins of the taboo against poison are veiled in unrecorded time. Primitive peoples generally had no compunctions against the use of poisoned weapons. There are some clues regarding the origins of the taboo against poison, however, in human and primate reaction to poisonous animals. Professor E. O. Wilson has summarized these deep fears by recounting one of his own recurring dreams:

I find myself in a locality that is wooded and aquatic, silent and drawn wholly in shades of gray. As I walk into this somber environment I am gripped by an alien feeling. The terrain before me is mysterious, on the rim of the unknown, at once calm and forbidding. I am required to be there but in the dream state, cannot grasp the reasons. Suddenly, the Serpent appears. It is not an ordinary, literal reptile, but much more, a threatening presence with unusual powers. It is protean in size and shape, armored, irresistible. The poisonous head radiates a cold, inhuman intelligence. While I watch, its muscular coils slide into the water, beneath prop roots, and back onto the bank. The Serpent is somehow both the spirit of that shadowed place and the guardian of the passage into deeper reaches. I sense that if I could capture or control or even just evade it, an indefinable but great change would follow. The anticipation of that transformation stirs old and nameless emotions. The risk is also vaguely felt, like that emanating from a knife blade or high cliff. The Serpent is life-promising and life-threatening, seductive and treacherous. It now slips close to me, turning importunate, ready to strike. The dream ends uneasily, without clear resolution.³

As Wilson notes, this fear of snakes is widely shared by other primates besides man, especially monkeys who sound loud calls as alerts when they spot pythons, cobras, puffed adders, or other dangerous snakes, thereby warning their community that danger is near.⁴ There are some grounds for believing that this behavior is genetically acquired through natural selection. Certainly, it arises in humans at an early age.⁵

The serpent is not the only dreaded dweller of the forests. Scorpions and spiders are also feared. In Elizabethan times, the toad was regarded as venomous. In Shakespeare's play, *Richard III*, the evil King is characterized as a "foul toad," a "poisonous bunchback'd toad," and a "bottled spider."

III. Killing a king

Whatever the origins of this deep dread of venomous creatures lurking in the mists of prehistoric time, we find ample recorded evidence of its existence in early chronicles. Poison has long been stigmatized as an unfair weapon of war, a weapon that gives advantage to the weak against the strong. Moreover, it was denounced as a cowardly weapon of assassination. The safety of monarchs, often the heads of church as well as state, was such a matter of paramount concern that tasters were assigned to guard against the poisoning of kings and other leaders. From medieval to early modern times, the monarch was an anointed, sanctified figure. Therefore, his murder was an act of sacrilege as well as of treason.

The double horror associated with the poisoning of kings is dramatically sounded in two Shakespearean plays: *King John* and *Hamlet*. In *King John*, a treacherous monk, the medieval equivalent of a suicide bomber, tastes the poisoned food before passing it on to the unwary king who eats it. The bowels of the priest burst apart; the king dies more slowly in great agony, which he describes as "hell" "within me" and the poison consuming him as "a fiend confin'd to tyrannize."

The poisoning of King Hamlet is dramatically described by his Ghost to the Prince, his son:

'Tis given out that, sleeping in my orchard,
A serpent stung me — so the whole ear of Denmark
Is by a forged process of my death
Rankly abus'd — but know, thou noble youth,
The serpent that did sting thy father's life
Now wears his crown...
Brief let me be. Sleeping within my orchard,
My custom always of the afternoon,
Upon my secure hour thy uncle stole
With juice of cursed hebona in a vial,
And in the porches of my ears did pour
The leprous distillment, whose effect
Holds such enmity with blood of man
That swift as quicksilver it courses through

The natural gates and alleys of the body,
And with a natural vigour it doth posset
And curd, like eager droppings into milk,
The thin and wholesome blood. So did it mine,
And a most instant tetter bark'd about
Most lazar-like, with vile and loathsome crust
All my smooth body.
Thus was I, sleeping, by a brother's hand
Of life, of crown, of queen at once dipatch'd,
Cut off even in the blossoms of my sin,
Unhous'led, disappointed, unanel'd.
No reck'ning made, but sent to my account
With all my imperfections on my head.
O horrible! O horrible! Most horrible!

Besides a shocking description of the effects of the poison on his body, the Ghost uses images and associations which I will explore later in greater detail: the serpent and disease. The effect of the poison used by Claudius is to transform King Hamlet's body while hurling his soul into the torment of the after-life. To Elizabethan audiences, this murder is an act of treason and sacrilege. It leads to an act of usurpation when Claudius assumes the throne, thereby overthrowing the natural order and poisoning the body politic. As the imagery of the play emphasizes, disease now dominates Denmark.¹⁰

IV. Poison as a recurrent image

Besides the images used in describing the murders of King John and King Hamlet, there are recurring image clusters associated with the word "poison" which establish a number of complex patterns throughout Western literature. I call these the classical imagery of poison, a usage that stretches from the monarchical to the democratic age, from medieval to modern times. Here the imagery is centered on emotions or conduct which destroy societies, relationships, and individuals. Poison is invoked in relation to the following evils: corruption of the body politic or of the innocent, alcoholism, envy, flattery, hatred, ingratitude, jealousy, madness, rumor, slander, suspicion, shame, and sin. Each of these associated patterns is found in abundance throughout Western literature.

For example, corruption of the body politic, one of the major themes throughout *Hamlet*, is reflected in the depiction of the state of Denmark as ulcerated, corrupted from within, rotten. Its principals are all diseased.¹¹

In a later era, the corruption of an innocent child is described by Charles Dickens in *Oliver Twist* (1837–1838) as a process of slow poisoning. The orphan Oliver has fallen into the criminal hands of Fagin who seeks to corrupt him to his own purpose, playing on the child's loneliness and inexperience: "Having prepared his mind, by solitude and gloom, to prefer any society to the companionship of his own sad thoughts in such a dreary place, he was now slowly instilling into his soul the poison which he hoped would blacken it, and change its hue forever." 12

Likewise, in Upton Sinclair's novel, The Jungle (1906) excessive and habitual drinking is represented as a poison that destroys its victims physically and psychologically, leading to abuse of others, the disruption of families and friendships, and ultimately to death. 13 The liquor merchant in Packingtown, the main location of the novel, enriches the liquor he sells so that it is even more lethal. "He would agree to serve a certain quality at a certain price, and when the time came you and your friends would be drinking some horrible poison that could not be described."14 In Émile Zola's Germinal (1885), alcoholism is tied to heredity. The hero, Étienne Lantier, comes from an alcoholic family. After he kills his sexual rival Chaval, he reflects that he cannot escape his inheritance despite his long struggle against it: "...cet inutile combat contre le poison qui dormait dans ses muscles, l'alchool lentement accumulé de sa race."15 ["...this useless struggle against the poison sleeping in his muscles, the slowly accumulating alcohol of his race."]

Besides corruption and dangerous habits, destructive emotions are also described as venomous, sometimes in an ironic context. In Shakespeare's *Hamlet*, envy is compared to venom by Claudius when he informs Laertes of his plan to trap Hamlet. Urging Laertes to revenge the death of his father, Polonius, Claudius proposes a fencing match between the two, baiting the trap by using Laertes' skill in fencing to entice Hamlet to his doom. Claudius begins by citing the latter's reaction to earlier reports of Laertes' prowess:

Sir, this report of his Did Hamlet so envenom with his envy That he could nothing do but wish and beg Your sudden coming o'er to play with you.¹⁶ The foil chosen by Laertes is to be "unbated," not blunted. ¹⁷ To this proposal, Laertes adds another touch of treachery. He will envenom his foil so as to make sure of his victim.

During Elizabethan times, flattery was commonly depicted as sugar coated poison. As the cynical Bastard, John Faulconbridge, states in Shakespeare's *King John*, advancement lies in flattering others: "Sweet, sweet poison for the age's tooth." This phrase was far less innocent than it appears in the above passage since flattery was used largely to cover deadly purpose. In Marlowe's translation of *Ovid's Elegies*, the real intent of flattery is revealed: "Let thy tongue flatter while thy mind harm works:/Under sweet honey deadly poison lurks." ¹⁹

Human hatred, which often leads to violence, is frequently depicted as an insidious poison. For instance, in Emile Zola's Germinal, poison is used as an image to describe the hatred felt by mobs and individuals for the mine owners and their family. When the mob descends in fury on a mine, Zola stresses how hatred of the mine and resentment of the way in which workers have been exploited and starved for years by their masters explodes into violence: "Une poche de rancune crevait en eux, une poche empoisonnée, grossie lentement."20 ["Accumulated resentment was bursting within them, a poisonous growth which gathered slowly over the years."] A former, now crippled, worker, Bonnemort, strangles Cécile Grégoire, the daughter of a rich proprietor, when she comes on a mission of mercy. Zola depicts this action as motivated by the all-possessing hatred of a man poisoned by long years of mistreatment. It is a hatred which has risen imperceptibly and unseen even by Bonnemort himself: "Quelle rancune, inconnue de lui-même, lentement empoisonnée était-elle donc montée de ses entrailles à son crâne. L'horreur fit conclure à l'inconscience, c'était le crime d'un idiot."21 ["What resentment, unknown by him, had poisoned him, mounting from his bowels to his brain. This horrible act originated in his unconscious, not his will; it was the crime of an idiot."]

Charles Dickens, an earlier novelist, knew well how the hatred felt by evil men and women turns against the good and the innocent. To the evil, the mere sight of the good is hateful. Mrs. Squeers, the wife of the tyrannical schoolmaster, takes an instant aversion to the young, honest and caring teacher, Nicholas Nickleby: "I say again I hate him worse than poison."²²

The poisonous dimensions within the human psyche of ingratitude and jealousy are brilliantly depicted in

Shakespeare's *King Lear* and *Othello*. Lear reacts violently when his ungrateful daughter, Goneril, to whom he has awarded half his realm, seeks to strip him of part of his retinue, and when he is treated with insulting arrogance by her servant, Oswald. Lear exclaims in rage to Goneril's husband, Albany: "How sharper than a serpent's tooth it is/ To have a thankless child."²³

The poisonous corrosion of jealousy is depicted in a number of Shakespearean plays, notably Othello. The super villain, Iago, whose malice and hatred know no bounds, is convinced that Othello has cuckolded him. This belief, "like a poisonous mineral" gnaws at his "inwards." He is determined to pay back his commander in kind by poisoning the Moor's trust in his wife's fidelity. Played upon by Iago, who builds up his plot subtly step by step, Othello becomes increasingly convinced of his wife's infidelity; and Iago congratulates himself in a passage in which he reflects on how imagination can be exploited to destroy trust:

The Moor already changes with my poison: Dangerous conceits are in their natures poisons, Which at the first are scarce found to distaste, But with a little act upon the blood Burn like the mines of sulphur: I did say so.²⁵

Jealousy is seen as an effective poison because it is a disguised threat which works gradually through the victim's imagination until it infects his mind.²⁶

In *King Lear* and *Hamlet*, Shakespeare uses the imagery of poison to depict and explain madness. Both Ophelia and Lear are driven to madness by their ordeals: one by grief and rejection, the other by mistreatment and shame. In *King Lear*, the faithful retainer, Kent, describes the King's condition as driven by the guilty knowledge that he disinherited his only loyal daughter for the benefit of her ungrateful and cruel sisters:

A sovereign shame so elbows him:
his own unkindness,
That stripp'd her from his benediction, turn'd her
To foreign casualties, gave her dear rights
To his dog-hearted daughters, these things sting
His mind so venomously that burning shame
Detains him from Cordelia.²⁷

Shortly afterwards, Lear loses his sanity, a process that began early in the play; he sinks further and further into pain and grief. His agony now erupts in a crisis of madness. He wanders off, crowning his head with flowers and weeds in mock majesty. Similarly in *Hamlet*, Ophelia in her madness wanders in and out of the palace, carrying and distributing flowers. King Claudius traces her illness to grief over her father's death: "O, this is the poison of deep grief: it springs/All from her father's death."²⁸

Rumor, slander, and suspicion are frequently depicted as poisons in literature because they maliciously destroy reputation and trust without cause. In Iain Pears' novel, An Instance of the Fingerpost, which takes place in the 17th century, Jack Prescott obsessively seeks to restore his father's reputation, which was destroyed by the charges of treason brought against him. Prescott is pathetically grateful to anyone who speaks well of his father, Sir James Prescott. The Italian merchant, Marco da Cola, describes Sir James as an admirable man who fought the Ottomans with courage. Jack Prescott is so grateful for these good words that he gives "thanks that my father's character was such that it left a favorable impression on those who encountered him, when they were unaffected by the poison of rumor."29 The Bible depicts the tongue as an instrument of evil slander: "...the tongue can no man tame; it is an unruly evil, full of deadly poison."30 In Nicholas Nickleby, Ralph Nickleby uses his evil tongue in a futile attempt to destroy his nephew whom he vilifies to Nicholas' new employers, the brothers Cheerybles. Brother Charles informs Nicholas that Ralph came "To complain of you, to poison our ears with calumnies and falsehoods..."31

Suspicion is poisonous, like rumor and slander, effectively eroding trust. In Dickens' Bleak House, during the endless case of Jarndyce versus Jarndyce, which hooks its hopeful clients with promises of a future reward that never comes, Richard Carstone becomes a victim to the machinations of the lawyer Vholes. The lawyer convinces Richard that his guardian, Mr. Jarndyce, is seeking to discourage him from pursuing the suit out of his own self-interest. Richard Carstone's suspicions about his guardian seriously damage their relationship. As Jarndyce explains to his ward, Esther Summerson: "...it is the subtle poison of such abuses to breed such diseases. His blood is infected, and objects lose their natural aspects in his sight. It is not his fault."32 Ultimately, Richard's pursuit of his suit and his failure to heed Jarndyce's warnings regarding his dangerous obsession lead to his death.

Finally, sin is often depicted as a fatal poison: sin in general and specific sins, such as adultery and despair. In the medieval collection, *The Gesta Romanorum*, the effects of poisoning on the soul and its possible redemption are conveyed by means of a pictorial demonstration, decorated with bizarre imagery, and rounded off with a moral lesson:

Tale XXXII: Of GOOD INSPIRATION:

Seneca mentions that in poisoned bodies, on account of the malignancy and coldness of the poison, no worm will engender; but if the body be struck with lightning, in a few days it will be full of them.

APPLICATION:

"My beloved, men are poisoned by sin, and then they produce no worm, that is, no virtue; but struck with lightning, that is, by the grace of God, they are fruitful in good works." ³³

The above text uses the image of poison to cover sin in general. Other works deal with specific sins. In Zola's Germinal, M. Hennebeau, the mine director, is forced to confront his wife's adultery when he discovers her small flask, from which she is never parted, in his nephew's bed. In fury, he vows to expel them both from his house: "Il prendrait une trique, il leur crierait de porter ailleurs le poison de leur accomplement."34 ["He would seize a cudgel; he would order them to carry the poison of their fornication elsewhere."] From righteous anger, he falls into despair, feeling that everything is futile: "Une amertume affreuse lui empoisonnait la bouche, l'inutilité de tout, l'éternelle douleur de l'existence, la honte de lui-même, qui adorait et désirait toujours cette femme. dans la saleté où il l'abandonnait."35 ["A terrible bitterness poisoned his mouth, the futility of everything, the eternal pain of existence, shame at himself, who adored and still desired a woman, even in the dirt in which he had long abandoned her." In exploring the deeper, theological and mythical aspects of imagery, there are, as we shall see, even more profound associations between poison and sin.

V. The impact of industrialization: Pollution

The associations between poison and evil emotions and actions were established during the early centuries of

the Christian era. By the 18th century, when industrialism began to develop in England, the meaning of poison and the prohibition of its use in civil law and military operations were generally accepted as a norm. The international theorists of the 17th and 18th centuries, Hugo Grotius and Vattel, had defined this norm as a maxim in international law. The revulsion against the use of poison, reflected in literature, had expanded the prohibition far beyond protecting a king against assassination. The poisoning of ordinary citizens was now seen as reprehensible. The coming of industrialization also created massive new problems of pollution and adulteration, victimizing ordinary men and women and vastly expanding the meaning of poisoning in the popular mind and in literary culture. Air, earth, and water were now described as poisoned; food and drink, as adulterated. Cities were portrayed as poisoned hells; mines, as traps in which humans were infected by the inhalation of coal dust into their lungs and its absorption into their skins, a process that hastened their deaths. Many miners, however, were victims of another poison, fire damp, an explosive gas. This association of gas with poison foreshadowed the reaction to the initiation of chemical warfare in World War I.

Long before the industrial age, however, the term pollution was current in Western literature. It then carried a theological and moral meaning. Humanity was polluted through original sin. In Milton's *Paradise Lost*, it is depicted as "polluting Sin" tainting what was previously pure. Michael the Archangel stresses this point to Adam when describing human corruption after the Deluge. God, in anger at humankind's continued unrighteousness, averts his eyes, determining to leave men to their "polluted ways." The industrial age added an expanded and more secular meaning to the original use of the term.

Anticipating the modern environmental movement, 19th and early 20th century authors recognized that industrialization was contaminating air, water, and earth. Charles Dickens in *Hard Times* and Upton Sinclair in *The Jungle* wrote unforgettable descriptions of towns transformed by industrial pollution: Coketown and Stocktown. In Coketown, everything is tainted by the coal, which transforms the natural world into a blasted hell:

It was a town of red brick, or of brick that would have been red if the smoke and ashes had allowed it; but

as matters stood it was a town of unnatural red and black like the painted face of a savage. It was a town of machinery and tall chimneys, out of which interminable serpents of smoke trailed themselves forever and ever, and never got uncoiled. It had a black canal in it, and a river that ran purple with ill-smelling dye, and vast piles of building full of windows where there was a rattling and a trembling all day long, and where the piston of the steam-engine worked monotonously up and down like the head of an elephant in a state of melancholy madness.³⁸

The chimneys and the factories puff out "poisonous volumes" of smoke that render the city invisible from any distance, shrouding it in a haze, "a dense formless jumble that showed nothing but darkness." The river is "black and thick with dye" and "ill smelling." In summer, the "heavy vapour" drops "over Coketown" creating "a stifling smell of hot oil everywhere," soiling machinery, clothing, and the bodies of the unfortunate workers, trapped beyond hope of escape. But the poison air strikes within as well as without. In Coketown, "killing airs and gases" are "bricked in."

Coketown is dominated by air, water, and ground pollution. It is an unnatural place, transformed by the coal industry. It is black; it is unhealthy; it is dangerous; it kills as does Packingtown, depicted by Upton Sinclair in *The Jungle*, which is devoted to a different industry: meat packing. It is described in equally depressing language. Jurgis Rudkus, the hero of the novel, and his family are Lithuanian immigrants who arrive in the United States to seek what they believe will be a better future. Their first view of Packingtown, after passing by train through an increasing desolate, degraded, and blackening landscape, is hardly bracing:

They were left standing upon the corner, staring; down a side street there were two rows of brick houses, and between them a vista: half a dozen chimneys, tall as the tallest of buildings, touching the very sky, and leaping from them half a dozen columns of smoke, thick, oily, and black as night. It might have come from the centre of the world, this smoke, where the fires of the ages still smoulder. It came as if self-imperilled, driving all before it, a perpetual explosion. It was inexhaustible; one stared, waiting for it to stop, but still the great streams rolled out. They spread in vast clouds overhead, writhing, curling; then uniting in one giant

river, they streamed away down the sky, stretching a black pall as far as the eye could reach.⁴³

Wreathed in "a river of smoke" blackening its buildings and ground, Packingtown is a "great sore of a city" which runs on the principle that waste and garbage are always utilizable because money can be made from them merely by covering, repackaging, and chemical sweetening. The water that accumulates in its hollows is "stinking green." and one great hole from which ice is carved in the winter for sale to the citizens is described as "festering and stewing in the sun" during the summer months. Bubbly Creek, a tributary of the Chicago River is "an open sewer" into which chemicals and grease are dumped. Activated by its "bubbles of carbonic acid gas," which erupt to the surface of the water, it assumes a kind of life, thrashing like a giant fish or a group of trapped leviathans. Occasionally, it catches fire. 47

In Packingtown, everything stinks. There is housing fronting a huge garbage dump where children play and rake for food, a dump whose presence is announced by a "strange, fetid odour which assailed one's nostrils, a ghastly odour, of all the dead things of the universe." Once this garbage dump is filled up, it is then reclaimed for urban living: houses are built upon the waste foundation. 49

The lowest circle of hell in Packingtown is Durham's fertilizer plant, a place to which only the desperate who can find no other work come. Upton Sinclair describes it with Dantean vividness:

The fertilizer works of Durham's lay away from the rest of the plant. Few visitors ever saw them, and the few who did would come out looking like Dante, of whom the peasants declared that he had been into hell. To this part of the yards came all the 'tankage' and the waste products of all sorts; here they dried out the bones — and in suffocating cellars where the daylight never came you might see men and women and children bending over whirling machines and sawing bits of bone into all sorts of shapes, breathing their lungs full of the fine dust, and doomed to die, every one of them, within a certain definite time. Here they made the blood into albumen, and made other foul-smelling things into things still more foul-smelling. In the corridors and caverns where it was done you might lose yourself as in the great caves of Kentucky.

In the dust and the steam the electric lights would shine like far-off twinkling stars — red and blue, green and purple stars, according to the colour of the mist and the brew from which it came. For the odours in these ghastly charnel houses there may be words in Lithuanian, but there are none in English. The person entering would have to summon his courage as for a cold-water plunge. He would go on like a man swimming under water; he would put his handkerchief over his face, and begin to cough and choke; and then, if he were still obstinate, he would find his head beginning to ring, and the veins in his forehead to throb, until finally he would be assailed by an overpowering blast of ammonia fumes, and would turn and run for his life, and come out half-dazed.⁵⁰

The fertilizer plant was a place of death for those who worked in the tank rooms where open vats on floor level operated like unseen pits. Blinded by the constant steam, unwary or exhausted workers would fall into these vats, "and when they were fished out, there was never enough of them left to be worth exhibiting — sometimes they would be overlooked for days, till all but the bones of them had gone out to the world as *Durham's Pure Leaf Lard!*" or as fertilizer. 51

This fertilizer created a dust storm that blinded the workers and that caked them with dust "half an inch deep." Returning home, the hero of the novel, Jurgis, turns his house into "a miniature fertilizer mill a minute after entering." The odor pollutes the food, and sickens his family who fall into violent vomiting. For days, he cannot eat; and no scrubbing can erase the foul odor that now envelops him. It is not surprising that the workers at the plant "place fertilizer and rattlesnake poison" in the same category and can find their only relief in drink.

In Packingtown, nothing is wasted. Not surprisingly, therefore, all food waste is put to use; and no food or drink is safe. When Jurgis first arrives at the stockyards, he takes a tour of the Durham factory. Still ignorant of the hell that awaits him, he is impressed with its mass production efficiency. His guide, a fellow countryman, however, knows better and cynically offers to take him "to the secret rooms where the spoiled meats went to be doctored." ⁵⁶

As Jurgis learns in his prolonged apprenticeship to the horrors of Packingtown, the means by which diseased or sick meat is doctored or packaged are infinite due to the ingenuity of the chemists, the corruption or connivance of government officials, and

the graft dispensed by the beef trust bosses. Slunk calves, cattle unfit for killing, are prematurely slaughtered; downers, cattle who had broken their legs, are killed on the spot while the government inspector is diverted, or they are slaughtered at night when no inspector is present.⁵⁷ Diseased hogs and steers are transformed into fancy lard. 58 Various potted foods are conjured out of waste by the skilled "alchemists of Durham's": potted chicken, game, grouse, ham and finally devilled ham "made out of the waste ends of smoked beef that were too small to be sliced by the machines."59 Diseased cattle covered with boils and canned by the factory become the notorious "embalmed beef' that killed several times as many United States soldiers as all the bullets of the Spaniards."60 Food is also adulterated in other unspeakable ways. Stored meats, left in large piles for an extended time, are visited by scores of rats that leave their dung over the meat. Poisoned bread is used to kill the rats. Subsequently, when the mass is collected, "rats, bread, and meat would go into the hopper together."61

The Jurgis family is fond of smoked sausage, a food which they enjoyed in their native country. Ignorant of the chemical adulteration that takes place in the plant whereby the product is filled with potato flour, a food adulterant banned in Europe and with "no more food value than so much wood," the family finds that no amount of this sausage can satisfy it. The eleven members of the family are soon starving. ⁶² And then comes the death of little Krisoforas, one of Teta Elzbieta's children:

Perhaps it was smoked sausage he had eaten that morning — which may have been made out of some of the tubercular pork that was condemned as unfit for export. At any rate, an hour after eating it, the child had begun to cry in pain, and in another hour he was rolling about on the floor in convulsions. Little Kotrina, who was all alone with him, ran out screaming for help, and after a while a doctor came, but not until Kristoforas had howled his last howl.⁶³

A wide variety of diseases are spread by this adulterated food and by the atrocious factory conditions which wear men down in endless toil until they collapse: ptomaine poisoning, rheumatism, pneumonia, grippe, and tuberculosis.⁶⁴ If a man escapes these hazards, he can easily die from chemical or blood poisoning. Old Antanas, Jurgis' father, works in a room

in which the floor is covered with chemicals. They eat through his boots; he develops sores caused by saltpeter, which threatens to sever his toes. Since he is too stubborn to quit, he collapses and dies. ⁶⁵ But another hazard, blood poisoning, is the most common and most dreaded form of wounding. Upton Sinclair describes its dangers and its effects on the worker Mikolas whose repeated accidents eventually doom his repeatedly postponed wedding to Jadvga Marcinkus:

He is a beef-boner, and that is a dangerous trade, especially when you are on piece work and trying to earn a bride. Your hands are slippery, and your knife is slippery, and you are toiling like mad, when somebody happens to speak to you, or you strike a bone. Then your hand slips up on the blade, and there is a fearful gash. And that would not be so bad, only for the deadly contagion. The cut may heal, but you never can tell. Twice now, within the last three years, Mikolas has been lying at home with blood poisoning — once for three months and once for nearly seven. The last time, too, he lost his job, and that meant six weeks more of standing at the doors of the packing-houses, at six o'clock on bitter winter mornings, with a foot of snow on the ground and more in the air. 66

Blood poisoning meant scarring, mutilation, unemployment, and possibly death.

Besides liquor and food, the families living and working in Packingtown are unaware that they are also being poisoned by non-alcoholic drink, sweeteners, flour, and jam. Tea, coffee, and milk are treated by the chemists. Worst of all, the milk used to feed babies is "watered and doctored with formaldehyde." Since most women cannot afford to cease work to nurse their babies, their infants are poisoned from birth. Jurgis and Ona's child was fed milk that was "pale blue poison." 68

It is not surprising that the publication of *The Jungle* led to wide spread outrage throughout the United States, providing a spur to the progressive movement. President Theodore Roosevelt was so horrified that he ordered a full investigation into Upton Sinclair's charges. The American humorist, Finley Peter Dunne, nicely captured the president's reaction in his piece, "The Food We Eat":

Well, sir, it put th' Prisidint in a tur-ruble stew. Oh, Lawd, why did I say that? Think iv- but I mustn't go on. Annyhow, Tiddy was toying with a light breakfast an' idly turnin' over th' pages iv th' new book with both hands. Suddenly he rose fr'm th' table, an' cryin': "I'm pizened," began throwin' sausages out iv th' window. Th' ninth wan sthruck Sinitor Biv'ridge on th' head and made him a blond. It bounced off, exploded, an' blew a leg off a secret-service agent, an' th' scatthred fragmints desthroyed a handsome row iv ol' oak-trees. Sinitor Biv'ridge rushed in, thinkin' that th' Prisidint was bein' assassynated be his devoted followers in the Sinit, an' discovered Tiddy engaged in a hand-to-hand conflict with a potted ham. Th' Sinitor fr'm Injyanny, with a few well-directed wurruds, put out th' fuse an' rendered th' missile harmless. Since thin th' Prisidint, like th' rest iv us, has become a viggytaryan, and th' diet has so changed his disposition that he is writin' a book called Suffer in Silence, didycated to Sinitor Aldrich.⁶⁹

Packingtown was built on the meat industry; Coketown on coal mining. Dickens deals with the above ground life of this mining community. In *Germinal*, Zola depicts the hazards and horrors of underground operations in the terrible mining village of Le Voreux. Mining carried many dangers, including cave-ins and explosions caused by the mixture of marsh gas and coal dust, by marsh gas alone or by fire damp, a combustible gas. These explosions can release poisonous fumes, like those of carbon monoxide, which complicate all rescue operations. Coal dust can also be poisonous; and a number of diseases are associated with this occupation: phthisis and ankylostomiasis among others.⁷⁰

Zola dramatically depicts the ways in which the poisoned air of the mine tunnels affects the workers laboring hour after hour in the underground hell of Le Voreux as they hack away at the coal veins:

Dans la taille, le travail des haveurs avait repris. Souvent, ils abrégeaient le déjeuner, pour ne pas se refroidir; et leurs briquets, mangés ainsi loin du soleil, avec une voracité muette, leur chargeaient de plomb d'estomac. Allongés sur le flanc, ils tapaient plus fort, ils n'avaient que l'idée fixe de compléter un gros nombres de berlines. Tout disparaissait dans cette rage du gain disputé si rudement.

Ils cessaient de sentir l'eau qui ruisselait et enflait leurs membres, les crampes des attitudes forcées, létouffement des ténèbres, où ils blêmissaient ainsi que les plantes mises en cave. Pourtant à mesure que la journée s'avançait, l'air s'empoisonnait davantage, se chauffait de la fumée des lampes, de la pestilence des haleines, de l'asphyxie du grisou, gênant sur les yeux comme des toiles d'araignée, et que devait seul balayer l'aérage de la nuit. Eux, au fond de leur trou de taupe, sous le poids de la terre, n'ayant plus de souffle dans leur poitrines embrasées, tapaient toujours.⁷¹

[In the coal cutting, the work of the miners had started again. Often, they cut short their lunch, so as to stay warm; and their snack, thereby eaten silently and voraciously far from the sun, turned their stomachs to lead. Stretched out on the flank of the cutting, they struck more and more forcefully; they had only one thought: to complete a large number of coal carts. Nothing counted except this rage to win a contest rudely fought. They ceased to feel the water that dripped on and swelled their limbs, the cramped position forced by their work, the stifling atmosphere of the darkness, where they turned as pale as cave plants.

Nevertheless, as the day advanced, the air became more and more poisonous, infected by the smoke of the lamps, its pestilence increased by the breath of the workers, and the asphyxiation of the fire damp, stinging their eyes like the webs of spiders. Only the night air could relieve their pain. The workers, at the bottom of their mole holes, under the weight of the earth, having no breath in their scorched lungs, continued to work.]

The female heroine of the novel, Catherine Mahou, is overcome by the poisoned air, emitted by the coal as it is slashed by the miners, described by Zola as "mauvais air [bad air]," "l'air mort [stale air]," saturated by "lourds gaz d'asphyxie [heavy asphyxiating gas]."⁷²

As we will see later, it is significant that mining takes place in an underworld where fire is a common hazard. It is a hell in which men are condemned to the perpetual threat of death by burning.

It is clear that in the industrial age, pollution became the great transformer of nature. Air, earth, water, food, and drink were touched by a malignant magician.

VI. The images of war

The initiation of chemical warfare in World War I added still another dimension and association to the word "poison." Sir John French immediately characterized the German release of chlorine gas on 22 April 1915 as a poison gas attack:

I much regret that during the period under report the fighting has been characterized on the enemy's side by a cynical and barbarous disregard of the well-known usages of civilized war and a flagrant defiance of the Hague Convention. All the scientific resources of Germany have apparently been brought into play to produce a gas of so virulent and poisonous a nature that any human being brought into contact with it is first paralyzed and then meets with a lingering and agonising death.⁷³

The memoirs, diaries, and later the unit histories of World War I usually refer to "poison gas" rather than to our more contemporary term: "chemical warfare." It is important to note this fact since some analysts and military theorists have claimed that chemical and poison warfare are different means of waging war. Such a distinction could allow governments to prohibit poison while justifying the use of chemical weapons. To World War I combatants, however, the distinction would have been meaningless.

There was a natural connection between gas poisoning in the mines and gas poisoning on the battlefield. The turn of the century experience with mining accidents may well have suggested the automatic identification of the chemical attacks as "poison gas." This linkage is hardly surprising since gas masks were used in mines. In fact, in 1917, the United Bureau of Mines was the organization tapped by the Interior Department of the government to investigate and develop a chemical warfare program.⁷⁴

In the British Army, the connection between mining and military operations was institutionalized by the establishment of the tunneling companies under the command of the Corps of Royal Engineers. Many of their recruits were English coal miners. Their work, burrowing under the German defensive positions so as to blow them up, involved many of the same hazards they had faced in peacetime: suffocation, poisonous gas fumes, explosions caused by the ignition of gas in the underground tunnels. As Siegfried Sassoon notes in his autobiographical novel, *Memoirs of an Infantry Officer*, they even took canaries down into the tunnels to alert them to the presence of gas.

"Poison gas" is also the term used in past and recent literary depictions of combat in the Great War. The language used in World War I novels and poetry to describe gas attacks, their effectiveness, their choking

action, and the moral revulsion which they evoked on both sides of the battle lines is graphically identical to that used at the time although it has occasionally been characterized as exaggerated. In *All Quiet on The Western Front*, Erich Maria Remarque describes a gas attack against a German unit positioned in a cemetery in which the narrator depicts the gas moving toward him as "a big soft jellyfish" which creeps into every hollow as it advances and he complains that breathing through a gas mask is suffocating. ⁷⁷ A jellyfish, of course, has a poisonous sting. In a recent novel, *Birdsong*, Sebastian Faulks gives a horrifying description of a young soldier dying in a hospital. He has been blinded in a chlorine attack: his flesh is decomposing, his body is covered with burns. He is drowning from within. ⁷⁸

Although many World War I poets evoked the horrors of gas warfare on the Western front (among them, John Peale Bishop, Edmund Blunden, and Robert Graves), the most famous poetic depiction of a gassing death is Wilfred Owen's "Dulce et Decorum Est" in which he describes men blinded by fatigue stumbling home when they are struck by a deluge of descending gas shells:

Gas! GAS! Quick boys! — An ecstasy of fumbling, Fitting the clumsy helmets just in time; But someone still was yelling out and stumbling, And flound'ring like a man in fire or lime... Dim, through the misty panes and thick green light, As under a green sea, I saw him drowning. In all my dreams, before my helpless sight, He plunges at me, guttering, choking, drowning.

If in some smothering dreams you too could pace Behind the wagon that we flung him in, And watch the white eyes writhing in his face, His hanging face, like a devil's sick of sin; If you could hear, at every jolt, the blood Come gargling from the froth-corrupted lungs, Obscene as cancer, bitter as the cud Of vile, incurable sores on innocent tongues, — My friend, you would not tell with such high zest To children ardent for some desperate glory, The old Lie: Dulce et decorum est Pro patria mori. 79

Asphyxiating gas, like chlorine or phosgene, causes a pulmonary oedema in which the victim fills up with fluid until he dies, swamped from within. Not surprisingly then, the imagery of gassing evokes death by suffocation, associated with smoke inhalation, and death by drowning.

But gas poisoned terrain as well as soldiers. The landscape of the Western front was tortured and polluted by war to such an extent that portions of Flanders and France, which entombed vast numbers of gas shells, remain poisonous today. In Pat Barker's *The Ghost Road*, her protagonist, Billy Prior, speculates on the effects of the Great War on the landscape of France. His meditation is set down on 19 October 1918 in his Diary:

Marched all day through utter devastation. Dead horses, unburied men, stench of corruption. Sometimes you look at all this, craters, stinking mud, stagnant water, trees like gigantic burnt matches, and you think the land can't possibly recover. It's *poisoned*. Poison's dripped into it from rotting men, dead horses, gas. It will, of course. Fifty years from now a farmer'll be ploughing these fields and turn up skulls.⁸⁰

The dangerous planting of the crop that Billy Prior witnessed before his death in combat has come to fruition beyond prophecy, leaving the nations of the world with a major problem: the cleanup of military sites. This cleanup, moreover, is not confined to the earth of the Western Front. Contamination occurred also in World War II through the Japanese chemical warfare operations in China and through the stocks of unused and abandoned gas munitions in other theaters of operations. Finally, after both World Wars, chemical munitions were cavalierly dumped into the Baltic, the North Seas, and in the waters off Hawaii. Occasionally, mustard gas liquid surfaces on the beaches of Europe. Unwary bathers are still burned.

VII. The deeper level: Myth

The word, "poison" with its multiple associations, knotted together into a complex web, opens up a larger world. It confronts us with the problem of evil on a deeper level than we have examined so far: the mythical and archetypal narrative. Some of the images and associations analyzed below have already been suggested or evoked in the literature quoted above: the serpent, the Fall, the devil, and hell. A study of their multiple meanings and the connections

between them provide another clue to human abhorrence for poison. A caution is necessary. The following analysis is based on the Judaic-Christian tradition, a tradition that emphasizes the distinction between good and evil. The Last Judgment will be final in separating the goats from the sheep. Satan will be forever sealed up in hell. Other traditions, notably the Buddhist and Hindu religions, see an ultimate fusing of opposites. In the last analysis for these Eastern religions, all distinctions die.

The serpent, the devil and the Fall

The serpent is an image of great and disturbing power. It is not, however, always viewed as malevolent. Many cultures worship it as a god: Quetzalcoatal, the Aztec plumed serpent, governs death and resurrection. The snake gods are to be worshipped, propitiated, sacrificed to, feared and respected. In many of the serpent gods, malevolence is balanced uneasily with benevolence.

Although the serpent is regarded as either a benevolent or at least ambiguous and contradictory creature in Eastern cultures, often being endowed with divinity, it is almost always seen as malignant in Western literature. It malevolence is especially marked in literary works shaped within the Judaic-Christian tradition. Serpent imagery is used to describe malevolent individuals who are given a satanic identity. It is also used to characterize dangerous pollution and potentially threatening situations.

Shakespeare repeatedly identifies his villains as serpents and devils, occasionally as the devil himself. Richard III gets it from everyone. He is characterized by his mother, the Duchess of York as a "Cockatrice," an imaginary snake whose glance was fatal.82 The lady Anne whom he woos with bravado over the corpse of her father-in-law, denounces him as "a fiend," "the devil," "dreadful minister of hell," a "foul devil," a "devilish slave."83 Queen Margaret, widow of the murdered King Henry VI calls him a "devil," "the son of hell," and "the devil."84 Queen Elizabeth, mother of the murdered princes in the tower, has no trouble recognizing him as "the devil."85 The Ghost in Hamlet identifies his brother Claudius as "the serpent" that stung him as he slept in the garden.86 Later, in his confrontation with his mother, Gertrude, Hamlet applies the image to false friends, his escorts to England who are not to be trusted: they are "adders fang'd."87 In

Othello, Iago admits, as he puts his plot into action, that he is a devil whose aim is to destroy happiness. At the close of this tragedy, the Venetian envoy, Lodovico, aptly characterizes Iago, who has successfully destroyed the Moor and Desdemona by poisoning Othello's mind against his faithful wife, as "that viper" and Othello in his final torment recognizes that he has trusted a devil. 90

In Dickens' Nicholas Nickleby, the evil uncle, Ralph Nickleby is depicted by another villain, Mr. Squeers, as an "adder." It takes one to know one! Mink Snopes, the vilest of the vile Snopes clan, gets the full treatment in William Faulkner's The Mansion. He is compared to an asp, cobra, krait, rattlesnake, water moccasin, fer de lance and viper. 92 In a recent novel. An Instance of the Fingerpost, a tale which centers around the poisoning of an Oxford fellow, several of the major characters see one another as serpents or devils. The persecuted heroine, Sarah Blundy, hears a hiss in mad Jack Prescott's voice; Jack Prescott, in turn, perceives Dr. John Wallis, mathematician and master cryptoanalyst, as a snake eying its prey; Dr. Wallis, who suspects that the visiting Italian merchant Marco da Cola plans to murder his king, views Cola as a snake poised to strike his prey at the opportune moment.⁹³ And the chief woman protagonist, Sarah Blundy, falsely charged with the murder of the Reverend Robert Graves, is accused in her indictment of being an instrument of the devil.⁹⁴

In *Hard Times*, Dickens repeatedly describes the smoke issuing from the chimneys of Coketown, a smoke that blackens everything and that forms a tyrannical mist around the town, as "serpents of smoke." In Joseph Conrad's *Heart of Darkness*, the imagery is used to describe both fascination and potential threat. The narrator, Marlow, becomes obsessed with the dream of exploring an African river leading into the interior, "a place of darkness":

...there was in it one river especially, a mighty big river, that you could see on the map, resembling an immense snake uncoiled, with its head in the sea, its body at rest, curving afar over a vast country, and its tail lost in the depths of the land. And as I looked at the map of it in a shop-window, it fascinated me as a snake would a bird — a silly little bird. ⁹⁶

Not surprisingly, Marlow later sees the devil as the "god of that river." It is that river that leads Marlow

on his dangerous journey to establish contact with the trader Kurtz who has been lured, corrupted, and finally destroyed by the horror that lies in the heart of darkness of the jungle that is within and without.⁹⁸

But the natural fear of these reptiles, analyzed by E. O. Wilson, and the frequent use of serpents as personifications of evil does not fully explain the human dread that they arouse. Underlying this fear is a metaphysical and mythic dimension whose origins can be traced back to antiquity. There are a number of snake gods, goddesses, and monsters associated with serpents in ancient mythology, which are totally malignant. Dragons are also usually classified as snakes. Among these monsters are Apep, the Egyptian evil serpent; Labartu, the Mesopotamian female killer demon; Yam, the Canaanite dragon. 99 In the Zoroastrianism religion, especially in its descendant Mazdaism, the principle of evil, Angra Mainyu or Ahriman, is the creator of vile and dangerous creatures: toads, scorpions, and vipers. 100

Greek mythology abounds with serpent figures, many of them creatures of frightening power. In The Theogony, the eighth century B.C. poet, Hesiod describes the activities of Ceto, a goddess fertile in producing snake monsters: the Gorgons, one of whom was Medusa whose head was crowned with snakes and who turned all who looked at her into stone. For good measure, Ceto also gave birth to a "savage Snakegoddess." This latter charmer "is half a nymph with sparkling eyes and a beautiful face, and half a monstrous snake, huge and terrible, with mottled skin, who eats flesh raw in the underground regions of holy earth."101 Her daughter Crysasor keeps up the family tradition by bearing the goddess Echidna "half a nymph with glancing eyes and fair cheeks and half again a huge snake" who has inherited her mother's appetite for raw flesh. 102 To these charmers, the Greeks added other snake-monsters: the Hydra, Typhon, another underground figure, whose body is "formed of two serpents" and from whose shoulders masses of snakes erupt, 103 the lamias and the six headed Scylla who plagued Odysseus on his home voyage, devouring a number of his mariners. The prototypes of later serpent-women, John Keats' Lamia and Samuel Taylor Coleridge's Geraldine who turns the innocent Christabel into a snake, are found here. But the Greeks did not clearly separate the principle of goodness from evil. Their gods, including Zeus, are ambiguous figures. They protect their favorites and destroy those who do not honor them. Zeus has an appetite for attractive human females, an appetite he attempts to conceal by assuming various animal forms for his seductions. Hera, his wife, however, has an eye for what is going on and the nasty habit of transforming Zeus' lovers into hideous forms.

In the Judaic-Christian tradition the metaphysical and mythic dimension centers on the Fall. Professor Gordon Grice records a conversation regarding rattle-snakes that he held with his accountant: "...I mentioned the idea that we hate and fear them by instinct. 'Ever since the Garden,' he [the accountant] said." As Grice also observes, man interprets many of his "interactions with animals symbolically, inflecting them with anthropocentric emotion." Snakes are pursued "as if each one embodied satanic evil." 105

This identification of the serpent with Satan took place gradually. In Genesis, the serpent is not identified with the devil. Genesis merely notes, "the serpent was more subtil than any beast of the field which the LORD God had made."106 The immediate result of his persuading Eve to eat forbidden fruit is to establish a state of war between him and Eve's descendants: "...it shall bruise thy head, and thou shalt bruise his head."107 The monistic Hebrew religion, like Greek mythology, presented an ambiguous picture of its tribal God, Yahweh, who could act with great cruelty towards those who strayed from his law or those who lay in the path of the Israelites. Gradually, however, Satan emerged as the Prince of Darkness. His creation and the extension of his power represents an attempt to resolve the contradictions posed by the growing belief in an omnipotent, omnipresent God who controls everything and yet allows evil to exist. 108

Christianity capped the process. In the last book of the Bible, the identification between the serpent and the devil is clear: "the red dragon" who appears in heaven is the serpent Satan: "And the great dragon was cast out, that old serpent, called the devil, and Satan, which deceiveth the whole world: he was cast out into the earth, and the angels were cast out with him." ¹⁰⁹

It was left to John Milton to turn this identification into high drama. At the beginning of *Paradise Lost*, Milton makes the identification between Satan, the serpent and the Fall of Man explicit. He introduces Satan as the "infernal Serpent," whom he indicts as the chief culprit of man's fall from innocence. ¹¹⁰ He

van Courtland Moon

elaborates the Fall recounted in Genesis by dramatizing the entrance of Satan into the sleeping serpent:

...through each Thicket Dank or Dry,
Like a black mist low creeping, he held on
His midnight search, where soonest he might find
The Serpent: him fast sleeping soon he found
In Labyrinth of many a round self-roll'd,
His head the midst, well stor'd with subtle wiles:
Not yet in horrid Shade or dismal Den,
Nor nocent yet, but on the grassy Herb
Fearless unfear'd he slept: in at his Mouth
The Devil enter'd, and his brutal sense,
In heart or head, possessing soon inspir'd
With act intelligential; but his sleep
Disturb'd not, waiting close th' approach of Morn.
111

As he craftily works to persuade Eve into following him towards the forbidden tree, Satan is identified as a poisonous snake: a "wily Adder." God exacts a formidable penalty from Satan. He is forever bound in association to the serpent. In a dramatic scene in which he addresses the devils in hell, convinced that they will applaud his triumph in Eden, Satan undergoes a terrible transformation into a huge snake, accompanied by a similar change of lesser devils into reptiles. Instead of applause, Satan is greeted with hisses:

A dismal universal hiss, the sound Of public scorn; he wonder'd, but not long Had leisure, wond'ring at himself now more; His visage drawn he felt to sharp and spare, His Arms clung to his Ribs, his Legs, entwining Each other, till supplanted down he fell A monstrous Serpent on his Belly prone, Reluctant, but in vain: a greater power Now rul'd him, punisht in the shape he sinn'd, According to his doom: he would have spoke, But hiss for hiss return'd with forked tongue To forked tongue, for now were all transform'd Alike, to Serpents all as accessories To his bold Riot: dreadful was the din Of hissing through the Hall, thick swarming now With complicated monsters, head and tail...¹¹³

Satan is turned into a huge python. Issuing from the place of hell, the serpents rush forth into a crowd of devils, waiting in anticipation to hail their chief. Struck

with horror at the sight of numerous reptiles, they in turn are transformed into snakes. ¹¹⁴ It is a scene of great power and compelling horror.

The expanded account of the Fall of Man, which identified the devil with the serpent, became standard and has lasted into the 20th century. In James Joyce's A Portrait of the Artist as a Young Man, Father Arnall delivers a terrifying hell fire sermon to Catholic boys attending a retreat. He recapitulates the account of the Fall found in Genesis and elaborated on by Milton. He specifically uses the image of poison to depict satanic eloquence and its effect upon Eve. Satan, clothed as the serpent, used his gift of a "poison tongue" to pour "the poison of his eloquence into her ear." 115

The Fall not only transformed man; it altered the order of the universe. It released death and sin. In Genesis, the account of the change wrought by the Fall is sparse. Adam and Eve discover shame at their nakedness; they are expelled from Eden where Adam held sway over all creatures; enmity is established between mankind and the serpent; and man is condemned to labor until death. 116 The question of the impact of the Fall upon nature was long debated within the Judaic and Christian religions. In Paradise Lost, one of whose dominant themes is change, Milton considerably expands the account of the consequences of the Fall, which brings "Death into the World, and all our woe."117 The poet personifies both Death and Sin as awesome figures of horror standing before the Gates of Hell:

...Before the Gates there sat On either side a formidable shape: The one seem'd Woman to the waist, and fair, But ended foul in many a scaly fold Voluminous and vast, a Serpent arm'd With mortal sting: about her middle round A cry of Hell Hounds never ceasing bark'd With wide Cerberean mouths full loud, and rung A hideous Peal: yet when they list, would creep, If aught disturb'd their noise, into her womb, And kennel there, yet there still bark'd and howl'd Within unseen. Far less abhorr'd than these Vex'd Scylla bathing in the Sea that parts Calabria from the hoarse Trinacrian shore: Nor uglier follow the Night-Hag, when call'd In secret, riding through the Air she comes Lur'd with the smell of infant blood, to dance

With *Lapland* Witches, while the laboring Moon Eclipses at their charms. 118

Sin, Serpents, Witches, and Scylla are all associated. 119 Death, the other figure at the Gate of Hell, is the incestuously conceived son of Sin and Satan: "Black... as Night" and "terrible as Hell." Shapeless, he shakes "a dreadful Dart" which is lethal to all it strikes. Presumably, it is envenomed. 120 The Fall of Man releases these gruesome figures into the world, 121 unleashing disease and madness upon mankind. 122

The Fall also alters the natural order of the universe, shattering the previously ordained harmony: God orders a change in the position of the Sun, bringing about intolerable changes in the weather and the seasons. Extremes of weather now whip mankind. The moon and the planets' configuration in relation to one another and to the earth are altered. Their influence is now malign rather than benign. War erupts among animals and between animals and man. ¹²³ Eden is lost forever, but it is not forgotten. The memory and the dream persist in Western literature into present time.

Hell

Satan is the prince of darkness, and he enjoys the help of countless agents. It is not surprising, therefore, that evildoers are often depicted in literature as agents of hell, and that hell is also widely invoked to describe unbearable human conditions.

In Edmund Spenser's Faerie Queene, Archimago, the black magician, fashions a demon, summoned from hell, into a false lady whose lustful behavior with another false shadow deceives the Red Cross Knight. Milton's personifications of Sin and Death are the guardians of the Gates of Hell before they are released to rampage through the earth in search of prey.

The above devils are clearly allegorical and supernatural. In Shakespeare's works, human characters are seen as Satan's agents. Both Richard III and Macbeth are identified as hellhounds. Richard III is further characterized as "minister of hell," "son of hell," and "hell's black intelligence."

Industrial towns and mining villages are invariably painted as hells on earth: Dickens' Coketown in *Hard Times*, the Bottoms in D. H. Lawrence's' *Sons and Lovers* and Stocktown in Upton Sinclair's *The Jungle*. Perhaps the most powerful image of an earthly inferno emerges from Zola's *Germinal*: the depiction of Le

Voreux: a devouring mine. As the hero, Étienne Lantier, approaches it, he is drawn by its ferocious illumination of the sky. Arriving at the mine, he is struck by its huge size, its overpowering smoke. It almost seems like a living, breathing creature. Warming his hands in front of a fire, he has a further chance to observe its massive presence. It resembles a greedy, hungry devil:

Le Voreux, à présent, sortait du rêve. Étienne, qui s'oubliait devant le brasier à chauffer ses pauvres mains saignantes, regardait, retrouvait chaque partie de la fosse, le hangar goudronné de criblage, le beffroi du puits, la vaste chambre de la machine d'extraction, la tourelle carrée de la pompe 'd'épuisement. Cette fosse, tassée au fond d'un creux, avec ses constructions trapues de briques, dressant sa cheminée comme une corne menaçante, lui semblait avoir un air mauvais de bête goulue, accroupie là pour manger le monde. 127

[Le Voreux emerged as if from a dream. Étienne, who, forgetting himself, was warming his poor bleeding hands in front of the glowing fire, looked at each part of the pit: the tar screened hangar, the belfry of the shaft, the vast chamber of the extracting machine, the square turret of the drainage pump. This pit, crammed at the bottom of a hollow, with its squat brick constructions, its chimney pitched like a menacing horn. It seemed to Étienne to have the evil air of a gluttonous beast, crouched there to eat the world.]

Zola's depiction of another coal mine, Le Tartaret, is equally desolate. The operations of that facility have poisoned the surrounding land turning it into a volcanic Sodom where fires still burn under the blighted earth. Those who visit it at night swear that they have seen tormented souls turning in the flames of that underground hell.¹²⁸

The visions of hell, conjured up by the religious imagination are worse than the human hells in only one respect: the torment of lost souls is unceasing and eternal. Like the personification of evil, Satan, the concept of hell evolved slowly over the ages. The Greek Hades originally was not a place of torment, although it was gradually transformed into a place of punishment for the wicked. During the Roman era, however, the ruler of Hades, Pluto, became identified with Ahriman, the evil force defined in Zoroastrianism. In Hebrew tradition, Sheol, originally a shadowy land of death which received all souls, gradually became transformed into Gehenna, a place of punishment.

The Old Testament never presented a clear picture of hell. It was left to the Christians to elaborate the final home of the damned into an eternal torture chamber. The most vivid depictions come from the creative imaginations of Dante and Milton. Dante conceived of hell as a funnel piercing the earth, descending from the circles holding those guilty of lesser sins down to the frozen lake of Cocytus where an immense Satan chewed eternally on the traitors, Judas, Brutus and Cassius. Milton depicted a hell of extremes: one region is boiling hot; another, freezing cold. It is described as:

A Dungeon horrible, on all sides round As one great Furnace flam'd, yet from these flames No light but rather darkness visible Serv'd only to discover sights of woe...¹³³

For its inhabitants, it is a place of constant pain and no rest where "hope never comes." ¹³⁴ In Joyce's *A Portrait of the Artist as a Young Man*, Father Arnall paints an equally horrible picture for his young charges in which he emphasizes how the physical and psychological torments of this eternal prison are intensified by the stench produced by "choking fumes," the "pestilent odour" which comes from the filth of the world running into hell turning it into a great sewer and polluting the air making it "foul and unbreathable" for the eternally damned who continue to breathe while suffocating with no hope of escape through death. ¹³⁵

Religious and literary imagination turned hell into a place of eternal poisoning.

Witchcraft

Satan exercises his terrible will and punishes his unwilling tenants with the aid of a host of associates. Many of the Canaanite gods were converted into minor devils. But Satan has other helpers on earth who are willing accessories to the seduction of humans and who perform abominable rites under his mastership. Prominent are the witches.

The origins of witchcraft are largely unknown although sources have been found in the frenzied Dionysian cults of ancient Greece and the Bacchanalias held in Roman times. ¹³⁶ By the Middle Ages, the belief in witchcraft was widespread. Infamous rites of initiation and celebration in the name of the devil were widely believed to take place. It was a common report that these gatherings were marked by the sacrifice of

a child to the devil. The victim's body was devoured as a preliminary to a wild sexual orgy in which witches copulated with one another or with the devil himself. One of the uses made of the remains of the child's body was the confection of poison. ¹³⁷

Witchcraft also fascinated Shakespeare. In Richard III, Richard manipulates the death of one of his courtiers, Hastings, by accusing him of witchcraft: Hastings is denounced for conspiring with others to shrivel up Richard's arm. 138 The most famous depiction of the witches in literature, however, is found in Shakespeare's *Macbeth*. In two scenes, the use of poison by the witches is dramatized. At the beginning of the play, the witches prepare to meet Macbeth on the heath where they will begin the process that ultimately leads to his damnation. In reality, the witches are fallen angels. As they prepare to leave, the third witch announces that one of their familiars is summoning them: "Paddock calls."139 Paddock is a toad or a crooked black frog, which is regarded as poisonous. In the second instance, the witches wind their charm around their cauldron as they await Macbeth. All sorts of poisons are poured into an enticing broth: hemlock, yew slips, poisoned entrails of toads, adder's tongue, fillets of snake. 140 Hecate, the queen of witchcraft, the night and magic and lady of the underworld, enters after the charm is wound. Shortly afterwards, the witches evoke for Macbeth the prophecies that will destroy him. 141

In *Paradise Lost*, Milton compared the figure of the snake woman, Sin, to a witch, probably Hecate who rules the underworld and is the queen of witches:

Nor uglier follow the Night-Hag, when call'd In secret, riding through the Air she comes Lur'd with the smell of infant blood, to dance With *Lapland* Witches, while the laboring Moon Eclipses at their charms. 142

As history records, belief in witches continued into succeeding centuries, leading to horrifying persecutions and trials dramatized in Arthur Miller's *The Crucible* and Pears' *An Instance of the Fingerpost* where Sarah Blundy is condemned as a witch who poisons her former master under the influence of the devil.

To summarize, the association between poison and the diabolical imagery of serpents, the devil, hell, witchcraft and the Fall of Man is a continuous thread in Western literature, which was shaped by the Greco-Roman and

the Judaic-Christian traditions. The links formed by image and theme are powerful and pervasive. They help to explain the common revulsion against the use of poisons in war and in crime.

VIII. Other meanings and uses of poison imagery

Poison, therefore, has many meanings. I have analyzed the tangle of associations clustered around poison as an evil weapon. There are, however, at least two other meanings assigned to poison as concept and image. First, that poison can be used to counter poison, that it is not necessarily malignant. Second, the use of the image of poison by evil men and women to characterize their foes: the pathology of the norm.

Poison as counter-poison

Folk culture is rich in expressions which reflect the first of these meanings. As an American proverb succinctly puts it: "Poison quells poison." In James Joyce's *Ulysses*, the hero Leopold Bloom reflects on the way in which nature's poison can counter overdoses or dangerous drugs "Poisons the only cures. Remedy where you least expect it. Clever of nature." 144

This belief in the efficacy of poison against poison is an ancient one. One source, found in Greek mythology, is the story attached to Hermes: the messenger of the gods, the guardian of travelers and the patron of traders and thieves, a god with a taste for mischief. Hermes is often represented as carrying a staff, the *caduceus*. Before Hermes inherited it, the *caduceus* was an enchanter's wand, a symbol of power, influence, wealth and prosperity. It marked influence over the living and the dead. The story is that Hermes used his staff to separate two quarrelling snakes. They wound themselves around the staff and froze there. Today, it is widely recognized as the symbol of the medical profession. Peace out of war? Healing triumphing over illness?

The Bible also contains examples of the use of poison to counter poison. In the book entitled "Numbers," Yahweh punishes the wandering Israelites, when they complain about their travails in the wilderness, by sending "fiery serpents" to bite and kill. When the people repent and appeal to Moses, he turns to the Lord who instructs him to set up a fiery serpent on a pole,

promising, "that everyone that is bitten, when he looketh upon it, shall live." ¹⁴⁶

Finally, in concluding this section, let me quote the poem by A. E. Housman, which will speak to all concerned with defense against poison:

There was a king reigned in the East: There, when kings will sit to feast, They get their fill before they think With poisoned meat and poisoned drink. He gathered all that springs to birth From the many-venomed earth; First a little, thence to more, He sampled all her killing store; And easy, smiling, seasoned sound, Sate the king when healths went round. They put arsenic in his meat And stared aghast to watch him eat; They poured strychnine in his cup And shook to see him drink it up; They shook, they stared as white's their shirt: Them it was their poison hurt. — I tell the tale that I heard told. Mithridates, he died old. 147

The pathology of the norm

Any careful reader of literature will be struck by how evil characters project their hatred on their foes by using the same imagery and figures of speech to damn their foes as heroes or protagonists use against them. The evil see the good or the innocent as either evil obstacles or as fools to be deceived. It is all a matter of perception or of self-deception.

In Shakespeare's *King John*, the monarch fears the boyish Arthur as a threat to his security since Arthur is supported by the King of France and the ruler of Austria as the rightful heir to the throne. He instructs his henchman Hubert to do away with the boy:

Good Hubert, Hubert, Hubert, throw thine eye On you young boy; I'll tell thee what, my friend, He is a very serpent in my way; And whereso'er this foot of mine doth tread, He lies before me: doth thou understand me?¹⁴⁸

In Dickens' novel *Martin Chuzzlewit*, the arch, self-seeking hypocrite, Mr. Pecksniff, banishes the hero of the novel from his home by denouncing him as

a dangerous reptile: "...I cannot have a leper and a serpent for an inmate." Pecksniff is such an accomplished hypocrite that he deceives even himself as to his motives.

Some villains in literature celebrate their villainy with gusto. Shakespeare's Richard III, for example, proclaims in his first soliloguy:

...since I cannot prove a lover
To entertain these fair well-spoken days,
I am determined to prove a villain,
And hate the idle pleasures of these days. 150

He chuckles at his own clever villainy as he undoes his rivals and enemies. Historical villains, however, usually justify their crimes and cruelties as serving a higher cause: Adolph Hitler saw himself as serving a worldhistorical mission by creating an empire dominated by a master race; Joseph Stalin, as forging the Utopian communist society of the future. Terrorists kill in the name of nation or religion. Egotism marches under the banner of a higher purpose. In Mein Kampf, Adolf Hitler used the language of poison and disease in describing the Jews: "an abscess" caused by "a maggot in a rotting body," a "pestilence worse than the Black Death of olden time." Jewish writers were portrayed "as scribblers who poison men's souls like germ-carriers of the worse sort."151 The language of justification for the future Holocaust is foreshadowed in Hitler's chosen imagery.

IX. Conclusion

What conclusions can be drawn about the use of the imagery of poison, conclusions which throw light on the revulsion which poisoning arouses among most humans? Whether we study the generic or the mythical, the ancient or the modern uses of this imagery, we find that it embodies or evokes the ideas of treachery, invisibility, and transformation. Poison is often an instrument of treachery. It comes in various disguises designed to take the victim unawares: a poisoned book (as in Umberto Eco's Name of the Rose), a poisoned apple (as in Walt Disney's Snow White), poisoned flowers (referred to in James Joyce's Ulysses), poisoned clothing (the Shirt of Nessus which destroys Hercules and the cloak offered by Morgan le Fey to her brother King Arthur), poisoned drink (Claudius's poisoned cup which he offers to Hamlet) and envenomed weapons

(Laertes' foil in *Hamlet*). Second, poison, when effectively disguised, is invisible. The victim usually cannot react until it is too late. Finally, poison is a transformer. It is a violation against society because it alters the natural order by effecting radical physical, psychological, and spiritual transformations. Our myths embody that concept of a natural order for which we search, seeking to find this higher order either in the past or in the future. It is either lost or to come: Eden or Utopia. This idyllic world embodies what should be but isn't, what is desired but cannot be, a world of order and harmony, not of strife and chaos. It is a world without poisons.

Although as humans, we cannot abandon the hope of an ordered world, our fate may be different, closer to that sounded by the prophets than that hoped for by the Utopians. Poisoning may well become the ultimate doomsday weapon. The great novelists of the 19th and 20th centuries sounded an alarm that was only imperfectly heeded at that time. The message was clear: the earth was being looted and soiled, air and water were increasingly polluted, food and drink were adulterated, and human beings were being psychologically poisoned by unleashed greed. But even the most savage denunciations of these forms of poisoning in the post-industrial world, however, do not match current warnings regarding the fate of the planet. Fear of a potential ecological and environmental catastrophe has risen. We now know that numbers of species are wiped out or endangered. Humans in heavily polluted areas, where toxic chemicals are regularly dumped, are at risk from rising cancer rates. Jonathan Harr's A Civil Action bears eloquent testimony to the destruction of human lives in the community of Woburn, Massachusetts, through criminal dumping. The release of pollutants into the environment has poked a dangerous hole in the ozone layer also increasing the dangers of radiation, global warming, and coastal flooding. Ninety-two years after Upton Sinclair published The Jungle, an estimated 9,000 Americans die annually of food poisoning. And yet the political will to handle problems that grow more difficult the longer nations dither, is lacking. The wars of the 20th century have left us with the problems of military dumps and a new industry has produced the nuclear waste that is so hard to eliminate. The threat of radiational poisoning and an atomic Apocalypse through the use of nuclear weapons haunted the second half of the

20th century and will certainly extend long into the 21st century. The last judgment may come through universal death: obliteration through total war, or ultimate self-poisoning.

Let me close with a quotation from a British officer who persisted almost to the end of the Great War. Shortly after the experiences memorialized in his book, *The Land-Locked Lake*, he had to be demobilized. Despite his will and his courage, the war had finished him as a soldier and seared him for the rest of his life. Hanbury-Sparrow not only suffered numerous gas attacks on such battlefields as the Somme and Passchendaele, he also depicted these attacks in transcendent imagery, imagery that unites the experience of gas with the metaphysical intonations of myth. To these meanings, you can add your own as you confront the challenges of the next millennium:

You always felt this poison gas was so mean and treacherous. It wasn't so much the harm it did to the body, which was always much over-estimated in the popular imagination, as the harm it did to the mind. A shell might make terrible wounds, but its burst was all over in an instant. It was a case of hit or miss which left no ill-will behind. But this harmless-looking, almost invisible, stuff would lie for days on end lurking in low places waiting for the unwary. It was the Devil's breath. It was Ahrimanic from the first velvety phut of the shell burst to those corpse-like breaths that a man inhaled almost unawares. It lingered about out of control. When he fired it, man released an evil force that became free to bite friend or foe till such time as it died into the earth. [Emphasis added]¹⁵²

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- 1. Cited in *The Oxford English Dictionary*, 2nd edition (1989) vol. 10, p. 515.
- 2. This suspension of rules to be restored at the end of hostilities is often conveniently rationalized by exploiting ambiguities: among them, the charge that it was the enemy who first broke the taboo; a literal interpretation of an international agreement which exploits loopholes in a treaty as when the Germans argued after the attack on 22 April 1915 that the Hague text prohibited the use of asphyxiating shells but did not prohibit gas attacks launched by cylinders; the blurring of the distinction between military and civilian targets as exemplified by Allied strategic bombing in World War II.
- 3. Edward O. Wilson, "The Serpent," in *Search of Nature* (Washington, D.C. and Covelo, CA Island Press, 1916), pp. 5–6.
- 4. Wilson, pp. 18–20. On the fear engendered by snakes, see also Gordon Grice, *The Red Hourglass: Lives of the Predators* (New York: Delacorte Press, 1998), pp. 85–145.
- 5. Wilson, pp. 19, 20-21.
- 6. William Shakespeare, *King Richard III*, 1.2.148, and 1.3.242, 246. Edited by E. A. J. Honigman (London and New York: Methuen: Arden Edition, 1983). References are to act, scene, and line. On poisonous spiders, see Grice, 1–59, 147–174, 235–259.
- 7. Richard Price, *The Chemical Weapons Taboo* (Ithaca and London: Cornell University Press, 1997), pp. 18–35.
- 8. William Shakespeare, *King John*, 5.7.46–48. Edited by E. A. J. Honigman (London and New York: Methuen: Arden Edition, 1983).
- 9. William Shakespeare, *Hamlet*, 1.5.35–39, 59–80. Edited by Harold Jenkins (London and New York: Arden Edition, 1984).
- 10. The concept of the sanctity of the king and the need to protect him is also emphasized in a work of modern literature in which one of the main characters, assumes that an Italian traveler is bent on assassinating King Charles II: "Strike at the body, and the wound soon heals even though it may be a great gash. Strike only one small blow at the heart, and the effect is catastrophic. And the living, breathing heart of the kingdom was the king. One man, indeed, could bring all to ruin where an entire army would be ineffective." Iain Pears, *An Instance of the Fingerpost* (New York: Penguin Putnam, Inc.: 1998), p. 432.
- 11. [For an analysis of the disease imagery in *Hamlet*, see Caroline F. E. Spurgeon, *Shakespeare's Imagery* (Boston: Beacon Press, 1958), pp. 79, 159, 133–134, 213, 316–318, 319, 369]. Hamlet refers to Claudius as a "mildewed ear" [Shakespeare, *Hamlet*, 3.4.51]. His mother, after she confronts her sin, castigates "her sick soul" [Shakespeare, *Hamlet*, 4.517].

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- 12. Charles Dickens, *Oliver Twist* (London: Penguin Books, 1994), p. 167.
- 13. Upton Sinclair, *The Jungle* (New York: Penguin Books, 1995), pp. 166–167.
- 14. Ibid., p. 21.
- 15. Émile Zola, Germinal (Paris: Classique Garnier, 1989), p. 483.
- 16. Shakespeare, *Hamlet*, 4.7.102–105. Claudius' use of poison imagery is interesting in two respects. First, it is doubtful that the King's report regarding Hamlet's envy is truthful. Hamlet is not depicted as an envious man; moreover, he does not show any special enthusiasm for the proposed fencing match. Second, Claudius is the supreme poisoner of the play. He kills his brother by poisoning and is now plotting to dispatch Hamlet by urging Laertes on and by preparing a poisoned drink for his nephew to use as a backup should Laertes' envemoned foil fail to kill the prince. As I will discuss more fully later, the evil, who see their enemies as a danger to them, use poisoning images for their own purposes.
- 17. Ibid., 4.7.138.
- 18. Shakespeare, King John, 1.1.213.
- 19. This quote is cited in the Arden edition of *King John*. (London and New York: Methuen & Company, 1983), p. 16, note on line 213.
- 20. Zola, p. 331.
- 21. Ibid., p. 472.
- 22. Charles Dickens, Nicholas Nickleby (London and New York: Penguin Books), p. 166. The evil also regard the good as responsible for making them hateful to others. Ralph Nickleby, uncle to Nicholas, has designs on Nicholas' sister. He is convinced that Nicholas has poisoned his reputation in Kate's eyes: "And now to be defied and spurned, to be held up to her in the worst and most repulsive colours, to know that she was taught to hate and despise him; to feel that there was infection in his touch and taint in his companionship—to know all this, and to know that the mover of it all, was that same boyish poor relation who had twitted him in their very first interview, and openly bearded and braved him since, wrought his quiet and stealthy malignity to such a pitch, that there was scarcely anything he would not have hazarded to gratify it, if he could have seen his way to some immediate retaliation." [Dickens, Nicholas Nickleby, p. 524]
- 23. William Shakespeare, *King Lear*, 1.4.286–287, edited by Kenneth Muir (London and New York: Methuen: Arden Edition, 1985).
- 24. William Shakespeare, Othello, 2.1.297, edited by M. R. Ridley (London and New York: Methuen: Arden Edition, 1986).
- 25. Ibid., 3.3.329-334.

- 26. Sulphur mines produce a poisonous mineral.
- 27. Shakespeare, King Lear, 4.3.42-47.
- 28. Shakespeare, Hamlet, 4.5.75-76.
- 29. Pears, p. 240.
- 30. The General Epistle of James, chapter 3: verse 8, *The Bible* (King James Authorized Version).
- 31. Dickens, Nicholas Nickleby, p. 688.
- 32. Charles Dickens, *Bleak House* (London: Folio Society, 2004), p.490. Emphasis on "*his*" is in original.
- 33. Gesta Romanorum or Entertaining Moral Stories Invented by the Monks as a Fireside Entertainment and Commonly Applied in their Discources from the Pulpit: Whence the Most Celebrated of our own Poets and Others from the Earliest Times, have extracted their plots, translated from the Latin, with preliminary observations and copious notes by the Reverent Charles Swan, revised and corrected by Wynnard Hooper, B.A. (New York: Dover Publications, Inc., 1959), pp. 65–66.
- 34. Zola, p. 341.
- 35. Ibid., p. 348.
- 36. John Milton, *Paradise Lost*, 10.631–632. References are to book and line.
- 37. Ibid., 12.110.
- 38. Charles Dickens, *Hard Times* (Penguin Putnam, Inc.: Signet Classic edition, 1997), pp. 30–31.
- 39. Ibid., p. 115, 167.
- 40. Ibid., p. 117, 141.
- 41. Ibid., p. 116-117.
- 42. Ibid., p. 70.
- 43. Sinclair, The Jungle, p. 32.
- 44. Ibid., p. 36, 37.
- 45. Ibid., p. 36.
- 46. Ibid., p. 37, 113.
- 47. Ibid., p. 115.
- 48. Ibid., p. 36.
- 49. Ibid., p. 113.
- 50. Ibid., pp. 154-155.
- 51. Ibid., pp. 120, 145.
- 52. Ibid., pp. 156-157.
- 53. Ibid., p. 157.
- 54. Ibid., p. 157.
- 55. Ibid., p. 157.

- 56. Ibid., p. 47.
- 57. Ibid., pp. 77-78.
- 58. Ibid., pp. 116, 324.
- 59. Ibid., pp. 115-116.
- 60. Ibid., p. 117.
- 61. Ibid., p. 163.
- 62. Ibid., pp. 140–141. For the manner in which the adulterated sausage was produced, see Ibid., pp. 159–161.
- 63. Ibid., p. 152.
- 64. Ibid., pp. 46, 96.
- 65. Ibid., pp. 94-95.
- 66. Ibid., p. 16.
- 67. Ibid., p. 93.
- 68. Ibid., p. 130.
- 69. Finley Peter Dunne, *Mr. Dooley on Ivrything and Ivrybody* (New York: Dover Publications, Inc., 1963), pp. 237–238.
- 70. The Encyclopedia Britannica: A Dictionary of Arts, Sciences, Literature and General Information, 11th ed., vol. 18 (Cambridge, England: University Press, 1911), pp. 540–541.
- 71. Zola, p. 72. Note: "grisou" is fire-damp. "Haveurs" are the miners who slash into the rock to facilitate the knocking down of the coal.
- 72. Ibid., pp. 307–308. See also Ibid., pp. 315, 462. The dangers of mine explosions and poisonings are also depicted in Upton Sinclair, *King Coal* (New York: Macmillan Co, 1917), pp. 29, 30, 169–176, 190–195, 259–261.
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- 84. Ibid., 1.3.118, 230, 298.
- 85. Ibid., 4.4.418.
- 86. Shakespeare, Hamlet, 1.5.39-40.
- 87. Ibid., 3.4.203.
- 88. Shakespeare, Othello, 2.2.350-362.
- 89. Ibid., 5.2. 285.
- 90. Ibid., 5.2.286, 288, 302-303.
- 91. Dickens, Nicholas Nickleby, p. 847.
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- 95. Dickens, Hard Times, pp. 30, 75, 76, 252.
- 96. Joseph Conrad, "Heart of Darkness," in *Youth: A Narrative and Two Other Stories* (Edinburgh and London: John Grant, 1925), p. 52. See also Ibid., p. 56.
- 97. Ibid., p. 114.
- 98. Ibid., p. 149.
- 99. Russell, The Devil, pp. 80, 92, 95.
- 100. Ibid., pp. 113,116. Russell has further traced the history of the Devil in a number of succeeding works; Jeffrey Burton Russell, *Satan: The Early Christian Tradition* (Ithaca and London: Cornell University Press, 1981).; Jeffrey Burton Russell *Lucifer: The Devil in the Middle Ages*. (Ithaca and London, 1984); and Jeffrey Burton Russell. *Mephistopheles: The Devil in the Modern World*. (Ithaca and London, 1986).
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- 103. Russell, The Devil, pp. 136, 142-143.

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- 104. Grice, p. 103.
- 105. Ibid., p. 224.
- 106. Genesis 3:1, The Bible.
- 107. Genesis 3:15. See also Russell, *The Devil*, pp. 182, note 6; 217–218.
- 108. Russell, The Devil, pp. 174-220.
- 109. The Revelation of Saint John the Divine 12: 7–9, *The Bible* This identification was further solidified in the writings of the apostolic and apologetic fathers of the first and second centuries A.D. See Russell, *Satan*, pp. 30–79.
- 110. Milton, Paradise Lost, 1.34.
- 111. Ibid., 9.179–191.
- 112. Ibid., 9.625.
- 113. Ibid., 10.508-524.
- 114. Ibid., 10.508-547.
- 115. James Joyce, *A Portrait of the Artist as a Young Man* (Harmonsworth, Middlesex, England: Penguin, : 1978), p. 118.
- 116. Genesis, chapter 3.
- 117. Milton, Paradise Lost, 1.3.
- 118. Ibid., 2.649-665.
- 119. The Night Hag is probably Hecate (see below). Hughes, in his edition of Milton's poetry and prose notes: Sin owes her serpentine nether parts to conceptions like Spenser's Error: 'Half like a serpent horribly displaide, But th' other halfe did womans shape retaine.' [1.1.14] But the dogs around Sin's waist, and especially their Cerberean mouths—a literally Ovidian phrase—plainly match Ovid's description of Scylla, the lovely nymph whose body Circe transformed into a mass of yelping hounds from the waist down (Met. 14.40-74]. Finally, according to Ovid—she became the dangerous reef between Sicily (Trinacria) and the toe of the Italian boot (Calabria). But—as J. F. Gilliam recalls in PQ XIX (1950) 346—the allegorization of the myth to make Scylla a symbol of sin goes back at least as far as St. John Chrysostom. John Milton, Complete Poems and Major Prose, Merritt Y. Hughes, ed. (New York:The Odyssey Press, 1957), p. 247.
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- 122. Ibid., 11.477-493, 12.173-190.
- 123. Ibid., 10.649-719.
- 124. J. C. Smith, ed., *Spenser's Faerie Queene*, 2 vols. (Oxford: The Clarendon Press, 1909), Book I, Canto 1, 36–42, Canto 2, 5.

- 125. Shakespeare, *Richard III*, 4.448; William Shakeapeare, *Macbeth*, 5.83, edited by Kenneth Muir (London and New York, 1986).
- 126. Shakespeare, Richard III, 1.246, 1.3 230, 4.4.71.
- 127. Zola, p. 33.
- 128. Ibid., p. 303.
- 129. Some versions of Hell do not call for eternal punishment: for example, the Zoroastrian/Mazdaist hell, Hamestagen, will be abolished when time is ended in the last war leading to the last judgment.
- 130. Russell, The Devil, pp. 132-144.
- 131. Ibid., p. 152.
- 132. Ibid., p. 186, note 14.
- 133. Milton, Paradise Lost, 1.61-64.
- 134. Ibid., 1.66.
- 135. Joyce, A Portrait, p. 120.
- 136. Russell, The Devil, pp. 139-142, 152, 172-173.
- 137. Russell, Lucifer, p. 297.
- 138. Shakespeare, Richard III, 3.4.59-79.
- 139. Shakespeare, Macbeth, 1.1.9.
- 140. Ibid., 4.1. 4-38.
- 141. Shakespeare also deals with the thème of witchcraft in *A Comedy of Errors* where the city of Ephesus is presented as dominated by witchcraft practices.
- 142. Milton, Paradise Lost, 2.660-665.
- 143. Wolfgang Mieder, Stewart A. Kingsbury, and Kelsie B. Harder, eds., *A Dictionary of American Proverbs* (New York and Oxford: Oxford University Press, 1992), p. 471.
- 144. James Joyce, *Ulysses* (New York: Random House, Vintage Books, 1961), p. 84.
- 145. Oskar Seyffert, *Dictionary of Classical Antiquities*, revised and edited by Henry Nettlship and J. E. Sandys (New York: Meridian Books, 1957), p. 288; Michael Grant and John Hazel *Gods and Mortals in Classical Mythology* (Springfield, MA: G. & C. Merriam Company, Publishers, 1973), p. 230.
- 146. Numbers 21:5-9, The Bible.
- 147. A.E. Housman, *A Shropshire Lad* (London: the Folio Society, 1986), p. 100.
- 148. Shakespeare, King John, 3.2.69-73.
- 149. Charles Dickens. *Martin Chuzzlewit*. (London: Penguin Books, 1986), p. 270. See also p. 221.
- 150. Shakespeare, Richard III, 1.1.28-31.

- 151. Adolf Hitler, *Mein Kampf*, translated by Ralph Mannheim (Boston: Houghton Mifflin and Co., 1971), pp. 57, 58. The belief that Jews were poisoners was widespread in the Middle Ages. It was believed that they had poisoned wells, thereby causing the Black Death of the 14th century. This belief in the Jews as poisoners is also personified in the diabolical character presented in Christopher Marlowe's *Jew*
- Of Malta: Christopher Marlowe, The Complete Plays, edited by Mark Thronton Burnett (London: J. M. Dent, 2000).
- 152. Hanbury-Sparrow, *The Land-Locked Lake* (London: Arthur Barker, 1932), pp. 309–310. In Zoroastrianism, Ahriman is the evil force opposed by Ormazd, the force for good. Emphasis added.