

LORDS AND LIBERTY

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Mankind

Thunderous hoof beats echoed through the great forest. “Faster! Faster!” yelled a cloaked captain heading the entourage racing along a darkening road: little more than a sunken path beaten down through eons of travel under a towering canopy. Clods of rich soil and leaf litter flew high into the air behind charging steeds. Vines of ivy fluttered in spring air caught up in the rush to judgment, as road was enveloped by ageless forest in the intruders’ wake.

Rocks and dirt tumbled down a steep hill face behind Joshua as he scrambled forward on his hands, clawing toward the summit. Fingernails dug into the thin soil for extra grip but Joshua was oblivious to the scraping and tearing of sharp stones. Under threat of death he endured excruciating pain and fatigue. But, despite Joshua’s desperate breathing and ear-pounding heartbeat, the muscles in his legs were getting tight. Even terror couldn’t keep exhaustion from paralyzing his burning calves and thighs.

The charging horses started to flank him and it was becoming quite evident that he couldn’t beat them to the ridge. Slowing, he turned onto a rock outcrop to his left. Backed into a corner, it wasn’t a question of if the inquisitors would catch up with him, the question became what would happen when they did? Anxiety flooded his mind as he hoped for his legs to recover in the few seconds before the nearest pursuer arrived.

As horse and master ascended near the side of the outcrop, Joshua picked up a fist-size stone, turned, and hurled it at the aggressor. Startled, the inquisitor ducked his head and the rock glanced off his left shoulder; it wasn’t a debilitating blow, but it created the opening Joshua needed to get past the steel of the assailant’s sword. Seizing the opportunity, Joshua leapt off the boulder and kicked at the rising head of his pursuer.

Falling to the ground, the man dropped his sword and tumbled down the hill. Joshua fell opposite the horse from the master and slid a number of feet before righting and scrambling to catch the retreating horse. As he leapt on the back of the sliding brown stallion, Joshua grabbed a handful of fluttering mane and willed the frantic steed reach flat ground to mount an escape before the relentless mob closed in. Unfortunately, being front heavy and hind strong, the horse was more adept at ascent, while being relatively slow to descend the steep hill. Hot on his heels, the officer he had kicked from the stirrups raced down the hill after Joshua, grasping onto him before they could reach the bottom.

Joshua fought with all his might. Kicking and punching, he struggled to free himself and stay on the steed. But, with arms clamped around Joshua’s waist, the posse member jerked and twisted until Joshua could no longer stay on the horse. Salvation slipped from his fingertips as he lost grasp of the long, muscular equine neck.

Elbowing his assailant fiercely on the side of the head, Joshua twisted around to straddle him and drive his own weight down to the ground. Pressing left knee against soft ribs and grabbing the round-faced deputy by the hair, Joshua struck with all his might, again and again he raised his right hand and drove it down about the aggressor’s left eye until his enemy’s deadly clutch was broken.

But the delay was too great and reinforcements arrived. One, then another, and another piled on, clutching and wrapping and clinging to Joshua; pressing him to the ground. They squeezed his arms and legs until he couldn’t move. Then a heavy-set marauder wrapped his arm around Joshua’s neck and began choking him. The warring gang squeezed and pressed harder, and harder, until Joshua couldn’t roll, or twist, or wriggle, or even breathe.

Principle waned, and panic gripped Joshua. He couldn’t breathe! The chase robbed him of oxygen, every fiber of his being burned for air. He tried to bite, to spit; to scream, jerk, kick and twist, but nothing was working, he couldn’t break free of the relentless, cruel mob; he couldn’t breathe. His lungs and stomach were on fire. Oh God help me, he thought. Help Me!

His lungs pulled and pulled for air; the spasms uncontrollable. His diaphragm convulsed, squeezing the churning stomach until vomit spilled into his esophagus. The acid too burned, and the

taste of bitter soiled Joshua's mouth. But air was all he could think about, the squeezing, burning, crushing pain in his chest was spreading, he had to have air, it was the only thing that could put the fire out. How could something taken for granted every moment of every day cause such a horrible pain in absence?

He only felt the pain, every nerve burned a smoldering death. Air! Air! was his only thought. At last, looking for it, he could only see black. His eyes were fading. And finally, after what seemed an eternity, thank God, his mind was going black as well.

Panic for air filling his brain finally drained away as his brain shut down. And his body followed. Resistance ceased and the fight left his body. Joshua's limits of mortality were at once starkly apparent.

The inquisitors relaxed their grip. Letting go of Joshua's neck, the man that was choking the life from him, literally destroying Joshua, rolled over and pressed to his feet. All was quiet in the solemn, ancient forest except the heavy panting of men and horses. Even sunlight was muffled by the canopy as it trickled through to divide shadow from shadow.

But then, in a life extending instant, a sudden gasp shook Joshua, followed by a cough projecting vomit on the dark forest leaf litter, then more gasping and more coughing. The coughing grew regular and Joshua started to regain consciousness. He could feel again, he could feel the fire all over his body, especially in heaves of his chest. Arterial pulses throbbed in his head with heartbeats pounding the mind like a hammer striking an anvil.

Despite the horrid, unbearable pain, Joshua yet lived. Was it a miracle? No it was not, though alive, it was by design, not good fortune or divine interference. His captors didn't want him dead, yet. No, it wasn't their purpose to go around killing just for the sake of killing, for they stood for something. They represented righteousness in the Lord's service. Their purpose was to teach Joshua a lesson, to extract a confession, to be acknowledged and gratified, and finally, they wanted to make an example of him.

The flamboyant captain of the troop stood and started down the hill. "Get some rope," he ordered the stocky man that had been choking Joshua. "Secure the heretic."

Having received his order, the choker lumbered the rest of the way down the hill to the waiting horses where he grabbed a rope from one of the saddles and started back up toward Joshua. Upon arrival, he proceeded to tie Joshua's hands together behind his back. Then he tied Joshua's feet as well, pulling hard on every loop and knot.

With the captive secure, the inquisitors pulled him down the hill on his stomach, head first. The captain led the party to the bottom of the hill and then out to a small clearing in the tall woods. There, putting fingers to his cracked lips, he whistled for the horses.

"Tie him to Carlton's horse," he ordered.

"The devil's powerful in this one," declared a tall, black haired member of the clan with deep-set, droopy eyes and pock-marked pale skin partially hidden by a thin unkempt beard hanging like a cobweb. "Shall the demon have chance to kill?" he asked, stepping into the light.

"Suffer the witch not torment God's people another night," added the wrinkled, leather-faced one they called Carlton.

"Every second he's alive poses a grave risk. Look what harm he has caused Laurentin," puffed another of Joshua's captors, still taxed in his breathing by the struggle of good versus evil.

Forthwith the group looked at the one known as Laurentin, standing a comfortable distance from the man kneeling in their midst that caused him such considerable fear only moments before on the side of the hill. Laurentin's face and sleeve were blood-smeared, having wiped the trickle from his nose. And his cheek was swollen, nearly to the point of closing his left eye.

Rolling the reigns of a large bay between his fingers, the heavy-set officer that had choked Joshua stroked his free left hand through dirty blonde hair to pull it from his freckled face. "Dispatch him now and be done with it," he urged, stepping forward, "before he summons additional demons, or

departs the body.”

“You fools are the demons,” Joshua managed to reply in his own defense. “You cover the continent in blood with the lust of your own ignorance, while I harm nothing. By what right can you declare me evil?”

You’re blinded by your own vision. You’re too busy looking at others to recognize your own evil. Step back now! Step back I ask you, and imagine how you must look in the eyes of others right now; in the eyes of the Lord.”

“Enough!” rumbled the captain, his long gray hair flipping in the afternoon breeze with the sudden turn of his head. “I’ve heard enough.” He walked toward Joshua, stopping one pace distant, and looking down on the defenseless mason he hissed: “With hostility and a wicked tongue you’ve proven your pact with the devil.

“You’re charged with sins against God and crimes against the King. You show familiarity with spirits, for you’re known to speak with animals, and to propose their equality with the children of God – heirs to his kingdom; denying his very image on Earth. You deny the workings of Satan by announcing, in great contradiction of the spirit of heaven, that plague and sickness are born of their own seeds; not the works of the devil’s familiars. And you stand accused of the practice of sorcery, afflicting man and crops with disease, as you’ve been seen by credible and virtuous witnesses to handle corpses and diseased plants in various stages of decay and affliction.”

Joshua was by this time leaned back in a sitting position with his feet under his hands, working frantically to loosen the knots of his bindings. He knew that reason was lost on his captors and that his judgment was passed when first accused. I need time, he thought to himself.

“While these charges may seem legitimate on the surface,” he began, “any vague appearance of merit therewith is mere illusion, as all have goodly and reasonable explanation. I am but a servant of God, his office on Earth, and servant to the King. I seek knowledge, not to further Satan’s desire, but to assist mankind, so that more time may be devoted to glorifying the Father, the Son and the Holy Ghost, and doing the work of the Almighty.”

“The Almighty needs no help from you,” charged the captain.

“Nor from you”, Joshua came back.

Continuing on, Joshua began to recite the Lord’s Prayer. “Our Father which art in heaven, hallowed be thy name. Thy kingdom come. Thy will be done in Earth as it is in heaven. Give us this day our daily bread. And forgive us our trespasses, as we forgive them that ...”

“Enough of this blasphemy you demon!” the gray headed leader ingloriously interrupted. “Admit your nature and be spared a gruesome and horrifying ordeal. Confess your dealings with the devil and you’ll receive a quick and honorable death.”

Joshua gripped and pulled at the rope until the nails were pulled back on his middle fingers. But he looked past the pain to those he held dearest. Anything – he would do anything to be there for them.

“Death would be a dishonor, sir. The Lord has blessed me with a beautiful wife and children. Allow me to honor the Lord by preserving and advancing his blessing”

The leader didn’t pretend to entertain Joshua’s plea. “I shan’t be the fool for your trickery, Devil, your speech is clearly the cunning work of Satan spoken through the mouth of a warlock.” Then, pointing to an oak about five hands across at the chest, he added, “Bind his feet to this tree. We shall force the devil from this body.”

With that Joshua was jerked up on his feet. And his captors were occasioned to notice that his leg bindings were partially loosed. “Deceit! Deceit!” cried Laurentin. “He speaks lies to distract us as he attempts to circumvent God’s justice.”

As soon as the escape attempt was known all of the captors clamored for Joshua’s utter destruction.

“Help!” Joshua screamed into the vast, stoic forest with all his might in utter desperation. “Help!”

He prayed that somebody, anybody, would hear his plea for help so as to save him, and save his family and friends the sorrow and hardship of losing him, and save his work in understanding life and the diseases that afflict the world. Don't let my love and my work die, he prayed.

But, his oppressors would accept no variance, and vowed silence for any voices other than their own. They threw him to the ground by the oak tree. Then the choking man jumped on Joshua's back, settling between Joshua's restrained arms. Slamming his hands down on Joshua's head, he bounced it against the ground before reaching around Joshua's face and pulling back with force so immense as to make Joshua instantly scream in agony with the feeling that his neck was surely broken.

While Joshua's neck was being so terribly wrenched, the man called Laurentin approached with his knife drawn, having a contemptuous look of revenge about him, and thrust it at Joshua's mouth attempting to force it open. Laurentin had snapped from the stress imposed by a resistant quarry, blood was not to be shed, the body was to remain intact. The knife point, however, gashed through Joshua's lower lip, and lodged below his teeth. Having failed thus in his first attempt to sever the vulnerable captive's tongue, Laurentin pulled the knife back and thrust it up under Joshua's chin back near the throat, all the way to the soft palate above the tongue, and then proceeded to rip it side to side to render Joshua dumb in a fit of frenzied rage.

Searing, was the pain from the slicing blade, as it caused blood to squirt from the soft undermouth, reddening the steel of apathy. Blindness from hands clinched across his eyes, coupled with the shocking pain in his neck and mouth, overwhelmed Joshua with terror again. His whole body stiffened, his legs kicked against the restraints, and he loosed all the scream he could muster with his head cocked back and the weight of a heavy man bearing upon his chest.

Reacting to prevent another such scream of pain and fright, the choking man moved his thick hands down across Joshua's mouth and nose, and returned to the cradle position with his elbows on his knees as he sat on Joshua's back. The strain on Joshua's neck caused the gash under his mouth to gape open, allowing a great amount of blood to flow down his neck and chest, with much more blood pouring directly onto the stained ground. Still yet, his throat was filling with blood, further hindering the breath of life. It suddenly flashed through his mind that he was in hell, in the hands of a vengeful Beelzebub himself. Again his lungs burned, much as his neck burned under the intense, crushing pressure on the nerves, ligaments and vertebrae.

Without a conscious thought to his action he opened his mouth until he felt something between his teeth. And suddenly his jaw snapped shut like a trap, with all the grit and determined force he could manage. Bone splintered and ligament tore in the small finger of the choking man's left hand and he immediately leapt up off of Joshua, pulling to free his finger and nearly tearing it clean from his hand in the process. As it tore from the clinch of Joshua's teeth only a few strands of stretched skin attached the dangling appendage to the hand.

A new and greater rage came over the red-faced choking man. "The devil bit me!" he bellowed. And in throes of fury the wild-eyed monster kicked at Joshua with great savagery, as Joshua lay coughing blood and gasping for breath. With feet tied securely to the tree, Joshua could only shift his body trying to deflect the punishing blows as they came one after another at his head and abdomen.

"Tie him to the tree," the leader commanded, having exhausted all patience, "prepare a fire".

At once, the quiet, curly-haired one who lacked expression on his plain, pale, hairless face began to obediently untie the harness he had been fashioning from rope. Other members of the party fanned out through the deep forest in search of all manner of fuel to burn.

In their agitation, the posse of inquisition had interrupted their plan to tear Joshua's arms from their sockets and break scapulas and tear ligaments by harnessing his hands, still bound together behind his back, to a pair of pulling horses straining to rip him from the anchor that was the tree that had stood for decades in the rocky soil. No, the time and effort to secure a confession became unnecessary formality to the mob in their wild state, unaccustomed as they were to contesting of their authority and always inclined, as they also were, to displays of dramatic cruelty. Instead, they moved

to the final act in this repugnant, morbid play. Evidence of what they considered to be the devil's attack on their group was more than proof enough to condemn Joshua.

When the harness rope was unraveled and Joshua's hands were untied, he was stood and his hands bound around the oak tree. His shirt stained red from the blood of his slashed mouth. What blood wasn't draining from the long cut near his throat was pouring over his lower lip and running down his chin with every labored breath exhaled.

I'm running out of chances, he thought to himself. Though possibly futile, screaming for help seemed to offer his only hope, faint as it was, that someone would hear him, and, although even less likely, that someone would be willing and able to help him. He took a few deep breaths, more painful after being kicked so forcefully in the ribs. Holding back a cough brought on by the irritation of stomach acid or blood sunk deep in his lungs, he constricted his diaphragm with all his might and screamed past his severed tongue for as long and hard as he could push the air out. He screamed not as a coward, but as a man desperate to return to his young son Samuel and daughter Elizabeth: shining lights in a world of bitter darkness.

Before he could get it all out, he was struck hard on the side of his face by the tall man with the dimpled complexion, who was holding tightly to Joshua's left arm. Again Joshua screamed. And the pock-marked man put his left hand on Joshua's throat, squeezing the trachea shut to muffle the cry.

Then the curly-haired man that was missing some teeth in front, passed his rope across Joshua's eyes and pulled hard around the tree, tying a tight knot in back; cinching Joshua's head fast against the tree, and causing stars to flutter in his eyes.

Joshua tried to conquer the utter despair of his situation with thoughts of reflection and wishes for his beautiful, innocent family. I love you Samuel, he told his young son in silence as the rope man circled round him, drawing him tighter against the unfeeling tree with every pass. And he thought of his tender daughter, so sweet and pure, I love you Elizabeth. And, I love you Sarah, he said to his adoring wife. Lord, care for my angels! he prayed. His fear was coming true. What he prayed to avoid every night was coming true, and despite the perverse agony he was subjected to, his greatest distress was that he wouldn't be there to care for, and to laugh and love and play with his precious family.

As Joshua prayed for his family, the rope man soon had him bound in a deadly, unbreakable embrace with the tree, having passed twice over Joshua's throat to quiet any further cries for help. And the rest of the hunters of men were piling a large assortment of limbs, twigs, and leaves around Joshua and the huge living stake to which he was bound.

Too soon the order was given, "Light the fire." Then the one they called Carlton, with the weathered, hardened face, removed two flint stones and some dry grass from his travel bag, walked over to Joshua's feet, squatted down, and began striking the stones onto dry grass placed among some brittle leaves. When one of the sparking flakes caused a smolder in the grass, Carlton blew gently to feed oxygen to the infant flame so that it might grow to consume the accused heretic fastened tight to what would soon be known in those parts as the burning tree.

With rope pressed tightly across his eyes, Joshua couldn't see the tiny flame as it fed on the fuel piled all around him. But he could hear the light cracking and popping of boiling sap in the burning twigs. Gingerly at first, the wisps of smoke wafted up in a deadly sway around him, before disappearing in the shadows of the forest air. Then higher and higher the thickening smoke climbed into the canopy, swirling and blowing amongst the upper branches after escaping searing, leaping flames dancing all about.

Joshua tried to block the growing monster of hades from his mind and re-live his fondest memories. Maybe someone would yet come to stop this horrid atrocity and deliver him from the netherworld madness. Maybe it was all a horrible nightmare that he would wake from any moment. Hast thou forsaken me? he asked his lord.

But his mind was not to be separated from the body. The building heat in his legs and foul gases in his nostrils began to take control of his thoughts. As the flames grew higher and hotter, and

the pain grew ever more intense, and the smoke grew from irritating to choking; terror and panic began to again spread through his mind like an unchecked poison.

Shortly, he had lost his ability to look to the future or remember the past. As the pain mounted to unbearable intensity, he lost sight of what was important. In frantic fervor, pain was again all he could see, and survival all he could seek. The fire attacked Joshua's body with ferocity unknown to all but a few unlucky men. Smoke burned his nose, throat and lungs; again robbing him of precious air. Stop! Stop! Oh stop! his mind cried out as the skin of his feet and legs began to blister. The hair burned away as he steadily descended into hell. He strained against the bondage, shaking to and fro with feverish violence. The constant muffled screaming past the choking rope was involuntary and beyond his control; being, as it was, but an avenue for pain seeking its own escape from a doomed body.

Stronger and hotter the fire grew. It roared through the leaves and branches overhead, billowing dark smoke high into the dreary sky; demonstrating domination of the condemned through its absolute destructive power. Joshua was on fire! The pain was unimaginable, as testified by delirious cries to the heavens. The hair of his head burned, along with his clothes. He shook, and tore back and forth in the burning rope, biting as a crazed beast at his constraints as he trembled all over. But the rope was thick and still strong, too strong to succumb to Joshua's will. It held him to burn. Like an evil embrace, it held him in submission to a supreme deadly torture; while his utterly cruel attackers mocked his agony.

Joshua sucked in toxic smoke and searing gases trying to get air. The burn on the inside reflected the vicious burning of his flesh. Merciless fire was all consuming as the raging flame enveloped, with lances of heat shooting into his core, boiling blood and igniting his emotions as well as his tortured body. The searing gases broiled his lungs, it was as though there was no air; he was breathing fire. And it burned! Oh how it burned! Joshua's world was ablaze; the fire was a supreme pain that couldn't be extinguished. Joshua's whole world was reduced to pain, but not reduced in experience, as he felt more than he had ever felt before, but it was only incredible, agonizing pain; all love, all hope, all reason was gone.

Alas, as the violent, violent end drew nigh the war for survival was lost. Fire killed the parts of the whole one by one. Cells burst from the boiling of life's fluids. Skin swelled and split in the heat; exposing fatty oils to ignition. Joshua's mind, almost dead from heat, poison gas and pain, ceased to think; it could only suffer under complete, unbearable, utter pain. Fire filled his mind and he couldn't see past it; not one thought dare even escape complete combustion. The brain was reduced to a receptor; incapable of reason, unable to contemplate or reflect. His muscles flexed and strained in defiance, his screams overpowered the roar of the fire.

His life became the fire, and a doomed resistance to the fire... until finally only the fire remained.

In the end; the agonizing, horrific end; even the resistance and pain died: life was gone. Joshua was gone. His golden voice was silenced as his body fell limp and continued to burn. All his knowledge and all of his memories and all his capacity for love and kindness burned away. As his body was consumed by the fire, so with it the love, hope and dreams of a family drifted away with the vanishing smoke. As mankind's legacy of self-righteous cruelty played on, the light of a generation was extinguished.

Humanity

As evening wore on, Joshua's wife Sarah began to worry for her husband. His wasn't the custom to be out late unannounced. The children too, grew curious, asking why father wasn't home for supper.

"Father must have got caught up in something," Sarah assured the children. "Not to worry."

After supper, Sarah busied herself cleaning their two room stone house. Samuel and Elizabeth occupied themselves outside in the twilight. Elizabeth piloted a great imaginary ship in front of the house, while Samuel ascended the magnificent central mast. Perched high in the crow's nest of the upper branches, Samuel trained keen eyes on the horizon, alert for plundering marauders and signs of friendly life. Only faint plumes of smoke from the direction of the village rose to the level of the birds and puffy clouds in the evening sky.

Time passed, and the glow of the western sun faded to black. Sarah came outside to gather the children for bed. "Any sign of the admiral, Matey?" she called up to Samuel.

"No ma'am," Samuel replied as he climbed down the tree.

"Come inside," Mother encouraged. "It's bedtime."

Elizabeth toddled forward and wrapped her arms around her mother, looking up with big doe eyes. "Can't we wait for father?"

"We'll see him when we wake up, darling," Sarah whispered, leaning over and kissing Elizabeth's forehead.

Walking back to the house Sarah stopped and looked down the long winding trail to the village. All was dark in the forest; still, she was compelled to look. As night covered the land, Sarah led the children inside and tucked them in bed.

After prayers, Sarah moved a lit lamp out to hang beside the door. There she sat to wait for Joshua.

Crickets and tree frogs called for their mates in the night, capturing Sarah's attention. Who else is calling in darkness, she wondered? For many minutes she put faces to the sounds as fireflies shown briefly bright on occasion only to disappear in the void.

Sarah was near to turning into bed herself when footsteps sounded on the trail coming nearer to the house. Joshua! Sarah thought. She felt a grand relief that he was home at last. Quickly she rose and walked to meet him.

"Where have you been?" she asked, causing the still wakeful Samuel to spring from bed and rush to the door.

"Sarah," a voice replied.

Sarah stopped in her tracks. She was startled that the shadowy figure walking toward her wasn't her husband.

"It's me, Gene," the voice came again.

Sarah recognized her neighbor's voice. His house was on the way to the village. "Hello Gene."

"I've got bad news," Gene continued. "Is Joshua here?"

"No, he went to the village this morning. What's wrong?" Sarah asked, but she grew lightheaded and didn't really want to hear the answer.

"I think I've found him," Gene reported. "Somebody's been murdered on the road to town."

Immediately Sarah's knees buckled and she fell to the ground like a severed vine, with trembling hands clutched to her face. Her shock and horror was so great that she didn't notice Samuel race past, down the trail toward town.

"Father!... Father!..." he cried; tears streaming down his tender face as he charged into the darkness with his heart on his sleeve. "Father!!!..."

What manner of idea could cause such despair?

Eternity

Searching for answers, Sarah asked why? as she looked to the vast black void of heaven speckled with the faint light of distant stars on that moonless night. Wondering if she had a purpose, or if she was as a speck of dust blowing in a cold cosmic wind, she begged God to reveal himself; or, in the alternative, reveal some just cause or meaning for her family. How, she asked, could God purposefully will harm to the innocent, or ignore their cries for mercy?

Quiet hung in the air, as no response came forth. There, exposed to infinite space with a cool breeze on her cheek, Sarah changed. As the tears fell she finally came to a realization, an awakening. Things began to make sense to her, unlike all that she was told in the past. Sarah's revelation did, however, run directly contrary to beliefs she had held deeply since childhood. Much of what she believed was, by all appearances, a grand illusion.

There in the empty night shadow some of her emotion died. Lost in the thin air was some capacity to love, and to fear. Gone was happiness and hope. All that remained, by only a tenuous grip, was resolve; resolve now inspired only by her love of Samuel, that felt like a stone in her stomach; cold, hard and detached; a force without direction.

For all of the great distance of space she beheld, there was sign of neither paradise nor magic. Like all that had come before, she saw only specks of light in a sea of black. Was it the mystery of the unknown that made room for rampant hypothesis? Or did the mystery of space demand explanation: even absolute explanations?

As long as mankind has reasoned and questioned the nature of things, people have sought to understand; or in the least, explain what's not easily known. And as until recently men could neither reach out to space nor see details beyond primitive perspective; they were left to theorize the forms, motions, substance and breadth of the overworld.

Although theories and practices often lacked both understanding and good judgment, reverence for the sky and celestial bodies is easily understood. For unlike today, our ancestors weren't isolated and insulated from their environment. When it rained they were wet, when bitterly cold winds blew, they shivered and froze; and in times of drought they died of thirst. Today people view the world through glass windows in cozy houses and cars. It's more of a rarity today to hear the rush of wind through branches reaching overhead to the dark sky and feel the chill in one's bones; but for billions of years that was the way, day after day after day.

In a world of marginal survival it's easy to see why people sought favor and were captivated by the mystery of the sky. As lord to the subjects, how great the wrath of the fickle beast has been as it unleashed howling typhoons and roaring tornados, flooding rains, searing lightning and ground shaking thunder to accompany bitter cold and sweltering heat. But, despite the thorough immersion, the universe and man's relationship to it has proven remarkably difficult to understand.

Though for most aspects of daily lives and survival it hasn't been necessary to know the secrets of space, people have systematically studied and observed the sky, notably the night sky, for thousands of years. It wasn't necessity, but curiosity and the desire to advance knowledge that led people to make some of the most basic, yet startling discoveries. Surprisingly, the shape and motion of our own world was so long a mystery, due in no small part to man's conviction of his own intelligence. How could man learn the truth of an orbiting planet when he knew he was standing on unmoving ground like he knew the nose on his face?

No matter of reason could teach so many people what they thought they already knew. That the sun orbited Earth was a fact even god was sure of. And because life giving sunshine and rain come from above and people placed their dead friends and relatives in the ground that occasionally erupted with fiery violence, it was easy to imagine a heaven above and sulfurous, fiery world of the dead below.

Generation after generation wondered what form of matter held the stars in the sky, be it aether

or crystal globes, and on what occasion the stars fell to Earth and died in a sudden, brief blaze of glory. As mankind yearned to explain those and other matters not understood, various myths evolved to explain the flat, motionless world, the underworld below, and firmament above.

As the sun is far and away the most important celestial body to earthlings, it's been the subject of a great many theories that proved false in time. One of the ancient religions that attempted to explain the universe developed in Egypt. The Egyptians believed the sun god Ra crossed the sky in a boat called a barque before entering the underworld at night to travel back to the east for the next day's journey. In similar fashion Celtic tribes of Europe applied their technology and customs to model the sun being pulled across the sky in a horse-drawn chariot.

Unlike those ideas, other celestial beliefs, deeply rooted in struggle and conquest, were more reflective of savage ferocity. Take, for example, sun worship by the Aztecs of Mexico. Aztec priests ritually sacrificed many thousands of people in ceremonies designed to feed the sun god. Without human blood, it was alleged, the sun god would die, and all earthly life with it, as happened to the four previous worlds. With knives of chipped obsidian or other stone, priests cut open the abdomens of the living sacrifices, reached inside the victims and ripped out their still beating hearts to offer to the sun.

Though the Aztecs knew nothing of the sun's life cycle, they really didn't need to, since their simple, brutal way of life had no more bearing on the sun than animal sacrifices to the god of the Jews and later Christians and Muslims. Like all of man's gods, it was a mystery whether Huitzilopochtli was a savage beast born to serve his creators, or they him. The Aztecs created a bloodthirsty god lusting for conquest by a warrior nation. But in the end, Huitzilopochtli was slain not by truth, but was conquered by a god pledged to devour all the earth with the fire of his jealousy.

Despite often repressive cultures of learning and fixation on magic, as opposed to objective observation, there was, in time, occasional, if rare, breakthroughs of discovery that eventually changed human perception of the world and man's place in the universe. A combination of curiosity and quest for privilege kept pushing people to explore and observe. Not only did they seek the truth for the sake of knowledge, they ever hoped to discover secrets otherwise unknown, and find their own destiny in cosmic alignments and constellations. If not for that desire to gain advantage people may have been satisfied with the popular theories. But, in observing and learning, it became more and more impractical to correlate fantasy and reality. One by one, implausible foundations of the massive pyramid of ideology crumbled under the weight of scientific discovery.

Through the ages numerous societies in the Middle East, India, China and elsewhere contributed to astronomy: the study of the physical universe. Though many of those societies were more interested in correlating celestial events with their own lives through religion and astrology than understanding the true functions of the universe, they nonetheless contributed to a growing body of celestial knowledge. However, much of the information they gathered through the ages was of little use at the time because they didn't yet understand what their observations revealed about space. More often they contributed to a growing base of data that could be used to chart celestial motion and track changes in time.

Chinese astronomers noted such memorable events as solar eclipses, meteor showers, and supernova explosions (which they noted as temporarily visible guest stars), going back as far as 4,000 BC. And by approximately 1,000 BC people living in what is now China had measured the angular difference between the equatorial plane and Earth's orbital plane. That difference, called the obliquity of the ecliptic, is the cause of seasonal variation as the Earth orbits the sun, although at the time the Chinese didn't necessarily realize the Earth orbits the sun. If the equatorial and orbital planes were the same, the equator would always be oriented toward the sun, so from Earth the sun would appear directly over the equator all year and there would be no annual seasonal variation of summer and winter, other than imperceptible variance due to the slightly elliptical shape of Earth's orbit.

And Babylon contributed a great deal to early space study, with their sexagesimal (base 60) number system still used in time and geometric measurements. That's the origin of today's 60 minute

hours and angular degrees, and 60 second minutes. Chaldeans of Mesopotamia also had a strong foundation of mathematics that helped contribute to their discovery that eclipses recurred in a repeating cycle known as a saros.

By observing and recording star positions over long periods of time, early astronomers noticed that most stars remained in fixed positions relative to the other stars. However, like the moon and sun, five stars appeared to move relative to the others, and they came to be called planets after the Greek term *planetai*, meaning wanderers. That relative motion was recognized as orbits by Babylonian and Chinese astronomers as early as 750 BC. And by approximately 500 BC the Babylonian astronomer Naburiannuto was predicting future positions of the sun, moon and planets.

To understand the significance ancient society associated with objects in the sky, consider that days were dedicated to the Sun, Moon and five known planets: Mercury, Venus, Mars, Jupiter and Saturn; resulting in the seven day week.

One of the most influential of ancient civilizations, the Greeks; and Hellenistic culture in general; also contributed much to the basic framework of modern astronomy. Considerable dialect in the learning institutions fostered a more scientific approach involving systematic study that developed hypotheses to be tested and debated for soundness. Some Greeks surmised that the sun, moon and stars are spheres formed by a convergence toward the center, what's known as gravity today, and some even considered the stars more distant versions of the sun. In more technical work they also estimated precession and the circumference of the Earth.

Earth's precession involves the slight change in direction of its rotational axis, like the wobble of a spinning top. And just as the Earth spins on its axis about once every 24 hours, that axis of rotation also slowly moves, or wobbles. Slight movement of Polaris, the north star, away from the north pole, and changes in the maximum and minimum inclination of the sun during summer and winter solstice over the years indicated Earth was wobbling. Modern scholars estimate the time for our planet to complete one of these cycles, or wobbles, to be about 25,800 years.

Ptolemy devised a solar system model in Hellenistic Egypt in the second century that could predict the positions of planets in the sky on any given date. It was apparently fairly accurate even though it was based on the erroneous geocentric (Earth centered) theory. Some Hellenistic thinkers, like counterparts in India, even developed theories of a heliocentric, or sun-centered, planetary system. But the concept of Earth and the other planets orbiting the sun didn't gain acceptance; partially due to the fact that the theory's detractors didn't see the shift in the alignment of the stars that they expected to see if Earth was sweeping around the sun in orbit. Unfortunately, at the time they didn't realize that the stars were much too distant to enable them to detect such minute deviation with the unaided eye.

Though they were 93 million miles short in their estimates, it's no exaggeration that a lot of people used to think that the sun barely rose above the peaks of mountains. And even when astronomers began to understand that the sun and other objects visible in the sky were a lot larger and farther away than traditionally believed, they still had little idea just how big and how far away those objects were.

But still, the concept of a stationary Earth was the greatest single obstacle to astronomical understanding. It would take serious proof for people to believe that while standing apparently still on the face of the Earth they actually traveling at a very high rate of speed. For thousands of years raged the debate of a moving Earth. And even today people are still astonished to find out how fast they're traveling. Man's home planet orbits the sun at the average rate of approximately 66,615 mph. And because Earth spins, in addition to flying around the sun in orbit, a point on the equator is moving approximately 1,040 mph due to planetary rotation alone. That velocity due to rotation, of course, decreases toward the axis of rotation at the north and south poles to a negligible amount.

The very concept of their own velocity causes people to doubt and ask how it's possible they don't notice they're moving so fast. The answer to that question is quite simple. We don't notice Earth's velocity, and our own, because they're the same, and motion is relative. The planet and

everything on it, including the atmosphere around it, is traveling together, so that it all moves as one.

We're accustomed to thinking of velocity in absolute terms, such as a 55 mph speed limit. But that speed is actually relative to the surface of the planet on which people are driving, it doesn't take into account the velocity of Earth itself. That's fine however, because motion relative to the local environment is the motion relevant to driving. In fact, all observed motion is relative, for if there is no point of reference such as the case would be in an infinite void of space, there can be no observed motion and no way of knowing speed, distance or direction. Since Earth's motion is smooth and steady, because forces affecting that motion are essentially in equilibrium, there's normally no occasion to notice movement relative to the rest of the universe except the apparent movement of celestial objects.

After the decline of Hellenistic study, astronomy work continued in Persia and India, as it had for many generations, adding to mathematical calculations and helping to keep progressive ideas afloat. Although time and vagueness of reference obscure the exact meaning of ancient writings, traditions and teachings, enough variety of thought survived the centuries to keep the fires of advancement and alternative theory stoked. Some of that knowledge was transferred to Muslim Spain, and some was picked up by traders and travelers to be diffused through Europe when the arts and sciences finally began to blossom during the period which came to be known as the Renaissance.

Through the ages revolving Earth and heliocentric models sporadically popped up in scientific circles, only to be rejected by the mainstream. Even the publication of Nicolaus Copernicus' *On the Revolution of Heavenly Bodies* in 1543, the year of his death, didn't convert the masses to believing in an orbiting Earth. Added to people's natural objection to the idea of living on a speeding planet was the Roman Catholic Church's insistence on an unmoving, central Earth.

Pope Alexander VII declared in a Papal Bull that "the Pythagorean doctrine concerning the mobility of the Earth and the immobility of the sun is false and altogether incompatible with divine Scripture" and he went on to say the principles advocated by Copernicus on the position and movement of the Earth were "repugnant to Scripture and to its true and Catholic interpretation." Well, when the Pope, the man in communication with the all-knowing, all-powerful God, gives infallible word that the Earth is indeed the stationary center of the universe, around which all else revolves, the case was closed. At least it was for the population conditioned to believe in gods and popes. But some people weren't satisfied with myth and wanted to find the truth of the matter.

When the famous scientist and philosopher Galileo Galilei, the first man to study the sky with a telescope, championed the Copernican heliocentric model, his work was added to the Index of Forbidden Books along with the work of Copernicus; and in 1615 he presented himself to Rome for interrogation by the Inquisition. In 1616 he was ordered not to advocate Copernicism as truth. But after his book *Dialogue Concerning the Two Chief World Systems* was published in Florence in 1632 he was again ordered before the inquisition and tried by the Holy Office in 1633 for heresy; the contradiction of accepted church doctrine. As a result, Galileo, a man that knew more than all the church officers combined, was made to recant his position and sentenced to life imprisonment, dying under house arrest in 1642.

Johannes Kepler, a contemporary of Galileo whose product, not surprisingly, was also banned by the church, explained planetary orbits and the attractive force of the sun in works published from 1596 to 1619. Kepler's efforts involving motion and attraction between bodies influenced the famous English physicist Isaac Newton. Like astronomers before them, Kepler and Newton applied the most advanced mathematics available to their work and significantly contributed to the field of mathematics themselves, notably in the field of calculus which Newton is credited with introducing. Newton helped prove Kepler's rules of orbital motion and further described the attractive force between bodies that he called gravity, even demonstrating its universal effect. With that revelation objects no longer simply fell down, but were attracted to other objects.

As technological advancements continued to add to man's ability to see farther and with more

precision, the astronomical community was finally able to apply the concept of parallax to measure star distance in 1838. After almost two thousand years, the proof of stellar parallax predicted by heliocentric models was observable with the aid of telescopes. Today, powerful telescopes bring phenomena billions of light-years away into focus.

Light reflected from objects all around allows man to distinguish shapes, textures and colors; but light can tell so much more. When light passes through a prism it spreads into different color bands like a rainbow. But not all bands of the color spectrum are present. When light from space is compared with charts produced by the heating of known elements it can be determined what element produced the sample light. Further study of the light can help identify the temperature, size, age, distance and even relative motion of the star or other object that created it.

Considering that visible light is but one source of astronomical information, other phenomena also provide valuable clues to the workings of the universe. Scientists study many forms of space born energy, including all the regions of the electromagnetic spectrum from radio waves to gamma rays, to aid in determining such matters as distance, motion and composition of celestial bodies. Though all of the astronomical study and effort isn't without error and contested theories, what shouldn't be doubted is the enormous magnitude of the universe.

It's with good reason people look deep into the night sky and marvel at their own insignificance, gazing upon the splendor and vastness of space knowing they'll never touch its wonders or travel its reaches. The scale of the universe is so great that this big, beautiful world with its deep, vast oceans, great deserts, huge ice sheets and majestic mountains is smaller than the persistent cyclonic storm called the great red spot in Jupiter's atmosphere, and that disturbance is about half as large as it was a hundred years ago. Jupiter itself is 317 times more massive than Earth.

As massive as Jupiter is, the sun is the dominant body of its namesake system; containing more than 99% of the matter in the solar system and being more than a million times larger than Earth. As a main sequence star, meaning it's in the long hydrogen fusion stage of its life cycle, it radiates approximately four million tons of matter into space every second as light and other energy. Given its awesome mass and prolific radiation, the sun is estimated to be about half way through a 10 billion year life span, roughly 133 million times as long as the life of a modern person. Even though some of the stars seen flickering in the night sky are larger than the sun, they're but tiny specks of light in the vast, cold, black sea of space.

The sun's light travels approximately 93 million miles to Earth (the distance varies due to our planet's slightly elliptical orbit) in a little over 8 minutes at about 186,000 miles per second. In little more than the time it takes the fastest human to run 100 meters light travels almost 2 million miles. A light-year, the distance light travels through space in a year, is about 5,879,000,000,000 (almost 6 trillion) miles. Even at such astonishing speed the faint light of Proxima Centauri, a red dwarf and the nearest star to our sun, takes more than four years to reach Earth.

Proxima Centauri and the other stars of the constellation Centaurus, and all of the stars visible to our unaided eyes belong to our local galaxy, the Milky Way, along with hundreds of billions more stars. The Milky Way is believed to span a distance of 80,000 – 100,000 light-years. And this massive conglomeration of nebulae, stars and their planetary systems, and a possible black hole, and various other bodies and matter, is but one of countless such galaxies. Scientists estimate that the universe thus far observed is 28 billion light-years across. But, regardless of the accuracy of such measurements, people will always be left asking what's beyond? With no limit to space, any exercise to quantify the bodies or distance or scale of space is an exercise in futility. What is infinite cannot be measured. And, conversely, what can be measured, like a lifespan, is limited.

For all of the apparent vast, cold, nothingness; space is animated with motion and energy. Even that which seems void, such as the space between planets, isn't entirely empty. Certainly, such space contains passing light and other energy, and possibly matter too faint to detect, through which gravitational and magnetic forces might act. Some areas of space are occupied by clouds of matter,

similar to clouds of water vapor in the sky.

Like water molecules combining and eventually forming raindrops, matter as fine as gas and dust accrete, or coalesce, in gigantic debris clouds to form objects of increasing mass. While the initial attraction may be electrical attraction on a molecular scale, gravitational pull increases as objects grow larger. As more distant matter and objects are attracted to the growing mass, gravity squeezes the internal matter, deforming and compacting it, and generating frictional heat to which may be added heat from meteor impacts. As objects reach the size of large asteroids and small moons, internal temperatures and pressures can become great enough to plasticize the aggregate matter into a spherical shape with the appearance of a dwarf planet.

For some of the largest bodies, internal pressure becomes so great that atoms in the molten core begin to fuse and trigger an expanding nuclear reaction, giving birth to a star – a great ball of luminous plasma. As stars radiate energy by fusing elements into heavier elements, they eventually reach a point where they don't have enough heat and pressure to fuse the newer, heavier elements. Some of those heavy elements, like iron, are very stable and require much greater energy to fuse together to form even heavier elements.

When the nuclear fusion reaction fades it's believed that some stars slowly burn out, while in more massive stars the force of gravity is believed to overwhelm the declining expansive forces of heat and radiation causing an implosion with accompanying shockwaves so violent they cause supernova explosions in which star matter is ejected into space. Eventually much of the matter that coalesced from the debris cloud to first form the star is returned to space through radiation or explosive force to possibly contribute to another object in the circle of cosmic life.

Astronomers and physicists wonder at the incredible forces necessary to manifest such spectacular phenomena as supernova, quasars and even black holes. Ironically, all the great bodies and massive objects of the known universe are made of tiny subatomic particles too small to see with even our most advanced technology. And all of the incredible force and energy produced by the largest, brightest stars, exploding supernova, and colliding galaxies derives from the same invisible forces of attraction and repulsion of those tiny particles. Though the variety of sub-atomic particles responsible for phenomenal cosmic power and enormous size may be quite limited, the variety of the universe is born of differing arrangements of those parts, with every combination possessing a different quality; much in the same way that different combinations of a few simple elements gives such phenomenal characteristics to life.

Can the same silent force of gravity that binds objects to Earth and holds planets in orbit grow to such incredible power that entire galaxies are pulled into black holes where even light can't escape? And could that power of contraction concentrate the matter of the known universe in one compact ball of matter so dense Earth would be pressed to the size of a pea or even a grain of sand? And could that ultramass be triggered to suddenly, somehow, overcome the squeeze of gravity in a big bang that expands and redistributes matter through space?

Those questions make for interesting speculative discussion, the answers to which are far from being understood, as forces are still a great mystery. Surprisingly, energy, or force, gives matter its form. For, what appears solid actually isn't; as even a heavy metal such as lead, a pure element, is made of those tiny particles called atoms that are said to be mostly empty space, with the radius of the electron orbit estimated to be about 10,000 times as wide as the nucleus of an atom. Furthermore, the electrons, protons, and neutrons appear to be comprised of smaller particles which themselves may not be solid.

Maybe one day people will see the smallest particles and be able to determine how much matter is the illusion of force. If subatomic particles are also hollow or partially hollow is it conceivable that the smallest, seemingly indivisible particle is nothing more than opposing forces at equilibrium which give the appearance of solid matter? Knowing the answer to such questions would have dramatic implications. However, man may never know the mechanism of invisible forces and scores of other

mysteries, and admitting what one doesn't know can be as important as what one does know.

Mother Earth

Radiometric dating indicates the solar system formed approximately 4.6 billion years ago. However, long after a massive debris cloud gradually coalesced into the sun and planets, the compacting Earth was very far from being hospitable to life. As the sun grew in size and energy output, Earth was being pummeled by meteors that added to immense heat from internal friction. It's said that molten lava covered the surface of young Earth for many millions of years in the forming stage.

Eventually the Hades-like surface of the evolving Earth cooled and water accumulated on the surface. Though wind and radiation may have been extreme, and the atmosphere may have lacked significant oxygen, conditions for life were improving. With abundant elements and water warmed by the sun, the stage was set for an amazing odyssey of chemical development, that would one day produce the only known meaning in our limited observance of the universe. The tremendous variety in the world today illustrates the myriad of possible atomic, molecular, compound, mixture and environmental combinations that shape elaborate and very different forms from the same basic building blocks.

A simplified view of atomic structure is represented by a nucleus of protons and neutrons that's orbited by electrons. A negative charge of electrons and positive charge of protons is reportedly responsible for attraction and repulsion among atoms. Hydrogen, the lightest element, usually consists of one proton orbited by one electron. Occasionally the proton is joined in the hydrogen nucleus by one or two neutrons, and those isotopes of hydrogen are known as deuterium and tritium respectively.

And hydrogen, the simplest element is also believed to be the most abundant element in the universe, just as it's very abundant on Earth, though mostly in the form of compounds with other elements. While people are familiar with the characteristics of gaseous hydrogen at room temperature and atmospheric pressure, it can also take the form of metal in low temperature and high pressure environments, like that believed to exist within the giant gas planet Jupiter, for example.

The formation of water molecules provide a simple example of how atoms, such as hydrogen and oxygen, combine to form molecules and release energy at the same time. Two molecules of hydrogen, consisting of two atoms each, combine with one molecule of oxygen, also containing two atoms, to form two molecules of water, with each molecule consisting of two hydrogen atoms attached to one oxygen atom. When hydrogen and oxygen atoms bond they fit together in less space than they occupied separately, making compact molecules that weigh more than oxygen or hydrogen, and releasing excess energy from smaller electron orbits as heat. The liberated energy is actually so significant that the combination of hydrogen and oxygen is used as rocket fuel.

Going back in history, some societies actually believed that fire was alive. They saw that fire did work and that it transformed matter; both the matter of its fuel source and substances affected by the heat energy and smoke it released. They also saw the birth and death of fire as it sparked to life and when it was extinguished.

At the time it wasn't understood that what they were witnessing was a chemical reaction; the rapid oxidation of a fuel substance resulting in heat, light and chemical compounds of drastically altered property. Oxidation and reduction: common transformations that result in change of electric charge, affect many kinds of substances, and can occur with many substances, such as iron in the process is known as rust. And in providing our own internal energy and growth the processes are known as respiration and metabolism.

While humans are dependent on free oxygen in the air to combine with fuel molecules like glucose and amino acids to release energy, some life forms, such as bacteria and yeast utilize a less efficient metabolism that, although depending on oxygen containing compounds to break down, doesn't require the input of free oxygen. Despite the amazing complexity of modern animals like humans, and actually owing to that complexity, animals are utterly dependent on a great number of

environmental conditions.

As illustrated by the story of Joshua earlier in this book, people can't survive for more than a few minutes without breathing free oxygen – though some exceptional individuals can hold their breath for considerably longer. Man's persistent reliance on oxygen, a simple gas essential to some highly complex life functions, demonstrates both man's basic chemical nature and the fantastic realities of material animation known as chemistry. Common elements like oxygen are found in astounding numbers of combinations that give form and substance to the world.

Carbon, like oxygen, is another element vitally important to life, and it's believed to appear in more compounds than any other element on Earth, with nearly 10 million combinations. Carbon containing compounds are so prevalent, and carbon is so versatile, that it's found in all known living things, giving rise to the expression "carbon-based life."

Hydrogen, added to oxygen and carbon combine to form many types of biological compounds including sugar, cellulose, lignin, chitin, alcohol, fat and ester. Added to those elements, nitrogen allows formation of alkaloids; and sulfur, combined with hydrogen, oxygen, carbon and nitrogen can create amino acids and proteins. Deoxyribonucleic acid (DNA) and ribonucleic acid (RNA); the complicated genetic codes for reproducing organisms; consist of only phosphorous, sulfur, nitrogen, carbon, oxygen and hydrogen. Together, these compounds are some of the essential substances of living organisms.

Carbon not only occurs in a huge variety of combinations with other elements, it also represents how environmental conditions affect substance formation, with pure carbon appearing in such diverse forms as graphite and diamonds. Graphite conducts electricity and is the soft gray/black substance used as "lead" in pencils. While diamond, in striking contrast, is brilliantly clear, doesn't conduct electricity, and is the hardest known natural substance.

And that dramatic difference is due to the high temperatures and pressures deep underground that transform the loose mass structure of graphite into a dense cubic structure that provides both exceptional hardness and the fascinating ability to pass light. Though natural diamonds are rare and quite expensive relative to graphite and coal, today diamonds are made much more abundant through synthetic mass production; and some mature star cores are even thought by some to be solid diamond. In fact, the high quality and abundance of diamonds produced in modern facilities is causing the mystique of rarity so long prized by the public to slowly lose its luster; an environmentally beneficial side effect.

For all of the elemental potential it possessed, however, young Earth was vastly different than what we're familiar with today. The planet looked barren, with a lonely quiet, save for the whistle of wind, splash of water and other elemental noises. For a long time rocks lay plain and dull, splashed by sterile waters. Though like its neighbors, barren Earth had yet to give birth to life, it did have amazing potential. There was tremendous potential for wondrous, new life. In the water and the soil and the sunlight there was unusual possibility.

Like jigsaw puzzles being pulled together by invisible forces, elements formed various combinations through internal attractions, with the aid of external stimuli; and as individual combinations produced or consumed energy at the molecular level they also made possible a growing range of alternative combinations. And like falling dominoes, particular events triggered further actions in chain reactions of growing duration. Action at the molecular level occurring constantly inside animate beings work together like cogs in extremely complex machines to enable the activity of life. But even when chemical combinations and reactions produce large amounts of energy or perform other substantial resource conversions, they may not produce repeatable or controlled results. Many action sequences "play out" like a dying fire when the necessary combinations of inputs and circumstances become unbalanced, but certain complex molecular sequences arrange to form circular systems that result in consistent sustainable actions or production based on persistent resource availability.

And billions of years ago, when Earth was still barren and young, with the passage of time, organic molecules came together in such specific combinations to form those self replicating processes. Eventually, amino acid chains capable of reproducing themselves evolved to form the foundation of genes: contributing enormously to the growth, development and diversification of life. It's amazing to think the simple mixing and grouping of atoms that formed molecules as plain and abundant as water has led to the marvelously sophisticated process of precise replication found in animals as diverse as butterflies and whales. Even in this so-called information age the connection's so easily missed between the astounding complexity of factors and conditions necessary to life, and the astounding magnitude of molecular combinations formed every second of every minute of every hour of every day of every one of the last four billion years.

That's how long it's taken for basic molecular combinations and chemical reactions to reach the level of intricate, interwoven, complementary relationships that make the complexity of life possible today. And much of the fascinating work of cellular replication is made possible by a special enzyme called DNA polymerase that splits the two helical strands of human DNA, found in the individual cells of the body, and proceeds to work down each strand, driven by simple molecular attractions and energy transfer; attaching a compliment to every one of the three billion nucleotides in each strand to produce two complete sets of DNA folded into tightly-packed chromosomes. After DNA replication, the cell divides in two, with each of the newly formed cells containing a full set of DNA.

And the amazing DNA polymerase enzyme is just one of thousands of different kinds of enzymes constantly performing tasks throughout the body. They're the little assembly machines that keep us going. Complex protein structures, made from 100 to as many as 1,000 amino acid molecules joined together in such a way to allow them to break or combine specific bonds in other molecules, they perform such vital tasks as building cell walls, making ATP fuel molecules out of glucose, assembling hormones, and other critical production work.

Not surprisingly, enzymes themselves are produced by a complex enzyme called the ribosome; which reads messenger RNA strands that are copied from little segments of the DNA helix called genes by the RNA polymerase enzyme. Once the requisite amino acids are assembled, the new enzymes are released to drift in the cell's cytoplasm, ready to perform their highly specialized tasks with the specific molecules and polymers that they interact with. And all of that intricate work is automatically guided in orderly fashion by the three billion character DNA sequence. However, those complex automatic cellular and molecular processes can be altered by even small chemical changes, and the sophistication of chemical processes is so great that what seems a simple cure for one ailment can fatally upset the balance of life in another way.

What is life anyway? Does life extract minerals from its environment and grow, like a crystal in a cave? Does it move and do work, like fire and wind? Is the combination of nitrogen with other elements, in the form of amines, life? How about the combination of amines and carbon, oxygen and hydrogen that form amino acids: fundamental building blocks of life? Is man making life forms by making amino acids for industry? And what about long chains of amino acids called proteins? Are they living?

That question becomes more intriguing when one considers that prions are disease agents believed to simply be forms of protein that cause transmissible spongiform encephalopathies, a group of incurable, fatal diseases that include scrapie in sheep and goats, Creutzfeldt-Jakob disease in humans, and bovine spongiform encephalopathy, commonly known as mad-cow disease. The fact that the contagious, causative agents of such deadly diseases are considered forms of protein, gives cause to ponder the definition of life.

It turns out that life is, rightfully, difficult to define. Some common definitions include criteria such as metabolism, growth, reproduction; and responses to stimuli or adaptation to the environment, that originates within the organism. Most of what people consider life meets those criteria. But some

simple living organisms don't. Since viruses, for example, are considered neither cellular nor possessing of internal metabolism, are they living? They attach to cells, inject their DNA, and replicate themselves with the host cell protein; often causing the host cell walls to burst; killing the cells and releasing the replicated viruses to repeat the cycle of parasitic reproduction and destruction. Viruses are deadly assassins: responsible for some of the more horrific historical afflictions of humanity that include smallpox, AIDS, SARS, influenza, polio, Ebola, meningitis, measles, hepatitis, rabies, yellow fever and others. Yet, they consist of little more than DNA or RNA inside protective coatings with projections capable of penetrating host cells.

And viroids are plant pathogens that are even simpler organisms; consisting of a short stretch of RNA without the protein coat typical of viruses. But clearly, as we would commonly want to kill those relatively simple entities, they are considered to be alive.

The difficulty people have had in assessing the origin of life results from misconceptions largely attributable to those old simplistic mythological perceptions we invented. People have traditionally looked for that WOW! moment; a specific place and time that life appeared. They were conditioned to expect one clear act of creation. But there is no such moment. There is no step in the long journey from atomic attraction to the complex life forms of today that can be defined as the beginning of life.

Regardless of the amount of complexity and evolutionary time invested, all life consists of repeating, controlled chemical reactions. Biological evolution is a long story of chemical evolution; the slow, random combination of more and more chemical processes resulting in ever more complex structures and activities. The development of life forms is gradual, with every advancement being just one small step in the four billion year journey. There simply is no origin of life to be found in that steady process of molecular arranging and system growth.

Steady as day passing into night, life spread around the world, adapting to different conditions and continuing to grow in complexity, ever building on past accomplishment. Tiny microbes too small to see, colonized the vast oceans as continents came together, broke apart, and migrated around the globe over time. From Earth's youth until now, as long as there's been life on Earth, microbial life like bacteria has been and will continue to be part of it. Because simple life has fewer requirements, those requirements are amply satisfied wherever complicated organisms flourish, even on and inside the more complicated organisms; such as the bacteria present in human digestive tracts. Of the trillions of cells in the human body, probably more than half are foreign cells like bacteria.

Because the simplest organisms lack durable hard substances like bones, teeth and shells, they leave little lasting evidence of their presence. Most soft bodied creatures are easily recycled and don't show up in the fossil record. So, little is known about the proliferation of the earliest microorganisms. But, whatever the sequence and circumstance of growth and development during Earth's first billion years, fossils indicate simple colony forming, bacteria-like organisms were present by 3.5 billion years ago.

Even though they may not fossilize well, microbes are as tough as they come. Today many species of tiny organisms, like strains of bacteria, are so robust they're called extremophiles. These microbes live in soil and water, under sheets of ice in Antarctica and Siberia, in pressure and heat hundreds and thousands of feet underground, under the astounding pressure at the bottom of the Pacific ocean, in the corrosive salt environment of brine lakes, in hot springs and thermal vents where temperatures range as high as 250° F (121° C), and even in areas with super-high levels of radiation that would quickly kill a person.

And extreme tolerance isn't the only characteristic that enables hearty life forms to flourish. When conditions are too harsh some organisms have the ability to go dormant until conditions improve. Many species of bacteria, for example, are known to turn into spores and enter a state of suspended animation when conditions are too inhospitable to sustain growth. Scientists have reported reviving bacteria that had been dormant for many millions of years.

Such reports dramatically illustrate the chemical nature of the animation called life. The molecular processes of life can come to a standstill, and as long as no processes of decay are able to act on the organism, the normal life functions can be restored when the organism is once again exposed to favorable environmental conditions. And the concept of suspended animation leads many to wonder how others might benefit from similar periods of dormancy.

But, suspended animation aside, there's much that can be learned from the simplest creatures. They have been and continue to be instrumental in the proliferation and continuation of life on Earth. Some of the pioneer life forms such as photosynthesizing cyanobacteria are even believed responsible for causing dramatic environmental changes when Earth was one to two billion years old, including producing prodigious quantities of oxygen through the process of capturing the energy of sunlight known as photosynthesis. That major adaptation is believed by some to have significantly altered the life balance of the planet because many of the organisms that thrived up to that point in time aren't believed to have been capable of tolerating free oxygen in the atmosphere and dissolved in the water.

After the appearance of the first cell-based organisms such as bacteria, simple single-cell organisms continued to proliferate and develop complex and diverse mechanisms of survival for about 2 billion years before some evolved into multicellular organisms, according to the fossil record as understood so far. The complexity and time investment in the intracellular foundation of complex organisms is so great that life may have grown no larger than a single cell for half the time it has existed on Earth. During that time tissues and structures were developed for growth, protection, feeding, locomotion, reproduction and other tasks necessary for even larger, more complex organisms.

Though tiny and simple by people's customary perspective of reference, single-cell organisms are marvels of progress. Even tiny organisms such as modern bacteria have DNA consisting of millions and millions of base pairs of nucleotide molecules. And it's that kind of complexity that allows gene sequences to guide the development of a thousand different enzymes, consisting of various long amino acid combinations, to carry out a single bacteria's growth, feeding, division and other functions. Even the sophisticated ordering of the 10's of trillions of cells in humans, is guided by the 3 billion pairs of nucleotides in DNA that reside in tightly packed chromosomes within the tiny individual cells.

Even tiny organisms have fascinating characteristics, such as the interesting variety found in single-cell organisms like euglenids, with similarities to both plants and animals. Some euglenids feed by phagocytosis, meaning they extend their cell wall around their food source, in a manner similar to bacteria, to form a food vacuole where the food is digested. And other euglenoids contain chloroplasts that capture energy directly from sunlight, as plants do.

In fact, many scientists believe that green plants resulted from a symbiotic relationship between chloroplast containing organisms and phagocytes that enveloped them but didn't digest or otherwise fatally harm them. And there's much more to those unusual euglenids that contain plant-like chloroplasts; they also have animal-like eyespots that detect light, and primitive muscles for movement; resembling as such, tiny plants that can wiggle toward sunlight.

By 1,200 million years ago multicellular algae was present. Though algae would later give rise to seaweed; leaves, roots, flowers, seeds and other organ structures characteristic of vascular plants were a long time from being realized. And within a few hundred million years later, soft-bodied, worm-like animals began to develop primitive central nervous systems. Sponges too, developed near the same time period; apparently descended from colony forming choanoflagellate protists.

Sponges are considered animals even though they lack many of the traits commonly associated with animals. For example, they don't have a nervous system or internal organs like most animals. Also lacking are circulatory and digestive systems, as fuel and waste products diffuse directly through the walls of individual cells from and to circulating ocean water. Although sponges reproduce sexually, combining genes of two parents, they also reproduce by budding and can regenerate missing parts. And their lifestyle also differs significantly from most animals in that young sponges are mobile in the

larval stage, but soon attach to objects where they remain sedentary for the rest of their lives.

Another evolving marine animal, the jellyfish, had more of the complicated systems people are accustomed to seeing in animals, such as muscles, a digestive system, and a neural net. However, unlike many modern animals, the jellies' digestive systems had only one opening for both food intake and waste expulsion, and the neural nets weren't connected to a central brain. Sponges, primitive worms, and jellyfish were joined by ancient arthropods, the ancestors of crustaceans, insects and arachnids, that also appear in the fossil record of the period.

Beginning about 542 million years ago species evolution and differentiation accelerated in what is known as the Cambrian explosion, with a widespread and diverse population documented in the fossil record. Because the trilobite was relatively large, populous and its shell fossilized well it's probably the most well known animal from the time of the Cambrian explosion. Life was still relatively small and primitive, and Earth still looked barren by today's standards but by the end of the Cambrian explosion all of the major animal body types seen today had formed.

Worm-like creatures continued to progress, developing hearts and gill-like structures to compliment their growing central nervous systems. Some of that line sired little fish-like animals with notochords that would eventually develop into backbones, and those little worm-fish gave rise to later generations of fish and other vertebrate animals including amphibians, reptiles, mammals and even birds. Every animal with a backbone alive today, and others like the woolly mammoth and dinosaurs of years past may owe their existence to those little prehistoric worm-fish.

Generations of fish continued to diversify, as plants, descended from green algae, moved onto land, along with fungi. And finally, after billions of years of watery evolution, the first animals to move onto land appear to have been arthropods like millipedes. Today the vast majority of animal species, about 90% of the total, including crustaceans, arachnids and insects, are members of the arthropod family, those possessors of jointed exoskeletons. And so, with the expansion of plants and then arthropods, colonization of the great land frontier, so bleak and barren, so sun-baked and windswept to that point, was underway en masse less than 500 million years ago. The nichiation of land settlement had begun.

Subsequently, under the shimmering surface of seas and inland waters, generations of fish and other marine animals continued to spread out, seeking their own place in the world. While the ancestors of squids and swordfish prowled the open oceans, man's ancestors were living on the fringe, exploring the boundary between water and land. Pushing along the shallows with paired fins and gulping air to supplement oxygen-poor waters, the tetrapod ancestors of humanity and other non-arthropod land animals prepared for a move out of the water, away from predators and competition, but into a world of harsh extremes.

As tetrapods evolved into amphibians, their stout fins were slowly transformed through many, many generations into legs; their air sacs developed into lungs, and they moved onto the land. But they weren't yet ready to move away from water. It would be up to amphibians' reptilian descendants to develop amniotic eggs and skin tough enough to tolerate dry conditions away from water; enabling them to follow plants and arthropods further inland.

With basic cell and body structures well developed, competition in the waters, and vast lands to populate; rapid and vigorous evolutionary change ensued. Animals adapted to the proliferating plant life by consuming more vegetation and growing ever larger. The arthropods, being first to land and also first to take to the air, took advantage of the wide open space and abundant resources. Change was happening fast, and by 280 million years ago insects were living large, as exemplified by the mighty Meganisoptera dragonfly, with an astonishing 2 foot wingspan. However, even they pale in comparison to the impressive reptiles that came to dominate the land, patrolling vast forests of club moss and tree ferns.

By 150 million years ago giant dinosaurs were common. They would grow into the lumbering, towering, fearsome giants that live on in modern imagination. The ground shook under the strain of

hundred-ton giants that stood above the trees and pushed them aside like so much tall grass. Hearts filled with terror and creatures great and small fled the scene of mighty tyrannosaurs gashing beasts as big as elephants with teeth the size of daggers in bites so powerful they would split today's mighty alligators in half.

In a diverse and contradictory world, while dinosaurs as big as tractor-trailers were gorging on lush greenery, plants produced the first fragile flowers, ancestors of those brilliantly vibrant gems of today's dazzling landscapes. How exquisite it would be to witness the marvelous ecology of the first slight flowers and the greatest behemoths to ever walk the planet. Of course, people weren't there to witness it, but mankind's reptilian ancestors were, along with other lesser-known dinosaurs. They may have been minor players at the time, but in the distant future some of the prodigy of those small dinosaurs would have their turn.

Before small, feathered dinosaurs evolved into birds that would touch the sky, descendants of other small dinosaurs were giving live birth and producing milk to nourish their young. In the shadow of their Earth-shaking relatives, the first mammals were putting on fur and regulating their body temperatures. Mankind's roots run deep on mother Earth, just as all life does. Humanity's small ancestors ran with the giants, and witnessed the flowering of a planet.

Man's humble ancestors diverged from the ancestors of mice about 75 million years ago. Shortly thereafter in geologic time, about 65 million years ago, the Cretaceous-Tertiary extinction occurred. That most famous extinction event, that wiped out the large dinosaurs and changed the face of life on Earth, was one of about seven major extinction events. Though numerous factors can contribute to mass extinction, many scholars believe the Cretaceous-Tertiary extinction event was caused by weather changes triggered by a massive asteroid impact.

It was likely fortuitous for man's ancestors that survived the great dying off that they were small and could regulate their body temperature, because the impact dust cloud is believed to have resulted in wintry conditions that would have caused widespread hypothermia, disease and starvation. Such a sudden, dramatic event, though devastating, would have been similar to, but more traumatic than, other weather extremes like ice ages that have periodically put a big freeze on the planet. Over Earth's long life, due to continental drift, variations in solar output, and changes in Earth's inclination and distance from the sun, all the continents have experienced both tropical sunshine and polar ice coverage at some point in time.

Whatever the cause of the Cretaceous-Tertiary extinction, the sudden collapse of the reptile reign created opportunity for mammalian expansion and ascension. Though the evolutionary process is slow, diversity of size and lifestyle blossomed, and mammals grew to fill niches formerly occupied by the dinosaurs. While man's little ancestors were searching trees for insects and fruit, the ancestor of horses was the size of modern foxes and elephants were smaller than modern cattle. Even the ancestors of whales and dolphins were still spending time on land. But what may be even more strange to modern senses is the idea that grasses hadn't yet evolved; according to fossil records they didn't appear until about 35 million years ago. Still later, as the slow march of time continued, about 30 million years ago, New World monkeys and Old World primates diverged, perhaps separated by an expanding Atlantic ocean as South America slowly drifted away from Africa.

The parade of life has continued to give rise to exceptional and interesting specimens around the world. Today's variety of plants and animals is as diverse and fascinating as any time in Earth's history; ranging from tiny colonies of microbes inhabiting deep ocean vents and the digestive tracts of animals, to the giant redwoods of California blocking the sun as they tower to heights greater than 370 ft. Regardless of sun or shade, some animals including bats and dolphins can "see" in total darkness thanks to their extraordinary abilities of echolocation. From polar bears braving icy arctic winters and giant squid in the cold, dark, pressure of ocean depths, to cacti flowering in desert sands; plants and animals have steadily spread to cover much of the planet's surface.

Now animal life is more affected by other animals than by climatic factors; and some species

that have come and gone still provoke awe in imagination. For example, the Indricotherium, a relative of the rhinoceros that lived in Mongolia, was possibly the largest land mammal to ever live, demonstrating that Mongolia was once a land of abundance. And the Americas were home to Phorusrhacidae, called the “terror bird,” a massive brute of a predatory and scavenging bird that stood 8ft tall; and Argentavis magnificens, believed to be the largest bird to ever fly, with a wingspan of nearly 23 ft. Numerous other impressive creatures lived in what has only recently been called the New World by man; such as Megatherium americanum, a sloth the size of a modern elephant; and Glyptodon, an armadillo-like behemoth that tipped the scales to the tune of about 1700 pounds.

Of course, the oceans have also seen a lot of variety through the years. It wasn't all that long ago that giant sharks called Megalodons, as long as busses, with teeth the size of small hands, patrolled the oceans. Since that time however, some air breathing mammals, the blue whales, have grown to dwarf any fish in the sea and all the other animals ever known to have lived, including another odd aquatic mammal that looks like a cross between a beaver and a duck – the platypus, equipped even with poisonous defensive spurs on its back legs.

Whether animals are as different as poisonous sea snakes and soaring eagles, or as similar as chimpanzees and humans – sharing about 99% of our DNA; they're all products of this wonderful, fragile, intricate web of life on Earth that started so inconspicuously those billions of years ago.

Universal Truth

In four billion years, the line of descent that has become animals has progressed from random atomic attractions to extremely intricate and complex life forms possessing magnificent abilities to move, gather food, avoid danger, build shelter, find mates, and interact socially. And all of that activity is directed by elaborate nervous systems that typically have specialized nerve centers called brains that process and record sensory system input and direct action ranging from breathing to coordinated movement.

Brains consist of some of the most complex matter we've ever observed. They're so remarkably proficient that the tiny brain of a mosquito coordinates all its activities; including finding food, shelter and a mate; and detecting and avoiding physical threats, such as the swat of a hand, while stealing a meal. And all of the activities a mosquito engages in is orchestrated by a brain smaller than the head of a pin.

Today, humans are relatively brainy, having slightly larger brains than other animals in proportion to body size. Not coincidentally humans also have greater reasoning ability. And it's not surprising that people have large brains, after all, man's intellect allows him to rule the world. Of course, that hasn't always been the case. Long ago, there was something that triggered unusual mental development in man's ancestors, and people have long wondered what that impetus was. Was it something in the water, was it stone tool usage, or was it a spontaneous genetic mutation? The answers to those questions are no, no and no. Many have suggested that tool usage required additional thought, spurring increased brain activity and growth. And that's partially correct, but not in the manner of tool many have suspected.

Together with close relatives like chimpanzees, humans have throat and mouth structures that allow a broad range of vocalization, and in turn, a very large range of oral communication. After separating from their primate cousins, man's ancestors developed progressively more elaborate vocal communication. Of course, mankind was by no means the first to communicate. Language such as the song of a bird, the deep bellow of a bullfrog, and chirps of crickets are just a few examples of the varied communication all around us.

Animals the world over have long communicated by using visual, aural, chemical and physical cues. Honeybees even appear to use a complicated form of dance to communicate within their complex society. And in the vast, open oceans, songs of whales can be heard for miles as they talk, or sing, to each other. Like the songs of birds, people don't know what whales are saying; if they're communicating detailed information or just rudimentary identification and emotion. But some animal language, like the warning growl of a dog, while not communicating a great deal of information, is so clear it's unmistakable.

Today people communicate with many animals, though mostly with companion animals. Seeing-eye dogs are but one example of animals that understand some of what we say, and they, in turn, can communicate warnings of danger and other useful information back to people. It's childishly simple for humans not to readily realize the degree of meaningful communication in the broader animal world. Collectively, however, humans have raised the art of communication to a higher level.

And, as with many advancing skills, language greatly expanded man's capabilities, including more mental processing accompanied by increased brain size. Not only does language require significant mental effort to use, language is the switch that turned the brain "on," it was the impetus of higher thinking. Language is nothing less than the key to reason and the very form of complex thought.

That may sound like an incredible assertion, but it's quite true and simple; without language mankind would have very little reasoning ability. To understand a mind without human language is to understand the mind of an infant or another animal. Human thought is actually represented by internal verbalization. People think by talking to themselves. We ask ourselves why and how, and then answer the question in our minds. Language enables another layer of mental activity beyond emotion,

monitoring and acting. It would be fascinating to observe a real-life Tarzan; someone that grew up without contact with other humans; if for no other reason than to gauge how much reasoning capacity is now genetically imbedded in the human mind or developed in the womb, and how much results from the environment in which we're raised.

From before birth human brains are processing electrical impulses into memory. That is, nerve connections are formed in the brain that correspond with specific sensory inputs. People learn through memorization and mimicry. Language is so ingrained in personal development that it actually forms the thought process. How long can one go without talking to one's self? A reader might repeat that question, taking time for the words to impart meaning. Can one think about something without talking to himself, solve a problem without verbalizing it internally, or perform any manner of reasoning without saying a word in his mind? Upon examination, it becomes apparent that human intellect is synonymous with language. Without language, people couldn't solve complex problems, nor collaborate with others to share knowledge and overcome even greater challenges.

Early humans weren't first to communicate, they weren't the first to develop a verbal language, but by advancing it to the point of deliberate reason they set themselves apart. It wasn't the use of physical tools that distinguished humanity; it wasn't bipedalism or opposable thumbs that gave rise to the kingdom of man. Language, the source of man's prosperity, power and glory, is the difference between people and our fellow earthlings. Mankind didn't ascend to the throne by using a simple stone tool like an otter cracking a shell. To point, a spider's web is much more exquisite and sophisticated than an early human tool such as a club or hammering stone. What man invented was the inventor's tool, it was the creator's vision, even quite literally the lord's law. With language, man had a tool that could create other tools, like a flowering vine bearing fruit and reproducing, growing ever larger. With language man has conveyed the most powerful tool of all, the object that both enslaves and liberates, the idea.

Man's ability to unite a nation abodes in the realm of the power of language. So too does the ability to add to the sum of knowledge. Individuals share and combine their knowledge with language. And generation after generation leaves an ever-growing foundation of knowledge for the future to build on. Idea upon idea has been added to man's pyramid of knowledge; layer by layer, day by day, and year after year. The process of making fire is a power of language. As is the role of the wheel, the turn of the plow, the strike of the hammer, the temper of steel, the flight of rockets, the splicing of genes, and even the formidable power to destroy much of life on Earth.

Like the first bird soaring on the wind, or the first tetrapod climbing onto land, humans may be first to reason with language but will be joined by others. Time permitting, others will understand as we do. Time permitting, they will. But that precipitates a big question: how long life can continue to advance. Man's greed and cruel nature threaten to undo hundreds of millions of years of development. Of course, possessing language doesn't guarantee equality, but possessing language would allow the transmission of knowledge that could give rise to equality. However, like any tool, language can be used for good and it can be used for harm. What gave man dominion over the Earth has enabled people to rule with a wicked hand. Sadly, man has been a very unjust lord. Woe to the rest of life on Earth that man has been first to master technology.

Even with advanced language and reasoning abilities, humanity's nervous system is very similar to those of the rest of the animal kingdom. And one of the primary functions of any nervous system is the sensing of injury to the body. Other animals feel pain as people do; unfortunately, they almost invariably feel much, much more pain. In everybody from worms to whales, and from elephants to ants, pain hurts.

The fact that pleasure is good and pain is bad, is an undeniable universal truth; and pleasure gives life meaning. Therefore, helping others is right and hurting others is wrong.

There we have it, the keys to life can be summed up in a couple of sentences. And helping, not hurting, our fellow Earthlings, should be the first thing that we teach our children. Because everybody

deserves to be treated as they treat others, at least, as they treat the innocent. So justice is simply to **Do Unto Others As They Do To The Innocent.**

Why is that not common knowledge, and why don't we live like that? Because people don't want to do what is good and fair, people don't want justice. At heart we're still an exceedingly selfish species, and selfishness is the root of evil. Even billions of years of evolution haven't overcome our cruelty, nor the greed underlying our motivation. In this age of information, with the wealth of the world's knowledge at our fingertips it's a condemnation that not only do we not want to do what's right, the average person doesn't even know the difference between right and wrong. And the fact that people go their whole lives not knowing what should be obvious and they should have been taught from the earliest age; that helping others is right and hurting them is wrong; is due to pervasive, even institutionalized effort to rationalize greed and cruelty.

True worth is one's effects on others; the way a person treats the innocent says all that's needed to know about him or her. Only those that see the world through the eyes of others can see the truth, the rest are blinded by their own perspective. And just as we have a responsibility to keep the innocent from harm, there is no greater accomplishment than bringing happiness to those that deserve it.

Infancy

Comparisons between the leg and pelvic bones of humans and near relatives such as chimpanzees and gorillas illustrate how human skeletons evolved to accommodate upright walking. Paleontologists have found those skeletal traits in African fossils dating as far back as five million years. Archaeologists also report human ancestors using stone tools as long as two million years ago and using fire for a million years. These attributes, along with graves indicating people were deliberately burying their for hundreds of thousands of years indicate a long history of high level of reasoning.

Right along with language and reasoning, human curiosity and imagination was also growing. At the dawning of their rationality, humans found themselves born into an already mature world. They had no way of knowing all that had come before them during Earth's four and a half billion years of change and development. They didn't know their past or what the future might hold. The world was full of phenomena they didn't understand; phenomena that begged explanation. And how could so many questions be left unanswered?

Ancient people questioned the reason for rain, and the cause of lightning and thunder. They wondered at the nature of air, how it could be invisible yet vital to life itself, and how it could even be dangerously powerful at times. People observed the raging battles between fire and water, curious whence each derived its special power. They marveled at the explosive force of volcanoes unleashing the destructive might of the underworld; and they were captivated by even less exotic occurrences like the eerie thrill of strange sounds in the night. But more than wondering how, people wondered why; being absolutely fascinated by mysterious motives that might be at the root of all that was manifest around them.

Suspense of that which stalked them from the sinister black shadows held their attention. Fierce monsters lurked behind their backs and ducked around corners, growing more gruesome and frightening with the passage of time. And people were always scared of that perpetual stalker, the inevitable, grim, lonesome fate called death. The inglorious, rotting end; that thief of futures and robber of memories sent shivers down spines and raised hackles with frustration. Ancient people sought answers to the unanswerable; seeking power over the reaper. Just as it's still felt today, something must be done, they figured, to live forever. Amidst the hope and anxiety, a powerful force was evolving inside people; the potent magic of imagination.

Men applied their creative process to seeing the invisible and finding those answers that couldn't be found; attempting to explain such things as aging and disease. Through the power of wishful thinking they hoped to combat ailments like blindness in old age that stole away sight and left victims mere shells of their former selves. And they were desperate to understand mysterious, invisible diseases that crippled and caused excruciating pain. But, of course, death was the most unfair of all. It stole all that they had built, all that they had worked for; wiping away a lifetime as though it never even happened, as though every hard earned moment was for naught. It imposed a terrible fear; and dread, and grief of mourning.

Lacking even a basic understanding of the complex physical processes of nature and life, people turned to their imaginations for salvation. Imagination and their own experience were the weapons with which they tried to fight uncertainty and the cause of those mysterious things that caused them pain. The despair and desire to overcome misfortune and death were so great that mankind was vulnerable to false hope and unfounded speculations of anyone claiming special knowledge. Predictably, they drew on the experience of their own lives and social interactions to put a human face, or at the least, a human conscious on the mysteries around them. In fantasy, they imagined things out to get them; they believed themselves to be the target of willful harm during bad times, the recipient of intentional blessings during good, and always the center of the universe. Natural processes were distorted into supernatural phenomena.

Eventually, everything many weren't smart enough to understand became the work of magical beings, until a spirit or god was behind every event and action, and lurking behind every tree and under every stone. But the more things didn't go their way, the more they became obsessed with placating their invented gods to curry favor and avoid vengeful wrath. Most regrettably, their weakness for false hope aided their drive toward tyranny, hostility and villainy; and far away from objective inquiry.

Along the way, humans continued to migrate after animals they preyed upon until finally beginning to settle down in permanent or quasi-permanent villages about 10,000 years ago around the Fertile Crescent, in the crossroads of Europe, Asia and Africa near the Mediterranean Sea and Persian Gulf. The domestication of animals and grain crops helped liberate people from perpetual travel in search of food. Even though crop failure and other factors such as disease outbreaks and weather extremes repeatedly displaced settled societies, the trend of continual habitation persisted. With less time spent traveling, hunting and seeking shelter, people were able to devote more time to improving their farming practices and standards of living. Permanent villages attracted more and more people, allowing them to share knowledge and collaborate on work projects. Famine was far from defeated, but storage of grain and keeping of animals allowed for a more consistent food supply, so time that would otherwise be concerned with securing the next meal could be applied to other tasks.

Over the next few thousand years the future really started to take shape. Time savings and production multiplying factors, along with the growing pyramid of human knowledge, and new thought foci helped people of the permanent settlements to drastically increase the rate of invention. By 7,000 BC people were beginning to work copper ore in Anatolia. And by 6,000 BC the pottery and wool textile trades were being practiced in Catalhoyuk in what is today Turkey. Catalhoyuk was a large, advanced village for its time, with decorations such as murals and bull horns adorning walls that might not seem out of place in some modern homes. The architecture did have at least one feature that seems odd to today's sensibilities, that is, most of the single-room dwellings had no windows or doors. They were earthen structures constructed abutting one another, and the only passageway was a hole in the ceiling accessed via a ladder.

It was an unfortunate truth then, as it is now, that success breeds envy and invites attack. Jericho, the most famous of the early towns, and argued by some to be the oldest continuously populated town in the world, was walled for protection from invaders, as were many contemporary cities. For almost as long as people have been building cities, they've been building walls as protection from invasion. On a more positive note, however, agricultural settlements were established in the river valleys of what is today Egypt and Iraq by 5,000 BC with crops even being irrigated to increase yield and stabilize the food supply. Life was showing signs of relaxed normalcy, with decorated pottery and other housewares becoming popular in Egypt during the period. And by the 5th millennium BC the march of progress was picking up speed with many significant inventions including bronze casting; and introduction of the plow, the wheel and the sail, and even more importantly, improvement of language with the introduction of writing systems in Sumer and Egypt. The Sumerians even developed printing cylinders used to mass produce impressions in clay tablets.

Toward the end of the millennium a ruler sometimes referred to as King Menes overran his competitors and united Egypt. Somewhat owing to isolation by water, hills and desert Egypt forms a logical political unit around the lower Nile Valley, and with a few notable interruptions Egypt was governed from that point forward as a unified nation for about 3,000 years. Today ancient Egypt lives on in memory as the richest, most lavish, and most interesting civilization of the time, and perhaps of all time. Kings were absolute rulers of Egypt and eventually came to be known as pharaohs. And that position was usually inherited, though lines of inheritance were frequently broken. Successions of kings of the same family were known as dynasties. One of those kings, the last ruler of the Sixth Dynasty, Pepi II, is reported to have reigned longer than any other monarch in history, 94 years, from the age of 6 to his death at the age of 100. Pharaohs were revered as living gods and commanded enormous allegiance from their subjects; collecting vast royal treasuries, and having elaborate public

works constructed in their honor. Some of those astounding construction projects are considered among the most significant of all time, including such magnificent works as the Great Sphinx and pyramid complex at Giza.

Not every large construction project was an astounding success, however. About the time of pyramid construction on the Giza Plateau, the Egyptians built the world's first large man-made dam, across the Wadi Al-Garawi river. But, the dam was made of rubble overlain with stone, and the middle of the dam was quickly washed away, as it wasn't protected from the tremendous erosive force of the flowing water. Khufu's Great Pyramid, on the other hand, completed about 2560 BC, is truly a building marvel; massive, precise and enduring. At more than 4500 years old, it remains one of the great construction feats of all time, and along with similar Egyptian work, was unparalleled during the period, predating the Coliseum in Rome by 2500 years.

Each side of the square stone base is about 755 ft. long, and the massive stone structure currently stands about 455 ft. tall. The pyramid was a little wider before the outer casing stone, that had previously been loosened by an earthquake, was removed to be used in other construction projects in the 14th century CE. The pyramid would have also been about 25 ft taller when the enormous capstone, which is also now missing, was in place. Either way, with or without a capstone, the pyramid was the tallest building in the world for about 4,000 years, though the similarly impressive nearby Pyramid of Khafre is slightly higher owing to the fact it resides on higher ground.

As enormous tomb monuments, the Great Pyramids are but a few examples of preoccupation with death and religion in Egyptian culture. They were not, after all, great houses for this life, as would be more practical, instead they were created as houses for an afterlife that never came. Art and public monuments predominately reflected religious purpose. Prior to written history, Egyptians buried their dead in fetal positions facing west where the sun traveled to the land of the dead after passing the land of the living, though little else is known about religious beliefs prior to the advent of writing.

Over the centuries people of a united Egypt developed a large group of deities with a great variety of traditions. Gods were invented in different towns and cities independently, and evolved to suit the particular hierarchies and needs of the different areas they were introduced. Obviously, as father of the country and living divinity, the roles of the gods as established by the king, or pharaoh, took precedence, but didn't entirely replace local perceptions. Furthermore, perceptions varied greatly from king to king, and were heavily influenced by the balance of power among the cities.

At least four creator gods, and likely many more, flourished in Egypt through the ages; Amon-Ra, Atum, Khnum, and Ptah. Amon-Ra was himself a compilation of the fertility god, or god of invisible power, Amon, with the sun god Ra. In addition there were many creation stories including a god-bearing lotus and a divine egg from which the gods descended. In total there were too many combinations of gods and their roles and relations to keep track of, but one of the most important gods was Osiris, with one tradition relating how he was killed by his brother Seth. When his loving wife Isis found him, she beseeched other gods to bring him back to life. When the other gods did intervene Osiris was resurrected, becoming the important and powerful god of afterlife in the process.

For various reasons, a disemboweled, desiccated body was considered better than dried bones, or no body at all, so mummification came to traditionally be considered essential to the afterlife. And even the practice of placing worldly goods with the bodies of the deceased predated written records. Those worldly goods might include anything believed to help the dead in the afterlife, ranging from treasure to more practical items like cookware and furniture. The practice of placing treasures with the bodies of dead kings lead to the risky but potentially lucrative business of grave-robbing, but well concealed tombs and tomb entrances also made possible the recovery of fantastic archaeological treasures in modern times like that of the boy pharaoh Tutankhamun, discovered by Howard Carter in 1922.

After the Old Kingdom, Egypt entered a state of decline known as the First Intermediate Period from 2200 – 2060 BC. It was Mentuhotep, king of Thebes, that reunited Egypt in 2060 BC, thus

beginning the Middle Kingdom; a period of stability often referred to as the “golden age” by later Egyptians. During this time Egypt also flexed a little muscle outside its borders by annexing Lower Nubia to the south, and marching northeast through Palestine and into Syria, bringing the Egyptians into closer contact with the prosperous culture of Mesopotamia.

About the time of great pyramid building in Egypt, Uruk, in what is now Iraq, was ruled by king Gilgamesh (27th century BC). Gilgamesh is a name best known from the later Sumerian tale the Epic of Gilgamesh. In the story, Gilgamesh faced challenges from the gods with his friend Enkidu, a former god-turned-man, similar to the later Greek Heracles (Hercules). One challenge for Gilgamesh was a great flood. The flood story in Gilgamesh was, however, a copy of an even earlier flood story in the Epic of Atrahasis.

The Gilgamesh author or authors, or oral storytellers as the case may have been, copied the Atrahasis flood story verbatim with some minor exceptions inserted for dramatic affect. The earlier story was that of a devastating river flood, a common concern on the Mesopotamian flood plain where sudden mountain snow melt brought surging floods with little warning. But the Gilgamesh author sought to awe his audience by changing the river flood into an incredible flood of the whole world. In so doing he demonstrated how elaborate myths evolve, growing more bold and unusual with the passage of time.

The Epic of Atrahasis explained the birth, or creation, of the gods and the creation of humans to aid the gods. In a now familiar story later passed down by numerous Mesopotamian cultural traditions such as Jews, Christians, and Muslims, the gods became dissatisfied with the humans they created and cursed them with plagues; finally bringing about a great flood to punish the humans.

Uruk was a local kingdom along the Euphrates river in an area that was actually only later called Mesopotamia by the Greeks, meaning land between the rivers. The Tigris and Euphrates rivers, like the Nile in Egypt, provided water and fertile ground in an arid land, so permanent settlement in Mesopotamia was concentrated near the rivers. Mesopotamian agriculture came to rely on irrigation, which required the cooperation of large groups of people to dig canals and manage the flow of water. By 3,000 BC a society known as the Sumerians had established a number of walled cities, including Ur, Uruk, Umma, Lagash and Eridu. The cities and surrounding territory that comprised Sumerian city-states occasionally waged war with each other but remained largely independent for centuries until Lugalzagesi, the king of Umma, conquered his rivals and unified Sumer.

Lugalzagesi’s military success was ended in the 23rd or 24th century BC, however, by Sargon of Akkad. The Akkadians were Semitic-speaking people that lived just north of Sumer. Sargon expanded on Lugalzagesi’s success and came to rule all of Mesopotamia and much of present day Syria toward the Mediterranean Sea. A tale of Sargon’s birth will sound familiar to those acquainted with the story of Moses in the Bible, as Sargon was also said to have been placed in a basket and set adrift in a river for adoption.

The Akkadian Empire that Sargon founded fell after little more than a century, and Nammu of Ur consolidated control of a large part of Mesopotamia. The dynasty he established developed some of the first broad codes of laws. Those law systems were copied and modified through the ages, even as rulers and dynasties came and went. The most famous of that series of law codes was that of Hammurabi, a Babylonian king that inherited a kingdom of a handful of cities in the 18th century BC. Hammurabi began a series of conquests, perhaps spurred by conflict with the kingdom of Elam located east of Mesopotamia, just inside present day Iran. Hammurabi’s considerable military and political victories expanded his Babylonian empire to near the extent of Sargon’s Akkadian empire.

Like most early civilization, all of Mesopotamia was dominated by religion. Ignorance in the ways of the world begat institutions of superstition. Priests were very influential in society, and placation of the many gods was a large part of everyday life. And not quite the same, but similar to Egyptian belief, kings were professed to derive their authority from the gods and were representatives of the gods on Earth. As in Egypt, various gods held sway from city to city and ruler to ruler.

Hammurabi, like others before him, tore down some gods and elevated others. In particular, he retired En-Lil and replaced him with his son Marduk, the favored king of Babylon, tearing down a temple to En-Lil and dispatching his priests in the process. By expanding Marduk's domain, Babylon became the religious center of the empire.

One reason why the world remembers Hammurabi's now famous legal code, is because it was written in stone. It was carved into a large beautiful polished stone called a stele. Being written in stone for prominent display lent a sense of consistency and certainty to the law. However, while having laws written in stone did discourage arbitrary rulings and punishments to some degree, there was seeming contradiction among some of the laws and not surprisingly, many were unjustly harsh.

As for his part, Hammurabi believed all of the praise and exaltation that was heaped upon him. A fascinating trait of human psychology is the tendency to feel special, like the chosen one, whether a person's status is king or servant. People have a penchant for believing that they're here for a higher purpose and that they'll certainly bear witness to unprecedented achievement, such as the final triumph of good over evil. That inherent bias and inability to understand another's perceptions is a standard handicap of the human race. Individual comprehension and appreciation of the truth is severely limited in individual perception.

Those lacking the maturity and wisdom to extract their emotions from decision making and look at the larger picture as uninterested observers are prone to delusion. Every man, from the mightiest king to the most humble slave, is apt to believe what he's told, because that forms a large part of the experience which shapes his beliefs. The top of his code stele shows Hammurabi receiving the laws from the sun god Shamash. The inscribed preface to the laws states that he was chosen by the gods and called by Anu and Bel to bring about the rule of righteousness in the land, and sent by Marduk to rule over the land. Fulfiller of the prediction of Hallab; mighty son of Sin-muballit; the royal scion of eternity; the mighty monarch, the sun of Babylon, whose rays shed light over the land of Sumer and Akkad; the king, obeyed by the four quarters of the square, flat world; Beloved of Ninni, was he. The preface, as well as the epilogue, is a lengthy tribute to Hammurabi's great deeds, wisdom and close relationship with the gods.

The reader may question how ancient people could be so gullible as to believe a king was divine, or in direct communication with the gods. But in all this time, has mankind really matured mentally? After all, we still refuse to accept that all the gods, spirits, ghosts and demons are just figments of our juvenile imaginations. And could it be that ancient kings and pharaohs actually believed they were divine? What kind of idiot could possibly believe he was part god? we might ask. That... will be a question to ponder as some among us converse with god.

As it was, Sumerian and later Mesopotamian cultures, exposed, as all early civilizations were, to extremes of weather such as droughts, floods and sandstorms, were obsessed with learning the intentions of their gods through divination. Killing animals such as sheep and examining their organs was one method employed to see the future, while other seeings, such as deciphering patterns of smoke or oil in water, caused no inherent harm. Dream interpretation was another way to gain mystical insight. The crowning achievement of the divining arts however, measured by continued popularity, may well have been astrology. Horoscopes based on heavenly influence, as determined by star positions, are still widely used even today, even if faith of efficacy has diminished by some degree.

Divine judgment was employed by the second of Hammurabi's laws, along with the deterrent effect of severe consequence. Clearly advantage under this law would be with strong swimmers, as it reads:

If anyone bring an accusation against a man, and the accused go to the river and leap into the river, if he sink in the river his accuser shall take possession of his house. But if the river prove that the accused is not guilty, and he escape unhurt, then he who had brought the accusation shall be put to death, while he who leaped into the river shall take possession of the house that had belonged to his accuser.

The 247 laws on the stele give valuable insight into the priorities of Babylonia almost 4,000 years ago. Orderly society was much more valued than individual lives, as indicated by the exhaustive list of capital crimes. Stealing and receiving stolen or lost property; buying from a son or slave of another man without witness or contract; harboring a runaway slave; owning a tavern in which conspirators met but weren't delivered to the court; improperly constructing a house which falls in and kills the owner; stealing the minor son of another; not paying a mercenary that took one's place in the army; and convincing a barber to cut the sign of a slave on a slave not to be sold were all acts for which the prescribed punishment was death. Another deadly transgression for the lesser sex as ancient men deemed them was nothing more than entering a tavern. If a "sister of god" opened or entered a tavern, she was to be burned.

Even being the son or daughter of one who transgressed the law could result in capital punishment. If a poorly constructed house caused the death of the owner's son, it wasn't the builder who was to be put to death, but his son. Similarly, if a free-born woman was struck and killed, the daughter of the person that struck her was to be executed. And if a free-born prisoner of debt died from maltreatment, the son of the merchant was to be killed. Of course, the adolescent mind is preoccupied with sex, and adultery was just one of multiple sex-related capital sex offenses. If a man's wife was surprised with another man, both were to be tied and thrown into the water. But in that case the husband could pardon his wife, and if the man was one of the king's slaves the king could pardon the slave. While adulterers were being drowned in the river however, incestual relations were punishable by burning.

Even as harsh as archaic law was, it was equally discriminatory. Women were purchased as wives from their fathers and had little right to hold property; even being treated as property themselves, commonly being sold into slavery to satisfy a debt. But more discriminatory than laws of gender were those of class. A classic law declared that whosoever put out another man's eye, his eye was also to be put out. However, if the injured party was a freed man, i.e. former slave, the punishment was one gold mina. And if the injured party was a slave of another man, the penalty was one-half the slave's value.

Other trades people, in addition to homebuilders, were also held to high, even unreasonable, standards. Not only was the man who convinced the barber to cut the sign of a slave on slaves not to be sold, without the masters' consent, to be put to death, the barber was to have his hands cut off. Physicians, also, were subject to having their hands hewn off for accidental death or eye loss during surgery. And for their part, children were expected to treat their elders with respect, as consequences were very high should they forget their place. Life might continue for a boy that struck his father, but it would be a hard life; one of contempt, regret, and despair. For, if he didn't succumb to the infection and shock of having his hands cut off for striking his father, who was certainly free to strike him, he'd be forever disadvantaged and challenged to the point of regretting his own birth.

The sons of paramours or prostitutes received even more unwanted attention in the code. Should one deny his adoptive father or mother by saying "you are not my father or you are not my mother," his tongue was to be cut out. And should the son of a paramour or prostitute desire his father's house, and desert his adoptive father and adoptive mother, and go to his father's house, then should his eye be put out.

Although the punishments were often severe, the code did afford some protections for victims and for the accused. Defendants were allowed to call witnesses on their behalf. And Judges shown to be in error in a written judgment, were to pay twelve times the fine ordered in the case, and forbidden to judge in the future. In cases where robbers weren't caught, he who was robbed could claim under oath how much was lost and the community would compensate for the stolen goods. There were also other instances of community insurance for losses of similar nature. And all of these strict laws provided significant incentive for the community to maintain order and harmony.

Such a wealth of written, or even oral, tradition has been lost from the prosperous civilization

that once inhabited the island of Crete near Greece in the Mediterranean Sea. The lost culture is referred to today as Minoan from the legendary king Minos of later Greek literature. The Minoans were non-Greek speaking people that settled on Crete as early as 2,000 BC. Theirs was a prosperous culture with considerable wealth that was apparently the result of extensive trading activities. Minoans constructed elaborate palaces replete with bathrooms. But the Minoans disappeared from history about 1450 BC for unknown reasons, though one possible cause would be conquest by the Mycenaeans of mainland Greece.

Indo-Europeans had settled in Greece by 2,000 BC and the culture of the Mycenaean Greeks flourished from about 1600 to 1100 BC. The mountainous terrain of Greece contributed to growth of isolated cities, though the Greek city-states, or poleis, may have organized themselves into confederacies at times to provide for common defense and other shared objectives. One of the more powerful cities of ancient Greece, and the namesake of the Mycenaean period was Mycenae, located on the southern peninsula of Peloponnesus. Trade and military conquest helped bring wealth to the Mycenaeans, trading throughout the Mediterranean. They also conquered foreign lands and brought back slaves from overseas. But it's unknown how much fact, if any, may have been buried in the later celebrated story by the famous writer Homer of the capture of Troy in Asia Minor by the Greeks under King Agamemnon. Equally mysterious is the cause of Mycenaean decline, as the writings and public works of affluence faded away with the start of what's been called the Greek Dark Ages.

Back in Egypt, the Middle Kingdom fell into disarray. Near the beginning of the 18th century BC a group of Semitic-speaking people called the Hyksos migrated into the Nile delta. They brought with them new technology such as composite bows believed to have originated as far away as Central Asia, the horse drawn chariot, heavy swords, and bronze working skills. The Hyksos came to dominate Egypt with their superior technology, but after the Egyptians absorbed that technology they used their superior numbers to defeat and expel the Hyksos. It was Ahmose I that reunited Egypt and established the New Kingdom that lasted from 1575 to 1086 BC. And Thutmose III (1480 – 1450 BC) campaigned abroad repeatedly, invading Libya to the west and going as far northeast as the Euphrates river, again placing Palestine and Syria under Egyptian control.

On the religious front, Pharaoh Amenhotep IV tried to impose monotheism on Egypt by closing temples of other gods and announcing the sun god Aton as the only god. Amenhotep IV even took the name Akhenaton, meaning it is well with Aton. But after his death in 1347 BC the monopoly of Aton also passed away, as the other gods were restored by Akhenaton's apparent young successor Tutankhamun, known as the boy-king Tut. Egyptians believed in divine order through the goddess Maat who was known for truth, justice and harmony. Part of that divine order, of course, was the earthly hierarchy of pharaoh, priests, nobles, commoners and slaves. This was a classic case of using hope for eternal life and fear of a supernatural wrath to help conform the masses to a pyramid social caste system where few reaped the rewards of the labor of the masses. Egyptians were however, unusual in the amount of equality demonstrated between the sexes; unlike many contemporary and subsequent cultures, women were treated as near equals to men. With one female, Hatshepsut, even becoming pharaoh.

While Amenhotep IV was preoccupied raising the status of Aton throughout Egypt, Palestine and Syria were being rested away by the Hittites. The Hittites were Indo-European speakers that are first known from archeological evidence from Asia Minor (modern Turkey) dating to around 1750 BC. The Hittites, under Suppiluliumas (1380-1340) had defeated the Hurrians, who peaked about 1500 BC as the kingdom of Mitanni on the upper Euphrates that controlled Syria. They used their advanced iron armament to fight the Egyptians and gain Palestine as well as Syria before signing a nonaggression treaty with pharaoh Ramses II. Just a century and a half later a people of unknown origin called the Sea People attacked the Hittites and the Egyptians. Although Egypt managed to hold the Sea People off, the Hittites were toppled by the mysterious invaders. Little is known about who the Sea People were, where they came from, or even where they went, but some scholars believe the Philistines that settled

along the Palestinian coast were descended from the Sea People.

Another group that came to inhabit Palestine was a Semitic-speaking tribal group that migrated from Mesopotamia known as the Hebrews. Being nomads, they moved often in search of suitable pasture for their herds. While many people were settling in permanent locations, becoming associated with the land they occupied and building material wealth, the Hebrews were drifting about the countryside in search of grazing land. They looked with envy on fertile lands already occupied, and longed for a place of abundance they could call their own. The most valuable belongings they had were their traditions and identity.

But they weren't in Palestine long before they were on the move again in search of green pasture. Drought drove them south into Egypt, where, according to tradition, they were well received. But in time the Hebrews fell under the pharaoh's yoke as slaves. And when, after some generations, they regained their freedom, they slowly made their way through the Sinai looking for a land of their own, not finding it until they again reached Palestine, the land their elders spoke of. Once back in Palestine, they fell into conflict with the Philistines, who may have also been under pressure from the Phoenicians that lived up the coast of the Mediterranean north of the Philistines. The Phoenician cities of Byblos, Tyre and Sidon had also been sacked by the Sea People that attacked the Hittites and Egyptians. But after rebuilding, with the Hittites diminished, the Phoenicians expanded their prolific trading activities. They were able to continue exploiting the famous cedars of Lebanon to trade, construct buildings and make the ships that carried them all over the Mediterranean, and as far as the west coast of Africa, and Britain to the north.

The Phoenicians didn't just trade with foreign populations, they also colonized their vast trading network, establishing cities in Spain, Sicily and Sardinia. It was Phoenicians that established the city of Carthage in Africa, which would grow to be the center of an empire of its own one day. The Phoenician home port cities were very important centers of trade, due in no small part to their location as gates from the Mediterranean to Mesopotamia and beyond, toward the orient. The port city of Byblos came to trade in so much Egyptian papyrus that biblos eventually became the Greek word for book.

But the Phoenicians left a greater legacy than their trading and their colonial cities, they developed an alphabet of letters that represented sounds instead of objects or actions like pictographic symbols. The strength of pictographs is also their weakness. Pictographs become easier to recognize and less mistakable as more detail is added to them, but that detail comes at the price of time and labor. Perhaps more importantly, there are far too many words to represent with individual symbols. There are nearly a million words spoken in the English language, many of them borrowed from other languages, and many different forms of the same words of course, but who would want to represent all of those words with different individual pictographs?

Because human languages are primarily verbal, it made sense to represent the sounds of language. The Phoenicians used twenty-two letters to represent the sounds of their words. English users received a modified twenty-six letter version of that alphabet via the Greeks and then Romans. By comparison, the Mandarin Chinese writing system uses about six thousand symbols. To overcome the cumbersome nature of the pictographic script, a phonetic alphabet known as pinyin has been developed to teach pronunciation to Chinese children and as a means of writing the language using a computer keyboard.

The Hebrews, who used a writing system similar to Phoenician, were governed by elders known as judges while fighting the Philistines prior to Saul becoming king in 1020 BC. After being defeated in battle by the Philistines, Saul is said to have committed suicide by falling on his sword. Under the rule of one of Saul's former lieutenants, David (c.1000-971 BC), the Hebrews were able to defeat the Philistines. In the process, they conquered the city of Jerusalem, which had been settled long before the Hebrews inhabited it, and established it as their capital. David's son, Solomon, reigned from 971 to 931 BC, overseeing trade expansion and a building boom. But after Solomon's death tribal

conflict separated the young nation in two. Ten tribes formed Israel in the north, with their capital at Samaria. And the two remaining tribes formed Judah in the south; retaining Jerusalem as their capital.

The kingdoms co-existed for two centuries; much longer than they were together as a unified, sovereign nation; before the circular life cycle of empire swept them up again. The kingdom of Assyria, another Semitic group with its capital at Nineveh on the upper Tigris river loomed ever larger on the horizon. Since its founding in 1360 BC, Assyria had, at different times, been a part of the Akkadian, Babylonian and Hurrian empires.

The Assyrians gained their independence when the Hittites destroyed the Hurrian kingdom of Mitanni. And they didn't take long to assert their freedom by building their own empire at their neighbors' expense. Assyrians were brutal warriors that inflicted terrible carnage on their defeated foes. They, at times, exemplified the dark, loathsome side of man. One of their kings, Ashurnasirpal, described burning enemy prisoners; cutting off their hands, noses, and ears; gouging out their eyes; and even burning the young vanquished civilians to their hideous deaths. His evil was so great that it seems he took pleasure in flaying rebels and spreading their freshly peeled skins on the walls.

Well beyond merely having a reputation as savage fighters, the Assyrian military was also highly organized and adaptable. The army included a pioneer corps that performed advanced operations, facilitating army movement by building roads and bridges. Other innovative military assets were interpreters and a network of intelligence officers. Theirs was also a very well equipped army; being one of the first armies with iron weapons that were stronger than the bronze weapons common at the time; and heavy siege engines for overcoming city defenses. Complimenting such breadth of function, was clever generalship that made the army capable of fighting guerrilla warfare, large battles and laying siege to cities. Their organization also extended to logistics, as they maintained strategic bases to control subject lands and react to threats with speed and power.

Other aspects of the government were also organized and efficient like the military. Assyria maintained a large system of roads throughout the empire and thousands of years before the Pony Express even had a network of postal stops serviced by a relay of horsemen. Conquered peoples were exiled to various parts of the empire to supply labor and prevent organized revolt. That movement of citizens to different parts of the empire combined with relocation of soldiers to bases near the frontiers to help spread the culture that the Assyrians adopted from Mesopotamia. In Assyrian culture, the elitist kings had absolute power, but were officially regarded as vice rulers to the god Ashur.

Certainly they weren't without weaknesses however, these included relying on astrological omens to direct military campaigns and other government affairs. Not surprisingly, conquest and exploitation was attributed to the will of Ashur. That campaign of conquest brought them into conflict with the Hebrews in the 8th century BC when Assyria attacked Israel and threatened neighboring states. By 722 BC they had destroyed the Israeli capital of Samaria and scattered the ten northern Hebrew tribes. Some of the Israelis took refuge in Judah, but many of the rest were dispersed and those that remained were absorbed in Assyrian society, and the little nation of Israel disappeared.

Not long before the ten tribes of Israel were lost to history in 753 BC, tradition has it that to the Northwest, across the Mediterranean, a small town named Rome was founded near the southern edge of Etruria on hills overlooking the Tiber river in what would later become Italy. An old Roman tradition holds that the town was founded by the twins Remus and Romulus, orphaned as infants and nursed by a she-wolf. Such was the fanciful imagination of early civilization. And while Rome was still a small village, the southern Hebrew kingdom of Judah was forced to pay tribute to Assyria, but Assyria declined before the Hebrews of Judah were assimilated as well, and in 612 BC the Chaldeans of Mesopotamia joined with the Medes of what is now Iran to overrun the Assyrian capital of Nineveh.

Nebuchadnezzar II (605 – 562 BC), of Biblical renown, son of the Chaldean king Nabopolassar that helped conquer Nineveh and established a new Babylonian monarchy, was the ruler that finally defeated Assyria. Nebuchadnezzar also defeated Egypt, and took control of Palestine and Syria; destroying Jerusalem in 586 BC. When Nebuchadnezzar destroyed the capital of Judah, he forcibly

relocated many of the Hebrew citizens of Judah, known as Jews, to work in Babylon, as he rebuilt a grand Babylon, with Marduk still the ruling deity.

With the wealth of irrigated agriculture, bustling industry based on abundant cheap labor and control of important trade routes, the ruler of Babylon spent lavishly. Most famous of Babylon's building projects of the period were the famous Hanging Gardens, terraced in such a manner they were said to appear floating like clouds of vivid colors. After Nebuchadnezzar's passing, a successor king, Nabonidus, tried to replace Marduk as the supreme god with the moon god Sin.

But the Chaldean kingdom came to an end in 539 BC when the Indo-European speaking Persians from Iran, led by one of the most revered leaders of all time, Cyrus the Great, marched on Babylon and took control of the city with little resistance. Cyrus showed restraint in occupying the city and the Babylonians were said not to resent the change of leadership due to their contempt of Nabonidus. As part of his policy of diplomacy, Cyrus even restored the god Marduk to prominence. Significantly in history, Cyrus also ended the Babylonian captivity of the Jewish people by letting them return to Judah; going so far as allowing them to take some of the sacred items Nebuchadnezzar had seized when he sacked Jerusalem, for use in rebuilding Jerusalem.

Cyrus, who ruled Persia from 559 – 530 BC had overthrown the Medes, located north of Persia, in 559 BC after about one hundred years of Mede rule. The Medes had already absorbed much of the culture of the Persians when they controlled the Persians, so there was little adjustment necessary when the Persians ascended to power. But with Media defeated, king Croesus of Lydia in Asia Minor sought to retake some territory the Medes had taken from Lydia. Cyrus marched an army west to engage the Lydians, and after defeating king Croesus, the Persians took control of the Lydian capital of Sardis in 547 BC. But, they weren't finished yet, Persia next assumed control of all Asia Minor, by defeating the Greek colonial cities of the Ionian coast. Then Cyrus expanded his territory eastward through the remainder of Iran and into India, before capturing the Chaldean empire of Mesopotamia.

What made Cyrus unusual among conquerors was that though he continued to conquer more territory, he was tolerant of the traditions of the new provinces; and chose to appeal to the customs of the various cultures, aligning himself with their leaders, priests and gods, even encouraging the rebuilding of their temples. In that manner he came to be known as a respectful, merciful ruler. In time the Jews, Babylonians and Medes were all said to have revered him as a father figure and legitimate ruler of their people. In Babylon, Cyrus was recognized as the one chosen by Marduk to restore the order corrupted by king Nabonidus and lead as a righteous ruler. Jewish praise for Cyrus, the man Babylonians hailed as a divine king, can be found in the Bible where Cyrus was recorded as having been anointed and led in military conquest by the god of the Jews: later to become the god of Christians and Muslims. All told, many religions flourished in the new Persian empire, from Ahura Mazda of Iran to Zeus of Ionia.

The spreading Persian empire also fostered increased cultural and trade exchange in a flowering of thought and goods. But, quite probably the best of Cyrus and Persia's contributions to society, then and now, was a public stand against slavery, or forced labor. Cyrus and future Persian kings not only ended forced labor in vast regions, they paid people to work building new public monuments and palaces. Though Cyrus was said to strive for a peaceful society, war was still a way of life in human civilization and Cyrus never ceased trying to expand his empire, or, as has been speculated by some, to defend the borders of the flourishing empire. In 530 BC he met a typical end for a king, or any army member of the day, when he was killed in a battle with the mysterious Massagetae nomads to the north or northeast of Persia.

Little is known about the Massagetae, our only account comes by way of the later Greek historian Herodotus. And his information was derived from Persian or other sources that may have been fragmentary and speculative at best. For their part, the Massagetae left no known literary traditions themselves. Herodotus wrote that the Massagetae were herdsmen that didn't practice agriculture and worshipped a sun god. In the future the drama of clashes with nomadic horsemen

would play out over and over again in Europe and Asia. The Massagetae were claimed to have sacrificed horses, on which they were heavily dependent, to their sun god; and even to have sacrificed old men and feasted on their grisly flesh. It's been said that practice was a more glorious way to die than to slowly succumb to the afflictions of old age.

As recorded history is often corrupted by exaggerated oral traditions, mistaken beliefs, and biased perceptions of those telling the stories, it's hard to know how much truth the account by Herodotus may contain. According to his tradition, Spargapises was killed in an earlier battle, and his mother, Tomyri, queen of the Massagetae, had the head of the slain Cyrus placed in a skin filled with blood. Upon which she announced the fulfillment of her promise to give Cyrus his fill of blood for his incursion of their land and killing of her son.

Even without Cyrus, however, Persia continued to expand. Cyrus' son Cambyses invaded Egypt and took the title of Pharaoh in 525 BC. But after the death of Cambyses, the common curse of ascension led to a struggle for power and civil war. Following the death of two of Cyrus' sons, Darius emerged as the new king in 521 BC and would reign until 486 BC. Under Darius the empire was extended to the Indus river in the east and Thrace and Macedon in southern Europe. At its height, the Persian Empire was the largest and most diverse the world had ever known. Before the age of Greek and Roman empire, the Persians greatly expanded and improved infrastructure in the vast domain under their control. Showing good foresight, Darius even had a canal built connecting the Red Sea and the Mediterranean via the Nile river, thus enabling ships to sail from Persia to the Mediterranean.

Personally, Darius appears to have been monotheistic, believing in the Zoroastrian god Ahura Mazda, but, like Cyrus and Cambyses before him, he was tolerant of other religions and also successfully courted the favor of religious leaders. But, empire is a fragile balance, and Darius had to suppress numerous revolts throughout his domain. Still, it seemed that he had the world by the tail, at least until history took another detour and the Greeks on the Ionian coast of Asia Minor rose in revolt in 499 BC. Aided by mainland Greeks, they invaded Lydia and burned the capitol of Sardis. Unexpectedly, retaliation toward the Greeks would not end well for Darius and the Persians, for the Greeks had been experiencing a cultural awakening and had made large advances in technology and strategy since the Persian Empire had reached Macedon.

Hellenization

The epoch after the decline of the Mycenaean Greeks known as the Greek Dark Age gave way to renewed prosperity and flourishing of Greek culture. Part of that social awakening involved the first Olympic Games, which were held in 776 BC. Also in the 8th century BC the Greeks did something that would have a more profound effect on world history when they adopted the Phoenician alphabet, replacing their own Linear B script.

Two of the more popular symbols of the end of the Greek Dark Age are the epic poems the Iliad and Odyssey attributed to the father of Greek literature, Homer. Those great literary works were reported to be based in part on actual events, but whether they were is a matter of debate. Debate notwithstanding however, as stories believed to represent an era of virtue, personal devotion and triumph, they served to inspire and somewhat model future generations of Greeks.

As the earliest surviving Greek literature, little is known about the origins of both poems, and it's been speculated that they were oral traditions that had been passed down through generations before ever being written down, and some have also suggested that numerous authors contributed to the work. While there's no compelling evidence to lead to such conclusions, there is reason to note widespread social interaction and cultural diffusion, as Odyssey bears a number of parallels to the Mesopotamian adventures of Gilgamesh who also visited the land of the dead on his journey to the end of the Earth.

As it was for almost all ancient peoples, life was often a violent struggle for the Greeks. Sometime around 740 BC the Greek city-state of Sparta invaded Messeni, taking control of the land and forcing the locals to work the land as serfs, allowed to keep only a portion of their harvest. Land was becoming increasingly more valuable on the small Greek peninsula due to overcrowding of a growing population. Accordingly, many Greeks began to move to trading posts and colonies, much as the Phoenicians had done before them.

As a consequence, Greek expansion resulted in the founding of many new cities around the Mediterranean. Some notable Greek settlements include Byzantium at the mouth of the Black Sea, Syracuse on the island of Sicily, Naples in Italy, Marseilles in France, and other cities in locations including modern Spain and Africa. Founding of the Greek colony of Cumae in Italy may have predated the founding of Rome. In later times central Italians referred to southern Italy as Magna Graecia, or Great Greece.

Trade wealth and slave labor helped allow for the employment of some Greeks in increasingly specialized vocations. Military service became the chosen vocation of war-obsessed Sparta. There, civilization revolved around military training, with boys leaving home to live in military schools at the age of seven and enrolling in the military at the age of twenty. Spartan men lived in military camps until the age of thirty when they were allowed to live in their own homes, though they continued to serve in the military until the age of 60. It seems a shameful waste of life to be engaged in military pursuits from the age of seven to 60, but that was the culture for people that lacked the good sense to live in peace.

Athens also became a powerful city, but it was much more involved in leisurely and scholarly pursuits. In its golden age, Athens came to be the world center of arts and science. Freedom of thought and expression fostered personal growth far beyond the usual mind-numbing supplication of gods and kings. Wisdom and enlightenment made modest gains as people moved away from blind obedience. Painting, sculpture, literature, and theater all flourished in Athens. So too did philosophy and science. It was in Greece that a distinction was made between philosophy and science, with science beginning to be bolstered by proof of theory through reproducible experiments. And it was probably in Greece where critical peer review became widespread through published findings and institutes of learning.

One of the more famous philosopher/scientists was Pythagoras who was born on the island of Samos in the 6th century BC and later moved to Croton in southern Italy. Though he did believe that the

order and action of the universe was derived from mathematical truths, he may or may not have contributed to the invention of the Pythagorean Theorem, a mathematical formula for length relationships among sides of right triangles that was named in his honor. Knowledge of the three-four-five length ratio of right triangles was known to early Indian, Chinese, Mesopotamian and Egyptian mathematicians, in many instances well before Pythagoras' time.

Pythagoras is an interesting historical figure because he represents some of the diverse character of the ancient world. His temperament was one of harmony. At his monastic style school he taught peace and respect for others. While philosophers were seeking the origin and meaning of life, the ways of the universe and man's place in the world, Pythagoras also contemplated the cost of another life. And he realized the cost was everything to the dying. At the Pythagorean school all of the full-time students were vegetarian. Pythagoras also admitted females into his school and viewed men and women as equals. He wasn't the first to be considerate and recognize the equality of life, but his views were definitely contrary to popular opinion in the chaotic world of violence where right was determined on the basis of fighting might.

Another important Greek is perhaps the most famous name in medicine, a very important figure in the development of early medicine, the venerable Hippocrates II of Kos (c.460 – 370 BC). He was in many ways a primitive physician, as he based much of his medicine on the false theory that health or sickness was determined by the balance of four fluids; yellow bile, black bile, blood and phlegm; within the body.

And though he didn't have the anatomical and physiological knowledge of modern medicine, he did further the scientific study of medicine and was insightful and courageous enough to proclaim that illness and disease were not the punishment of gods, but rather the result of natural causes. Concerning the true cause of disease he wrote, "...Men regard its nature and cause as divine from ignorance and wonder..." Hippocrates helped direct effort to finding the true physical cause and effective treatment of disease and away from further investment in fantasy. To that end he set an example that's still followed to this day. In everyday work he advanced professional standards of care and conduct, and even pioneered certain types of surgery. But perhaps his greatest professional contribution was a commitment of thorough monitoring and documentation in studying every case so that future patients would benefit from the experience and lessons learned.

Of course, 2,500 years ago the well-being of others wasn't a high consideration for most people. But they did want better treatment for themselves. And in 509 BC the last of the Seven Kings of Rome, Lucius Tarquinius Superbus, was overthrown, and Romans established a republican form of government. That almost coincides with the beginning of the period some call Classical Greece, about 508 BC when the tyrant Hippias was expelled and a republican government was also formed in Athens. Shortly thereafter Athens was involved with the Ionian rebellion, in which Athens gave some assistance to Ionia against Persia in 499 BC. By 494 BC the Persians had suppressed the rebellion and brought Ionia back under Persian control.

Had Darius and the Persians stopped with suppressing the rebellion, history may have been very different. But, in 492 BC the Persians set off under General Mardonius to put the Greeks in their place. However, while the Persian army had some success in Thrace, the navy sustained heavy damage from a storm and the expedition turned back. Displeased with his son-in-law Mardonius over the setback, Darius had him replaced, and an amphibious assault was launched under the combined command of Datis and Artaphernes in 490 BC. Despite a long history of military success, favorable numbers, and a previous victory at the Greek city of Eritrea, the Persian expedition was defeated by the Greeks at Marathon, source of many inspirational stories, including the mythical run of Pheidippides.

Darius was disappointed, to say the least, that the mightiest empire the world had ever known was defeated by a few Greek cities. He prepared for a third expedition to settle the matter, but before that could be accomplished a revolt broke out in Egypt, and Darius died in 486 BC. The Persians were unsure what to do next. Many among them thought it wasn't worth the risk to invade Greece again, and

of course, there were others who thought that Greece should be eliminated as a threat to Persia's western border, and there were also those who desired to conquer the territory of Greece as they had Thrace and Macedonia.

King Darius was succeeded by Xerxes, who, Greek historian Herodotus tells, was convinced by Mardonius to prepare a massive expeditionary force and move against Greece in 480 BC. At about the same time, the Greeks were busy fighting the Etruscans of Italy, who they defeated in a naval battle near Cumae. After losing control of Rome in 509 BC and then being defeated by the Greeks in 480 BC, the Etruscans continued to decline in influence. During the next hundred years however, Rome grew in power through battles with neighboring cities in Italy, until the Gauls moved down from northern Italy and sacked the city in 387 BC.

Back in Greece, the Persians were met in 480 BC at Thermopylae by a small Greek force led by king Leonidas: portrayed in the movie 300. The Greeks made an inspiring stand at the pass of Thermopylae where the flanks of their tiny force were protected from the overwhelming odds of the Persian force. Site selection was the first Greek advantage, superior weaponry was the second. Heavily armed hoplites were the core of the Greek infantry. The hoplites joined in tightly packed formations called phalanxes with their bronze shields overlapping and long spears projecting forward.

Success of the phalanx formation and of battles in general depended on the third Greek advantage at Thermopylae, discipline. The outnumbered Greeks maintained their discipline and battled bravely at Thermopylae. The wicker shields of the Persians were no match for the heavy Greek weaponry, and wave after Persian wave fell at the blades of the Greeks. But at Thermopylae, the numbers were too unbalanced for the Greeks to hold out and those that didn't retreat were cut down to the last man. However their bravery is credited with buying enough time for the Athenian navy to prepare for engagement. The Greeks were victorious at the naval battle of Salamis, but not before the Persians sacked Athens.

With his navy defeated Xerxes returned home with some of his army, leaving the rest to carry on in Greece without him. In hindsight, it appears to have been unwise to leave part of the army behind. The following year the Greeks; encouraged by Alexander of Macedon, who claimed Greek heritage; gathered their forces and killed Mardonius, defeating his forces at Plataea. And after the Greeks defeated the Persian navy at Mycale they went on the offensive, aided by Alexander's Macedonian forces, through Thrace, the Hellespont, Asia Minor and even into Egypt. But old rivals Sparta and Athens couldn't get past their animosity for each other. With Sparta's Peloponnesian League and Athens' Delian League fighting each other, Persia defeated Athens in Egypt resulting in the two antagonists signing a peace treaty.

Sparta and Athens, along with their respective allies, continued to war with each other off and on through the rest of the 5th century BC. By that time another lethal weapon may have been added to the Greek arsenal, the crossbow, or at least large variants of the crossbow. The Peloponnesian Wars finally ended with the defeat of Athens in 404 BC. It's a pity to think what they may have achieved had they been able to live in peace. Would they have constructed more marvels like the Parthenon at the Acropolis, or produced more magnificent statues like the chariot team at Delphi commemorated for a victory in the Pythian Games? Or would they have made greater strides in the other arts and sciences?

Today, ancient Greek sporting competitions are remembered by the Olympic games. But the games at Olympia were only one of four ancient games, also held on a rotating basis at the cities of Nemea, Corinth and Delphi. The city of Olympia wasn't to be confused with Mt. Olympus however, the home of gods like Zeus, Poseidon, Athena, Apollo and Aphrodite and other examples of the rich religious lore of the time. And like the democratic and republican governments at times implemented by the Greek city-states, Greek religion was inclusive, meant to be practiced by the masses, not just elite priests shrouded in mystery.

Still though, the gods couldn't quell the differences between the city-states, or poleis, and while Sparta, Athens, Thebes and other poleis warred among themselves, Macedon, to the north, was

beginning to come into its own. There was often bad blood between the Macedonians and Greeks, considering that some Greek poleis had previously imported a lot of slaves from Macedonia, and Macedonia had at times attacked Greek settlements and sided with the Persians in Greco-Persian wars. But, also in-fighting among the Greeks involved Macedonia in Greek affairs when Greek cities requested Macedonian assistance on numerous occasions.

Macedonia was largely populated by Dorians who were related to the Dorians that are believed to have moved south into Greece about the time of the decline of the Mycenaean period. The Macedonian leader Philip II came to power in 359 BC and extended the borders of Macedonia by defeating the neighboring Illyrians and Thracians. But he also spent three years as a prisoner in Thebes.

In 338 BC Philip gathered his army and marched south into Greece. Athens, Thebes and some smaller poleis confronted the advancing Macedonians at Chaeronea near Thebes, but Philip's powerful, well-disciplined army overran the Greeks and laid waste to Thebes, perhaps as payback for his imprisonment. With his success, Philip then organized Macedonia and Greek poleis into the Corinthian League. The Greek poleis were allowed to remain self-governing, but Philip took charge of their foreign affairs. Having united Greece, Philip readied to invade Persia. But before he could set forth on his grand expedition, Philip was assassinated.

Philip's son Alexander III was only twenty years old. But he had been well trained by his father, having already held administrative and military positions. Whatever his qualifications, certainly Alexander possessed an ambition for conquest equal to that of his father. In 334 BC he led approximately 37,000 men into the Persian territory of Asia Minor where the aggressive and disciplined Macedonian army defeated the Persians at the Granicus River. At that time Persia was ruled by Darius III who called up more troops and met the advancing Macedonians at Issus. But besides lacking state-of-the-art weaponry, the Persians were fielding a multicultural army manned by subjects from the breadth of the vast and diverse empire that may not have been possessed of an earnest desire to sacrifice life and limb to maintain the status quo. Whatever the reason, whether it be superior armament, strategy, or resolve, the Greeks again defeated the superior numbers of the Persian army at Issus.

Alexander then turned south and took control of the Mediterranean coast of Syria and Palestine to neutralize the Persian navy. By the time Alexander arrived in Egypt, the Egyptians weren't resistant to the change of authority, and submitted to his forces without a fight. Meanwhile, reeling from successive defeats, Darius III sought peace by offering all Persian territory west of the Euphrates to Alexander. But Alexander wanted more. He wanted to rule the world, and that included all of Persia, so he continued his quest of world domination. In 331 BC the two armies met for a final decisive battle at Gaugamela. Again the Persian army was said to outnumber the Macedonians, and again the Persians were soundly defeated. And Darius, long willing to sacrifice thousands upon thousands of men for the sake of empire, fled the battlefield.

Alexander and his Macedonian army then marched on the major Persian cities of Babylon, Susa and Persepolis, laying claim to the spoils of war. But, out of animosity, or to set an example, or to eliminate a possible threat, Alexander continued to pursue Darius until Darius was killed by one of his own men and delivered to Alexander, who was then declared king of the largest empire on Earth. Still not content, Alexander kept pushing; pushing for more territory, more wealth, more fear, and more glory. By 327 BC he was waging war in India as commander of a weary army under difficult conditions. He pressed on past the Indus River, determined to conquer all, determined to be king of the world. But resolve enough to power an army he couldn't muster when his men finally refused to carry on. The army of mighty Alexander that swept through Asia Minor, Mesopotamia and Iran had enough; calling it quits after seven long years of attrition.

Finding himself heading an army without fight, Alexander decided to return to Babylon. Like his father before him, before he could replenish his army for another conquest, he died, at the age of

thirty-three in 323 BC. One wonders how satisfying a life centered around war can be. What's gained by all the suffering and death, when even the victor dies not having experienced the beauty of peace and warmth of friendship, or even decadence of luxury? Right or wrong, Alexander was an able military leader. He led an army shaped by his father, and those who shaped his father, to conquer an enemy that the Greeks had previously defeated, assume the titles of his defeated enemy, and rule roughly the same territory as the Persian Empire he succeeded. For that, Alexander is considered one of the greatest leaders of all time. Alexander's true legacy, however, was the Hellenizing, or spreading of Greek culture, through the Near East. Though it may be disputed whether Greek culture was an improvement over Persian culture, the success of the Greek army shaped history by replacing Persian influence with that of Greece.

In the wake of Alexander's army, cities were established for the administration of empire. Greeks migrated to cities all over the empire, especially near the Mediterranean, to manage important affairs of business and government. Those cities were cultural melting pots that welcomed diverse habits and opinions and built on the rich culture that flourished in Classical Greece. There were many cities, old and new that brought great minds and traditions together, where good ideas and advancement of the arts and sciences could flourish.

Men that contributed significantly to arts and science hailed from Greece and all around the Mediterranean. Aristarchus of Samos (310 – 230 BC) placed the planets in order orbiting the central sun and calculated the ratio of Earth's circumference and the distance to the moon, almost two thousand years before the rest of the world would share his opinion. Archimedes of Syracuse (287 – 212 BC), killed by a Roman soldier during the Siege of Syracuse on the island of Sicily, is famous for mechanical invention. He introduced numerous inventive designs, including the Archimedes screw, though similar screw-type pumps may have been used for irrigation in Babylonia a millennium before Archimedes' time. His greater contribution was probably in the field of mathematics where he defined many area and volumetric relationships between different shapes, introduced infinitesimal mathematics, and defined relationships in mechanics and hydrostatics.

The second century BC astronomer, geographer and mathematician, Hipparchus is believed to have been born in Asia Minor and later moved to the island of Rhodes, playing an important role in helping to preserve significant Babylonian contributions to astronomy and math, incorporating information from a long tradition of Babylonian celestial observation into his work, and introducing their custom of dividing circles into 360 parts called degrees. Among his accomplishments, Hipparchus made a celestial globe, discovered the precession of the equinoxes, developed models of the motion of the sun and moon, compiled a trigonometric table, and invented the very important astrolabe, used for predicting celestial positions, and determining such things as the observer's location or time of day, which would be crucial to open ocean travel.

A man named Geminus was another clever inventor that inhabited Rhodes. In 1902 a historic scientific archeological discovery was made when the Antikythera Mechanism was found in the remains of a shipwreck near the island of Antikythera. It's believed to have been a complex machine in which thirty or more gears drove the sun and moon and perhaps planets in differential motions relative to each other so that they created a predictive calendar showing celestial positions for past or future dates. It's believed to have been made on the island of Rhodes, which was famous for mechanical engineering, in the first or second century BC. The complexity and precise interaction of small parts of the mechanism wouldn't be equaled until the 18th century when European clockmakers began applying similar techniques. Geminus is thought by some to have created the masterpiece, but no evidence has thus far been found to determine the maker's identity with any certainty.

As knowledge continued to grow, the new city of Alexandria in Egypt emerged as perhaps the most prolific and dynamic city of the Hellenized world, rivaling Athens as a center of learning and discovery. Medicine was but one of many fields of leading study pursued in Alexandria, where doctors would finally routinely dissect dead people to gain insight into human anatomy. Some even went so far

as to cut open living prisoners to get a better understanding of organ function. Alexandria was also home to the world renowned Musaeum, or Temple of the Muses, which included the Library of Alexandria, that grew to be the largest of the ancient world, where scientists and thinkers were drawn from all over to learn and exchange ideas, while developing their own identities and theories. And other such temples of knowledge were erected throughout the Hellenized Mediterranean.

Hero, who lived from 10 to 70 CE, was just one of Alexandria's famous inventors, and though he was an accomplished mechanical engineer, much of his practical work was for production of the theater. His works and designs included the first known wind powered device, a wind driven organ; and a crude early version of a vending machine that would dispense holy water when a coin was deposited. But his most famous invention also represented a lost opportunity. That invention was the steam engine. As designed by Hero it was merely a novelty invention. With more effort it could have ushered in the steam age a millennium and a half ahead of its time.

The 2nd librarian of Alexandria was Eratosthenes of Cyrene (276 – 194 BC), who calculated the circumference of the Earth using the angle of inclination of the sun at two points of approximate distance on the face of the planet. Measuring the difference in inclination of the sun as 1/50th of a circle, he was able to multiply the approximate distance between the Egyptian towns of Syene and Alexandria by fifty to approximate the polar circumference of Earth. He also measured the inclination of the ecliptic, that is the angular distance between the tilt of the planet and the plane of its orbit around the sun. The enterprising Eratosthenes also invented an armillary sphere that positioned the celestial bodies in a model of the sky around the Earth, and he's credited with inventing an algorithm for the systematic identification of prime numbers, in addition to his work in cartography and other fields.

But even the insightful work of Eratosthenes didn't influence the perceptions and work of future generations like that of the previous mainland Greek Aristotle (384 – 322 BC). Aristotle was the most famous student of Plato's Academy in Athens. And Plato was the most famous student of Socrates. The three men may well be the most influential academics of western civilization, and the world. Aristotle's most famous student was no academian however, that would have to be Alexander the Great, whom Aristotle tutored at the request of Alexander's father Philip II. Some time after returning to Athens from Macedon, Aristotle established his own school, the Lyceum.

Aristotle's encyclopedic collection of works is considered unsurpassed in depth and breadth of coverage. His works were so varied and his influence, and that of his school, was so great that his positions were accepted almost without question. Exposure to a broad range of studies, coupled with efforts to set all of that knowledge in his own words, earned his product a legacy of being "the" reference source for the next two thousand years. It didn't matter that many of his ascertains were incorrect, Aristotle's reputation overshadowed the shortcomings of his specific contributions. After all, truth doesn't triumph of its own accord, it's motive and circumstance that give cause to act; and a lot of people through the ages found knowledge affirming their existing notions in Aristotle's work.

Nonetheless, Aristotle provided new insight in some areas and showed people different ways of looking at things. He's credited with describing a system of philosophy concerned with relationships of cause, act, and effect. But, he also contradicted many important discoveries and furthered some errors and superstitious methods. He denied the claim of Democritus that the visible Milky Way was comprised of stars, and denied that stars were similar to the sun. He held that the Earth was the center of the universe and that Earth, water, air, fire and aether comprised all the elements that constituted different forms of matter. Additionally, he asserted that reason and perception were products of the heart, not the brain.

But, perhaps worst of all, was his premise that everything happened for a reason, that every action was the result of a master plan, and that every being had a predetermined role and reason for being. In his hierarchical view of substance and species, slaves were meant to serve masters, that's what they were born for. Though his discourse on the causes and results of action was an exercise in astute observations, Aristotle far surpassed observation and objective reason by interjecting fantasy

into his teachings. Like his primitive ancestors that were questioning the cause of life and death, and fortune and tragedy, he was still seeing spirits in every object and as causing every action.

Others held alternate views, of course; standing out like beacons of reason in a confused, chaotic world. Epicurus, born in Samos in 341 BC, studied and taught in Athens; making use of the truths that he could see and feel while maintaining objectivity; and resisting temptation to invent what wasn't there. Defying convention, he even managed to state the blatantly obvious truths that others rejected in favor of fantasy: professing that the measure of good and evil was pleasure and pain, and that happiness was the pinnacle of life. Epicurus even went so far as to say the universe was neither designed nor created, and that there was no evidence of immortality of the soul. By offering only the plain honest truth, Epicureanism offered at least some small alternative to the rampant fantasy and sensationalism of popular opinion and organized dogma. But people of the world were nowhere near ready to accept reality, and harmful ideas would continue to dominate society.

Empire

After the death of Alexander, Macedonian leaders could have chosen to share in the wealth, prosperity and stability of the unified empire, but instead they chose to struggle for personal fame and fortune. The empire that Alexander largely acquired from the Persians was divided into four separate kingdoms; with the Antigonids ruling Macedon and central Greece, the Attalids taking control of Anatolia, the Ptolemies establishing a new pharaohship in Egypt, and the lands from Syria eastward belonged to the Seleucids; setting the stage for future wars. But even through the periodic territorial conflict, the common Greek language and culture helped the creative processes to flourish. Like the city of Alexandria, Pergamum in Anatolia (Asia Minor) was another center of great intellectual achievement.

But, as Greece was setting new standards in academia and the arts, arguing about the purpose of life, and setting forth on world conquest, the city overlooking the Tiber in Italy was growing. In 340 BC some communities of Latium rose up against Rome out of resentment over its increasing power and aggressive actions. But when Rome prevailed in that conflict, it forced the members of the Latium alliance to pledge their military assistance to Rome. Through similar small wars of control and expansion, Rome managed to consolidate all but the very north of Italy by 264 BC.

Across the Mediterranean, the North African city of Carthage had prospered and grown into a regional power since being colonized by Phoenicians from Tyre in 800 BC. In 264 BC internal fighting on the island of Sicily brought Rome and Carthage into conflict. That war, the First Punic War, dragged on until 241 BC and ended with Roman victory and the addition of Sicily to its growing empire. Three years later Rome also seized the islands of Sardinia and Corsica, to the great dismay of Carthage. Following the First Punic War, Carthage and Rome agreed to maintain separate spheres of influence in Spain; but after the Spanish city of Saguntum allied with Rome and revolted against Carthage, the invasion of Saguntum by Carthage prompted Rome to again declare war on Carthage. And in the Second Punic War, that lasted from 218 to 201 BC, the Carthaginian general Hannibal famously marched an army, including elephants, through Spain and Gaul, and over the Alps into Italy where he repeatedly routed the Romans.

Things were looking bad for Rome while Hannibal was having his way in the Italian countryside. But, lacking the equipment and/or strategy to overcome the city defenses of Rome itself, Hannibal didn't lay siege to the city. At the brink of destruction, Rome ordered its army in Spain to advance on Carthage. That move proved to be a turning point in the war, because when the Roman army under Publius Cornelius Scipio, or Scipio Africanus as he would later be called, fought its way to Africa and threatened Carthage, Hannibal and his army were recalled. Once back in Africa, Hannibal's fortunes were reversed and he was defeated by Scipio: costing Carthage the Second Punic War, and their interest in Spain, which was added to the empire as another Roman province.

In 200 BC Rome joined with the Greek Achaean and Aetolian leagues against Carthage's former ally Macedon. Soon after the fall of Macedon however, the victorious Greeks came to realize that they had invited more trouble than help when getting involved with Rome. The combined might of Alexander's empire would have provided formidable protection from invasion, but Greece by itself was vulnerable. In an effort to counter the growing Roman threat, the Aetolian League then allied itself with the Seleucids of Antiochus III.

Meanwhile, Rome had its own partnerships. And not wanting to sit by and wait for Hellenistic alliances to strengthen, Rome started the Syrian war in 192 BC. And that war went Rome's way as well, with Antiochus being forced to hand over his territory in Asia Minor to Rome's ally Pergamum. But even then the Greeks and Macedonians couldn't overcome their differences. Again they fought with one another, and again Rome stepped in and defeated Macedon. This time, however, Rome looted the Macedonian treasury and split the country into four republics. But the Macedonians and Greeks were a persistent bunch and within twenty years some of the Greeks aided the Macedonians in revolt. To that,

Rome responded by crushing the resistance, destroying the Greek city of Corinth and annexing Macedon as a province.

By then Rome's military was getting well practiced, and Rome defeated Carthage for the final time; leveling Carthage the same year as Corinth, 146 BC. The carnage was so bad that Scipio Aemilianus, the Roman commander in Carthage, was said to have wept at the brutal destruction of the once glorious city. With that final conflict, the territories of Carthage were added to the Roman Empire.

All of that military activity gained control of the Mediterranean for Rome while Rome was a republic. Since the last king was expelled in 509 BC Rome had been governed by groups of politicians. At first governance was the privilege of only the wealthiest and most powerful Romans, called the patricians. For more than two hundred years the less affluent Romans, called the plebeians, lobbied and negotiated for political equality. And slowly, concession by concession, they gained more equitable balance. Fed up with abuse at the hands of the patricians, the plebeians leveraged their numerical advantage by withdrawing from the state in 494 BC. What could easily have resulted in civil war, instead resulted in a patrician compromise whereby they allowed plebeians some protection from arrests by patrician magistrates. By 471 BC the plebeians were also granted their own council to pass laws binding on plebeians but not patricians. And twenty years later came general publication of the laws, allowing the common people to become familiar with the laws to which they were subject.

Political class distinctions among male citizens continued to erode, and in 445 BC plebeians were finally allowed to marry patricians. One major factor in the minimization of class disparity was the commonalities that already existed among plebeians and patricians. Class title was inherited, wealth alone didn't make a patrician, they were descended from Rome's early senators. So, even some of the rich were plebeian; giving them, as a class, considerable bargaining power. Plebeians were allowed appointment as consul, the heads of government, in 367 BC, and in 342 BC it became mandatory that at least one consul be from the plebeian class.

The other major institution of control, state religion, resisted even longer. It wasn't until 300 BC that plebeians were allowed to hold high priest positions. And finally, laws passed by the plebeian council became binding on all Romans in 287 BC. But rather than remove political class distinctions altogether, Rome continued to discriminate by maintaining a complex, inefficient system of assemblies to direct the functions of government. And sadly, because Rome was to be considered the last great classic western empire, its influence on future governments can still be seen today in such forms as the British House of Lords and House of Commons (a ridiculously bloated system of about 1,400 legislators), and the American Senate and House of Representatives (also a bloated, inefficient legislative body).

But as Rome's empire grew, so did the vile tactics and disdain among politicians. The politicians fought among themselves and put more and more space between their selfish desires and the good of not only foreigners and slaves, but also fellow citizens. The deplorable politics led to revolt from 90 to 88 BC. And it was only after that revolt, more than 400 years after the establishment of a republican form of government, that free Italians ultimately received citizenship. However, fairness and equality still wasn't to be expected in a slave-holding society that treated women and non-citizens like second-class people. With increased citizenship or not, selfish desire, personal differences and secret alliances continued to tear at the unity of the republic. And as politicians and military leaders vied for power, the republic was plunged into a series of civil wars.

Lucius Cornelius Sulla emerged from the first civil war as dictator of Rome. But Sulla stood by his word and, after making reforms and killing off some of his competition, restored the republic. Still, the politicians and military leaders were too greedy and power hungry to cooperate for common good. Often, the military had ultimate political power, and was led by consuls who were commissioned by the senate. The consuls were generally wealthy, powerful men, often senators, who stood to receive immense fame and fortune at the head of an army. Military victory brought consuls fame, and many

kinds of plunder brought them riches, including amassing personal fortunes by selling prisoners of war as slaves.

Three men that leveraged their tremendous military influence to gain consul appointments were Marcus Licinius Crassus; Gnaeus Pompeius Magnus, better known as Pompey; and Julius Caesar. But that coalition of consuls, that came to be known as the First Triumvirate, was growing powerful beyond control, and envious of one another at the same time. After Crassus died in combat in 53 BC, Pompey's political maneuvering in Rome caused Caesar to bring his army down from Gaul into Italy, setting up a battle with the forces of Pompey. Caesar's army defeated Pompey at Pharsalus in 48 BC, and Caesar assumed control as dictator in 47 BC. And three years later that honor was bestowed for life. Few knew his reign would be so short however, in that same year he was assassinated by members of the senate.

Caesar's murder led to the Second Triumvirate, formed by Caesar's grandnephew Octavian, Mark Antony and Marcus Lepidus. Out-maneuvering Lepidus, Octavian and Antony divided the empire between them with Octavian in the west and Antony in the east. Additional power grabbing resulted in their respective armies and navies meeting at Actium in Greece in 31 BC. In that battle Octavian's forces won a decisive victory and Antony fled with the Egyptian Queen Cleopatra VII back to Egypt. But they were pursued by Octavian's men, and committed suicide the following year.

With Mark Antony disposed of, Octavian stood, at thirty two years old, as undisputed head of the empire that spanned the Mediterranean. One of the lands under Octavian's control was the less desirable territory of Palestine. Away from the coast, Palestine was still a hard land of marginal fertility between wealthier, more powerful territories. Many times Palestine changed hands among rulers of Egypt, Asia Minor, Syria and Mesopotamia. Many of the residents went with the flow and adapted, sometimes grudgingly, to changes of rule. But the Hebrews, or Jews, of Judah were too stubborn and bound to custom to know what was best for them. They were in a trap of their own design that prevented them from conforming.

Hebrews were hardened by a history of difficulty and meager existence; caught in a self propagating pattern of trials and punishments. From the time their ancestors wandered the thin grasslands of the Arabian Peninsula, generation after generation of their kind was tested. The hardship, resentment and envy they felt was projected into their religion. Through time, their religious tradition grew monotheistic, and became more guarded, jealous and demanding. In their struggles they sought a powerful god that would smite their enemies and deliver them into paradise, and that god helped them to conquer their immediate neighbors of Canaan. Their favored local god defeated other traditions and assumed control of their universe.

But the difficulties allowed by their god to afflict his chosen people were seen as indications of his displeasure with them. According to hard-line prophets his displeasure often stemmed from their breach of contract through transgression of his primary commandments. Like a jealous husband, he bade them to recognize no god other than himself. And he required praise in the form of sacred ritual and animal sacrifice, the blood of which symbolized the bond between man and god. Men had long courted the favor of their imaginary gods, but somehow the Hebrews managed to reduce themselves to a lower level.

Faced with dire consequences like death eternal, or everlasting fire, the Jews left themselves no choice. They would rather perish by the sword of man than suffer forever. They had invented a near-perfect threat. What would a man not do to avoid spending the never-ending age, the time without measure, the infinite period, all of eternity; in unbearable torment? So those ignorant little men did die by the sword when their god was threatened. In fitting irony, when the very entity they invented to deliver them from hardship was under attack, it was the Jewish people that suffered and died protecting what they claimed to be the all-powerful god.

And by insisting that all gods other than their god were abominations, claiming they were the chosen people of the only god and refusing to assimilate, the Hebrews only assured conflict and

oppression. Suffering the difficulties of their own false doctrine, they grew to rely on that fantasy more and more, desperately hoping for a king delivered by their god that would deliver on his promises of dominance and prosperity. Jewish tradition demanded a great leader descended from Kings David and Solomon that would defeat their enemies and unite the entire world under Jewish authority, with worldwide control centered in a new Jewish temple in Jerusalem. In response to the fanciful prophecies, Jewish culture was gripped by feverish anticipation of the leader that would raise them above the world of servitude and strife that shaped their existence.

Within every generation a multitude of people would come and go proclaiming to be the Jewish messiah. But the rise of each and every messiah claimant invariably ended in death. And so it did for Jesus of Nazareth. Jesus neither embodied the messianic ideals of the Jewish prophets nor did he sufficiently rebuke those expectations to lay any legitimate claim to the title of messiah that his followers bequeathed on him. And the story of a messianic Jesus would have ended with his inglorious execution among thieves had it not been for one unfounded claim.

After his death, a small circle of devout followers announced that Jesus had secretly risen from the dead. However, although he was declared false and condemned to die by his fellow Jews, Jesus did embody an evolution of Jewish religion that would appeal to many future generations by putting a kinder face on Jewish belief. In contrast to popular opinion, he rejected violence and vengeance in favor of peace and compassion. Yet, he remained in the definite minority. For their part, the majority of Jews cast their lot with the bitter and confrontational teachings that had been set in writing. And in another historic irony resulting from painting themselves into a corner with their own mythology, many future Christians would view Jews as having the blood of Jesus on their hands.

Rome, meanwhile, as the dominant empire, put blood on a lot of people's hands. Under the burden of heavy taxation and interference in their religious affairs, the Jews occasionally revolted against their Roman overlords. One such revolt, the War of 66-70 CE, also known as the Great Revolt, initially seemed to go well for the Jews, as was often the case when local populations confronted the local Roman military forces, but fortunes reversed when additional legions were called in from other parts of the Empire. For the Jews, the war only accomplished the destruction of Jerusalem and the center of Jewish religious and political life, the temple.

After that war, it took 70 years for the memory to sufficiently pass and messianic fever to stir up enough confidence for another full-scale revolt, led by Simon ben Kosiba, also called bar Kokhba, meaning son of star. Bar Kokhba was probably Judaism's most famous messiah other than Jesus, and in his day he was much more popular than Jesus, as he was commonly seen as the glorious messiah ordained by God to establish the worldwide empire of Israel. He too had miracles ascribed to him, but unlike Jesus, bar Kokhba was also a military and government leader, as the Jews expected. This time, when the Roman reinforcements came, of which there were many, bar Kokhba took to the hills. The Jews didn't just wait behind city walls or gather together for large battles that their god couldn't win, they scattered and fought a guerilla-style war.

For four years the Hebrews fought desperately, and the Romans followed them all over the countryside, slaughtering those in their path and burning cities and villages to the ground. By the time the carnage was over, all of Judea lay in ruins and hundreds of thousands of Jews were dead. Many of those that remained were sold into slavery or taken to the arenas to fight for their lives as gladiators. Afterwards, the province Iudaea was renamed Palestine and Jerusalem was called Aelia Capitolina by the Romans. The defeat was so complete that the remaining Jews were forbidden to teach Mosaic Law, practice their religion, or even enter the renamed town of Aelia Capitolina. The mass exodus of Jews that fled or were forced out of Judea as a consequence of the war was one of the great Diaspora of the Jewish people from their "promised land" that they had stolen from the Canaanites centuries earlier.

From an entertainment perspective, gladiatorial contests involving Jewish prisoners of war were some of the largest in history, involving thousands of combatants. The largest games are said to be those ordered in Dacia by the Emperor Trajan, the same Marcus Ulpius Nerva Traianus that

conquered Dacia and Mesopotamia and expanded the Roman empire to its greatest extent in 116. At its height the Empire extended from Britain in the northwest to Mesopotamia in the east and to Egypt in the south. Every country bordering the Mediterranean was part of the Roman Empire, and many kingdoms just beyond the Empire's borders were clients of, or allied with, Rome.

The earliest Roman gladiator contests may have been funerary games in which slaves were forced to battle to commemorate the loss of an important person. As Rome's power grew so did the gladiator tournaments and other festivals upon which the Romans lavished the spoils of conquest. The games included animal fights, man-versus-animal fights, staged hunts, man on man combat and group combat. Even women and dwarfs were caused to fight in the games, with such contests having special appeal for their rarity. Although contests could involve thousands of fighters, more commonly gladiators numbered in the tens.

The gruesome spectacle of gladiator fighting was part of Roman life for hundreds and hundreds of years, and its popularity rose and declined with the favor of emperors. The training and supply of gladiators became big business, and perhaps due in part to the expense of acquiring new gladiators, the games often didn't result in death. The practice even attracted more than slaves, prisoners of war and criminals. Some gladiators were paid to fight, and others fought for freedom from debt, slavery and even political freedom, and there were a great many females among them. By fighting in the games, some won citizenship for their children, and prominent gladiators even received a considerable degree of fame.

In some instances gladiator slaves were fed and treated better than other slaves when not fighting. But no matter the perfumed air of nobility or bravery, the stench of slavery could never be masked, and along with the wealth derived from the labor of slaves came the inherent resentment and danger of revolt by those enslaved. Every society that profited from slavery was also ultimately made poor by the iniquity. Besides the nearly constant revolt of conquered provinces and client kingdoms, the Roman Empire experienced three major slave revolts, beginning with slaves led by Eunus and Cleon in Sicily from 135 to 132 BC. And again the Sicilian slaves revolted in 104 and 103 BC, this time under the leadership of Athenion and Tryphon. And from 73 to 71 BC a slave and gladiator named Spartacus gained lasting fame by leading a slave revolt in Italy alongside Oenomaus and Crixus.

It was a gladiatorial school near Capua from which Spartacus and other gladiators escaped before fighting off a local militia and eventually making camp at Mount Vesuvius near Naples. There the renegade slaves were joined by other slaves and together took food and provisions from the nearby countryside. Rome was so dependent on slaves that defecting slaves eventually swelled the band of Spartacus to more than 100,000 people. But many of those trying to escape slavery were women, children and the elderly, compounding the renegade slaves' disadvantage of being neither trained nor equipped as an army.

In spite of their tremendous handicaps however, they fought with great valor, determination and effective strategy. Spartacus defeated legion after legion, but the army of misfits never made it out of present day Italy. Historical reports give conflicting accounts of the intentions of the rebel army. Some state that they wanted to flee to Gaul or Hispania, others say that Spartacus and his followers wished to liberate all the slaves of the Empire. Whatever the circumstances, they failed to cross the Alps and escape Italy when it appears they could have done so.

As the politicians of Rome grew more troubled, they ordered a greater force to bear on Spartacus, assigning eight legions with auxiliaries to Crassus. Initial engagements between the forces of Spartacus and Crassus had mixed results, but the weight of the Roman army soon had Spartacus retreating. Crassus pursued Spartacus to the south of Italy where the worn out slave army was finally crushed when they ran out of room to retreat.

Knowing the brutality of the Romans toward slaves that had no protections before revolting, most of the slaves died on the battlefield; while those that were captured should have fought to the death, because Crassus crucified the survivors and left their bodies hanging along the road from Capua

to Rome to serve as a grisly reminder of the penalty for seeking justice. Even some that escaped met a grisly end. For, Pompey was also leading an army toward Spartacus when the rebels were butchered. He came across 5,000 slaves that escaped the battle with Crassus, killed the lot of them, and claimed credit for ending the war. With their armies camped outside Rome, and riding a wave of support for putting down the rebellion, Crassus and Pompey were assigned consulships with Julius Caesar, as earlier mentioned.

Because history is written by the victors, little is known whether any free men fought alongside the slaves, just trying to do what they knew was right. Any free men conspiring with the slaves would have only sacrificed their lives and property, along with putting their families in jeopardy. And that's the danger of war. Regardless of how little people have, and how just their cause, they risk everything in armed conflict, and the decision to take a stand against an evil like slavery, or even a greater atrocity, demonstrates a rare tremendous courage.

Unfortunately, conditions for slaves in the Empire didn't improve immediately after the terribly costly uprising. Slave owners could still treat slaves in any manner they chose, up to, and including, killing them with no consequence. Romans were acutely aware how dangerous it was to surround themselves with oppressed people. Yet they were indignant to the point of outrage that a man would take umbrage over deprivation of basic liberties. Historian Tacitus related that it was the custom to execute all the slaves of the house in which the master was murdered by a slave. And the horror of that custom was readily apparent when Lucius Pedanius Secundus, a government official, was killed by one of his slaves. A crowd appealed to the senate to spare the other slaves of his household. But the senate refused to aid the slaves and all four hundred were executed in retaliation for the death of their owner. Regardless of how one chooses to view the accomplishments of any culture, one man and four hundred slaves says a lot about a society.

Over time the values of Rome did evolve marginally in that concern and slaves received some basic protections. Interestingly those protections weren't initiated by the politicians of the republic era; they were instituted under emperor rule. Running contrary to many views of the value of democracy or republicanism, the gains made by slaves under an emperor demonstrate that it's possible for one man to rule more justly than the masses, though the dangers of tyranny are compounded in monarchical systems.

With the conquest of additional slave-supplying territory, the holdings of the empire continued to increase, reaching a pinnacle of three and a half million square miles in the second century. In 212 the emperor Caracalla granted citizenship to every free person of the empire, and Roman culture was spread throughout the vast realm; but there were limits. For example, while Roman was the language of the west, Greek continued to be the principal language of the east, with many local languages mixed in.

The Roman Empire built a strong infrastructure, like the Greeks and Persians before them. Their extensive building activities included roads, aqueducts, public buildings and large private estates, temples to the pantheon of twelve gods, coliseums, bathhouses and even apartment buildings. Building projects however, like most of the wealth, was concentrated in the Italian peninsula and provincial capitals where the tax revenue was funneled. Like slave labor, taxes levied on the provinces were vital to the growth and maintenance of the empire. And also like slavery, the iniquity of provincial taxes fostered resentment. While generals and politicians fought for control, people in far away lands were forced to pay tribute at the point of the sword. And even as they had to watch their land get plundered and their people impoverished, they were further insulted by being forced to honor deified emperors. And there's yet another example of the guy standing on everyone else's backs being honored as a living god.

Despite constant calls for reform, there's little that's new in politics today. In America, politicians promise the moon and then give away the farm to buy votes when they get in office, just as politicians were doing in Rome and other cultures thousands of years ago. While distant provinces

were being squeezed for profit, in Rome and the other wealthy cities, the populace was being placated by the politicians to retain their power. Emperors and governors spent lavishly on festivals and bloody games. The poor of Rome even received free meals. Families of outlying territories were losing their land and being broken apart; sold to slavery or forced to work land for a share of the profit, and rich people were amusing themselves with gladiator contests. But, eventually the plundered treasures were squandered, and the welfare of the rich and lazy burdened the workers beyond sustainability. With parallels to many nations through history, the excess and luxury that was Rome finally stretched the resources of the empire too far.

The third century CE has been called the century of crisis. Internal strife and power struggles brought the once mighty nation to its knees. As the Roman provinces came of age, those leaders and aristocrats began to have their own ambitions of empire. The military monarchy established by African born Lucius Septimius Severus in 193 was followed by about fifty years of civil war. Had there been any powerful states left to challenge Rome's supremacy, the empire may have been conquered and absorbed. And even though there were no nearby kingdoms of comparable size and strength, the empire came to be assaulted on almost all fronts. German tribes struck back at the beleaguered empire in the north, but it was in the east that Valerian became the only Roman Emperor to be captured by a foreign power when he was defeated at the battle of Edessa by Shapur I, leader of the Sassanid Persians, in 260. Following Valerian's death, Postumus, the Governor of Germania Superior and Inferior rebelled and established the Gallic Empire in Gaul and Hispania, modern France and Spain.

Going back to when Rome was just a small village overlooking the Tiber, Germanic people are believed to have migrated south from Scandinavia into the center of Europe. The Germanic tribes pushed south and west almost a thousand years later, some say as a result of pressure from the Huns of the eastern plains, and came in more direct contact with the Romans. When the Roman Empire declined under the pressure of internal problems waves of Germanic invaders swept beyond the Rhine River into Gaul. Goths from the Balkans moved into Asia Minor and Greece, the Franks moved into Gaul and Hispania, and Alemanni invaded Italy before Aurelian was able to restore much of the territory from 270 to 275. When Diocletian, came to power in the year 284, the economy was near collapse and money was almost worthless spurring him to implement wage freezes and price controls and even hereditary employment of the trades. But even though the penalty for breaking price controls was death, people still resisted selling their products at the set prices in the open market, and black market trading flourished; with the policy of wage and price control eventually abandoned as a failure.

Diocletian also reorganized the empire into smaller provinces to limit their power and maintain better control. He even split the empire into East and west, assuming control of the East in his new capital at Nicomedia in Bithynia in Asia Minor and granting control of the West to Maximian. But, even the strong-arm tactics of Diocletian had done little to repair the eroding strength of the empire and in the fourth century it took the appearance of old age waiting for the relief of death.

Right on the heels of some of the heaviest persecution of Christians by the Romans, under Diocletian, his successor Constantine became the first Christian emperor. He claimed status as ruler of the West when his father, Constantius I died visiting Britain. But others claimed dominion over the West as well, including Maxentius, son of former emperor Maximian. Maxentius was in Rome, while Constantine ruled Britain and Gaul for six years. But in 312 Constantine marched his army into Italy, where they defeated forces loyal to Maxentius on numerous occasions and for the last time at the battle of Milvian Bridge just outside Rome, and Maxentius is reported to have died in the Tiber river while fleeing the field of battle. The following year Constantine issued the Edict of Milan authorizing the practice of Christianity. After defeating Licinius, emperor of the East, in 324 Constantine once again united the Empire.

He chose the site of Byzantium, Greek Byzantion, on the Bosphorus as his capital. It was later renamed Constantinople in his honor, before eventually being renamed Istanbul by the Turks. But after Constantine, the empire was again divided into East and West. In 391 Emperor Theodosius established

Christianity as the official religion of the empire. Any time that territory was conquered and added to the empire, new subjects were apt to feel resentment and even revolt if forced to change religion. And similar revolts resulted from the conversion from the traditional Roman Pantheon to Christianity. After centuries of forcing one religion upon the populace, the empire pulled the rug out from under people by switching religions and then outlawing what they'd been trained and forced to do.

Shortly after making Christianity the official state religion Theodosius defeated Eugenius, the last of the old religious emperors. In so doing, Theodosius reunited the empire for the last time. After his death it was divided between his sons, Arcadius in the East and Honorius in the West. And by the time the Visigoths sacked Rome in 410, Rome, as head of a great empire, was dead. Another Germanic tribe, the Vandals, moved all the way through Gaul and Hispania, across the neck of the Mediterranean to Africa and back across the Mediterranean to Italy where they too sacked Rome in the year 455.

As the Western Roman Empire was crumbling, in eastern Europe the Huns were establishing a kingdom of comparable size to the entire Roman Empire. After charging out of the short grass hills and plains of eastern Europe and running roughshod over the Alani tribe in the fourth century, the Huns spread fear across Europe. From unknown origins, though many were speculated, including the Massagetae that had defeated Cyrus the Great, they came to dominate the continent through the speed of their horses and accuracy of their powerful composite bows. Unlike many armies of history, in combat they weren't obsessed with formality and appearance, and the Hun reputation for ruthless attack was known far and wide. After conquering the Alani between the Don and Volga rivers in what is now Russia, they moved west and crossed over the Don to subjugate the Ostrogoths before turning south in 395 to cross the Caucasus Mountains and raid Armenia and part of Syria.

Later, in 408, they invaded the eastern Roman province of Moesia, in the area of modern Bulgaria, but were pushed back. When Attila came to power with his brother Bleda, the Huns took advantage of internal Roman political turmoil and allied with one of the Roman generals to attack the Western Roman Empire. And when the Huns repeatedly plundered and torched parts of the Eastern Roman Empire in the 440s, their good relations with the Western Roman general Aetius prevented the East from receiving any support from the West. But in 451 Attila invaded Gaul, sacking a number of cities as he swept westward, and General Aetius was finally sent to stop the Hun destruction.

Aetius was successful in persuading some Germanic groups normally hostile to Rome, the Visigoths of King Theodoric I, and the Franks, to aid in defending Gaul. And when the forces met at the Battle of Chalons, Attila's confederacy was defeated. In the centuries since, it's been said that the Huns could have been destroyed at Chalons but General Aetius convinced the Visigoths and Franks to withdraw from the area in order to maintain a power balance among the kingdoms. Whether Attila's forces weren't decimated in the battle because Aetius foolishly thought the Huns would no longer be a threat to Rome, because he wanted to collect spoils of war for himself, because he was afraid to press the fight, or because the Roman allies couldn't have finished off the Hun army as believed, it was unfortunate for the Romans because Attila returned to plunder the north of Italy the following year.

Rise of the Eastern Sun

Forming part of the border between modern Pakistan and India, the Indus River, like the Nile in Egypt and the Tigris and Euphrates in Mesopotamia, was home to early permanent settlement. In fact, ties between the ancient civilizations were well established as early as the third millennium BC when the Harappan culture had significant trade contact with Mesopotamia through the Arabian Sea and Persian Gulf. And mud buildings found in the Western Indus Valley of modern Pakistan dating back to about 7000 BC are among the oldest in the world; part of a long and rich cultural heritage. But because the ancient script of early Indus Valley civilization has yet to be translated by modern linguists, relatively little is known about the long Indus Valley history. Until ancient pictographic script found on artifacts is interpreted, the written history that's been so important in understanding the civilizations of Mesopotamia and Egypt will remain a mystery in the Indus Valley.

Still, it's apparent that early Indus Valley civilization was advanced for its time, as towns were typically laid out in rectilinear grid fashion with well-constructed brick buildings and extensive water and drainage works; as demonstrated in the important Harappan urban centers of Harappa and Mohenjo-daro. Not surprisingly, with established trade connections, the Indus Valley Civilization shared advanced technology with the Fertile Crescent such as agricultural plowing and metal working. And the old coastal town of Lothal is even believed to have been home to the first significant boat loading dock in the world, with a nearby storage warehouse contributing to operational efficiency.

While their social customs and governance is unknown without understandable written records, a lack of war references and not a great disparity of housing is considered by some to suggest tendencies of social equality. Regrettably, however advanced or fair Harappan culture may have been, the childish ambition for war and empire plaguing the world would not have left them in peace. And invasion may have ultimately brought Harappan civilization to an end. For whatever reason, still unknown, the urban centers and extensive agriculture seem to have been abandoned in the second millennium BC. There's speculation that the Harappan culture was overran by nomadic Aryan peoples from the west or northwest, creating the Indo-Aryan culture, based on the apparent spread of the Aryan language that eventually encompassed the Indian subcontinent. The new language, or at least new writing, can be seen in the period from 1500 to 500 BC known as the Vedic Age in reference to the collections of poems and other writings known as the Vedas which constitute the oldest known Sanskrit literature and the oldest texts of Hinduism.

After an apparent disruption, static settlement eventually took root again, and by 1,000 BC there were at least sixteen different realms across the Indian fertile crescent that includes the plains of the Ganges river system along with that of the Indus. Many of those states are said to have been kingdoms ruled by hereditary kings, but others were ruled by elected leaders. By 500 BC the many kingdoms had been consolidated into four: the Vatsa, Avanti, Kosala and Magadha. Regardless of the number of kingdoms, they depended primarily on agriculture for their prosperity, aided as it was in the fertile valleys by automated irrigation that included the advent of the water wheel.

In less practical but equally compelling matters, Hinduism, the popular Indian religion of the period, was highly complex and dominated by Brahmins (priests) performing secretive ceremonies. But people began to reject the priestly mysticism and by 800 BC there was a movement away from the confusing complexity of the different roles and intrigues of the many gods, and toward the philosophy of an enveloping essence of all that ever was, is, or will be, that transcends even the gods.

That shift away from personalities of the gods to contemplation of life and the interrelation of all form and function is believed to have influenced the development of the sixth century BC philosopher Siddhartha Gautama who announced he gained enlightenment in 537 BC and subsequently gave birth to Buddhism. Through the centuries Buddha has proven very popular, but one of his contemporaries was equally popular, if not more so than Buddha, during the period.

Vardhaman, was born a prince but gave up worldly possessions and desires, to refine and teach

the concepts of Jain. Known as Mahavira, he preached far around India, with no material possessions, not even clothes. The naked ascetic attracted a lot more attention to the already established religion of Jainism, and was reported to have as many as 400,000 followers during his lifetime 2,500 years ago. From outward appearances, it seems a different sense of life pervaded India than those cultures to the west. Material wealth and conquest was not stressed as much in India, as reflected by the nature of the Dharmic religions. War and fighting still occurred, but a higher level of respect seemed to foster more peace than other places.

Early civilizations flourished in the river valleys of China and other areas of East Asia as well, with pottery dating to 8,000 BC reported in Korea. At one Chinese site called Jiahu, ancient people were fashioning flutes and cultivating rice as early as the 7th millennium BC along with the much more important grain of the time, millet. By the 3rd millennium BC bronze was being worked in the Xia Dynasty, one of the early long-lived dynasties that have been characteristic of China's recorded history.

The Xia Dynasty was succeeded by the Shang along the Yellow River, who ruled from 1600 to 1046 BC. Eventually the Shang would fall to a neighboring ally called the Zhou that was even recognized by the Shang as the protector of the western frontier before the Zhou king Wen was imprisoned by the emperor of the Shang, Di Xin. Although he was later released, Wen demonstrated why Emperor Di Xin had reason to fear his ambition when he attacked the Sin clan, capturing some Shang territory before his death in 1050 BC. Wen's son Wu completed the conquest of the Shang Dynasty in 1046 BC. Later, the Zhou extended their territory to include some of the Yangtze River Valley. The power of the Zhou Dynasty fluctuated through time, but managed to hang onto power until the third century BC during which time the arts flourished, and some of the most influential systems of Chinese philosophy were introduced.

One of those philosophers that would have a lasting impact on Chinese culture was Confucius, who introduced a system of ethics and proper behavior for the good of society which was taught through repetitive ritual. About the same time that Buddha and Mahavira were encouraging people to see beyond their desires in India, Confucius was teaching respect and civil order in China. Though Confucius lived in the sixth century BC, his system of applied thought wasn't adopted by an Emperor until long after the decline of the Zhou Dynasty when it was promulgated by the Han Dynasty that began around the end of the third century BC.

Another important philosophy introduced in China under the Zhou Dynasty was the system of thought that stressed the three jewels of compassion, moderation, and humility known as Tao. Many people today are familiar with the Yin and Yang of Taoism, just as people around the world are familiar with so many first millennium BC doctrines that are very influential in shaping culture even today. From the scientific and artistic awakening in Greece, to the vision of singular unity of the universe in India, to the contemplative reverence of China, the first millennium BC was a time of prolific philosophic offering that ran contrary to much of the prevalent traditional fantasy. Gone were the demons and ritual of old; replaced by a sense of practicality and inquisitiveness.

But not everyone got the word. The power of fantasy and selfish desire may have been tested, but it was far from unseated as the principal human motive. From the eighth century BC the Zhou Dynasty fractured and lost power. Other kingdoms arose and battled for control, but failed to unite until Ying Zheng, king of the Qin, subdued the opposition to unite much of the homeland of the Han Chinese, signaling the beginning of two thousand years of nearly continuous imperial rule. Qin Shi Huangdi, as Ying Zheng was known empirically, had little use for philosophy when he could use force to prevent dissent and develop a robust bureaucracy to govern the vast territory and population under his control. Reverent philosophy was not strong enough to resist brute force, and Qin outlawed Confucianism and other teachings that might undermine his control. His crude tactics to synchronize everybody's opinions with his own included mass book burnings and executions, including not only political critics, but even their families put to death to minimize reprisals.

Many of those not sentenced to death for failing to purge history and philosophy of things displeasing to the state were sent north to construct what's considered the first Great Wall to keep out northern invaders. And the emperor used the temporary military service of all men aged seventeen to sixty to push the Xiongnu toward Mongolia. Besides demonstrating ruthless political ambition, Qin's rule is credited with ambitious building projects; standardizing writing, measurement and currency; and unification of the legal code.

Still, with all the ambition of his government, one odd thing he's remembered for is the great lengths to which he went to cheat death. He even ingested concoctions, or serums, containing mercury, the toxic metal that's one of only two that are in liquid form at room temperature. And just like people today, what did he do when the treatments weren't effective? He increased the dosage and hastened, instead of delayed, his own demise. Incensed by the misfortune, and feeling contempt toward the alchemists who advised him, he took revenge by ordering over 460 scholars buried alive. But still, despite the brutality of his regime, self-destructive poison therapy and large public projects, he's probably best known for the large terracotta army built to guard his lavish tomb and serve him in the afterlife. In that way, he's reminiscent of the ancient Egyptians that placed valuable items with the deceased for future use.

In another story of irony, when Qin Shi Huangdi died, his chief eunuch, Zao Gao, manipulated one of Qin Shi Huangdi's sons into committing suicide by forging the late emperor's will. Zao Gao also had a top military commander and his family executed so that he could set up another of the late emperor's sons as his puppet ruler. The irony, of course, is that eunuchs were castrated so that they couldn't have children, in an attempt to discourage any notion of seizing the power of the court to set up a new dynasty. Even so, the Qin Dynasty was very short-lived, only holding power for fourteen years after unifying the "Warring Nations" in 221 BC. The territories again broke apart and vied for power within a few years of Qin Shi Huangdi's death. And it was Liu Bang, King of the Han, centered around Hanzhong, that emerged triumphant in the ensuing wars of consolidation, beginning the Han Dynasty in 202 BC. After the dust had settled, the Han Dynasty garnered a reputation of being less harsh than the Qin, with relaxed social controls, lower taxes, and a more cooperative government attitude fostering creative thought and expression for which the Han Dynasty is well known.

The book *Records of the Grand Historian* by Sima Qian detailed Chinese history from the Xia Dynasty of legend up to the contemporary Emperor Wu who reigned from 141 to 87 BC. That book and other sources detail how Wu both embraced the teachings of Confucius and expanded the Han Empire from Korea to Vietnam and west approximately as far as the Tibetan Plateau with alliances around the Tarim Basin. The country prospered under the Han. So much so that the Han dynasty ruled for more than 400 years. And the pace of innovation accelerated during the period, with the invention of paper credited to a court eunuch named Cai Lun (50 – 121 CE).

That invention was soon complemented by woodblock, or woodcut, printing; providing a breakthrough in mass production of written media. And stable society also allowed better study of the natural sciences. For example, Wang Chong of the first century CE is said to be the first to describe the cycle of water evaporation and precipitation. And the important scientific inventor Zang Heng, who lived from 78 to 139, accurately surmised that the light of the moon is reflected sunlight, in addition to his pioneering work in gear systems, invention of a water powered armillary sphere, and even the first seismometer to measure earthquake activity.

Innovation wasn't limited to internal development either. The world got a little bit smaller when Emperor Wu sent delegations to kingdoms to the west and south, encouraging goodwill and trade. In the process, those missions helped establish a flourishing enterprise in trade over routes that collectively came to be called the Silk Road: the most famous trade route of all time. Along with other exchanges, Buddhism is said to have entered China through the Silk Road in the first century CE from Kush lands around modern Afghanistan.

But, trade caravans are vulnerable to robbers along thousands of miles of trails through various

degrees of wilderness, and trouble can be imported or exported just as readily as peaceful initiative. Near the end of the first century the Han Dynasty sent a 70,000 man army as far as the Ukraine, reportedly in pursuit of Xiongnu fighters.

Such endeavors don't come cheap and in order to support his army Emperor Wu also privatized vast tracts of territory by selling land. That was a much more fair arrangement than simply forcing citizens into an army and taking what supplies the army needed from the citizenry, but he may have mistakenly promoted the divide between rich and poor by taxing farmers at too high a rate, forcing many to sell to large landholders and then work for a portion of the proceeds. And over the course of many generations, popular discontent increased in response to favorable treatment for the wealthy. Just as in so many empires before and since, peasant uprisings, aided by fighting amongst greedy large landholders eventually caused the collapse of the Han Dynasty.

Crusaders

Back in Europe, after the fall of Rome, and then the death of Attila, a great battle was fought for control of Europe between the Germans and Huns. The Germanic tribes united under Ardaric, king of the Gepids, and Theodemir, king of the Ostrogoths, and defeated the various tribes allied under the Huns at the Battle of Nedao in the old Roman province of Pannonia. And from there the Huns slowly faded into memory, with their identity lost among the many ethnic groups that were at one point or another grouped under the heading of Hun. And Europe was again dominated by local tribes and kingdoms, as was the case before the rise of the Greek and Roman empires.

In that fragmentary culture Roman traditions mixed with those of the various tribes. The influence of Roman culture can still be seen in the Roman Catholic Church and the Romance languages that include Italian, French, Spanish, Portuguese, and Romanian. German and Dutch were also heavily latinized. The English language evolved from West Germanic mixed with a touch of Latin, very little Celtic, and then North Germanic and finally French after emigration into Britain of Germanic tribes such as the Angles, Saxons and Jutes, followed by Scandinavians and finally the Normans of France. As the parent of the romance languages, Latin – which included the popularly spoken Vulgar Latin, and the dominant writing of Classic Latin – remained a popular common language and persists to this day in fields such as science, law and medicine.

Outside of the often struggling remains of the Eastern Roman, or Byzantine Empire; from the coastal plains, to the mountains and dark forests of the continent, small states battled each other for supremacy in the power vacuum. As nobody could unite a large stable state, conditions became more chaotic, levels of thought diminished from long term to immediate concerns. The period in western Europe would come to be known as the Dark Ages due to stagnation and even decline of knowledge and infrastructure.

Though it constituted a constraint to learning and social evolution, the spreading religion of Christianity provided one of the stronger unifying forces in Europe and around the Mediterranean. In contrast to the Jews who were already chosen by god, the Christians sent forth missionaries to spread their faith to others. Lacking acceptance by mainstream Judaism following the death of Jesus, Christians had set out to attract converts wherever they could. Before Christianity ascended to the throne of the Roman Empire, as a religion it was necessarily inviting, as contrasted to the militaristic monster it would become after gaining the power of the empire. Even as the western half of the empire crumbled; and though Constantinople maintained a stronger position as a head of state; Rome managed to hold onto status a, if not the, primal bishopric in the Christian Church. As bishop of Rome, the Pope was traditionally seen as the successor of St. Peter, the man credited in the book of Matthew with founding the Church, though the Papacy was actually an established Roman institution prior to the rise of Christianity.

Early Christians such as Peter had no significant authority, or position of power. But by the time the church in Rome convinced much of the Christian world that it was the true seat of the faith and that the Pope spoke for God and Jesus, the church was firmly entrenched in formality and custom. More importantly, Christianity had in many areas reverted to its jealous and militaristic Jewish roots. Shortly after coming to power the Christians set to work outlawing other religions and killing off heresy: that being any doctrine not in accord with those of the universal, or Catholic, church. The religion was getting tough, lashing out to defend itself and making a habit of killing to save. Through missionary work and military force, Christianity's presence continued to grow in Europe.

After the withdrawal of Roman troops, Jute, Frisan, Angle and Saxon tribes migrated to England, forcibly pushing the Britons back. Those invaders eventually dominated England politically. But beginning in 793 Viking raiders from Scandinavia began to raid and colonize England, culminating in the rule of England, Denmark and Norway by Canute, or Cnut, of Denmark in 1016. And after more succession trouble, in 1066 England was conquered by William of Normandy.

Normandy was actually a region of France that had been given to the Vikings under Rollo in 911. So, although they had adopted French language and customs that they carried with them to England, the Norman aristocracy was also of Viking descent.

But England wasn't the only country that came under the rule of Viking descendants. In their travels ranging from the Black Sea to North America the Vikings colonized numerous territories. Rurik, for example, established the city of Novgorod in the 850's and his descendants the Rus established the Kievan Rus kingdom that gave its name to what is now Russia. But just as Vikings conquered Christian lands, Christianity made its way into Scandinavia and raids fell off after the Viking rulers were converted to Christianity.

Christianity had spread in North Africa and western Asia as well as Europe. And both Judaism and Christianity were popular in the desolate lands of Arabia, not far from their birthplace, alongside a number of local religions in the seventh century. And it was then, perhaps more than 1500 years after the beginnings of Judaism and about six hundred years after the life of Jesus, a merchant from Mecca named Muhammad, who was having trouble making sense of the world, took some pages from Judaism and Christianity, called it his own, and slapped the name Islam on it. In copying those who influenced his development and seeking his own fame, he proclaimed himself to be the last of an untold number of prophets including those instrumental to the development of Judaism and Christianity.

Not being well received in Mecca, some of his followers moved to Ethiopia and later back to the Arabian peninsula to the town of Medina not far from Mecca, where Muhammad joined them. He was a direly bitter man obsessed with killing, and set about conquering the world in the name of his petty, enraged god Allah. His followers were taught to destroy all unbelievers and Allah would burn them in hell causing pain unimagined on Earth. To ensure compliance Muhammad said that those Muslims who didn't fight for Allah would share the same fiery punishment as the unbelievers while those who fought for Allah would be rewarded with paradise.

Soon Muhammad exploited old rivalries and tribal tensions to unite a group to attack Mecca. Mecca resisted, but Muhammad's threats of death and horrid damnation and promises of eternal glory swelled his growing army with new recruits. Mecca capitulated to Muhammad's growing power and he replaced their old religious icons with his own. Impassioned by Muhammad's lust for conquest, the sparsely populated Arabian peninsula was converted during his lifetime. By his death in the year 632 his firestorm of contempt and conversion had begun to spread into Syria, Mesopotamia and Africa. And undeterred by the death of Muhammad, the jihad obsessed Muslims pushed on in their attempt to subdue the world as the sword of Allah.

The new Islamic zeal for expansion overwhelmed the tired and incoherent Byzantines and Persians. At the Battle of Yarmouk the Muslims routed a numerically superior Byzantine army to gain control of Syria. Byzantine forces consisted of a mixture of Russian, Arab, Armenian and various other ethnic peoples and their battle tactics were disorganized, timid and characterized by foolishness. In an act demonstrating lack of wit by employing symbolism at the expense of fighting ability, forces under the Byzantine General Gregory were reportedly chained together to demonstrate unity. The effect, of course, was to increase their burden and further reduce the mobility of an infantry unit that was already slow by nature.

The Arabs of Islam similarly defeated the Persians, most notably in the Battle of al-Qadisiyyah, and then swept through the Byzantine defenses of Egypt. In little more than ten years after the death of Muhammad the Muslim conquest had reached as far as Armenia and Turkestan. They were, however, unsuccessful in their sieges on the Byzantine capital of Constantinople in 678, and again in 718 when the Byzantines were aided by Bulgarians. In those conflicts the Byzantine's made effective use of their newly invented "Greek Fire" against the Umayyad Muslim navy. And further to the east, the Khazars aligned themselves with the Byzantines and managed to block the Islamic conquest of Eastern Europe.

By the early part of the eighth century Muslims had pushed west from Egypt, capturing North

Africa and from there they moved north across the Straits of Gibraltar and conquered what's now Spain. After plundering Spain the Umayyads continued into modern France in the year 732, crushing the forces of Duke Eudes of Aquitaine at Bordeaux and sacking the city. Eudes appealed to Charles Martel of the Franks for help and the Christian Franks met the invading Muslims near the town of Tours. The Muslim army was a superior fighting force to the Franks, one of the Germanic tribes that had been hastened westward by the movement of the Huns centuries before.

Hosting a large complement of light cavalry, and heavy cavalry made possible through the use of stirrups on their horses, the Muslims held a decided advantage over the Franks, who had still not adopted stirrups for their relatively small cavalry. Had the battle been on open ground, it surely would have been a rout for the Muslims. But the battle of strategy was won by the Christians at Tours. Charles Martel knew the weaknesses of his force and he knew how powerful the Muslim cavalry could be, so he stayed off the main roads and advanced through the woods to find a defensible position at Tours. There he chose a wooded hilltop in the path of the advancing enemy that negated the cavalry advantage. And he waited.

The Muslim general, 'Abd-al-Rahman, could have bypassed the Frankish forces and met them in battle at another time under more favorable conditions. Perhaps he thought that the Christians would combine with additional forces if given more time, or perhaps he was confident in the strength of his army and his god's favor. Whatever the impetus of his reasoning, he made a critical mistake in choosing to engage Martel and his men where they were entrenched. 'Abd-al-Rahman's cavalry was neutralized by attacking uphill in the woods and much of the cavalry was lost as they repeatedly charged against fortified defenses.

The Battle of Tours ended with the Franks victorious and 'Abd-al-Rahman himself dead. Though Martel turned back subsequent Umayyad invasions, historically, the Battle of Tours came to be known as the principal stand that saved Christianity in Europe. And Charles Martel's grandson, Charlemagne, would expand what would come to be known as the Carolingian Empire in the early ninth century to include modern France, western Germany and northern Italy. But, in the mid ninth century the Carolingian Empire was divided amongst Charlemagne's grandsons into what would become France and the Holy Roman Empire.

By 750 Allah's armies had lost momentum and began to turn on each other in power plays, resulting in the defeat of the Umayyads by the Abbasids in a Muslim civil war. The Abbasids then moved the caliphate, the center of Muslim world government, from Damascus to Baghdad. As western institutes of learning had been restricted to monasteries, Constantinople and Muslim cities such as Baghdad took over the lead in culture and science in Europe and western Asia. In the centuries to follow, the Islamic world continued to experience the cycle of empire with alternating fragmentation, consolidation, and expansion. And by the turn of the millenium, northwest India was falling under the dominion of Islam.

Not surprisingly, the decline of Christianity at the hands of the Muslims didn't sit well with European Christians. The Byzantine Empire continued to battle with Muslims for control of the Levant: the area of modern Israel, Palestine, Jordan, Lebanon and Syria. To that end the Western European countries decided to aid the Byzantines with some Crusades to regain the Holy Land. In 1009 the caliph of the Fatimid Dynasty, al-Hakim bi-Amr Allah, had the Church of the Holy Sepulcher in Jerusalem destroyed. Though it was allowed to be rebuilt in 1039, visiting pilgrims were occasionally captured and some church officials were killed, inflaming Christian passions. Thus spurred to action, when Byzantine emperor Alexius I sought western assistance Pope Urban II encouraged a holy conquest.

The Crusades began in 1096, but the zeal of the Christians was in no way matched by their planning and organization. Before a professional army launch, a largely peasant army numbering perhaps 100,000 people, including women, set off walking to Jerusalem. But before they could even get to the Holy Land they had to march through many foreign territories. Unfortunately for them, they

brought few provisions and lacked the foresight to make arrangements to feed their rag-tag army in the lands they had to cross. Though they considered themselves to be working for all Christians, they were very disappointed by the little aid they received from fellow Christians on their route. When hunger caused them to begin taking what they needed by force they were attacked by Hungarians, Bulgarians and even the Byzantines whom they were supposedly helping. By the time the amateur force reached Constantinople they had suffered substantial casualties and even the people of Constantinople were unable or unwilling to give them much aid.

And still not aligned with a Byzantine or other professional army, the volunteer army boldly crossed the Bosphorus into Asia Minor, where they were subsequently slaughtered in great herds upon contacting the Turks. Some, including their leader, a monk from Arians named Peter, managed to escape and rendezvous with an army of experienced soldiers that had finally arrived from Europe. But as bad as their failure was, they weren't the only group of crusaders that left western Europe, some were actually attacked and destroyed in central Europe not long after leaving home. And some stirred up Christians expanded the war against the unbelieving Muslims to unbelieving Jews in their own countries. As had happened in countries throughout Europe since the introduction of Christianity, an army of Germans gave Jewish communities the choice of converting to Christianity or being killed, resulting in the death of thousands of Jews.

Still, a sanctioned army of trained soldiers did depart in 1096. They represented numerous, mostly French, territories. Unfortunately for them, their desires often transcended the stated cause and they quarreled among themselves and with Alexius of Constantinople. Despite the heavy internal bickering, harsh desert conditions, and a bout of disease, the Crusaders achieved great success. They marched down the Levant and captured many cities, including the traditional first city of Christianity Antioch, and finally the coveted prize, Jerusalem. In between sieging and slaughtering some of the cities, they defeated numerous Seljuk Turk armies and also marched south from Jerusalem and defeated a Fatimid army from Egypt as a historical bonus.

But, lacking settlers and resources to defend the territory gained, those Christian states established by the crusaders would eventually fall to the Muslims again, sparking future crusades. But subsequent crusades were not nearly so successful, largely because Christian infighting never subsided. By the time of the Fourth Crusade from 1202-1204, Christian resolve was so half-hearted that preparation for the crusade was a comedy of errors. Before even sailing for Egypt as planned, having secured only a third of the roughly 36,000 man army they had anticipated, the Christians found themselves deeply indebted to Venetian merchant marines with whom they had previously contracted transportation.

Through the combination of transportation debt and political intrigues, the Fourth Crusade was diverted from a mission to Egypt and recapturing the Holy Land, to settling old scores in the growing Latin and Greek church schism between Rome and Constantinople that led them to sack a number of Greek cities, and finally Constantinople itself. The principal casualty of the Fourth Crusade was the thin bond of Christianity that had hitherto tentatively united the eastern and western Christians against the similarly dis-joined Muslims.

Horde of Temujin

Widespread violence and power-grabbing sparked by peasant revolts against oppressive landlords spelled the end for the Han Dynasty from the late 2nd to early 3rd centuries, ushering in a period characterized by instability lasting until the rise of the Tang Dynasty in 618. Founded by Li Yuan, the Tang Dynasty got off to an inauspicious start however. Li Yuan was a cousin of the preceding Sui Emperor Yang, and Li took the title of emperor after directing the appointment of a child Sui emperor the previous year. But, the questionable dealing continued, and within ten more years Li Yuan's son, Li Shimin, killed two of his own brothers and persuaded his father to abdicate the throne to him.

Despite killing his way to the top and warring to expand his territory, Emperor Taizong, as Li Shimin was officially known, was a declared Buddhist who had monasteries built to commemorate battle sites and pray for the fallen of both sides. He also instituted standardized testing to fill government posts, and made land distribution more equitable than under the old feudal systems. And once again, stability and liberty, this time under the Tang Dynasty, allowed a golden age of literature and art to flourish.

Science was significantly advanced as well, with one of the more important inventions being a clockwork escapement mechanism developed by Yi Xing in 725. More importantly, in sharp contrast to the modern world of intellectual property rights and trade secrets, Tang Emperor Gaozong commissioned classification and publication of medicinal substances in the year 657 to share and expand the knowledge of medicine. And that kind of effective organization and management extended to many other aspects of life under the Tang Dynasty as well, such as the publication of a building code to advance public safety and promote best building methods.

Increasing autonomy of regional military governors eventually brought about the decline of the Tang clan, signaling what has come to be known as the Five Dynasties and Ten Kingdoms period. But it would take less than a century for China to be united once again under Emperor Taizu of Song circa 960. During the following three centuries the population of the Song Empire grew to 100 million people. And to the credit of sufficient organization and freedom, the growing nation prospered, even after loss of considerable territory in the north, including the capital city of Bianjing, now Kaifeng, to the Jin Dynasty in the 12th century.

About the same time that the Byzantines were first using Greek Fire, the Song army and navy was the first to make use of crude bombs, cannons and other fire weapons using the Chinese invention of gunpowder. But peaceful pursuits also advanced under the Song Dynasty, perhaps most evident in printing when Bi Sheng invented movable type in the eleventh century. The earlier invention of woodcut printing allowed for mass production, but movable type allowed rapid textual modification without the burden of carving new printing blocks. Also early in the second millennium Shen Kuo described the use of a compass and the concept of magnetic north. And Shen Kuo's simple compass was complimented by continued development of elaborate mechanical devices such as Su Song's astronomical clock tower that used an escapement mechanism, circular chain drive, and complex differential gearing to represent complex relational astronomical movements.

But a dark storm brewing in the cold hills and plains of Mongolia would move down and cast its shadow on the Song Dynasty. It was there a boy was born to a group of nomads with no grand palaces, no public works worthy of note, and little more than the horses under their seats, that would earn a reputation as the most accomplished warrior in history. When Genghis Khan was born in Mongolia in the latter part of the twelfth century with the name Temujin, the area of his hometown was under the loose control of the Jin Dynasty of Northern China. The Jin and Turkic Tatars had combined to defeat Temujin's great-grandfather Kabul Khan prior to Temujin's birth. And since he was born the eldest son of a tribal leader in a time of persistent tribal fighting, Temujin's future direction was very predictable; though the ultimate destiny of his journey would leave much of the iron age world in a

state of shock.

When he was nine he was sent to live with the parents of his arranged future wife, Borte of the Konkirat tribe, and was to help her family until he reached the marital age of twelve. But before that time, his father was poisoned by the Tatars and died. When Temujin's clan wouldn't let him assume control because of his youth, his family was left in poverty, having to rely on their own devices. They were no more than predators, eating mostly small animals for survival. And at the age of thirteen Temujin killed his half-brother Bekhter over a dispute in dividing some animals they killed.

Temujin was captured by a rival tribe, the Ta'yichiut, when he was about twenty years of age, but soon escaped with the aid of a sympathizer. His wife Borte was also kidnapped, by another tribe, the Merkits, and Temujin was able to rescue her with the help of his blood brother Jamuqa and some warriors from the Kerait tribe. After Borte's return she bore him a son, the timing of which called into question his paternity; and eventually Borte had three more sons. Though he had children with other women, Temujin gave to the children of Borte the sole right of inheritance.

Temujin served a tribal ruler named Toghrul, but in time Temujin's ambition for power brought the two into conflict and Temujin defeated Toghrul in a clan war. In the conflict Jamuqa, Temujin's former friend and blood brother, had sided with Toghrul, and in defeat went to the Naimans seeking refuge. It was there with the Naimans that Jamuqa's own desire for power elevated him through the Naiman hierarchy and he eventually led them and other tribes in battle against Temujin. In 1206 however, after numerous battles, the tribes that were led by Jamuqa turned on him and handed him over to Temujin. But disloyalty wasn't something Temujin was prepared to reward and he had the betraying subordinates executed along with his childhood friend Jamuqa. Not long thereafter Temujin defeated the Merkits and Naimans, and took the title Genghis Khan as leader of the Mongols.

The first conquest of the Mongols united under Genghis was the Western Xia Dynasty, which they conquered by 1209. In 1211 they went to war with the Jin Dynasty that had rested control of Northern China from the Song; capturing the capital of Janjing, later called Beijing, in 1215. Then Genghis turned his ambitious eyes westward and attacked the Kara-Khitans which extended from approximately modern Mongolia to Lake Balkhash and the border of the Muslim Khwarezm Empire near present day Kyrgyzstan.

Genghis Khan was aided in his efforts by possessing the genius of single-mindedness. War was his passion, his life; as it was for his commanders and army. They knew neither peace nor the desire to build prosperity, but rather to take it from others. Their singular commitment and dedication quite naturally fostered success in war; the lifestyle of their choosing which they embraced so enthusiastically. As a culture they did little, but what they did, they did well. Before being indoctrinated into the army, Mongols grew up hunting from their horses. And no animal on terra firma was safe from the speed of their horses and range of Mongol bows. Tradition tells of large numbers of Mongols riding their horses in great circles and then bringing their circles tighter together, driving all the animals before them toward the center, where an orgy of slaughter ensued. In its time it was the pinnacle of achievement – for the most base activity of human immaturity.

The lethal archery and equestrian skills they honed from childhood prepared them well to be hunters of men. For this task they equipped themselves well; an army of horsemen ready to battle armies of infantry, with knowledge accumulated through years of experience. Each warrior didn't just have one horse, he brought reserve horses to alternate mounts on long rides and replace those that were sure to fall in battle. The Mongol horse was equipped with stirrups to steady the rider and allow shooting on the run and in any direction, something long in existence, but still not widely utilized at the time. And the horsemen were lightly armored to enhance the speed, stamina, and agility of both horse and rider.

As nations in their path learned, the Mongol war machine was well rounded, with few weaknesses. Their dedication to the cause of war was so great, Mongol spies sometimes spent years observing the infrastructure and strengths and weaknesses of potential countries of conquest. Even

though most wars were initiated substantially quicker, extensive planning and preparation was a characteristic of their invasions. Mongol leaders, committed to the craft of war, were excellent strategists.

Neither pride nor dignity encumbered their performance of the most horrific atrocities and scandalous breaches of honor. They didn't hesitate to attack and run, and they weren't above promising safe haven and then butchering the residents of a surrendered city. In their pursuit of riches the primary Mongol weapon was the composite reflex bow: absolute state of the art in period weaponry. Mongol bows were compact, powerful and accompanied by different styles of arrow for different fighting situations. The power of their reflex bows gave them greater range than their adversaries, and the compact size allowed for versatile usage from the back of a horse. With superior mobility and range, Mongol maneuvers flowed with an organic style providing a wide range of options for attack and defense.

Mongols could maintain a safe distance from large armies of infantry and attack at will by utilizing the range of their bows or descending on the enemy and then pulling back. Mongol armies could hit opposing forces like a hammer, sting them like elusive hornets, or immobilize them like spiders in a silken web. Their nimble, mobile actions could completely surround opposing forces before the opposition could maneuver to meet the frightening, and confusing onslaught. But, no encircling maneuver was as effective as that volunteered by an enemy charge; perhaps the most successful Mongol tactic was to pull back the center of the fast moving formation in feigned retreat. Opponents stretched out in pursuit of the Mongols were left vulnerable to flanking maneuvers, often from Mongol units kept hidden in reserve. Such pincher maneuvers frequently scattered the native forces in disorganized panic, exposing them as easy targets to the faster horsemen.

Even mounted cavalry units were ill-prepared to compete with the "devil's horsemen" as they were called. Horses simply weren't as commonly used by agrarian societies. Many cavalries consisted of heavily armed knights or other warriors trained in close combat tactics, but the heavy armor impeded their agility, and they were woefully lacking in the range and speed of their offensive weaponry compared to the reflex bows of the Mongols. Of course the ravages of war bore most heavily on the abused innocent horses, and oftentimes the Mongols simply shot the horses out from under the opposing cavalry, leaving slow moving men weighed down by armor easily slain by mobile archers and lancers.

The Mongols had other weaponry besides composite reflex bows of course, such as lances, swords and battle axes; which they put to fierce use in hand-to-hand combat. And they even used frightful incendiary devices borrowed from the Chinese, and effective siege equipment, often designed by prisoners of war and enscripts from vassal kingdoms. But the great advantage Mongols had over other armies of their time lay in the speed, savagery and coordination of their war machine, the likes of which wouldn't be seen again until the twentieth century.

One nation that felt the fury of the Mongol horde was Khwarezm, covering a vast territory extending from the Aral and Caspian Seas to the Persian Gulf, in roughly the area of modern Iran, Turkmenistan, and Uzbekistan. When Genghis Khan assembled a large force and invaded Khwarezm in 1219 the Mongols swept through the country, destroying its armies and laying siege to the cities. Looking back now, it's unclear whether Genghis and his army was brutally violent simply because they took joy in great, wanton slaughter, or if it was more a measure of terror to break enemy will and precipitate mass surrender. The general impression is that it was a full union of bloodlust and frightful warning.

When the large city of Urgench fell, the Mongols took what slaves they wanted of the craftsmen, young women and children. And then butchered the rest of the population, told to number in the hundreds of thousands. Elsewhere, after a weeklong siege, the city of Merv surrendered to Genghis' youngest son Tolui under promise of safety for the citizens. But when the city was secured Tolui broke his promise and ordered all the city's inhabitants killed. And again later, at Nishapur,

Tolui ordered all the people put to death, along with all the animals as well.

After thoroughly terrorizing and brutalizing Khwarezm, leaving the survivors shaking in fear, the Mongols split up, with Genghis Khan leading an army on a path of destruction and plunder southwest through Pakistan and India before returning to Mongolia. Generals Jebe and Subutai led another army on a rampage northeast through Georgia and Russia before heading back to Mongolia. Having stretched Mongol control over western Asia, the reunion in Mongolia was just long enough to gather together and prepare to invade China again, with the campaign launched in 1226. And true to form as one of the most vile and horrid native plagues of human history, the Mongols butchered the inhabitants of the Tangut capitol Ning Hia after a surrender had been worked out. Then finally in 1227, while ravaging northern China again, Genghis Khan fell ill and died before he could return home. Legend has it that his escort killed everything in its path on his final journey back to Mongolia.

Temujin never outgrew the cruel ways he learned as a youth, he only excelled at perfecting them. And his distinction for mass destruction and carnage is recognition as the man who conquered more territory than any other person in history. The empire he presided over would grow to be the largest non-colonial, the largest contiguous, and the second largest empire by area the world has ever known. And he ruled it all from a tent. His life was spent on the back of a horse violating the universal laws of health and happiness. And his reward for wanton slaughter was grassland enough for more horses than he could ever ride, and more slave girls than he could ever bed. As the victims of the Mongol brutality could attest, that savagery and suffering that bought one man and his band of killers a life of indulgence and infamy, is rarely seen outside mankind's unspoken war on our fellow earthlings.

But no one lives forever, and upon his death, per his desire, control of his empire passed to his son Ogedei who presided over territories divided into khanates ruled by lesser khans. His descendants continued to rain havoc on bordering territories and expand the Mongol empire in decades of more conquest that brought all of China, Tibet and Korea under Mongol dominion, eventually forming the Yuan Dynasty in China under Genghis' grandson Kublai Khan.

On the other side of Asia, it was Batu Khan, another grandson of Genghis, who was largely responsible for subduing Russia and parts of Eastern Europe. He was leading a campaign in Europe including Poland, Hungary and Austria with the old "dog of war" Subutai when news of Ogedei's death reached him and he withdrew his forces to return to Mongolia. In the years after that kurultai, wherein Mongol leaders elected Guyuk to be the great Khan, Batu finally had concerns other than conquering Europe. Tensions between Batu and other heirs of Genghis prevented Batu from completing the planned expansion of the Mongol empire through Europe all the way to the Atlantic. Were it not for one simple change in individual priority, all of continental Europe would have quite likely been another part of the Mongol Empire that would have stretched across Eurasia from the Pacific to the Atlantic.

The rift between Batu's Golden Horde and the other Khanates continued to grow; to the point that Guyuk died planning a campaign against Batu. The threatened invasion didn't materialize during Batu's lifetime, but still the animosity between the Khanates didn't go away. When Batu's brother Berke came to power he had a score to settle with the Il-Khanate of Hulagu. And that was due in part to the fact that by that time the major rival western religions had influenced the course of Mongol history. Berke had accepted Islam, and Hulagu, brother of the contemporary Great Khan Mongke, was married to a Christian.

That was no hindrance to their desires of conquest because Berke was bordered by Christians in Europe, and Hulagu was subduing Muslims in the area of Mesopotamia and Asia Minor. But when Hulagu crushed Baghdad in early 1258 the Muslim Berke was outraged. Even without Berke's assistance, the Islamic capital, or caliphate, of Baghdad had been confident in Allah's protection of Baghdad, but the Mongol army exposed the danger of that fantasy in terrifying manner. Hulagu's army of warriors, from lands of the Mongol Empire near and far, attacked and then ravaged the city and its inhabitants after they surrendered. They burned libraries of knowledge collected over centuries, they

utterly destroyed buildings and structures of significance and antiquity; even raping and killing with wicked delight. And likely worst of all in the eyes of Berke, Hulagu had the supreme earthly leader of Islam, the caliph Al-Musta'sim and most of his family executed.

After sacking Baghdad, Hulagu went on to conquer Syria and then set his sights on Egypt. But before descending like a plague on Egypt, word came of Mongke Khan's death and Hulagu returned to Mongolia for another kurultai, leaving only a part of his army to move on Egypt. Saif ad-Din Qutuz however, not wanting to pass on the opportunity to strike at the Mongol's while they were at less than full strength and before they reached Egyptian soil, ordered his Egyptian army against the remaining Mongol force. The Egyptians were under the generalship of Baibars, a Mamluk. They were originally a group of slave-soldiers that had generally been captured or bought in the area of the Caucasus and Russian steppes, and forced to join the army of Islamic sultans. Baibars was said to be a large man with blond hair that may have been sold into slavery as a child by the Mongols.

The training and skills of the Mamluk cavalry were similar to those of the Mongols, being renowned horsemen and archers in their own right. The Egyptian forces numbered about the same as those of the Mongols, and on the way to confront the Mongols in the Levant they were allowed safe passage by the usually hostile Christians still holding territory from the Crusades. Baibars and the Mamluks met the Mongols near Ain Jalut in Palestine and cleverly used some typically Mongol tactics of retreating and flanking to beat the Mongols at their own brutal game, handing the feared Mongols a sound defeat. As part of the price of war the Mongol leader Kitbuqa was captured and executed.

What could have been a great victory for the Egyptian Qutuz was turned into catastrophe when he was killed by Baibars on the trip home. Baibars then assumed the throne of Egypt and established a Mamluk dynasty. Upon the return of Hulagu, Baibars might have been humiliated and executed by the full force of the Il-Khanate army. But the old adversary of empire, internal strife, reared its head and again altered the course of history. After Hulagu returned to Persia and readied his army, Berke, still seething over the destruction of the Abbasid caliphate, sent Nogai Khan on a series of raids in Hulagu's territory. And when Hulagu's army moved north of the Caucasus mountains to punish Berke, it was decisively defeated by the Golden Horde. That blood feud may have saved not only Western Europe, but also the small remnant of the Byzantine Empire and Egypt from falling under the Mongol yoke.

In the east, when Hulagu's brother Mongke died, another of his brothers, Ariq Boke was elected Great Khan, but yet another brother, Kublai wanted the title for himself. Kublai and Ariq Boke went to war with each other in 1260 and fought until Arik Boke was captured in 1263. Arik Boke was subsequently imprisoned, and died two years later. In victory, Kublai assumed the sole title of Great Khan, although his influence over the west was minimal at most. As previously stated, he did however establish the Yuan Dynasty, and complete the total conquest of China in 1279. After Kublai Khan died the Yuan dynasty was also cursed by power struggles and managed to stand as an empire for less than another century before falling to the Ming Dynasty in 1368.

Before that happened, the Mongols, of course, wanted to expand their rule from China, but Japan repelled two mistake-prone Mongol invasions across the Yellow Sea and Strait of Korea in which much of the Mongol invasion fleet was lost to storms at sea on both occasions. To the south of China, Vietnam also resisted capitulation. Unable to defeat the Mongols in direct confrontation, the Vietnamese evacuated their cities and retreated in the face of onslaught. Still, the Vietnamese were tenacious, at times they employed scorched-Earth tactics, fought stealthy guerilla warfare, and sought out small battles to their advantage. In three campaigns of invasion, always with superior battle forces, the Mongols never succeeded in subduing the Vietnamese people, and were eventually driven back every time.

Black Death and Renaissance

Transcontinental movement associated with the vast Mongol Empire was soon accompanied by a frightfully mysterious killer that spread across Asia, Europe and North Africa. Lurking in shadows, and drifting through valleys and over the countryside in clouds of fog, the Black Death was one of the worst of the devastating disease outbreaks that had long contributed to superstitious belief in divine retribution. Plague was so terribly unnerving because in the popular imagination it was the icy grip of death reaching out to victims from the beyond; with no natural defense, remedy, or even mercy. But no plague invokes the memory of suffering and destruction like the Black Death of the fourteenth century that smothered the life from ravaged communities, and left many cities in ghostly ruins.

As citizens huddled together in fear and gathered at church in large masses to pray, the killer only grew stronger. And the faster people fled from infested areas, the faster the disease spread, getting established in more and more distant lands. The Black Death wrapped its grisly arms around its victims and sank piercing fangs into the depths of their being, pulling them to the grave faster than the ground could be opened to receive their spoiled bodies. Entire families succumbed to the agony and anguish of boils, blisters and buboes; fever, diarrhea, vomiting, hemorrhaging, coughing; and rotting, liquified tissues. Men buried their brothers, mothers buried their children and all wept until they were hollowed out and numb to the sorrow, as flesh rotted on the bone and the putrid stench of decay bittered mind and body alike.

Like biblical figures laying their sins on a sacrificial lamb, people searched for a scapegoat to blame, with ethnic, religious and other minorities becoming the victims of renewed persecutions. In Europe Jews, lepers, travelers, and homeless people were just some of those targeted for retribution. Christians used the outbreaks as another occasion to exterminate entire Jewish communities. And Muslims in the Middle East did likewise to the “unbelievers” that had not submitted to Allah. Houses were burned, businesses looted, and those minorities that failed to flee fast enough were in many cases butchered where they stood. The overall negative effects propagated dark times; society’s mood was bleak. Dismal public character was reflected in works of the period and the arts that finally had once again been making progress were temporarily stifled.

Together with wars and famines, recurrent bouts of disease saw populations decimated across Europe, Asia and North Africa. Europe, for example, has been estimated to have lost nearly half of its people during the 1300s. The effects of civil dissatisfaction, labor shortages and property redistribution transformed the political landscape in many countries. And for the time being, the consumptive pattern of population growth was held in check, not by an all-powerful god or insightful planning, but by tiny organisms of archaic origin. For all their warring and brutality, people were still quite susceptible to annihilation from organisms too small to see. But the survivors forged ahead, and though disease, famine and warfare continued to recur, the veil of gloom and despair slowly lifted.

The fifteenth century saw the rise of the Ottoman Empire, beginning in Anatolia. And in 1453 the Ottoman Turks captured Constantinople, about a thousand years after the fall of Rome, finally marking the end of the Byzantine era and the demise of the last of the Roman Empire, even though much of what is now Germany was at that time being called the Holy Roman Empire. The Holy Roman Empire was in fact, not Roman, but a confederation of German territories that elected kings that were in turn crowned as emperors by the Pope. The term Holy Roman Empire is first known to have been applied to the federation of largely German states about 454 years after Charlemagne, king of the Franks, was crowned Emperor Augustus on December 25, 800.

As the Eastern Roman Empire declined, the exodus of intellectuals from Constantinople and other Byzantine cities and their resettlement in Western Europe, particularly Italy, helped add to the blossoming artistic expression known as the Renaissance. Prior to that the art and science of the Hellenized world that survived in the Roman Empire was all but killed off as Christianity and Islam both worked to virtually strangle art and knowledge to the point it nearly withered to naught. The

Byzantines did support some fine architecture, art and science, but were too weakened and pre-occupied by Muslim hostilities during much of their history to make large contributions to its historical development.

But finally, the necessary combination of stability, aptitude and interest came together again in Italy to breathe new life into society that had been suffocating under the blanket of the Dark Ages. Fifteenth century Italy captured some of the spirit of Athens from two thousand years before, and one of the cities at the heart of the Renaissance was Florence, under the patronage of the Medici family. Trade and banking had brought great wealth to the Medicis and they ascended to powerful political offices that included the papacies of Leo X, Clement VII, and Leo XI. The famous scientist Galileo was only one of many notable scholars and artists that received assistance from the Medicis, and he in fact tutored a number of the Medici children; even naming the four largest moons of Jupiter in their honor: Io, Europa, Ganymede, and Callisto.

Leonardo da Vinci, Michelangelo, Sandro Botticelli, Donatello and Raphael were just some of the artists who worked in Florence, and still today many of their beautiful works can be seen in the city. The genius of Leonardo and brilliance of Michelangelo have yet to be eclipsed, and even from their own times they were regarded as masters of their crafts. Though Leonardo's works of art such as the Mona Lisa and the Last Supper, with its intimate portrayal of emotion, are proclaimed as some of the great masterpieces of all time, and were complimented by his works in other fields such as anatomy and design; ultimately gaining him recognition as one of the leading minds of all time. And for five hundred years, the gentle yet powerful grace of Michelangelo's sculpture and painting has remained the pinnacle of artistic expression. The genius these men exhibited was extraordinary, but it was also a reflection of the extraordinary circumstances that was Florence during the Renaissance.

Even in the midst of beauty, however, ugliness can be found lurking, and the fine efforts of great artists weren't unopposed. A fire-brand priest by the name of Savonarola preached that old, tired fallacy that the end time was at hand, and he insisted that works of art and literature not in keeping with the strict, repressive long-standing Catholic dogma were of an evil nature. Savonarola would have kept the world in the Dark Ages had it been up to him; a world in which pleasure was loathed and fear exalted, as it is in much of the Muslim world and some Christian communities still today. After gaining power in Florence in 1494 he instigated the infamous Bonfire of the Vanities in which many great works were burned or otherwise destroyed. But justice would have a say, and Savonarola got his comeuppance in the end, as his crimes against the pleasures of history were avenged when he too was burned at the stake on the very site of his book burning bonfire in the year 1498.

The flowering of the arts would spread from Italy through the rest of Europe along with the fortune of global trade and empire in coming centuries. But as art was reaching new heights in Italy, the fifteenth century was seeing other remarkable accomplishments, including the spread of printing presses after 1440 following the model of Johannes Gutenberg that revolutionized the printing industry. Though the printing press was developed centuries earlier in China, the challenge of assembling the great variety of moveable type necessary to represent the unwieldy Chinese system of writing proved a great hindrance to prolific Chinese printing, whereas the small alphabets of Europe were much more easily managed. As it offered tremendous speed and labor advantages, mechanized printing spread rapidly, and greatly enhanced the literacy of Europe along with the dissemination of different ideas. But there was still more discovery to come. To top off the dynamic fifteenth century, just in time to fill the newly popular presses, came even more exciting news that gripped the imagination of the Old World.

The discovery came after unification of Spain through the marriage of Isabella and Ferdinand, and the subsequent reconquest of Cordova that set the stage for a larger Spanish economic and political presence. But like the rest of Europe, Spanish trade was hindered by Muslim control of important trade routes to India, China and even Africa. At that time Portugal rivaled Spain for the lead in what would come to be known as the Age of Discovery by laying claim to newfound islands and establishing

trading posts in Africa. And following the early lead of Prince Henry the Navigator, Vasco da Gama had rounded the southern tip of Africa for Portugal and established a sea route to India; with its supplies of highly desirable trade goods.

Portugal's growing trade network helped prompt Spain to sponsor a trip of exploration into the vast unknown western sea when approached by a native Italian promising a shorter sea route to Asia, even though the Spanish Crown had initially rejected his proposal. Not only did Spain at first balk on his far-flung plan, Christopher Columbus also asked Portugal, Italy and England to fund his risky and dramatic voyage but had no immediate takers. And that was because most royal advisors believed Columbus was underestimating the distance required to sail west from Europe to Asia. However, while the advisors were correct in their assertion that Columbus' estimation of time and distance was overly optimistic, they had no idea what, if anything might lie beyond the great ocean for Columbus to discover, and he would find it when his persistence with the Spanish Court eventually paid off.

Convinced that the transoceanic trip to the Orient was suitably short, he set sail under the Spanish flag in 1492. There were doubters of course, but there were also a lot of people that were convinced: convinced that the expedition would be lost at sea. It was commonly believed that such a trip would lead to disaster when the crew exhausted the food and water supplies before making landfall, but fortunately for Columbus, the Americas lay in his path. And he reached the islands of the Bahamas just five weeks after re-supplying at the Canary Islands off the northwest coast of Africa. Then, after triumphantly exploring some Caribbean islands he returned to Spain and announced an exaggerated discovery of rich islands near China and India.

And even more astonishingly, during all four voyages Columbus made to the New World he never realized that he reached lands less than halfway to Asia; and died still apparently holding to the belief that he had found a short route to India. However, others believed differently, and shortly after the death of Columbus, Martin Waldseemuller published a world map naming the new land America in honor of explorer Amerigo Vespucci who, during his own journey, correctly surmised that the landmass they were exploring was a continent[s] previously unknown to the Old World.

The voyages of Columbus did more than discover entire continents previously unknown to much of the world; they set off a rush to colonize and exploit not only the New World, but any lands with value that weren't well defended. Of course, land-grabbing conquest wasn't new; colonization was just one more way to extend empire, and colonization by sea went back as far as ancient empires and traders like the Phoenicians staking claims in the Mediterranean and elsewhere. And perhaps the most famous raiders and colonizers were the Norse Vikings that established settlements on distant lands by sea centuries earlier. But the growing priority of commerce, and competition between European powers was changing the focus of expansion, bringing the whole of the world in reach of ambitious countries with modern merchant marines.

The most important early powers in the Age of Discovery, Spain and Portugal, entered into a pact to split the world between them with Spain taking the lands west of a line in the Atlantic and Portugal taking the east. That ostensibly gave Spain control of much of the Americas and Portugal control of Africa, Asia and the Pacific Islands. In 1519 a Spanish expedition, led by Ferdinand Magellan until his death, circumnavigated the world. His ships rounded the southern tip of South America and sailed across the vast Pacific. The search for fame and fortune was costly however, as Magellan himself was killed in the Philippines in a conflict with natives, and only one of his original five ships was able to complete the journey back to Spain. But despite the challenges, as excitement built, Spain and Portugal were joined by other European powers, principally England, the Netherlands, and France, in the race to build empire through the acquisition of overseas territory. At the height of Europe's world dominance, the European powers would eventually come to exchange occupied territories like trading cards in war resolutions and economic negotiations.

Spain's conquest and subjugation of the New World is legendary; spreading across the Caribbean, Central America, South America and North America like the curse of Old World diseases

they brought with them. The native people of the Americas were devastated in a manner similar to the way the Black Death had ravaged Europe and Asia. The Spanish conquered the Aztecs and Incas and even explored North America in their lust for gold. The fabled city of gold, or El Dorado, was never found, but precious metals were taken from the natives by the shipful and transported across the Atlantic to the Spanish treasury, financing additional expeditions to extract the wealth of occupied lands.

Setting an ominous tone for New World inhabitants, Columbus himself reported how agreeable and easily defeated the natives of the islands he first visited were and that in the name of none other than the Holy Trinity as many of their number could be taken for slavery as could be sold. And under the auspices of God and country, many slaves were initially taken from the New World as slaves, but as large plantations prospered, the trend soon reversed and slaves flowed in from nearby territories. And finally, after the decimation of local populations through warfare and disease, slaves were brought in from the Old World by Spain and other Imperial powers to provide the intense labor necessary for high production agriculture.

It was Portugal, in particular, that established a highly profitable and voluminous slave trade. Even before Columbus' voyages to the New World, Portugal had opened a slave market in the town of Lagos in 1444 to import African slaves for sale in Europe. Aided by tribal rivalry, wherein warlords raided neighboring tribes to capture slaves to sell, Europeans trafficked in African slaves for hundreds of years following Portugal's example. And such modernly objectionable behavior was even reinforced by some Popes through papal bulls which encouraged the subjugation into perpetual slavery of those who didn't believe in Christ, although little mention was made of freeing the converts to Christianity and their descendants.

The technological divide between Old World and New was so great that Spain's conquest of the Americas was accomplished with relatively few soldiers. But it was not advanced weaponry alone that aided Spanish conquest. In the process, Spanish cavalry even reintroduced the horse to its native land, whence they migrated to Asia, Europe and Africa. But horses, along with camels, eventually died off in the Western Hemisphere. And the Spanish cavalry, wearing steel armor, carrying steel weaponry, and riding their large horses was an intimidating sight to the Americans. Swords, lances, crossbows, artillery, firearms, and even attack dogs offered the Spanish a lopsided advantage over natives that were often equipped with little more than wood clubs and spears.

Like most of the world, the lands the Spanish invaded was often populated by tribes hostile to one another, and also ruled by brutal overlords. For example, the Aztec Empire was still relatively young and actively seeking to extend its range by subduing surrounding tribes. Many of the Aztec's captives were sacrificed to their bloodthirsty sun god in horrific rituals. So the Spanish had little trouble recruiting additional fighters to challenge the existing rulers. Another great Spanish advantage was their treacherous cunning. Often they rode right into the center of local power under peaceful pretenses, only to capture the ruler and demand capitulation. In the case of the Inca conquest, Francisco Pizarro captured Atahualpa and demanded a large ransom. But, after receiving the ransom of gold and silver, Pizarro refused to release the Inca leader, and later had Atahualpa executed to deprive the natives of a leader that might challenge their control.

Back in the Old World members of the Habsburg family ruled most of Western Europe at one time or another. After the Spanish Habsburg, Philip II, took the Crown of Portugal in 1581 the old division of the world into a Spanish Western Hemisphere and a Portuguese Eastern Hemisphere was largely ignored. The whole world of sea trade now belonged to Spain. Spain's influence was exercised around the globe from the Americas to Asia and the Pacific Isles. The wealth and power the worldwide empire brought to Spain emboldened the Monarchy's pride, and rulers of Spain held themselves in higher and higher esteem. Natives of the colonies were reduced to slavery for the glory of Spain, while Jews and Muslims were forcibly expelled from Spain itself. And the jewel of the crown's domestic dominance came in the form of the Spanish Inquisition which was initiated to hunt down and

exterminate any remaining threats to the crown and the Christian faith.

However, as Spanish power and pride multiplied, Spain entered into conflict with other European powers. When Charles V divided his Empire largely into Spain and the Holy Roman Empire, holdings in the Netherlands went to Philip II of Spain. But troubles with Spanish rule in the Netherlands fueled by a Christian divide between Catholics and Protestants resulted in a Dutch revolt. After England joined the ensuing Eighty Years War in support of the Dutch it defeated the vaunted Spanish Armada in a surprising historical military upset. And France too, fought against Spain over the Southern Netherlands that would eventually become Belgium, Luxembourg and part of France, helping to further even the political and economic playing field, opening up more colonial opportunities for other European powers.

Not all trade and commerce was aimed at world domination, of course. In the 1590s the first Dutch commercial tulips were cultivated from stock imported from the Ottoman Empire, establishing a trade for which they're still famous to this day. The Dutch were already successful maritime traders, and following their independence from Spain they too established a great trading empire, with Amsterdam becoming one of the wealthiest and most capitalistic cities of the world, as reflected by the rise of the Dutch master painters. And though many trade networks and much exploration had long been financed by private financiers, the Netherlands developed the first full-time stock exchanges where individuals could gather to invest in commercial enterprises.

At the time many stock exchanges were still secondary to other business concerns, with a lot of early stock exchanges being located in pubs or other popular meeting places. It may be worth noting that the Dutch stock market experience had a large influence in London; and later New York, or New Amsterdam as it was called by the Dutch prior to British control of the town, where Wall Street took its name from the old wall protecting New Amsterdam's northern boundary. The wall itself was removed by the British in 1699, well before the New York Stock & Exchange Board, later renamed the New York Stock Exchange, was founded in 1792; more than 150 years after a Dutch stock market crisis that brought economic ruin to many investors, triggered by over speculation in none other than the tulip trade.

The Dutch took control of some Portuguese colonies and established others all around the world, in the Americas, Africa, Asia and Pacific Islands. Some Dutch colonies were organized and administered by private enterprise; foremost of which was the Dutch East India Company chartered by the States-General of the Netherlands in 1602. Dutch development priority was given to the Pacific Islands and the Far East. Trading centers and supply posts were established in Africa, and modern Iran, India, Bangladesh, Malaysia, Thailand, China and Taiwan. As Netherland prosperity continued in the seventeenth century the Dutch East India Company grew to be the wealthiest private enterprise the world had ever known.

Denmark also established a strong trade with Japan, an island nation steeped in history and tradition. Having a relatively small land area, permanent settlement was established early in Japan. The Japanese were living in wooden houses more than ten thousand years ago. But Japanese influence wasn't felt much outside of Japan. In the seventeenth century, in reaction to concerns over imperialistic intentions by Europeans, Japan isolated itself by implementing heavy restrictions of trade and foreign travel. The only countries with which Japan would allow trade were Denmark and China. And after the Dutch suffered multiple losses in wars with other European powers, the trading port at Japan was one of the few foreign assets the Netherlands had left.

After about two centuries however, Japan's self-imposed isolation was disrupted by a show of force by the United States navy under Commodore Perry. In 1853 he sailed into the harbor at Edo, present day Tokyo, with four ships of war and demanded Japan open up trade with the West. The ironclad warships were unlike any the Japanese had seen and they were duly impressed. The following year Perry returned with seven ships and signed the Convention of Kanagawa opening Japan to U.S. trade. Following that trade coup by the U.S.; Russia, France, and Great Britain convinced Japan to sign

similar trade treaties, putting Imperial Japan in an uncomfortable position of being influenced by foreign powers.

Though relatively quiet, the French also had colonial ambitions, being early explorers and settlers of North America. In a fruitless attempt to find a water passage to Asia, they were sailing along the Atlantic coast of North America by 1524. Though not finding the hoped-for northwest passage, they did establish their first settlement in North America in Canada along the St. Lawrence River at the site of what is now Cap-Rouge, Quebec in 1541. However the French suffered a setback when weather, disease and hostility of the natives combined to scrap that first attempt at colonization.

France's second attempt was near the mouth of the St. Johns River in modern northeast Florida in the year 1564. That colony, Fort Caroline, was threatened by a Spanish colony established the following year called St. Augustine. But before the French could successfully drive the Spanish away, the Spanish marched on Fort Caroline, killed many of the settlers and sacked the fort. St. Augustine would go on to become the oldest continually inhabited European city in the United States, and France gave up attempting to colonize the Atlantic Seaboard.

Future French colonies were essentially fur trading posts that required few settlers and relied on good relations with local Indian tribes for trade and security, and they were concentrated along major waterways from the St. Lawrence River to the Great Lakes and the Mississippi River system. Some of the notable cities that grew from those trading posts include Quebec, Montreal, Detroit and St. Louis. The French colony of Louisiana, however, and establishment of Baton Rouge, New Orleans, Biloxi and Mobile were efforts at colonization based on much more generalized trade and agriculture. Like the other European colonial powers France also settled areas of the Caribbean and South America. But after a rare successful slave rebellion, Haiti gained its independence from France in 1804, becoming one of the first independent Caribbean nations. But not all French colonial efforts came to naught, by contrast, French Guiana north of Brazil in South America is still a part of France to this day. French Guiana is proportionately represented in French government and holds the distinction of constituting the largest landmass of the European Union outside of Europe.

One of the Johnny-come-latelies, England got serious about the race for colonial profit about a hundred years behind Spain, about the same time that one William Shakespeare was setting new heights in his productions for the English theater. Prior to the development of electronics and recording instruments of the twentieth century, live theater and later forms such as opera, were principal means of public entertainment. And Shakespeare's prodigious talents transcended his work as an actor and producer of plays, to that of the World's most renowned author, with mastery and innovation of a rapidly evolving language, and rich portrayal of mood and character. But like the great painters of the Renaissance, he didn't display singular genius born only of internal inspiration. He was made better by his contemporaries like the Spaniards Lope de Vega who penned as many as 1500 plays, and the author of *Don Quixote*, Miguel de Cervantes.

In contrast to the creative beauty of the arts, early English forays into world trade in the age of discovery consisted to a considerable extent on the pirating of Spanish and Portuguese treasure and trading ships, which, of course, were generally themselves laden with ill-gotten goods. Today, many Americans associate European settlement of North America with the British, but by the year 1600 little had become of England's 1583 claim on the island of Newfoundland off the coast of modern Canada. It was in a charter of 1600 that England granted special trade authorities to the British East India Company to carry out trade with Asia. And it was that charter granting exclusive rights to a private trade enterprise that would play a very instrumental role in forging what would become the mighty British Empire for the little island nation that had been overrun by Germans, Romans, Norsemen and even Frenchmen with Norse ancestry.

England had slightly different ambitions for North America, but first England concerned itself with conquering and colonizing neighboring Ireland before colonizing the New World. After defeating Ireland in the Nine Years War ending in 1603, the English confiscated Irish lands and colonized them

with English citizens to farm as plantations of England. And it was that model of agrarian colonization that the English followed in establishing colonies along the Atlantic seaboard of North America.

In 1607 the colony of Jamestown was founded in what is now Virginia in the United States. Other colonies followed along the East Coast and some Caribbean islands; alongside Dutch and French colonies. After fighting together in the largely religious war between Christian factions known as the Thirty Years War that ended in 1648, the English and Dutch soon turned on each other when England ordered all goods from its American colonies to be transported only on English ships. For years England had been growing envious of the Netherlands' trade wealth, and after the Dutch seized much of Portugal's colonial empire following the Thirty Years War, England was looking to compete more favorably with the Dutch for the lucrative shipping business.

Still, the Netherlands had the preeminent navy in the world for a good part of the seventeenth century and repeatedly beat back English attacks and invasion attempts. Actually, it's one of the great twists of political irony that in amongst the Anglo-Dutch wars the Dutch were successful in having William III of Orange, a nobleman of the Dutch Republic, installed on the throne of England in 1688. However, William by no means had free reign over English affairs, his wife Mary wielded considerable influence as daughter of the previous king, James II, and Parliament restricted his authority. In the same year William took the throne, Parliament passed a Bill of Rights to that effect. The articles of that Bill of Rights included the right of subjects to petition the king, the right of Protestants to bear arms, the right to free elections, the right to freedom of speech in parliament, protection against excessive bail or fines and cruel and unusual punishments, and freedom from fines and forfeitures before conviction.

Catastrophically to the Dutch, William didn't use his influence in England to Dutch advantage, but rather used his influence in the Netherlands to dictate terms favorable to the English. The English declared that all naval actions would be under their control and the Dutch Navy would be limited in strength to no more than sixty percent of that of the English Navy. In following years merchants flocked from the Netherlands to London to take advantage of the favorable trade conditions, and England profited greatly while the Netherlands were largely neglected. The Netherlands rose up to challenge England in the fourth Anglo-Dutch war about one hundred years later in the wake of the American Revolution but by then the Dutch were so seriously lacking in naval strength that they were decisively defeated. And later defeat at the hands of France virtually ended the Dutch bid to be a major power.

Back in North America, the agriculture based British Colonies were establishing themselves as full-scale societies, and settlers in the British colonies far outnumbered the settlers of New France. As part of an ongoing battle for supremacy between Britain and France, the British, and their American colonies defeated the French and their Indian allies in the French-Indian Wars, which was part of the greater Seven Years War between France and Great Britain, which in turn is considered part of the Second Hundred Years War. The Treaty of Paris of 1763 gave control of New France in Canada and east of the Mississippi River in what would become the United States to the British. Spain's claim to Florida was also ceded to Great Britain for its part in the conflict. To compensate Spain, France ceded New France west of the Mississippi, the area that would be known as the Louisiana Territory, to Spain. However, much of the British expense of the war was passed along to the colonies in the form of taxes, a policy that would not sit well with the increasingly independent American colonists.

Colonial wars similar to the French-Indian Wars raged around the world with territories changing hands many times over. But in 1775, thirteen British colonies in America took up arms against imperial rule in a revolution that was heard around the world. The colonies took advantage of the nearly constant warfare the British were engaged in, to seek foreign support and challenge the British to fight a war across the Atlantic on America's home turf. Some British forces were already stationed in America and the British military had a decided advantage in experience and armament, but they did, as the colonists predicted, have difficulty raising and supporting enough ground forces to

subdue such a large land area as the colonies represented.

The war was small by some standards, as the British only managed about 100,000 troops, with only a small portion being British regulars and the rest made up of local loyalists, German mercenaries and Native American recruits promised their own autonomy. Yet, despite Britain's disadvantages, the colonists were unable to mass forces sufficient to overwhelm the British through mere numerical superiority. Part of the reason why the Americans didn't mass all available force against the British is because the British initially controlled the seas and were thus highly mobile, if the Americans brought all force to bear in one area, the British could evacuate and move to attack an undefended city. Another reason why the Americans didn't overwhelm the British is because the Americans still had very limited means to manufacture their own armament, so they faced serious supply problems of their own. And a third reason was just a lack of concentrated effort, with insufficient logistical support and reluctance of militiamen to leave their homes for long periods of time.

Still, things went well initially for the inexperienced militiamen. In their first significant engagement at Concord, Massachusetts the Americans routed a small British force and then laid siege to the British at Boston. But in New York City the tables were turned and it was the Americans under George Washington that were routed. After the retreat from New York in 1776 Washington snuck back to the British winter positions and scored a few small victories to prop up the revolutionary spirit. That hard winter was followed in 1777 with victories being split when the Americans captured a Royal Army at Saratoga, and the British captured the city of Philadelphia.

But it was after the American victory at Saratoga that France entered the war on the side of the Americans. France was later joined by Spain and the Netherlands in confronting Britain, though they all had supported the Americans in subtle fashion from the beginning of the revolt because of resentment toward growing British dominance of commerce and global affairs. Spain, of course, didn't so much wish success for the Americans as they wished misfortune for the British, because successful revolution could inspire great trouble for Spain in its own colonies. Spain was however, bound by treaty to aid the French against England.

For Britain the war spread around the world and the goal of retaining colonial control of the thirteen rebellious colonies wasn't worth the cost. Unable to concentrate its forces on America, the British muddled along with the forces they had. Beginning in 1778 they moved their army south via ships. There the British had success in Georgia, South Carolina and North Carolina, but when they were pinned down at Yorktown, Virginia in 1781 by the converging armies of the Americans, they were cut off from retreat by a French naval victory in Chesapeake Bay that prevented the Royal Navy from evacuating General Cornwallis and his men. Thus surrounded, without hope of reinforcements, Cornwallis surrendered his army in October, 1781.

It took another two years for the combatants to sign a peace treaty, during which time the war dragged on in various theaters around the world, principally between the French and English at sea. In the end Britain was forced to give up the rebellious colonies and make some other minor concessions. Casualties from fighting in America were relatively light, with about an equal number of casualties from exposure and disease. But like most wars it was an expensive exercise in futility for the European participants. Britain racked up a heavy debt just to lose some territory. The Netherlands were subsequently defeated by the English in the Fourth Anglo-Dutch War, and the huge debt France faced exacerbated internal discontent that helped lead to France's own civil war within ten years.

One of the principal beneficiaries of internal French turmoil was a general named Napoleon Bonaparte. An ethnic Italian born on the island of Corsica, he entered military school at the age of nine. During the ten year French Revolution from 1789 to 1799, Napoleon had uncommon military success in France, Italy, Austria and Egypt. In 1799, with his army stuck in Egypt for lack of Naval support after the British, under Horatio Nelson, destroyed many French ships at the Battle of the Nile, Napoleon was recalled to Paris. The governing body was under attack again and Napoleon was approached by Sieyes, a member of the governing Directory, to implement a military overthrow.

Napoleon did act to dismiss the government, but he seized the initiative from Sieyes and got himself appointed First Consul, two years later he was declared First Consul for life.

During his time as First Consul Napoleon was instrumental in reforming the legal and civil systems. To the delight of the expanding United States, in 1800 he entered a secret treaty with Spain transferring control of the Louisiana Territory in America to France. Following the successful slave revolt in Haiti in 1803, and facing imminent war with Britain, Napoleon agreed to sell the Louisiana Territory to the United States for fifteen million dollars; about three cents an acre. The Louisiana Purchase doubled the size of the United States. But, Napoleon and the French could use the money and in 1804 Napoleon had himself crowned Emperor. In that same year Austria and Russia joined Britain in opposing France and in 1805 Napoleon led the Grand Armee to victory over Austria and Russia. That success was tempered however, when the British assured control of the seas by defeating the French and Spanish Navies at the Battle of Trafalgar. When another coalition formed to challenge France, Napoleon defeated Prussia and Russia, giving France control of additional German states and part of Poland.

Despite great military achievement, Napoleon fell into that age-old trap of greed that disguises one's own limits and an insatiable Napoleon ordered the invasion of Spain. After a failed start, Napoleon took personal control of the invasion and subdued much of Spain before Austria again broke allegiance with France and Napoleon returned to France. Though the French were able to defeat Austria again, the combined forces of the Spanish, Portuguese and British were able to regain control of Spain. While French forces were still engaged in Spain, Russia massed troops at the Polish border in preparation to retake Poland from France. Hearing of that, Napoleon raised more troops, and led an army estimated at half a million strong against Russia.

In 1812 Napoleon invaded Russia where he would finally discover the limits of himself and the Grand Armee. It wasn't for lack of power and battle ability that Napoleon tasted bitter disappointment because the Russians offered little resistance, instead employing a "scorched Earth" tactic of retreat under the relentless onslaught of the French. It was deep within Russia, near Moscow, that the Russian Army finally made a stand. French forces may have sustained less casualties than the Russian Army, but the engagement was not a decisive victory. Following the battle, the Russians abandoned Moscow and burned it as well. Napoleon had expected surrender when he captured Moscow, but when the Russians made it clear that they would continue to retreat and burn their own country in an attempt to starve the invading French, Napoleon decided to cut his losses and withdraw from the Russian campaign, proving the old adage of loss in victory.

With news of Napoleon's failure in Russia, more countries were encouraged to oppose his ambitions of conquering the continent. Prussia, Russia, Britain, Spain and Portugal all stood against the French. And after Napoleon defeated the allied forces, Sweden and Austria also allied against France. Eventually the combined allied forces were too much for even Napoleon to withstand and the French were driven back. In 1814 Paris was occupied and Napoleon was sent into exile on the island of Elba. But, in less than a year he escaped Elba and returned to France, only to raise another army and be defeated again by allied forces at Waterloo in Belgium. After Waterloo, Napoleon was banished to Saint Helena where he died in 1821.

Napoleon's disastrous campaign into Russia that, while not being defeated in major battle, cost so many men and so much of his Grand Armee in the face of Russia's scorched Earth tactics, underlined the power of the colossus that was Russia. Russia had become a significant power in Europe under the rule of Peter the Great a century before Napoleon came to power in France. From the time Peter took the Russian throne in 1689 until his death in 1725, Peter, like Napoleon, reformed his government, and was obsessed with expanding his empire. Peter modeled his reforms after European customs to his west. He forbade the wearing of beards and long coats and relaxed the restrictions on women, allowing them to participate in social functions and ordering the removal of the oppressive veils that covered their faces.

Peter's legacy was military expansion. Drawing on the vast resources of the huge Russian territory, and imposing heavy taxes and long military enlistments on the Russian people, he oversaw development of a large, modernized military. The primary target of his expansionist ambition was the Baltic coast controlled by Sweden. With an empire that already stretched to the Pacific coast north of China, Peter concentrated his efforts against Sweden and even allied Russia with Poland and Denmark to that end. But their first effort failed as young King Charles XII of Sweden routed the combined forces allied against him in 1700. Eventually however, the numerical superiority of the Danes, Poles and Rus, combined with scorched Earth retreating tactics by Russia to wear down Charles XII and the Swedes, and Russian forces were able to take control of the southeast coast of the Baltic Sea.

Russia's gain also momentarily benefited the British as war weakened some of its continental rivals. Although the loss of the fledgling United States, made official in 1783, diminished the British Empire, it was by no means crippled. For more than a hundred years the British East India Company grew and prospered through diplomacy and profitable trade, even being well received by the Mughal rulers of India. And as the Mughal Empire declined, the Company took the opportunity to expand. Raising a private army, the Company defeated a rebellion centered in Bengal in 1757, but by that time the Indian trade and nearby China trade was such a large part of the British economy that Great Britain decided to dissolve the private company after two-and-a-half centuries and administer India, including modern Pakistan, Bangladesh and Myanmar under direct government rule. In such manner, through war, trade and colonization, at its height the British Empire surpassed that of the Mongols as the largest unified empire ever known, incorporating areas around the world from Canada, to Africa, the Middle East, India, Australia and beyond.

Science and Industry

As the culture of the renaissance, and age of discovery inspired brilliance and innovation, the spirit of achievement broke through rigid confines of conformity and pushed a wave of creativity across Europe. One of those riding the wave of creativity was a student and later teacher at Trinity College in Cambridge, England named Isaac Newton. He helped to organize, and added to the growing body of knowledge that was the scientific revolution; building on the foundation of the philosopher Descartes, astronomers Galileo, Kepler and Copernicus, and mathematicians John Wallis, Isaac Barrow, Eudoxus, Aryabhata, Ibn al-Hatham and Sharaf al-Din al-Tusi to name only a scant few.

Regarded as the most important work of one of the most influential scientists of all time, Newton's *Mathematical Principles of Natural Philosophy* (Principia), was published in 1687. His contributions include pioneering work in optics where he demonstrated the color components in light through refraction and invented a reflective telescope based on mirrors to focus light without the refraction aberration common to lens focusing. And though he was instrumental in applying calculus to matters of physics, his fame derives from the introduction of the concept of gravity and his laws of inertia, acceleration and reaction that helped shape the future of physics and mechanics.

It was the work of men like Newton that helped planets and other celestial bodies escape the archaic confines of clear, glass-like spheres popular with Aristotle, and move through the vast universe tethered only by the touchless, invisible bonds of gravity. *Principia* also gave some valuable advice to any of those seeking the truth, by sharing some of Newton's principles of reason. To prevent errors born of man's recognized tendency to invent undue cause of questioned effect Newton penned the following four rules of philosophy:

- We are to admit no more causes of natural things than such as are both true and sufficient to explain their appearances.
- Therefore to the same natural effects we must, as far as possible, assign the same causes.
- The qualities of bodies, which admit neither intensification nor remission of degrees, and which are found to belong to all bodies within the reach of our experiments, are to be esteemed the universal qualities of all bodies whatsoever.
- In experimental philosophy we are to look upon propositions inferred by general induction from phenomena as accurately or very nearly true, notwithstanding any contrary hypotheses that may be imagined, till such time as other phenomena occur, by which they may either be made more accurate, or liable to exceptions.

Without such objective approaches to reason the 18th century surely wouldn't be called the Age of Enlightenment. German philosopher Immanuel Kant echoed the sentiment of those resisting the old bully pulpit when he challenged, "Dare to Know!: Have the courage to use your own intelligence!" And at the end of the preceding century John Locke published his *Essay Concerning Human Understanding* wherein he influenced future Enlightenment thinkers by stressing the importance of experience and environment on shaping people's attitudes and understandings. Nowhere was the impact of experience better demonstrated than in the accounts written by adventurers, merchants and missionaries that traveled the world and reported on the myriad of customs and traditions of distant cultures, causing readers to question the benefit, truth and even necessity of their own rituals and convictions.

But tragically, mankind was so consumed by its own ignorance that enlightenment writers were forced to use a number of ploys to circumvent censorship such as overtly praising what they intended to criticize, publishing under pseudonyms, setting lessons in the form of dialogues among characters in a story, and criticizing customs of other lands that resembled undesirable customs at home. Society was in such a rut of selfishness that two critical themes of the Enlightenment involved toleration and equality.

There was beauty in generous thought that was accompanied by equally beautiful music, brought to life by such legends as Bach, Handel, Haydn, Mozart and Beethoven. And the flowering of knowledge, art, and discovery was soon followed by major advancements in industry, with Britain being the principal seat of the industrial revolution in the late 1700s and early 1800s. It may have been no small coincidence that industry prospered in eighteenth century England along with a great rise of periodicals and newspapers that aided in the dissemination of news and information contributing to intellectual collaboration.

At that time one of the basic economic staples behind food was clothing. And it was in the textile industry that mechanization made great early strides, with some of the first machine production powered by water wheels and animals, but as textile machinery became more complex and efficient so did the engines that powered them. Some of the first practical steam engines saw early action pumping water out of coal mines, but after improvements by James Watts and fellow inventors, the steam engine became wildly popular in powering the emerging textile factories and other stationary applications like grain grinding.

Increased demand meant massive increases in the quantity and quality of iron production and machining in the eighteenth century that contributed to the dominance of the steam engine in transportation. Those steam engines drove giant locomotives and steamships that supplied factories with raw materials and delivered finished goods to markets around Britain and around the world, in addition to driving increased production by powering manufacturing processes.

Rapid increases in mechanization, power generation, chemical production, machining and metallurgy were complemented by Britain's dominance of the seas to allow nineteenth century Britain and its still expanding overseas empire to stand head and shoulders above the rest of the world in wealth and power. Some of that British wealth and ingenuity was proudly presented by Queen Victoria in the first modern world fair, the Great Exhibition of 1851. And many other countries joined Britain in contributing to the 100,000 exhibits of the latest products and technologies under nineteen acres of glass and iron of the Crystal Palace display hall. The public enthusiasm for profitable industry and satisfaction of achievement may have been summed up by Victoria's husband Prince Albert when he lauded man's fulfillment of the sacred mission of conquering nature for his use.

On the foreign front Britain's colonial dominance and growing empire was maintained the only way society knew to maintain control: by armed conflict. Britain's control of India and aggressive trade development brought it into conflict with China in the Opium Wars from 1839 to 1842 and from 1856 to 1860. With victory, the British gained control of Hong Kong as a trading port, and favorable trade accommodations to counter the large trade imbalance that existed before the wars, as the Chinese maintained a self-sufficiency that contrasted starkly with steady demand in Britain for Chinese products and materials.

After the Americas, Australia, Atlantic and Pacific island groups, and much of Asia was under the control of the European colonial powers, they partitioned Africa near the end of the nineteenth and beginning of the twentieth century. Britain connected its share of Africa with the rest of the Empire with an amazing telegraph system that extended from Europe to Africa, to Asia, south to Australia, across the Pacific to Canada and across the Atlantic to Ireland.

The world's growing telegraph network was kept busy by the accelerated march of discovery and technological innovation during the nineteenth century. One of the very important developments was promotion of the germ theory by French chemist Louis Pasteur that truly revolutionized sanitation and healthy practices in food preparation and the field of medicine. His process of sterilizing substances by applying enough heat to kill microorganisms became known as pasteurization and is the basis of preservation in much of the canned and bottled foods consumed today.

Human civilization was drastically changed when, for the first time in history, Pasteur's germ theory led to the general acceptance that many horrific diseases were the result of invasions of pathogenic microorganisms too small to see with the naked eye. Society was able to benefit from better

hygienic practices in healthcare that greatly reduced the occurrence of deadly infections known as “hospital gangrene.” Also of keen importance, Pasteur’s work led to a preventative vaccine for rabies and helped lay the foundation for development of future immunizations against the world’s most deadly diseases. Together with the popularization of ether and chloroform anesthesia in the 1840s, microbiology finally ushered in the modern age of medicine.

But the French were busy with more than microscopic projects in the 19th century. In 1869 they finished the monumental Suez canal that recalled the engineering ambition of Darius of Persia that enabled maritime travelers between Europe and the Pacific to bypass the large African continent. And in attempting to duplicate their success the French also undertook to link the Atlantic and Pacific oceans by building a canal through Panama. But unfortunately, their efforts in Panama were fatally compromised by malaria and yellow fever that claimed more than twenty thousand lives. Ironically, it was the work of men like Pasteur that enabled Americans to correctly surmise that mosquitoes were responsible for transmitting deadly tropical diseases, and in 1914 America completed the massive project began by the French decades earlier.

Science was still picking up speed in the 19th century when Russian Dmitri Mendeleev classified the known elements by their atomic weights and contributed to the grouping of elements into periods of substances with similar properties in the 1860s. And also that decade the world lost one of the preeminent experimental scientists of all time when the Briton Michael Faraday passed away in 1867. Thanks to Faraday’s pioneering breakthroughs in chemistry, and contributions to the electrical age through his work with motors, generators and electromagnetic theory, he was awarded a professorship for life at the Royal Institution of Great Britain; demonstrating that high accomplishment isn’t necessarily correlated with formal education, of which Faraday had very little.

But, there was still a running battle between fallacy and fact being waged between religious proselytizers and scientists. Early in the century, in 1809, Frenchman Jean-Baptiste Lamarck had presented a theory of evolution in which he postulated that plants and animals differed based on different environmental conditions shaping their development. It wasn’t until fifty years later however, that Englishman Charles Darwin, a naturalist that had been trained in theology, shook man’s world to its foundation when he presented the evolution of species.

The evolution of species seemed to make a lot of sense to people – until the public actually considered how that concept related to them. It wasn’t until Darwin published a book in 1872 discussing the evolution of men and apes from common ancestors that the general public woke up and considered the application of evolution to humanity. The idea that people might in any way be equal to or have common ties with their fellow earthlings was repugnant to the self-righteous and narrow minded masses, and great slanders were directed at Darwin for trying to associate mankind with the lowly apes. But, the true savages weren’t apes or monkeys, of course, but it was those assailing Darwin’s character for presenting the brilliant, honest truth. Never did they stop to consider how mankind’s progress to this point gives hope for greater understanding and accomplishment in the future.

Even the basic contradictions inherent in the variety of humans having descended from Adam and Eve and later Noah’s family in just a few thousand years was lost on the masses, as they were quite content believing what they wanted to believe without the burden of reason. Still today people refuse to embrace reality, and deception rages on amongst the ignorant; who slap each other on the back and praise one another for jobs well done, because Abrahamic mythological tradition to which Jews, Christians and Muslims cling gives dates for the age of the world of less than ten thousand years, and credits the universe to a creator in man’s own image. But even the arrogance employed by many religious apologists arguing the savage (non-white) races were a blend of man and beast was in itself an erroneous affirmation of the very evolution they so vehemently opposed.

Widespread ignorance also led to war when England’s most famous former colony was torn apart by civil war because of the blatantly evil institutionalized injustice of slavery. When Abraham

Lincoln won the election for President of the United States in 1860 despite not being on the ballot in nine Southern states, the spark was set to the smoldering, contentious issue of slavery. But Lincoln's opposition to slavery was mild compared to many abolitionists and other Republican candidates for president. There were even some brave people that refused to sit by while politicians debated the legality of imprisoning, beating and terrorizing people in perpetual forced labor. With every passing day people were being abused for the little gain of greedy men.

John Brown's raid on the armory at Harpers Ferry, Virginia in 1859 was the last major attempt to physically free the slaves prior to the Civil War. The largest was led by Charles Deslandes in 1811 in Louisiana when a group of as many as five hundred slaves were recaptured near the small town of Destrehan upstream of New Orleans. Sixty six slaves died in battle and Deslandes and twenty of his followers were executed and decapitated. The heads of the executed slaves were placed on poles along the river road as a warning to others, much as the slaves led by Spartacus were massacred and displayed by the Romans so many centuries before. Many other slaves that dared to seek freedom were burned or otherwise brutally murdered during the centuries of slavery in America. And their mutilated bodies were often hung for public display to terrorize any other would-be runaways and rebels.

The debate over slavery had resonated across America for about a century prior to the American Civil War. Benjamin Franklin and Thomas Paine were among the leaders of the American Revolution that spoke out against the evils of slavery. Yet the oppression continued. Debates raged through the halls of congress, and states like Kansas were bloodied by the contests between opposing factions over the admission of new states as slave or free states. The general disgust with slavery grew in the eighteenth and nineteenth centuries, with both sides of the issue becoming more entrenched in their positions. In 1861 the Russian monarch Alexander II freed Russian serfs, leaving America as the last great bastion of slavery.

After Lincoln was elected president, South Carolina renounced the Constitution and seceded from the United States. South Carolina was soon followed by other slave states, and a war of secession began in 1861. Still, President Lincoln was so unenthused about equal rights he didn't announce the freedom of Union blacks until the Emancipation Proclamation in 1863, and that act appears to be motivated in part by the need for a boost in the war effort. Actually, Lincoln had previously stated that he didn't intend the negro to be elevated to voting rights and equality with white men.

Nevertheless, after the deaths of thousands and thousands of soldiers fighting for liberation in the deadliest American war, slavery was finally outlawed. It's often forgotten that the American civil war largely marked the end of the barbaric practice of enslavement that had oppressed every ethnic group in the world at some time in history. Since before the time of Egypt and Sumer, no group of people have been spared the yoke of slavery at the feet of conquerors, savages, neighboring tribes and even traders. And as horrible as the wrongs of slavery were, they pale in comparison to the evil people subject our fellow animals to.

Even with the denouncement of slavery however, the Industrial Revolution contributed to the separation of the haves and have-nots. Never before did such a gap in technology and productivity exist as between those countries at the forefront of technology and those left behind. Many areas of the world still relied on meager agrarian economies. Britain's European rivals, especially Germany, eventually lessened the industrial gap. But the mammoth countries of Russia and the United States were beginning to loom large on global considerations. As Britain was forming a widespread conglomeration of territories populated by diverse peoples, the United States had steadily spread westward from the Atlantic to the Pacific.

And Russia had extended its borders to the Baltic and Black Seas and eastward all the way to the Pacific Ocean. The industrial revolution had tilted world demand from labor to resources. While the large number of people in Europe and Asia were heavy burdens on available resources, leading the Europeans to push into Africa for raw materials; America and Russia had enormous reserves of resources in their own backyards to be exploited. But before Russia could ramp up a world-class

economy, its global aspirations drew it into a long contest of influence in Central Asia with Britain which came to be called the Great Game.

The buildup of modern European militaries had left the Ottoman Empire at a disadvantage, and Russia wanted to extend its territory into that controlled by the Ottoman Empire. But others weren't content to see Russia expand its formidable territory even further, and in the 1850s Britain, or the United Kingdom as it was known, joined with France, Sardinia and the Ottoman Empire in war to halt a Russian invasion of Ottoman territory. But in the late 1870s Russia did manage to successfully annex territory from the Ottoman Empire in what came to be known as the Russo-Turkish War.

Britain and Russia continued to feel the other was a threat to their interests and order, but it was the British that grew more concerned every time Russia expanded its territorial holdings, especially toward India, the Jewel of Britain's Imperial Crown. The 1800s saw Russia expand in Central Asia up to the border of and even into Afghanistan. As a result, Britain invaded Afghanistan twice, at high cost, in an attempt to maintain British influence and keep a buffer against Russian encroachment. Undaunted, Russia extended its control into Northern Iran; and the two powers lobbied and threatened the Ottoman Empire, Persia and Tibet until a growing German influence in Asia gave them both pause to reconsider their priorities.

Great War and Rise of the Dark Knight

In 1870 Italy was united by Victor Emmanuel II. Shortly thereafter, following the Franco-Prussian War, William I and his Prime Minister Otto von Bismarck united the northern German states under Prussia, one of the states of the former Holy Roman Empire; and William declared his nation the German Empire. Before defeating France in 1870 Bismarck had already led Prussia to defeat Austria in the Austro-Prussian War of 1866 to establish Prussia as the leading power among the German states. Austria's loss of territory to Prussia and Italy left the rule of the Habsburgs weakened in a kingdom comprised of many competing ethnic groups. Soon Magyar nationalism in Hungary caused the kingdom to be split into two distinct states, Austria and Hungary, each with their own governments but both still ruled by Francis Joseph, Emperor of Austria and King of Hungary. While Hungary was in turmoil, industrialization proliferated in Germany under William and toward the end of the nineteenth century Germany even overtook Britain as Europe's foremost industrial power.

Meanwhile, being intimidated by what came to be known as gunboat diplomacy by the U.S. in the 1850s and thus spurred by outside forces, Japan also embraced a course of aggressive development in the latter stages of the nineteenth century. Under the rule of Mutsuhito, also known as Emperor Meiji, Shinto was declared the official religion and as emperor Meiji was revered as semi-divine, and he also took direct control of the Imperial Army and Navy. The Japanese modeled their modernized navy after, and received training assistance from the British Royal Navy; with the majority of their primary warships built in Britain and France. And the Imperial Japanese Army was modeled after the French and then the Prussian, or German Army, receiving military advisors from both countries.

The work produced remarkable results, and by the 1890s Japan had a modern army and navy and decided to seize the opportunity to rest control of Korea from China, beginning the First Sino-Japanese war in 1894. And the Europeans certainly weren't above playing one side against the other in such regional conflicts. Though Britain had assisted the modernization of Japan's navy, at the outbreak of the war a British merchant ship was in the employ of China, transporting troops, and it was the forcible interception of that ship by the Japanese that almost set off hostilities between Britain and Japan. In addition, China was also receiving military advice from Germany, much as Japan had previously. Nonetheless, after a series of Japanese victories the war ended quickly and China was forced to make concessions to Japan including handing over possession of the island of Formosa (Taiwan).

Originally China ceded the Liaodong Peninsula, situated between mainland China and the Korean Peninsula, to Japan as well, but that conflicted with Russia's interests in Manchuria. Russia desperately wanted a year round port on the Pacific that the shelter of the Yellow Sea could provide. So Russia persuaded Germany and France to apply pressure, convincing Japan to release the land in exchange for a greater indemnity payment. Japan conceded, but was concerned with expanding Russian presence in the area, and after another decade of strengthening its military, Japan was ready to confront Russia, who in the meantime had heavily fortified Port Arthur on the Liaodong Peninsula. The resulting Russo-Japanese war of 1904-05 ended in a humiliating defeat for Russia, and a stark notice to the West that Japan had come of age.

But Japan's victory had significant impact in Europe as well. Britain, for one, also long concerned by Russian expansion, was not upset to see that expansion halted. And perhaps more importantly, Germany was emboldened by the weakness of France's ally Russia, making Germany a little less reserved about engaging in regional hostilities of its own. And in Japan, after centuries of isolation, military success was accompanied by emphatic loyalty. When Emperor Meiji died in 1912, his valued general, Maresuke Nogi, along with the general's wife, followed their leader in death by committing suicide.

The political scene in Europe was tense as usual, but Europe was also still experiencing rapid technological advancement, driven by creative freedom and can-do attitudes. In the 1890s Germany's

educational system was setting an example that many would be better to follow today. German technical high schools were awarding doctorate degrees and some large companies opened their own schools for internal training. By the 1880s men like Karl Benz were producing practical automobiles, although less practical self-propelled vehicles had been around a long while, including the awkward steam powered fardiers built by Nicolas-Joseph Cugnot more than a century before, and the early 19th century vehicles of François Isaac de Rivaz, the Swiss inventor of the internal combustion engine. Also in Germany, Count Ferdinand von Zeppelin had built on the work of David Schwarz and produced a number of rigid, flying airships near the beginning of the twentieth century. And after the Wright Brothers' successful flight at Kitty Hawk, North Carolina in 1903 those floaters were joined in the skies by airplanes.

While technology was making possible dramatic lifestyle changes, it was also increasing the possible devastation of war. Despite efforts by some of the most powerful military empires of history including the Romans, Huns and Mongols, Europe has never been unified under a single authority. But, while Europe has remained too much for one man or government to conquer, many, like Napoleon, have tried, and the assorted tribes and kingdoms have a strong history of fighting amongst themselves. Of course, in that respect they're in accord with historical humanity.

To attempt to trace back through reprisals and conquests to the original offense between grievous or warring nations is merely an exercise in futility. And that's true with World War One as well. Each cause of the war seems to have a previous cause, and one before that, and so on. Though it's been said that Europe was a powder-keg just waiting to be set off prior to World War One; the prevailing ethnic tensions, international distrust and territorial ambitions were far from new to the political scene. What was new however, was the speed of communication around the world, the speed with which nations could mobilize and join in distant hostilities, and the destructive force capable of being brought to bear on enemy combatants and bystanders alike.

Whatever the political environment, the immediate cause of the war was the assassination of Archduke Franz Ferdinand, heir to the Austro-Hungarian throne, by a Bosnian Serb student named Gavrilo Princip on June 28, 1914. Bosnia was one of many territories that had been alternately occupied by the Austrians and Ottomans over the centuries in their competing struggles for empire, so there was an inherent danger of people accustomed to war and hostility. But during the first part of the 20th century, there was also a strong liberation movement amongst southern Slavic people seeking independence. Princip was influenced by that independence sentiment and conspired with a like-minded group to assassinate Ferdinand during a visit to Sarajevo.

The attempt to assassinate the Archduke didn't go as planned however, the initial grenade attack on Ferdinand's motorcade missed his car but injured a number of onlookers. It was only through the compassion of the Archduke's wife Sophie, that Ferdinand would be exposed to a follow-up attempt on his life after Sophie suggested they go to the hospital to visit with those injured in the grenade attack. It was in that effort that Princip unexpectedly met up with Ferdinand's car and shot Ferdinand and his wife, killing them both. While tragic in the eyes of many, it was a fitting end for a man that had earned a reputation as an avid hunter. But, of course, to his family it was the highest of crimes.

At that time Austria-Hungary and the Balkan states were a mixing bowl of ethnic groups where tensions and nationalist feelings ran high. The ethnic discord also influenced other young people besides Gavrilo Princip, like an Austrian-born German named Adolf Hitler who was repelled by the conglomeration of races in Vienna, the Austrian capital. In his later political thesis *Mein Kampf* Hitler wrote "The longer I lived in this city, the more my hatred grew for the foreign mixture of peoples which had begun to corrode this old site of German culture." As Gavrilo Princip had been influenced by outspoken Slavic nationalists, so too Hitler was influenced by extremist German culture in his youth, as many in Austria were. The long standing tensions of competing factions left many Austrians frustrated and eager to settle matters.

It was in that context that Austria-Hungary placed unreasonable demands on Serbia over the killing of the Archduke: an incident that Serbia also declared to be criminal and unfortunate. When Austria-Hungary failed to receive the kind of concessions demanded of Serbia they declared war. But things were more complicated than that, in the complex web of nationalities and allegiances many secret and not-so-secret alliances had been forged. Russia came to the aid of Serbia, motivated by a Slavic bond, competition with Austria and a continuing desire for territory bordering the Black Sea that would give Russia convenient year-round access to the Mediterranean and Atlantic. Germany was strongly allied with Austria, France was allied with Russia to oppose its traditional enemy Germany, and the Ottomans, eager to expand in the Balkans, had a secret alliance with Germany.

In rapid succession, almost without realizing the consequences, the countries of Europe declared war and advanced on each other. Germany's advance through Belgium toward Paris drew the United Kingdom into the war, including British Commonwealths such as Canada and Australia. Italy decided against honoring its alliance with the Central powers of Austria and Germany and sided with the Entente allies instead. And, buoyed by initial military success, Austria and Germany convinced Bulgaria to join in the attack of Serbia. But, Austria's August invasion was thrown back by Serbia, though Germany's simultaneous advance against Belgium and France was much more successful.

Russia's defense of Slavdom, and quest for German-controlled territory, came in the form of offensives against the Austrians in Galicia and the Germans in East Prussia. Like Serbia, Russia was successful in its war with Austria, but the northern campaign against Germany was another matter as the Germans rebuffed the Russian advance. The war on the Western Front between Germany, France and the United Kingdom quickly degenerated into trench warfare and bloody stalemate, with nobody having a good offensive strategy for overcoming the firepower of entrenched artillery and machine guns. Even European colonies were heavily involved in the fighting, and German territories in the Pacific were seized by the Entente powers within the first year.

While America maintained formal neutrality, British and French control of the oceans, along with a growing disdain of Germany, helped ensure the Allies, as the nations of the Entente alliance were known, benefit of American supplies. Still, with no overwhelming advantage, the war settled into a war of attrition. In 1915 the Germans transferred some of their emphasis from the stagnant Western Front to renewed offensive against Russia in the east. The Germans pushed the Russians back, but eventually stalled and found themselves spread out over a long distance fighting a war with two main fronts when Romania joined the Allies in 1916. However, the German offensive against Russia did produce a favorable result for Germany, as destruction and hardship caused by the fierce fighting on Russian land demoralized the citizens of Russia and led to an overthrow of Tsarist rule in 1917. Within months the ruthless and opportunistic radical Bolsheviks gained power in Russia and signed a peace treaty with the central powers, ceding much territory to Germany and leaving Germany secure on its eastern flank.

The Russian armistice freed many German troops on the Eastern Front to transfer to the West, but Germany did leave the Eighth Army in Russia to prevent Russian military resurgence. That German victory was countered, however, by political bungling when Germans attacked America's east coast and maritime shipping, and a German telegraph called for Mexico and Japan to declare war on America. Together, those provocations combined to convince America to declare war against Germany in 1917 and helped seal Germany's demise. But before the Americans could make a decisive impact Germany did meet with additional success. In 1918 the Central Powers refined their strategy and concentrated efforts on selected targets to break communications and resistance before attacking the bulk of the Allied forces. With renewed vigor German forces pushed the Allies back to within striking distance of Paris with their big railroad canons, and the Germans were feeling confident of impending victory.

On that occasion, when Paris was threatened with occupation, Australian reinforcements were instrumental in stopping the German advance and the Western Front was once again locked in

stalemate, until the Allies made their first significant progress of the war on the Western Front. Led by recently designed tanks and backed by an influx of up to ten thousand U.S. soldiers each day, the allies began a strategy of driving wedges through enemy lines and outflanking their opponents. And as the strength disparity continued to grow the Allies finally slammed headlong into the enemy line and pushed the Germans back.

Although supply line deficiencies halted the progress on many of the Allied offensives; still, the Germans were unable to recover because the Allied naval blockade had limited their production capacity and Allied reinforcements continued to pour in. Leg by leg, the Central Powers collapsed. Bulgaria, the Ottoman Empire, Austria-Hungary and finally Germany surrendered; signing an armistice on November 11, 1918. But, failure in war spurred internal strife in Germany and the German surrender came on the heels of an internal revolution that created the Weimar Republic when Kaiser Wilhelm II fled to the Netherlands.

German land, however, hadn't suffered the brunt of the fighting as France and Belgium had suffered. And surrender came before the destruction of Germany, without the despair, regret and humiliation of utter defeat. The German fighting spirit had been subdued, but it hadn't been crushed. The result of the war was a terrific loss of life, devisive treaties and little more.

Nobody emerged better from the fighting, many of those that returned were crippled from injury, and many didn't return at all. Approximately ten million soldiers were killed; twice as many wounded; and millions more missing. Famine and destruction were widespread with cities destroyed and hundreds of miles of fine land along battle fronts blasted into wasteland. Adding to people's woes was a bout of influenza called the Spanish Flu that spread around the world following the war; estimated to have killed fifty million people, it was more deadly for humans than the Great War itself, although the impact on other life was fortunately less horrific than modern warfare.

The political landscape following the war was significantly altered by the fall of some national identities, the general loss of territory by the Central Powers and the rise of newly independent states, especially in the area of the Balkans. The monarchies of Germany, Austria-Hungary, Russia and the Ottomans were all toppled and lands were repartitioned. Britain's colossal empire was theoretically added to by the League of Nations mandate that assigned control of Palestine and Iraq to the United Kingdom. But by that point the British Empire was not an empire in the sense of the Roman or Mongol Empires, as many British territories such as Canada and Australia were already self-governing dominions.

American president Woodrow Wilson championed the creation of nations comprised of people of similar culture and aspirations, maintaining small armies, and protected by the League of Nations. He thought no people should be forced to live under a sovereignty not of their choosing. But despite Wilson's call for conciliation and friendship, the victorious Allies, appalled by their terrible war losses demanded compensation from the defeated Central Powers, and the Central Powers were still too proud to follow through with concessions granted in the peace treaties.

The war devastated European economies and France insisted that Germany make reparations. But when the weakened German economy failed to meet those obligations France committed its army to occupy German industrial territory, serving only to cost France more money and fuel German resentment. While the Germans were indignant, America was still trying to sow harmony through financial aid. In unproductive circular fashion Britain paid back some of the massive debt in wartime loans it received from America with damage reparations from Germany which was receiving financial aid from the United States. The damage was so great and the debt so staggering that many of the loans and reparations were never repaid. For its part, Germany didn't see itself as having been unduly aggressive and would come to vehemently resent sanctions imposed as a result of the war. And topping things off, when the speculative bubble of the New York Stock Exchange burst in 1929, economies around the world went from bad to worse.

Russia descended into civil war following the Bolshevik power grab and agreement with

Germany. While the Bolshevik communists publicly stated that they stood for equality and democratic value, in reality they were ruthless, greedy and suspicious of nearly everyone. In the late teens and early twenties the communists fought private wars of terror against influential people and dissidents with secret police, and they fought a full-scale war against the White Armies and others that rose up against their radical policies.

Despite the professed democracy of their socialist party, the Bolsheviks under Vladimir Ulianov, or V.I. Lenin, ruled with totalitarian repression from the beginning. They were too power hungry to compromise with even other socialist parties. Under Lenin and Leon Trotsky the Bolsheviks came out victorious in the war for control. But their massive seizures of private property led to economic disaster and widespread hunger, prompting the Red Communists to allow peasants to keep a small parcel of property to grow their own food. The turmoil and restructuring caused living standards to fall well below those of pre-war levels under the Tsar. But when the Russian people thought matters couldn't get much worse, Lenin died in 1924 and the former bank robber Joseph Stalin murdered his way to control of the party.

Stalin assumed dictatorial powers on a scale rivaling the biggest tyrants of history. His reign of terror lasting approximately thirty years was summarized by his successor Nikita Khrushchev who ended the forced-labor camps and reversed Stalinist censorship. Khrushchev, who was intimidating in his own right, said that Stalin practiced brutal violence toward everything that opposed him or was contrary to his concepts. Stalin abused his power with mass repressions, terror, annihilation and executions without trial. And to make matters worse, his gross mismanagement of the economy resulted in the death of up to five million people from starvation in the 1930's.

Stalin's dictatorial style was similar to that of one Benito Mussolini of Italy, though Mussolini waffled wildly in his ideology. He went from being a pacifist socialist opposing war to a violent attacker of socialists and communists that fervently promoted war when he thought he might stand to benefit. In 1922, under threat of force, King Victor Emmanuel III made Mussolini prime minister of Italy. It was hoped by some that Mussolini could counter the growing power of radical communism. But when the fascists of Mussolini gained power people soon learned that fascists could be just as ruthless as radical communists as they maintained control through the terrorism of their "Blackshirt" squadristi and censorship of the press.

As prime minister, Mussolini revised the laws to give himself authoritarian powers. In time he took more and more control of the government and citizens of Italy, putting private business under state control and taking personal direction of the underperforming economy, while overseeing a massive propaganda campaign to mold public opinion. He even made his bias towards women felt publicly by discouraging their employment, describing working women as forming an independence and physical and moral habits contrary to child bearing. Instead, he recommended they stay home and raise large families. When his control was secure he set upon a campaign of conquest in his ambition to return the Mediterranean to the sea of Italy as it was under the Roman Empire. As part of that territorial quest the Italians under Mussolini slaughtered and impaled inhabitants of Ethiopia while attempting to take over Africa.

But a dark star was rising in Germany that would overshadow Mussolini and even steal the spotlight from Stalin. Adolf Hitler wrote *Mein Kampf* while in prison after a failed attempt to overthrow the German government in 1923. Before he ever grasped significant political power his racial hatred and inflated sense of self worth was published for all the world to see, yet nobody stopped him. In one of Mussolini's common about-faces he referred to Hitler as a buffoon before Hitler's growing power convinced Mussolini to seek alliance with him. And eventually, due to his own ineptitude, Mussolini became Hitler's junior sidekick and southern puppet.

As a simple-minded youth Hitler had become convinced that those people not acting or looking as he did were inferior, and he committed the rest of his life toward furthering his race war. Though of average intelligence, Hitler was remarkably successful in his singular pursuit of racial warfare, and

wrote in *Mein Kampf*, "...the political opinion of the masses represents nothing but the final result of an incredibly tenacious and thorough manipulation of their mind and soul."

As a staunch proponent of the power of speech, he enjoyed brilliant success in perturbing huge mobs into frenzied action with effluent theatrical speech. But as a youth he didn't stand out as a future leader. He moved a number of times as a child, failed the sixth grade, dropped out of high school and then failed to gain admittance to art school on two separate occasions. Lacking direction, Hitler lived on a meager welfare subsidy as an adolescent, due to the death of his father, but after his mother died his portion of the government pension went to his sister. At about the age of twenty he even spent some time in a homeless shelter, yet he never seemed thankful for the generosity of others.

After moving to Vienna as a teenager, he noticed people of peculiar attire and appearance. With nationalist propaganda fouling his mind he questioned whether the Jews that looked so peculiar to him were even Germans. To further research the subject he purchased anti-Semitic pamphlets and set about contemplating the presence of those foreigners among the Germans. Hitler came to hate what he considered foreigners of all shapes and sizes: Slavs, Magyars, Mongols, Negroids and the rest were enemies of the German state. Hitler felt compelled to free German people from the internal Slav enemy. But he held a special hatred for Jews; in them he found a scapegoat for all of Germany's problems. He began to see Jews everywhere, like the religious see demons, he saw them behind every bad action, and particularly behind every failing of the motherland, from economic depression to defeat in the Great War.

To Hitler, Aryans were the only representative of the founders of culture. They were the creators and custodians of civilization and they had the pure blood with the likeness of the lord, while others were a mixture of man and ape. Strangely, Hitler's arrogance and bitter hatred for the Jewish people was reminiscent of the Jewish claim of being god's chosen people. And it was quite paradoxical that Hitler was raised a Catholic Christian, and even though Jews are blamed for killing Jesus, Hitler seemed to completely lose sight of the fact that Jesus was Jewish. Hitler worshipped the Jew named Jesus as God incarnate, and yet maintained the astounding stance that Jews were part beast and only within Aryans flowed the pure blood of God. Like white supremacists today, many of which have no idea the term Aryan is the name of dark haired people in the area of Iran to India, Hitler and other Jew-haters had no hereditary claim to Christianity.

Hitler stated the paramount purpose of the state was to preserve and improve the race. The stronger must dominate and not bleed with weaker, thus sacrificing his own greatness, he concluded. Every mingling of Aryan blood with that of lower peoples resulted in physical and intellectual regression and progressing sickness that was a sin against the will of the eternal creator. To him, the most humane act of mankind was to prevent defective people from propagating equally defective offspring. Not wanting to limit himself, Hitler labeled communists as Jews which gave him all the more reason to fulfill his long-held ambition of annexing Russian lands and enslaving the inhabitants to serve their German overlords.

Only war and violence seemed to give much meaning to Hitler's tumultuous life. He condemned peaceful coexistence as a mockery of nature and praised armed conflict as the catalyst to strengthen men, though he never distinguished himself as a physically strong person, preferring others do his fighting for him. "Those who don't want to fight in this world of eternal struggles don't deserve to live," he wrote. In *Mein Kampf* he proclaimed that when World War One was apparent he fell down on his knees and thanked heaven from an overflowing heart for granting him the good fortune to live at that time. As a warmonger, he believed right lies in strength alone and he obsessed with schemes of killing others en masse so that his kind could rule supreme for a thousand years.

Many Americans today wonder how such an egotistical, contemptuous individual could lead an industrialized country with millions of educated people? The reaction of German citizens to the passion of his conviction is informative of the dynamics of social interaction. The human mind possesses surprisingly little creativity, as it consists of neurons that store memories as series of

electrical impulses from the senses. We have an inherent difficulty envisioning things we haven't seen before. Even though people may piece together many familiar objects to compose a new scene in their minds, they have difficulty creating something new. For example, it's hard to imagine a new color: one not seen before. And man's behavior is learned through imitation; as brain function is largely reactionary, being easily directed by current events and influences. Hitler's determination kept the focus of those around him on matters of evil, and masses flocked to his intense message like sheep to a shepherd. Like a modern day propaganda news host, he constantly preached hate and discord.

And that was the simple genius of the noble wolf, a historical meaning of Adolf in German, as he used the post-war melancholy, political turmoil and economic depression to stir people's fear and incite action spurred by anger. By introducing scapegoats for fear and failure he directed the pent-up anxiety of the country, which he sought to keep in a continual state of agitation, against his imagined enemies. Hitler knew how to appeal to people's most base emotions and promised them a grand liberation from all of their fears, pains and hardships, just as any good preacher or politician would do.

Though his promises were little more than a series of lies to anyone who would listen, his ambition knew no bounds. He got himself assigned to headquarters in World War I, and after the war he served as a police spy and infiltrated the German Workers' Party. But he was so impressed with the group's hate mongering that he ended up joining them and later tried to take credit for forming the group. Once in the Party, Hitler's unbridled enthusiasm and terroristic use of force allowed him to seize power. In control of the Party; which he renamed the National Socialist German Workers' Party (Nazi) to broaden appeal; he set about perfecting his already formidable oratory skills. As someone unhindered by truth, or caution, and absolutely certain of his own infallibility the man called Fuhrer, or leader, stirred great emotion in the masses with his tirades and propaganda, and his deadly doctrine spread like a virus through the society weakened by poverty, rivalry and suspicion.

German acceptance of the Nazis was aided by the variety of factions competing for power in Germany; as the Nazis capitalized by being equal opportunity haters, blaming everybody but themselves for the poor state of the country. Around Munich, Hitler's Nazis gained support, and inspired by Mussolini's March on Rome, he decided to march on Berlin to seize power. However, he vastly overestimated the power and influence of his party at the time, and Hitler's attempt at seizing power ended where it began, at the Bavarian War Ministry in Munich. After a small battle in which some of the Nazis were killed, Hitler was arrested and convicted of treason. Although dictators like Hitler, Stalin and Mussolini wouldn't hesitate to have opponents, especially violent opponents, killed, Hitler was sentenced to a mere five years in prison. And it was there that he dictated his autobiographical rant *Mein Kampf* to his assistant, Rudolf Hess.

But after serving just nine months of his sentence, barely enough time to finish his memoir, Hitler was released from prison in a general amnesty of political prisoners. And upon returning to the public, he resumed his quest for power. The failed armed revolution convinced Hitler to concentrate on winning elections instead of seizing power by force, and to appeal to a broader audience Nazis subsequently toned down some of the rhetoric.

The fact that Germany was a republic at the time allowed Hitler to continue campaigning for Nazi supremacy and concentrate his Sturmabteilung (SA) militia activities against unarmed opponents. Hitler's doctrine of resentment resonated with frustrated people. The Nazis fed a perpetuating cycle of discord. They thrived on crisis, suspicion, division and fear. The worse the political climate became, the more the Nazis flourished. SA storm troopers attacked opposing parties and engaged in street battles with Social Democrats and Communists. Practicing fanatical stamina, they won elections and gained political power, aided by the atrocities of Russian communism, the disastrous economy of the great depression and the anxiety caused by their own terror and propaganda. In desperate times Hitler increasingly became the desperate measure people looked to.

Being as opportunistic as he was persistent, Hitler broke into the upper echelon of government when German president Hindenburg named him Chancellor in 1933. For the Germans it was a mistake,

Hindenburg thought he could silence, or absorb, Hitler and the Nazis by assigning Hitler to a high government position. But instead of cooperating as he promised, Hitler soon took control of the government. Fellow Nazi Hermann Goring, as interior minister, used his position as head of police in the state of Prussia to fill the police ranks with Nazis and establish an auxiliary force of SA members. And as the Reichstag was still paralyzed by legislative deadlock brought about by rampant factionalism, Hindenburg dissolved it yet again. When Hindenburg was alarmed by growing unrest, he even suspended basic legal rights including freedom from unlawful detention on February 28, 1933.

That left Nazi police and SA militias free to arrest opposition members with impunity; all this and Hitler wasn't even in control yet. Still, the Nazis knew how to play politics. In coming weeks they convinced the Catholic Center Party to waive constitutional provisions and cede legislative control to Hitler's cabinet in exchange for guarantees of the Church's position. Bowing to SA intimidation and hollow promises, the German Reichstag passed the Enabling Act which gave lawmaking power to the cabinet. As simple as that, Hitler outlawed competing political parties.

While the naive were still under the impression German politics was just an ugly game, for Hitler it was war. In the 1934 Night of the Long Knives massacre, Hitler consolidated power by having more than eighty critics and SA members of questionable loyalty murdered by his Schutzstaffel (SS) and the SS secret police unit known as the Gestapo. By murdering Ernst Rohm and other SA leaders, Hitler tightened his grip on the SA and eased tension with clueless army leaders who detested the SA's murderous and terroristic ways, but failed to understand who really orchestrated the rampant violence. Had Rohm caught wind of the plot, the country may well have spent its hostilities in civil war, as the SA had grown to three million members by 1934 and the army was restricted by the Treaty of Versailles to one hundred thousand men. As it was, Hitler and his supporters justified the vast murder spree of many unrelated people by claiming to have uncovered a plot; in evil irony, a plot alleged to be similar to the one they had just carried out. Those people that weren't murdered, but still considered possible threats to the Nazis, were soon imprisoned indefinitely.

The drums of war could be heard across distraught and desperate Germany in the 1930's and after the Night of the Long Knives murder rampage, there would be no more public opposition to Hitler's venomous autocratic rule. When the powers of President Hindenburg were transferred to Hitler upon his death in August of 1934, the political conquest of Germany was complete. While the world waited to come to terms with the consequences of his victory, from that time forward, true to his hate, Hitler set about a systematic oppression of Jews and other minorities like traveling Roma, also known as Gypsies, that would evolve into a full-scale exercise of extermination.

Despite the nature of his barbaric atrocities, childish arrogance and self-confidence, Hitler's deception and cunning continued in his foreign policy. Early in his totalitarian rule, one or a combination of the major powers could have silenced the growing German threat. But when Hitler began to rearm Germany other nations were consumed with their own problems such as economic crises, and had learned enough from the First World War to know they didn't want another war. The United Kingdom wanted to avoid continental politics; while France's terrible losses in war and the high cost of occupying Germany left little public support for another conflict, and across the Atlantic the United States had withdrawn into isolationism again.

When Hitler sensed the reluctance to challenge his march to empire nobody stepped forward to stop him. Even when he annexed Austria, the Sudetenland, and then the rest of Czechoslovakia he promised it would be his last expansion and other nations would rather take him at his word than confront the increasing menace. And Russia's Stalin even schemed with Hitler: entering into a pact of assistance and a plan to partition Poland between Germany and Russia. But Hitler was not to be trusted, and he had another scheme for the Slavic Rus. In the eyes of Time Magazine's Man of the Year for 1938, the stage was set for Aryan world domination.

War to End All Wars Revisited

With France and Britain too afraid to stop him and Russia secretly plotting alongside, Hitler felt a reassuring confidence that led to the fateful autumn day of September 1, 1939, when Germany invaded Poland. Only then, as the Poles crumbled under a vicious Blitzkrieg onslaught, did France, Great Britain and its Commonwealth Dominions declare war on Germany. France and Britain had pledged mutual assistance with Poland, but they did little to stop the Germans racing across Poland; and within a week the powerful German Army, led by its mechanized Panzer divisions had reached Warsaw. To make matters worse for Poland, Russia invaded from the east on September 17 and Poland was conquered in about a month.

Even as Hitler turned his attention, and mighty war machine, north and invaded Denmark and Norway, France and Britain were still hesitant. But the plan was becoming clear to even the most simple political observer. Hitler was trying to eliminate the weakest of his targets to isolate better defended nations. All of Europe was on alert, but Germany's unprecedented military buildup left others at a disadvantage; and having met little resistance, Germany was nearly free to plunder at will. Nazi confidence was soaring when Hitler launched a massive attack on Belgium, the Netherlands and France on May 10, 1940. Europe, and soon the world was plunged into the deadly sequel to the Great War.

Prior to the invasion of France much of the rest of the world was beginning to take the threat seriously, and in the United Kingdom Winston Churchill succeeded the man sometimes referred to as the Prince of Appeasement, Neville Chamberlain, as Prime Minister; and quickly employed bulldog tenacity to transform Great Britain into a formidable fighting force. Still, unlike the stalled invasion that led to trench warfare in the First World War, French and English forces couldn't stop the Germans in their drive to the west; with the British Army and part of the French Army being driven back against the sea where they had to be evacuated from Dunkirk, losing massive amounts of much needed heavy equipment.

The German assault was relentless; and revolutionary, like the Mongols of centuries before. Blitzkrieg, as the devastating combination of speed and power came to be known, made the German army faster, stronger, and better coordinated than any of the armies they met in battle. Like the Poles, Danes and others before them, the French and British were caught flat-footed by the savage speed of the invading army slamming into their disarrayed defenses, and as the German onslaught continued to tear across the countryside, France surrendered on June 22.

In a matter of month's Hitler had conquered much of continental Europe. But was he satisfied? Could a man that woke each morning dreaming of building a German empire, and was still obsessing with Aryan world domination when he went to sleep, be satisfied? Could Hitler ever be satisfied? Seemingly no, there would always be another target, there would always be another impediment to his new world order, there would always be a fight to define the true essence of his character. The antagonism and hatred that drove Adolf pushed him to his next conquest across the English channel. To subdue the island nation that had assembled the largest empire the world has ever seen, Hitler depended on softening up British defenses through the air. But his Luftwaffe air force was tracked by improved British radar and eventually defeated in the critically important air campaign known as the Battle for Britain.

And though they were the last western European power to seriously challenge Hitler's ambition of empire, the British were not completely alone. They were receiving assistance from past and present members of their world empire such as Canada, Australia and India. And though the Royal Navy was stretched thin trying to cut-off German supply lines and keep the Nazis from crossing the Channel, the United States was also willing to help, for a price. That price included handing over some foreign military bases to the U.S., providing more global reach for the emerging world power from the Western Hemisphere, in exchange for fifty destroyers. Meanwhile, by the summer of 1940 the theater

of war had spread around the Mediterranean and Hitler's duplicit partner Mussolini led Italy to some initial success before being beaten back and having to rely on German reinforcements to regain control of the area.

But those German reinforcements would be needed elsewhere. The arrogance and immaturity that continually pushed Hitler to fight caused him to make a decision that may well have sealed his fate, even as he was getting a taste of defeat with the Battle of Britain setback. Despite having his hands full in the west, Hitler turned on his co-conspirator Stalin; biting off more than even he could chew in the process. And as if fighting much of Europe weren't already too much trouble, after Japan's attack on Pearl Harbor in December of 1941, Hitler invited further punishment by declaring war on the United States. Undoubtedly, the success of Japan's surprise attack on the U.S. naval base in Hawaii gave Hitler more confidence in Japanese victory, but he most certainly underestimated the resources at America's disposal, much as he underestimated the resilience of the vast Russian territories.

Hitler believed Russia was especially vulnerable due to internal stresses under the iron fist of Stalin. But vulnerable or not, he had long planned to invade Russia because of the belief they just couldn't stand up to his super-race of Germans. Paradoxically however, instead of being the wedge that split Russia apart, Hitler's attack helped to unify Russia under the tyrannical Stalin, who from 1936 to 1938 had ordered mass executions of those he thought might oppose his fanatical regime, in a campaign known as the Great Purge. Hundreds of thousands had been executed or died in labor camps, including many military leaders, and altogether tens of thousands of military personnel.

The vast majority of Stalin's Great Purge victims didn't receive trials, although Stalin did stage some show trials of the most publicly visible victims. But show trials aimed at justifying murder was all they're reported to have been, as the defendants were tortured and threatened that their families would also be tortured and executed if they didn't confess. After receiving the false confessions to justify the murderous rampage, Stalin went back on his word and had the families of the accused executed as well to limit the possibility of reprisal. And as if to reinforce his image as an egotistical self-serving monster, Stalin even had all of the old Bolshevik leadership from Lenin's time executed.

Hitler said that once the front door to the house of Russia was kicked in the rest of the rotten structure would come crashing down. How could it not? Hitler wondered, consumed as it was with the dreaded disease of communism. His invasion of Russia was launched on June 22, 1941 and, true to Hitler's prediction, met with tremendous early success. The superior equipment and strategy of the German forces allowed them to smash through Russian defenses and quickly encircle entire Russian armies that were either captured or destroyed on the field.

The battles of the Eastern Front of WWII were the most massive military land engagements in history, fought by hundreds and even thousands of tanks and aircraft on either side. The destruction, casualties, and number of prisoners of war was astounding. Within months the Germans had destroyed most of the Russian Army, taken more than a million prisoners, and Moscow and Leningrad were threatened with imminent capture. But while the Central German Army Group was rolling toward Moscow, Hitler intervened and diverted some of the central tank divisions north and south just as it looked like Moscow would fall.

The diversion by Hitler gave Russian reinforcements from the east time to reach Moscow. And in classic fashion, weather again appeared to be one of Russia's best weapons, as the Germans ran out of time and found themselves trapped in a bitter Russian winter that brutalized both the Russians in the besieged cities of Leningrad and Moscow and the isolated German invaders. By December the Germans were fifteen miles from the Kremlin in Moscow before a Russian counterattack drove them back.

Following the stall of German momentum the war in the east continued to rage for three more years, as the deadliest theater of combat in human history with the German Wehrmacht and Soviet Red Army exchanging offensives and repeatedly encircling and annihilating opposing units. In that war of attrition, after having nearly collapsed in the early months, it was the Soviets that eventually turned the

tide and gained a lasting advantage as German armament production and personnel couldn't keep pace with the massive losses abroad, damage from Allied bombing raids at home, and shortages of oil and other vital foreign materials. Withered by continual fighting, bad weather and logistical shortfalls, the Germans eventually could no longer stand up to the increased Russian resistance, and in 1943 the Soviets began a steady drive toward the Nazi homeland.

Even as the Germans and Russians hammered away at one another, serious political questions remained for the other Allies. After Russia had conspired with Germany and invaded Poland, and knowing how oppressive Stalin's Communism was, perhaps the Allies should have let Russia fight Germany alone on the Eastern Front. It's obvious Stalin didn't want to help the Allies, and it was advantageous for the other Allies to let Germany and Russia wear each other out, because Stalin couldn't be trusted and it gave the Allies in the west time to regroup. But, unifying opposition against the common German enemy, and not wanting Russia, with its vast resources, to fall into German hands, or into another alliance with Germany, Britain and the United States did help Russia with supplies, and Britain fought alongside Russia near its southern border.

In conjunction with Germany's mounting losses and fading fortunes in the east, Allied air attacks were softening Germany for a massive seaborne invasion much as Hitler had expected to do when he initiated the Battle of Britain. Allied forces finally landed on the beaches of Normandy in northern France on what's remembered as D-Day: June 6, 1944. The two million man Allied invasion force in the west pushed its way across France and into Germany as the Soviets launched Operation Bagration in the east with two and a half million men and six thousand tanks. After almost a year of heavy fighting, the Allies in the west met up with the advancing Russians at the Elbe River in April of 1945. And having learned of the humiliating death of Mussolini at the hands of captors, Hitler committed suicide on April 30, 1945 as the Soviets were taking control of Berlin. Hitler's war in Europe essentially died with him, though the war in the Pacific between the Allies and Japan would drag on for months longer.

Altogether, World War II eclipsed World War I as the deadliest war in history, with sixty million people believed killed in all combat theaters including Asia. Of the sixty million killed only about a third of those were reported to be military personnel killed in combat, the remaining forty million people were civilians or military personnel that died of accident, disease, or mistreatment. Massive numbers of prisoners from the Eastern Front were forced into slave labor for the Nazis, and in Russian Gulags. Both Germany and Russia enslaved huge groups of people from opposing and contested territories. Millions died from starvation, disease, beatings, executions and exhaustion in the horror of captivity.

All told, about three million Russian prisoners of war died in German captivity, and six million Jews were exterminated in Hitler's campaign for racial purity. Hitler's wars first started with control of Germany and then spread to the rest of Europe, and he first stripped Jews and other minorities of property and rights and deported them. When he invaded Poland he had them rounded up into ghettos. Often times the invading Germans rounded up all the Jews in captured villages and shot them near open pits or trenches that had been dug as defensive works.

While the German military was waging conventional war on nations, Hitler's SS was waging a race war, following the army and systematically locating and exterminating Jews and other minorities. But, still not satisfied by the massive carnage they were inflicting, Hitler and his henchmen created large death camps that were designed much as modern slaughterhouses to maximize throughput. Victims were shipped in by the truck and train loads just as cattle are to be executed and disposed of. The extermination camp at Auschwitz alone was capable of killing as many as ten thousand people per day. Altogether, Nazi death camps killed an estimated twelve million people. About half of the victims were Jewish and the rest were Poles, political or military prisoners, and other minorities such as Gypsies, gays, and Jehovah's Witnesses.

The extermination camps were almost exclusively in occupied Poland which was multi-ethnic

and had Europe's largest Jewish population prior to Hitler's War. Though Jews had faced death and oppression in Eastern Europe on numerous occasions in the past, they had been forcibly evicted from many Western European countries like England long before the twentieth century. As death camp victims left the trains that carried them to their doom they were separated between those that looked like they could be useful for forced labor and others. The others, largely young children, their parents, especially mothers, and the elderly were often herded over to the gas chambers where they were told to strip down for a disinfecting shower.

While entering the deadly chambers people often realized they weren't showers, but death traps, and the Nazis beat them and forced them inside before locking the heavy doors behind them. The screams and cries for help from children and grandparents alike would last a few minutes as the poison gas poured into the room. After the herds of people choked on the suffocating poison, the warm corpses were carried out of the gas chambers where 'barbers' cut the longer hair of the females for use as mattress stuffing or cloth, and 'dentists' hammered gold fillings from the wet mouths of the recently deceased.

Gas chambers were the pinnacle of Nazi controlled extermination techniques; as the Nazis employed many methods of mass murder, from shooting and hanging to burying alive and killing in the gas chambers. The gas chambers were so brutally efficient that the crematories often couldn't keep up, and disposal of the bodies was always a challenge. The horrid duty of encouraging cooperation in undressing and entering the death chambers and disposing the bodies was often left up to other death camp inmates. Those inmates were so broken down by beatings, exhaustion, fear and grief that they lost what decency and conviction they had. Even when they saw acquaintances and family members they were too helpless to intervene. One man even continued on as if nothing were the bother even as he happened upon his own wife's body as he carried victims from the gas chamber to a burn pit.

Those kept as slaves were savagely beaten and starved so that they could offer no resistance. Those that survived as Nazi slaves were so frail and degraded they looked like ghosts. Young women were raped with impunity and then sent to the gas chamber or worked and starved to death. Many Jews were even tortured and killed in Nazi experiments like those conducted in laboratories today. Josef Mengele, known as the Angel of Death, had a particular fondness for dwarfs and twins in his savage experiments. Mengele shared Hitler's delusion of Aryan racial superiority and treated his victims as nothing more than material for experimentation.

While at Auschwitz Mengele injected chemicals into the eyes of children in hopes of changing their eye color, he also performed amputations and exploratory surgeries, even killing victims for the sole purpose of dissection. Friends and relatives wept for the agony and horror of their loved ones, but that didn't lessen the pain of the victims, whether represented by voices crying out for the madness to stop or not. Since those atrocities came to light many have wondered what kind of monsters are capable of torturing their fellow creatures as a course of habit? And what kind of society would allow it? Still to this day, the majority of people support systematic abuse, torture and slaughter, yet somehow deny their own pestilence.

Pain and violence is the consort of war, and vicious atrocities were also being carried out in Asia. Japan was one of the rising powers that jumped into the First World War to claim some of Germany's territory in the Pacific. After what many called the war to end all wars, Hirohito, son of Emperor Yoshihito, visited Europe in 1921. It was the first such visit for a member of the Japanese monarchy. The structured formality of life in the imperial court had so pervaded Hirohito's life that he was taken aback by the friendly and unpretentious greeting he received in Europe, moving him to write to his brother Chichibu that he discovered freedom for the first time in England.

But, like Germany, ambitions of empire consumed the government and military leaders of Japan and they too relied heavily on foreign plunder and forced labor for their productive wealth. Taiwan and Korea had been occupied by the Japanese since 1895 and 1910 respectively and Manchuria was added to Japan's growing empire in 1931. To further guard its gains, Japan signed

treaties with Germany and Italy in 1936 and 1937. Not coincidentally Japan invaded China to begin the Second Sino-Japanese War in 1937 to get at the vast resources of China that held a powerful attraction for Japanese elite. There again, brutality was a trademark of profiteering through occupation as great numbers of Chinese were forced into servitude and the Japanese response to Chinese resistance was described by a Japanese official as “kill all, burn all, and destroy all.”

As a result of publicized incidents such as the Nanking Massacre where civilians estimated in the hundreds of thousands were executed, worldwide public sentiment was turned heavily against Japan. In the run-up to the Second World War the Japanese also had another encounter with Russian troops, but the Japanese invasion of Mongolia in 1939 was repelled by the Soviets. Japan’s invasion of French Indochina, roughly modern Vietnam, Cambodia, and Laos in 1940, along with Japan’s alliance with Germany and Italy and the overtly offensive nature of its military actions caused the United States, the United Kingdom, Australia and the Netherlands to place a trade embargo on Japan and freeze its assets.

The decision to go to war with the United States wasn’t easy for Japan, as some Japanese officials did realize that the prospect of winning such a war was remote. The industrial capacity and wealth of resources of the United States seemed a huge advantage to overcome. But, then again, Japan had very strong industrial production of its own and was acquiring material resources from throughout the Pacific Rim. In addition, an ongoing trade embargo, hard-line insistence backed by religious conviction, and previous success against China and Russia with their comparable material resources, lead to the bombing of the U.S. Pacific Fleet on December 7, 1941. In a bold and well-conceived move the Japanese bypassed American positions in the Philippines and struck straight at the heart of the Pacific Fleet, catching the U.S. off guard. Almost simultaneously Japan attacked colonial holdings such as Hong Kong, the Philippines, and Wake Island.

But the success of Japan’s initial assaults, not being nearly substantial enough to break America’s will or cripple the navy, virtually guaranteed a bloody, protracted affair. And while Japan busied itself subduing and occupying vast areas of Asia and Pacific Islands, America prepared to respond. After a costly defense of the New Guinea port of Moresby and some mostly psychological air raids of Tokyo, that response was delivered at Midway on June 5, 1942. Unlike previous maritime engagements, Pacific naval battles of the Second World War were dominated by aircraft carriers, of which Japan lost four to America’s one at Midway. And just that quickly the initial Japanese advantage was beginning to disappear. In the course of successive naval engagements and marine landings the U.S. pushed the Japanese back toward home, setting up another large sea battle near the Marianas Islands on June 19 and 20, 1944 where the U.S. scored a very lopsided victory; destroying 600 Japanese aircraft and three carriers.

In late October the United States and Australia brought forces to bear on the Philippine island of Leyte where Japan tried one last stand to stop the advancing Allies in a battle in which the Allies had clear numerical superiority, as Japan was unable to replenish its mounting losses. In a series of engagements constituting the largest modern naval battle, the Imperial Navy was further reduced in a crushing defeat. As if a microcosm of Allied success in routing the Japanese, the members of lightship group “Taffy 3,” mistakenly cut off from carrier or even battleship protection, displayed tremendous courage in confronting a much larger and more powerful Japanese group that included the largest battleship ever built, the Yamato. Confusing the enemy with unusually aggressive behavior for such a light contingent, behavior that had the appearance of baiting a non-existent trap, and causing extensive losses with their bold actions, Taffy 3 repulsed the charge of the formidable Imperial battlegroup, and earned a Presidential Unit Citation for their actions.

By April of 1945, after Allied ground units retook the Philippines, Japanese desperation was beginning to show and remnants of the Imperial Navy, including the mighty, but ineffective, Yamato, were flung at the Allied Forces fighting for control of Okinawa in what has been called a suicide mission. With the days of the battleship having passed, and no effective aircraft cover, the Japanese

ships were easy targets for Allied bombers. The desperation of the Japanese military was also illustrated by death-before-surrender ground fighting, and kamikaze air strikes in which pilots underwent ceremonial proceedings before taking-off in planes lacking sufficient fuel to return from their target objectives. The outcome of the war was becoming obvious, but the dogged determination of the Japanese was sure to make the remainder of the war very costly. To compound the troubles for Japan, Russia, after the suicide of Hitler and cessation of hostilities in Europe, was speeding toward Japan. The battle proven Red Army was tearing through the Imperial Army in Manchuria, racing to claim as much territory as possible before the apparently imminent Japanese surrender.

Faced with a great many more casualties on both sides, President Harry Truman ordered the use of the most devastating weapon the world had ever seen, and few knew existed, the atomic bomb. On August 6, 1945 a single atomic bomb destroyed much of the Japanese city of Hiroshima, but still the Japanese didn't surrender. So, on August 9, 1945, another atomic bomb was dropped, this time on the city of Nagasaki; prompting high ranking Japanese officials to meet on August 10th and finally deciding to surrender, after the death of about three million of their countrymen in two bomb strikes; though even then the decision to surrender was bitterly contested. And Hirohito, also known as Emperor Showa, announced the surrender in a radio address on August 15, but not soon enough to prevent Russian troops from entering Korea, laying the stage for the partitioning of Korea that would again lead to war in just a few years.

In order to maintain stability in Japan and ensure the U.S. was working with a respected figurehead that they could reach agreement with, General MacArthur, who would later encourage the use of nuclear weapons and invasion of China in the Korean War, protected Emperor Hirohito from trials of war crimes. But approximately 5,700 other Japanese were tried for war crimes and 920 of those were put to death for their parts in atrocities before and during the second world war. Although not commonly remembered as a major party to the second world war, the number of Chinese killed in the Second Sino-Japanese War and World War II was surpassed only by those of Russia.

Interestingly, in drafting a new constitution for Japan, U.S. authorities allowed for a symbolic monarchy to provide the Japanese with a sense of cohesiveness and continuity. That controversial decision resulted in Hirohito, a man despised as the leader of a band of butchers by hundreds of millions, becoming one of the longest ruling monarchs in history. Prior to becoming emperor he ruled as regent for his father beginning in 1921, and assuming the title of emperor upon the death of his father in 1926, he remained emperor until his own death in 1989, although his homeland lost the territories it had gained in war and was occupied by the United States until 1952.

Cold & Limited Wars

While Japan's path to recovery from the devastation of World War II under the occupation of the United States was pretty straightforward, German recovery was very much complicated by the concerns of victorious nations that distrusted one another and sought to gain strategic advantages for themselves. Prior to the war, Stalin had earned a reputation as a brutal dictator, and that demeanor was unchanged by the devastation of World War II. Like Hitler, Stalin felt a sense of invincibility for having won Russia for himself and then defeating the axis powers. Having built a huge war industry, and being hardened by the ferocity of warfare, the Soviet Union emerged from World War II as a formidable power. And, again like Hitler, Stalin was also handicapped by a fighting mentality. Even after fighting the White Army for control of Russia, and the Japanese, and the Germans that almost defeated him, Stalin was still fighting an ideological war with capitalism, both at home and abroad.

Stalin was born Iosif Vissarionovich Dzhugashvili, but assumed the name Joseph Stalin, meaning man of steel. As a dictator, Stalin was responsible to no one, and had complete control of the media. While the western republics were responsible to and at least superficially considerate of their constituents, Stalin was perceived to be much less sensitive about sending millions to their deaths and inviting another calamity for the citizens of the Soviet Union. So, he posed a grave threat in the mind of western countries as a man not afraid to start yet another World War.

Stalin is also reported to have learned through his extensive spy network that the U.S. hadn't been building more atomic bombs since their use against Japan. So, it came to be that Stalin forced his will on the victorious Allies in much the same manner as Hitler had in the run-up to the Second World War. To reduce the threat of Germany making yet another attempt at world domination, the country was partitioned among the Allies with Russia taking control of East Germany.

Stalin also extended Soviet influence and control over many of the countries of Eastern Europe. He used military force to establish puppet regimes in the countries that came to be considered the Communist Bloc. Unlike America which committed thirteen billion dollars to European recovery and integration through the Marshall Plan, the Soviets were seeking to recoup their losses. In addition to monetary and supply reparations Stalin demanded from Finland, East Germany, Hungary, and Romania; he had 380 factories removed from West Berlin before transferring control to the U.S., U.K. and France, and even dismantled and moved a couple hundred more factories from East Germany to the Soviet Union.

Exerting his control of the Communist Bloc countries, Stalin severed ties with the west. He foresaw a communist world, and his desire for Soviet control of a unified Germany that he could essentially enslave for war reparations conflicted with the French, British and American design for a prosperous Germany that didn't feel oppressed and frustrated, and was thereby less prone to lash out again. When Stalin didn't get his way, he went so far as blockading West Berlin from the other Allies, precipitating the Berlin Airlift in 1948-49 that kept the people of West Berlin supplied, at great expense to the western Allies. And it was that sort of reckless action by Stalin the dictator that dashed hopes for good international relations following the bloodiest war the world had ever seen.

Stalin used the Red Army and secret police forces to crush dissatisfaction and revolts in Communist Bloc countries in order to maintain communist rule. Clearly, the failure of Stalin's oppressive policies was made plainly obvious by the act of fencing in the citizens and shooting those trying to flee to the West; as it's hard to argue that people were being shot for their own good, or fleeing communist rule because they liked it. Yet Stalin succeeded in enveloping Eastern Europe in an Iron Curtain.

To counter the communist threat, western nations, frustrated and concerned by Stalin's aggressive behavior and dictatorial power, formed a military alliance known as the North Atlantic Treaty Organization (NATO) in 1949 and the Communist Bloc countries pledged mutual defense in the Warsaw Pact of 1955. Though western republics opposed the spread of oppressive communism,

Stalin embarked on campaigns of expansion; supporting and encouraging communist regimes to seize power and invade neighboring sovereign states. However, the communist aggression was partially provoked by European colonialism that endured beyond the Second World War. For instance, while most of the remaining British colonies were gaining independence, Vietnam was fighting to overthrow French rule.

Against a backdrop of hundreds of years of colonial rule around the world, persistent campaigns of conquest, and ideological differences between communism and capitalism, the Korean Peninsula had been partitioned by the Soviets and Americans at the 38th parallel at the end of World War II; with the stated goal of uniting under a common government in four years. But the communists and American leaning democratic factions became so entrenched in the North and South respectively that the peninsula was divided even after the official Soviet and American withdrawal.

Harboring secret plans to secure all of Korea as a Soviet ally, on June 25, 1950 communist North Korean forces, led by former Soviet soldier Kim Il-Sung and backed by Stalin, invaded pro-American South Korea, quickly overwhelming the South Koreans and pushing south to occupy Seoul within just three days. The country would have quickly been unified under the communist north had the United Nations not issued a resolution on June 27 in support of South Korea. As a result, sixteen nations, led by the United States with troops stationed in nearby Japan, came to the aid of South Korea.

But the U.S. was timid, as President Truman was scared of further Chinese and Soviet involvement. The man who ended World War II by ordering the use of atomic bombs against Japan, reacted tentatively, overruling General Douglas MacArthur's desire for airstrikes against North Korea. Instead the U.S. landed a ground force that was quickly defeated and General William Dean was captured by the North. The Americans and South Koreans were driven back to the southern port city of Pusan, very near collapse, followed closely by North Koreans executing South Korean government workers and American sympathizers.

The half-hearted war effort quickly turned into a crisis, and over the next few months, U.N. (essentially U.S. and Republic of Korea (ROK)) ground forces were assisted by heavy American air and naval support while they waited for reinforcements to arrive. Finally, in September, U.N. forces counterattacked and drove the Communists back into North Korea where they were joined by the Chinese Army, with Soviet MIG fighter air support.

Under the barrage of waves of Chinese troops the U.N. forces raced back in retreat yet again, and kept giving ground until they were once more at the southern end of the peninsula, before regrouping in 1951 and liberating the devastated South Korean capital of Seoul for a second time. In coming months the tide of battle see-sawed, but the U.S. was still concerned with broadening the war and U.N. forces stopped just north of the 38th parallel and dug in, content to return the Korean peninsula to the tense status quo as a divided state that existed prior to the beginning of the conflict. The remainder of the war was relatively uneventful, but it lingered on like a bad rash, with fighting continuing in a near stalemate for two more years before an armistice was finally signed.

Since that armistice was signed in 1953, the Korean demilitarized zone (DMZ) has consistently been among the most heavily fortified regions in the world. For decades, ill-will, mistrust and antagonism has continued to make life all the poorer without just cause, and indicative of the failure which is North Korean communism, similar to the failure of communism in East Germany, the North instituted a policy to shoot anybody attempting to flee the wretched living conditions of constant repression and gloom by defecting to the South across the DMZ.

Equally alarming, beginning in 1974, four tunnels were discovered that the Communists constructed under the DMZ as future avenues of invasion, in case they decided to invade the South again with their million man standing army. When the tunnels were discovered the North Koreans claimed they were coal mines, although they were excavated through igneous rock that the Communists painted black. Today the DMZ still remains as one of the last holdouts of the Cold War, guarded by nearly a million men and laced with minefields.

Shortly after the U.S. pulled out of Korea, the French finally pulled out of their former colony that included Vietnam. With the U.S. supporting a republican government in the south and the Soviet Union and China supporting a communist government in the north, the Vietnam War in many ways mirrored the Korean War. North and South Korean forces even participated on opposite sides of the Vietnam War. For the United States it was another limited and undeclared war against Soviet and Chinese sponsored communism.

But there were significant differences between the partitioning of Korea and that of Vietnam into communist and capitalist camps, and certainly all was not as it seemed in America. The antagonism fomented by men like Senator Joseph McCarthy overshadowed many important facts. During the Second World War, in 1941, the Viet Minh, or more formally the League for the Independence of Vietnam, was formed and Ho Chi Minh assumed leadership. Ho Chi Minh had long been working political channels to achieve the very reasonable goal of Vietnamese independence from French control. It was that long-term control by a foreign power that was at the heart of discord in Vietnam.

Citing the U.S. Declaration of Independence, Ho accepted authority of the Democratic Republic of Vietnam (DRV) in 1945 from the wartime emperor Bao Dai. Ho was friendly with American soldiers already in Vietnam and is reported to have welcomed American forces; asking for recognition and good relations with the United States. But the United States declined to acknowledge Ho's government in order to appease the French who wanted to maintain Vietnam as a French state; with that decision also reflecting America's exaggerated fear of communism. It's interesting to consider how moderate and stable Ho's government might have been had the United States, with President Truman still in office, fully supported the basic democratic principle of freedom of the Vietnamese people from foreign rule.

Instead of cooperating with the DRV however, the United States supported the French in opposing the DRV and maintaining a presence where they were largely unwanted. At the Potsdam Conference in 1945 the Allies decided that Vietnam would be occupied by China and Britain, as China wasn't yet a communist country. But shortly after asserting control, the Chinese and British ceded their interest in Vietnam to France. The French did meet with Ho and the DRV to form a government, but those negotiations broke down because France insisted on Vietnam being a part of the French Union, which was a copy of the British Commonwealth. After Ho rejected the concept of Vietnam remaining part of the French Empire, the French invaded the North. Ho sent pleas for assistance to President Truman, but those pleas were ignored and Ho was forced into the mountains where he began an insurgency.

When communists under Chairman Mao Zedong seized control of China, they sent aid to the DRV. By 1954 the French were out, having at least enough sense to cut their losses, but not before leading the U.S. to oppose North Vietnam and establish a pro-American government in the South. With French withdrawal, Cambodia, Laos and Vietnam were finally granted independence after about ten years of unnecessary fighting. But by that time the U.S. was hard set against any communist government that might be aligned with Stalin's Russia, or even China. Ironically, Vietnam would actually have been a good buffer against Chinese expansion considering age-old Vietnamese resentment over a thousand years of Chinese rule. But America's vision had been corrupted by the Cold War, Korean Conflict, and alarmist politicians like McCarthy. By 1954 the U.S. was so deep into the war in Vietnam that it was reported to be financing eighty percent of French/American involvement.

In what may have been self-defeating policy, America encouraged strong-arm tactics and a rigged election in the South to maintain an American puppet regime; trampling the spirit of democracy in a rush to prevent the spread of communism. As the rift between North and South grew, the North fueled a vast terrorist insurgency in the South in which all manner of authority and symbolic figures including village chiefs, government officials, teachers and others were murdered. They supplied that

vast insurgency network known in the South as the Viet Cong, via the Ho Chi Minh trail; eventually helping to establish the National Front for the Liberation of South Vietnam (NLF).

With the widespread support the NLF had in South Vietnam, the die was cast; the struggle would be internal, and the South Vietnamese government under Ngo Dinh Diem was not, and would not be up to the task. John Kennedy made the mistake of escalating American involvement in the early sixties after a reconnaissance trip by Lyndon Johnson. He increased the number of military advisors in South Vietnam, on top of the supplies America was already pouring into the country.

Advisors warned Kennedy that America would meet the same end as the French and that it would long be a heavy financial and emotional burden, but he lacked the experience to recognise any viable alternative to the standing U.S. doctrine of blindly opposing the spread of communism at all cost. To make matters worse, some members of the U.S. government actively encouraged a coup of the sometimes difficult, and largely incompetent South Korean leader Ngo Dinh Diem and his brother in charge of the hated secret police. But their executions in late 1963 seemed to add to the turmoil; and within three weeks, Kennedy had also been assassinated.

As the situation continued to deteriorate, the U.S. military actively engaged the North in 1964. In Air Force Chief of Staff Curtis Lemay's words, the U.S. was going to bomb the Communists back into the stone age. That optimism proved unfounded however, and contrary to what military and political figureheads would say in the following years, America's experience in Vietnam was the result of poor judgement and poor diplomacy; resulting in almost unmitigated disaster. President Johnson and General Westmoreland were responsible for supervising one of the poorest war efforts in American history and consistently lied to the American people to cover up that fact. America tried to fight a war against the Soviet Union and China by dropping bombs, napalm, and agent orange on an enemy that often couldn't be seen hiding amongst the natives and in dense jungle terrain.

On May 16, 1968 the frustration of fighting against guerilla insurgents that attacked and then blended back into the population was evidenced by the My Lai massacre in which American forces attempted to annihilate an entire village by killing every person and animal and burning the houses and outbuildings. Nearly four hundred people, including many elderly and children, were executed, with some having been raped and tortured prior to being killed. News of such atrocity, added to growing resentment over those against the war being forced to serve through the draft, and the 1969 invasion of Cambodia, fueled increasingly vocal anti-war protests in America. On May 4, 1970 the tensions between protestors and domestic authorities came to a head at Kent State University in Ohio when National Guardsmen shot and killed four civilians and wounded nine others.

Shortly after John Kennedy had committed the U.S. to the war he was looking for a way to get out of it with honor, as was his bumbling replacement, Lyndon Johnson. And Johnson's successor, Richard Nixon, campaigned by saying he would achieve peace with honor. But there was little honor in the manner in which the conflict dragged on until the withdrawal of American forces in 1973, precipitating the utter defeat of the South and the fall of Saigon in 1975; with Saigon being soon thereafter renamed Ho Chi Minh City by the victorious communists.

Neighboring Cambodia, which had long fought alongside the Vietnamese for independence from France, was also plagued by civil war. There again American and communist influences were pitted against each other. Backed by North Vietnam, the Khmer Rouge enjoyed large rural support, contributed to in-part by resentment over heavy U.S. bombing; and they also emerged triumphant in 1975. The Khmer Rouge regime subsequently became one of the worst examples of governing authority in modern times. Pol Pot and the rest of the Khmer Rouge leadership is known around the world almost exclusively as the murderous savages responsible for the Killing Fields, subject of a film by the same name. Pot and his comrades purged Cambodia of independent thought as they transformed the country into an archaic society.

Almost immediately the Khmer Rouge banned travel, closed borders and isolated the country to maximize control and minimize news of their atrocities. In their reign of terror they killed anybody

believed to have a reason to resist them. They killed Vietnamese, Chinese and other ethnic minorities. They tortured and executed educated people, people with possible ties to the previous government or foreign influences, professionals, homosexuals, wealthy people, religious people and anybody else that stood apart from the crowd they were forming. Factories, telephone and postal systems, even schools and hospitals were closed and modern medicine was rejected in favor of folk remedies.

The cities were emptied and families separated as the citizens were relocated to farm labor camps. Private property, finance and religion was outlawed and infrastructure deteriorated. The country was a land of peasants that couldn't provide for themselves, yet in exchange for weapons to suppress the people, the Khmer Rouge traded rice to China while many of their countrymen starved. Still, there was also a shortage of arms and many of the victims of the killing fields were hacked, and bludgeoned with clubs, picks and other hand tools for lack of bullets.

Even if the Khmer Rouge could maintain control of the terrorized population, economically the country couldn't maintain a powerful military. So it happened, that in a world of surprises, it was Vietnam that responded to the brutality of the Khmer Rouge and aggression toward Vietnam by invading Cambodia and driving the Khmer Rouge out of power. However, few of those responsible for the mass murders and genocide totaling an estimated 1.7 million deaths ever faced trial, as they retreated to the jungles where they continued guerilla warfare for another twenty years. The new Cambodian government, wearied by continued fighting, was too fearful and tarnished to press the issue of bringing the Khmer Rouge leaders to justice.

Pol Pot died in 1998, never having to answer for his crimes. But, pressure and financing from the United Nations finally convinced the Cambodian government, led by former Khmer Rouge soldier, Prime Minister Hun Sen, to participate in a Tribunal to bring former heads of the Khmer Rouge to justice for their roles in crimes against humanity. Former military chief Ta Mok died in government detention in 2006. In 2007 Pol Pot's second in command, general secretary and Brother Number Two as he was known, Nuon Chea was arrested by the tribunal; joining him in custody was fellow accused Kaing Guek Eav, commonly known as Dutch who headed the former Khmer Rouge S-21 prison.

United States participation in the Korean and Vietnam Wars was termed police actions because in both cases the sitting President bypassed the intent of the Constitution which reserves the authority to declare war for Congress. During the tension of the Cold War, the Superpowers preferred to fight their ideological battles in Third World backyards because the disagreements weren't significant enough to risk destruction in their own homelands. As a result, Korea and Vietnam were devastated and superpower economies were severely strained, yet at no point was the tension of the Cold War higher after the Russian blockade of Berlin of 1948-49 than during the Cuban Missile Crisis of 1962. The previous year at the Bay of Pigs, Fidel Castro and the Cubans easily defeated a contingent of invaders trained by the United States Central Intelligence Agency that were intent on removing Castro from power. And it was shortly after the Bay of Pigs invasion was put down that Nikita Khrushchev ordered the start of construction of the Berlin Wall.

After the Second World War the United States failed to take advantage of its technological superiority; letting Stalin dictate too many terms and exercise too much power. And that advantage was essentially lost in 1949 when the Soviets developed their first nuclear weapon based on stolen U.S. technology. Since then both camps of the Cold War were rightly fearful of the devastation of nuclear warfare. And through the years, effort that should have been applied to bridging differences were directed toward developing ever more powerful bombs and delivery systems to fly them faster and carry them farther.

Not long before the Cuban Missile Crisis, on October 30, 1961, the Soviets detonated the largest atomic bomb of all time. The gigantic Tsar Bomba had the power of fifty million tons of TNT and shook the Earth with a force measuring over 5 on the Richter Scale. When Stalin's successor Nikita Khrushchev mentioned a 100 megaton bomb, twice as powerful as the Tsar Bomba, in a speech to the Soviet Parliament, U.S. officials were even more on edge because they had no way to confirm

such a bomb was just part of a fictitious bluff.

The following year, on October 14, 1962, a U-2 spy plane flying over Cuba photographed construction of Soviet missile silos capable of launching nuclear warheads well into the U.S. Unbeknownst to the general American public, those missile silos were ordered constructed by Khrushchev very much in response to the U.S. stationing nuclear missiles near the Soviet border in Turkey, a member of NATO. However, the Soviets had repeatedly denied preparing to introduce such offensive weapons into Cuba only recently before the silo sites were discovered by America. President Kennedy and his staff were understandably alarmed by the buildup of considerable nuclear strike capacity just ninety miles off the coast of Florida, though Soviet submarines representing similar offensive capabilities were arguably much more dangerous because they could strike from any oceanic coast without warning, just as American submarines constituted a very real threat to Russia.

Kennedy and Khrushchev engaged in a public war of words; and in private negotiations through telegraph and associates. The U.S. military and diplomatic leadership worked feverishly in the following days to neutralize the threat of missiles on Cuban soil; quickly mobilizing air, army and naval forces for battle. Plans considered by the Executive Committee of the National Security Council (EXCOMM) included bombing strategic Cuban installations, invading Cuba, and implementing a naval blockade. Some military advisors felt that a rapid forceful military response was the only practical solution, but Kennedy was aware that nothing happening in Cuba would be isolated and that Khrushchev would react to hostilities in Cuba by using force in Europe to take control of West Berlin, or worse.

Though it could be considered an act of war, Kennedy decided to blockade Cuba, but he called it a quarantine and received the permission of the Organization of American States to strengthen a claim of legality. On October 22, six days after seeing the spy plane photos, Kennedy announced the discovery in an address to the nation in which he also announced the quarantine of Cuba. Tensions quickly escalated even further and the U.S. military was placed on readiness level DefCon 3. Khrushchev claimed the blockade was illegal and ordered Soviet ships to ignore it. Of nineteen ships destined for Cuba, sixteen reversed course, the tanker *Bucharest* proceeded through without being intercepted and two ships *Gagarin* and *Komiles* continued toward Cuba under submarine escort. Tensions were very high as the USS *Essix* naval group approached the *Gagarin* and *Komiles*, but both sides breathed a little sigh of relief when the Soviet ships and their submarine escort stopped short of challenging the U.S. Navy warships.

With the future of world relations uncertain, on October 24th, in the midst of Soviet threats to attack the ships of the blockade, and as progress on the readiness of the Cuban launch sites continued, the U.S. Strategic Air Command was elevated to DefCon 2. Khrushchev's first response for Kennedy's demand to withdraw the missiles from Cuba was to demand that the U.S. not interfere with Cuban politics, something the U.S. was still actively involved in after the Bay of Pigs Invasion. Americans were uneasy, but unaware on October 25th that Kennedy authorized loading of nuclear weapons onto planes readied to fly against Russia.

The following day Kennedy told his advisors that he believed an invasion of Cuba was inevitable, but he was going to try the diplomatic course a while longer in hopes of success. Meanwhile, Castro, a brazen man always prone to dramatic extreme with minimal diplomatic consideration, was convinced an attack was eminent and requesting Khrushchev to attack the U.S. in a preemptive strike. That same day a U-2 spy plane was shot down over Cuba and it looked as though the conflict was about to come to a head, as Kennedy had previously determined such an act would lead him to order an attack. But as American and Russian citizens went about their daily routines unaware of the proximity of imminent nuclear destruction, as push came to shove, Kennedy backed off from pulling the trigger and gave the process of diplomacy a little more time.

As Kennedy was readying a proposal in response to Khrushchev's first demand letter seeking a guarantee of Cuban security, Khrushchev's second letter arrived. In the second letter he demanded the

U.S. withdraw the nuclear missiles in Turkey. That presented a problem for the U.S. because as a member of NATO, Turkey wanted the missiles there to deter Soviet aggression. If Kennedy agreed to the pullout it might seem to the other NATO countries that America was selling out Europe to further its interests closer to home, or that the U.S. couldn't be counted on to stand up to the Soviets. On October 28th, the CIA advised that all the Cuban launch sites were operational.

But that very day, with mounting awareness of consequences quickly outpacing anticipated gains, the two sides came to an understanding. Kennedy was praised as a vigilant hero when he publicly agreed not to invade Cuba in exchange for removal of the missiles. But privately, Kennedy also agreed to remove American missiles from Turkey, just as Khrushchev had demanded. But by withholding the information concerning missiles in Turkey from public discussion, Kennedy appeared to have won the battle, and Khrushchev appeared weaker in the eyes of those not in the know; perhaps contributing to an over-confidence when Kennedy decided to commit to war in Vietnam, and to the future ouster of Nikita Khrushchev by his hard-line Politburo rival Leonid Brezhnev. What both sides were apparently left with was a reassurance that they'd rather fight from a distance in third-world countries than face their own nuclear ruin. And the intrigue of international political posturing played on.

The Soviets and Americans continued to scheme and plot against each other for world domination. What was labeled a battle of ideology between democracy and communism had seemingly more to do with strategic competitive positioning than social debate. In 1979, contemporaneously with the Iranian revolution and Iran-Iraq war, Muslims revolted against the communist government of Afghanistan. Christians and Muslims had warred to eliminate each other nearly since Islam's militant birth. But in what had traditionally been a mortal enemy bent on the destruction of non-Muslims, and general ignorance-fueled violence, the CIA saw a potential ally against the spread of enemy number one, Russian communism. And the CIA supported the attempt of Islamic fundamentalists to take control of Afghanistan. Over the next nine years, with support streaming in from Western nations, the Soviets fought a long, frustrating, costly war with the Islamic Jihadists for control of territory that, to many, hardly seems worth fighting for. Though America would later regret jumping into bed with the Muslim enemy, U.S. officials succeeded in sharing their "Vietnam experience" with the Soviets.

With mounting losses and no end in sight, when Mikhail Gorbachev became General Secretary of the Communist party in 1985 he was looking for a way to withdraw with dignity, much as the American Presidents had tried to save face in Vietnam. And like America, the Soviets were slow to leave, but they did withdraw by 1989, leaving the country to civil war which the Mujahadeen won in 1992. It's easy to see how U.S. officials could predict the Soviet difficulties in Afghanistan after America's trouble with guerilla fighters in Vietnam. But it remains a mystery to many how President George W. Bush expected to benefit by committing trillions of dollars to occupying a backwards country idealistically opposed to America, where it's difficult to distinguish friend from foe.

Those lessons were not wasted on Mr. Mikhail Gorbachev however, and he would make great contributions to world peace in the second half of the 20th century. Before that could occur however, withdrawal from Afghanistan was only one event in a rapidly changing Soviet Union. Premier Gorbachev, or Gorby as he was affectionately called, had been disappointed by strong-arm Soviet policies when he was growing up and when he was working his way to the top of the Communist Party. The brutality of Stalin and harsh realities of World War II made lasting impressions on Gorbachev as a youth in Stavropol. He was born in 1931 during the midst of Stalin's man made famine, and his grandfather was sentenced to nine years in a labor camp for setting aside grain for his family when Stalin was taking so much food from the peasants that they were themselves going hungry. Faced with the restrictions on peasants bound to work the communal farms, Gorbachev wondered about the difference between communist policies and the oppression of serfdom of generations past.

Gorbachev was determined to make a difference, and his intelligence and a strong work ethic

earned him the Order of the Red Banner of Labor when he was 16, and later enrollment in Moscow University where he began studying law in 1950, three years before the death of the tyrannical Stalin. After graduation, Gorbachev immersed himself in work at the Communist Party back at Stavropol and rose rapidly through the local Party ranks. In 1970 he was appointed as the provincial party chief, where he displayed excellent organizational and leadership skills that involved the people more in the decisions that affected them and improved general living conditions. By that time his star was rising quickly, and the following year he was appointed to the powerful Central Committee which elected and oversaw the elite Politburo. In 1979 he was appointed to the Politburo as a candidate member and received full membership in that most important governing body the following year.

Once in the Politburo, Gorbachev's interests were advanced through his fortunate circumstantial association with Yuri Andropov, head of the KGB and future General Secretary who also happened to be from Stavropol. After the death of Andropov, Konstantin Chernenko was elected General Secretary, leader of the Soviet Union, and Gorbachev was made second secretary. But Chernenko's health was not good, and when he died Gorbachev was elected General Secretary of the Communist Party by the Central Committee, receiving just one vote more than hard liner Grigory Romanov. That one vote was instrumental in changing the face and nature of world politics.

Gorbachev had long believed the secrecy and oppressive policies of the Communist Party had been unjust and unnecessary. But until he rose through the ranks there were definite limits to what he could accomplish and what reforms he could effect. From the time of revolution in 1917, party policy was fixed at the top and forced on those below. To dissent too strongly or too soon would have resulted in trouble for Gorbachev and he could have found himself exiled to a labor camp in Siberia, or worse. So he waited. He implemented reform as he could, and he networked and sought leadership opportunities and played the games of politics. His work in the Central Committee and Politburo also allowed him unusual opportunities for a Russian to visit Western countries like Belgium, Canada and the United Kingdom. When he was elected as the leader of the Soviet Union at age 54, as the first General Secretary born after the revolution, he was ready for change.

But still, his control was not absolute, and he had to overcome the opposition of many hard-line conservatives that had little consideration for the will of the masses. Many of the party leaders had grown accustomed to their elevated lifestyles in a society that was supposed to have no class distinction. So Gorbachev campaigned for change as he introduced reform programs in 1986 and beyond. His original reforms were aimed at fixing the sluggish economy where people didn't feel the need to be creative or embrace their work. Knowing that the people wanted change as he did, he realized, if informed, the masses would rally to their common cause and revitalize the nation. Some of his proposals came to be referred to as Glasnost, or opening up, and in the spirit of fresh beginnings, in December of 1986 Gorbachev invited the exiled intellectual Andrei Sakharov to return to Moscow.

Economic reforms included allowing limited private enterprise and market economy, giving some freedom to the people to decide what they wanted to do and allowing demand to more directly drive supply. Asset allocation had long been a problem inherent to communism because supply decisions were traditionally made by central planners who decided what to make, how much to produce and how much to charge. But more importantly, glasnost legislation promoted personal liberties such as increased freedom of speech, an absolute cornerstone of democracy. Gorbachev also released many political prisoners and dissidents, encouraged foreign cooperation and foreign investment. He restructured the government and promoted democracy by removing the stranglehold of the Communist Party on government offices and forming new bodies such as the Congress of People's Deputies, who's meetings were televised to reduce corruption and encourage greater public participation.

Within just a few years the movement for self determination had so much momentum it exceeded even Gorbachev's expectations, and to some extent his control. Given the opportunity, the idea of freedom ran its own course. By 1989, as the withdrawal of troops from Afghanistan was

coming to completion, historic democratic elections swept many Communists from office. And the fires of democracy and independence that had long been suppressed began to race through the Soviet satellite nations, those countries essentially annexed by Stalin following World War II. The mood was electric, in that same year of Afghan exodus and democratic elections Gorbachev let the citizens of Berlin “Tear down this wall!” as American President Ronald Reagan, whom Gorbachev had forged a good relationship with, had stood in front of and publicly challenged Gorbachev to do two years before.

Many had long hoped for the day, but almost nobody foresaw such a dramatic and sweeping liberalization and freeing of the Soviet Union just a few short years after Gorbachev came to power. When the freedoms of democracy and speech ran their logical course in the states of Russian minority, many of which had been harshly oppressed by Stalin, Gorbachev let the people’s will decide. The democracy and freedoms he introduced were a total reversal of the old communism that crushed numerous independence movements and revolts with the force of the Red Army, and executed dissidents throughout the Communist Bloc.

In the end, the forces of liberty, and of competing factions, overtook Gorbachev politically. He had hoped for an orderly transformation to democracy while maintaining the Communist Party as an influential member of the new democracy, and the continued union of the Soviet Socialist Republics. But, the clash between reformists and conservatives pulled at the controls of government, and the Soviet Union, built into a Superpower and a brutal dictatorship by Joseph Stalin, was dissolved at the end of 1991. Though it didn’t go quite as well as he had hoped, Mikhail Gorbachev delivered freedom to hundreds of millions of people in the Communist Bloc, and relieved fears of nuclear Armageddon around the world. Thanks to the man called Gorby, people of the Soviet Union and western nations that grew up under the very real threat of nuclear annihilation were finally able to sleep a little better at night.

And that was a good story, with a promising era. But still, the loss of Empire didn't sit well with those Russians coveting world power, and as a man disgusted by Mr. Gorbachev’s generosity, a KGB officer named Vladimir Putin was determined to reclaim former Soviet glory. In the decades since, he has been aggressively instrumental in reminding a sometimes naive world that Russian demise as a superpower was premature and exaggerated.

Motivation & the Birth of Gods

As an exercise of consciousness, imagine that you're an all-knowing, all-powerful god. What would you do with that unlimited power? If you could do anything and everything you wanted and didn't have to answer to anybody or anything, what would you do? What would you change?

A common answer might involve a universe of happiness, where nobody could hurt anybody, and everyone could have anything they want, even if that's just a few friends and a sunny field of grass. But what seems a simple question elicits some telling responses. One such response was "If I was God I would do exactly what he is doing now, which is seeing who has the faith to believe in me since I created you and act accordingly..."

Isn't it coincidental that gods are no smarter than the men that invented them? Throughout history, instead of just accepting reality, the inventors of gods unsuccessfully tried to reconcile a higher power and divine purpose and wisdom, with a cruel, unjust world ruled by selfishness. It's a bit of a mystery why creationists insist that the universe and life are by the design of an all-knowing god when anyone with a semblance of intelligence would create a world of happiness and pleasure as opposed to this world of pain and suffering. And those that don't recognize the pain and suffering in this world are merely fools lost in their own selfish desire.

Why do people with the same universal needs vary so wildly in their temperament, and not recognize the same universal needs of others? To understand human behavior requires broader perspective; with a little more insight than the simple concept that all is planned and proceeding according to some mythical purpose. That's not the reality of life. Life is driven by desire, not by design. Humanity is an amalgam of animated form and motivating idea. To understand any action; whether it be conscious behavior or otherwise, its cause must be determined. Every utterance and action has a motive; every effect has a cause. It's the essence of motivating desire that determines how people feel, think and act. And it happens all too often that people invite adversity by accepting the results of actions without taking into consideration the true motives behind them.

As far as motivation goes, there are many types, some of which correspond to differing levels of thought. Immediacy is the consideration of time and distance in the thought process. The most basic motivation is survival, as the dead neither need nor want. Immediate threats to health and safety receive top priority. Only after safety is secured can attention be practically turned to matters of physical desire and comfort, such as routine matters of housing and food acquisition. Beyond survival and physical needs people engage in short-term goals such as advancing their career and establishing a competitive advantage. Eventually, given the right opportunity, people set about long-term planning. Today that planning might be for retirement, saving for education, or perfecting a craft, but it might also include historical achievements, or contriving political or economic conquest. And a few thoughtful people at the top of the Immediacy Pyramid will choose their actions based on multi-generational, or legacy considerations they hope will have effects well beyond their own time and place.

Beyond classifying the timeliness of consideration, it's also important to understand the distinction among subjects of concern. The term Family Circle can describe the breath of individuals whose well-being is favorably considered in one's thought process. As with immediacy, there's a wide range of concern people display for the health and happiness of others that defines the character of the individual. The most primitive of our kind care only about themselves; and of just slightly higher worth are those that care about friends and family. Above them are people that consider effects to broad groups such as a race, species or political subdivisions. Still others may care for some species, like horses and dogs, while not considering others, such as cows and pigs. And unfortunately it's a rare person that cares about Health and Happiness for all the innocent earthlings. It's that simple missing concern for others that accounts for the crime, violence and iniquity in civilization.

The third category of character distinction can be labeled Disposition. This category goes

beyond time and subject to better describe one's attitude toward others. In determining effect, family circle is crucial to establishing justness, and immediacy influences the scale of action. But the degree of depravity or magnanimity is often defined by the disposition of the actor. The worst character is so merciless and vile as to be labeled cruel. Less abusive savages are considered hostile, while indifferent people are neither friend nor foe. And better mannered people rise to the level of caring or even loving.

The very worth of people is determined by how well they rise above selfish desire, as reflected by their impact on others. Every purposeful evil of the world today; be it stealing or homicide, assault or simple insult; is the result of selfishness: the true root of all evil and deliberate iniquity; the desire to put one's self before, seek leverage over, and take advantage of others. Selfishness plagues personal relationships, society, and all life on Earth. And it's an inborn instinct as basic as any human emotion or behavior, though it must be overcome to achieve true personal growth and mutual benefit.

Not only perspective, but even justice is individual because the ability to experience pleasure or pain; the ability to feel emotion or contemplate reason; are products of advanced nervous system development. And due to the simple fact that nervous systems aren't shared among individuals, people haven't the ability to see, hear, feel and think the sights, sounds, sensations and thoughts of others.

By that limitation people and other animals are alone in their unique experiences; in their individual perceptions. Likewise, desires are similarly unique to individuals. But people can grow in goodness by seeking to understand and share the experiences and desires of others. Even though people may understand the benefits of cooperation and common generosity, they're handicapped by singular perspective and challenged to overcome it and grow beyond the self.

Perception is most certainly not, however, absolute in its restriction. People can see the pain of others, they can see the commonalities of all life, but selfishness has been compounded and furthered through the power of ignoble people spreading selfish ideas; some of which predate civilization because self-preservation and self-advancement was common to individuals well before any form of consideration.

Starting from nothing more than increasingly complex molecular interactions that provided a basis of ongoing animation and development, all of the knowledge and belief that people have ever gained, going back to reptilian ancestors and beyond, had to first be learned through observation, trial and error, and reason. The most primitive learning results from simple external stimuli. Examples of which are pain, fear and the watching others. It took a very, very long time, but eventually archaic people developed enough mental capacity to actually reason; instead of simply reacting to stimuli. In addition, different individuals had to learn the same things many times over before ever developing the communication skills necessary to effectively share knowledge and ideas.

Reasoning is synonymous with an internal motivation to learn, or figure things out. But, as an individual, early man's perceptions were his own and so his interest was for himself. As an individual he could be oblivious to others. The first result of that singular perception that comes to mind is a lack of consideration and compassion for others. But there's another important legacy of that self-absorption which still burdens society. To understand modern motivation it must be remembered that because he lived in an egocentric world early man didn't just wonder why things happened; he wondered why things happened to him.

Coupled with his limited perception, early man had little experience, and very basic motivations. The quest for survival and fear of numerous serious health risks were still primary among his interests. He saw lightning but didn't know why it might strike him. He saw fire but didn't know why it might burn him. He saw rain and wondered why it might flood his home and why it might then abandon him for months at a time; whilst another man might see no rain at all and wonder why the river rose up against him without warning.

Whatever the phenomena, whether it be exploding mountains blasting smoke, ash and rocks into the sky or an angry Earth rumbling in displeasure as it opened and swallowed villages whole; when observation failed to answer his questions, early man was left to draw on his own experience,

and project his personality into the subject of his curiosity. That practice of projection; of assigning one's own values and opinions to things and events of mystery, has been instrumental in shaping history through man's collective perception of reality. Because early man might strike at someone in anger, he believed an angry sky might strike at him with lightning. And because he related pain and hurtfulness with vengeance, he projected vengeful motive onto dangerous natural phenomena, that are, of course, totally void of consciousness.

In time, ancient man projected his personality into more than actions, but into objects as well. And his fanciful spirits grew more complex and powerful. Before he knew what was happening, he was imagining spirits everywhere he looked, though they could be neither seen nor heard. Supernatural

IMMEDIACY OF THOUGHT



FAMILY CIRCLE



DISPOSITION



agents ranged from spirits in objects that imbued special characteristics in matter, to ultimate realities pervading the entire universe; and from competing tribal gods to ultimate gods with neither beginning nor end and no limit to their power. In fanciful attempts to explain the unknown, man gave birth to gods and created that odd unreality to which they belong: religion.

And those simple, fragile gods; subject to the slight and whim of their creators and followers, whereby many were consigned to perpetual oblivion; slowly grew in importance. They began to take over the lives of men, growing stronger than men; stronger than any man; strong enough to command armies and consume nations. Those little spirits that flitted about the shadows of the unknown grew to become the powerful ideas that motivate and subjugate mankind.

But superstition born of ancient man can be recognized and neutralized by his descendants. Of man's unreasonable, illogical creations, the sixteenth century philosopher Michel de Montaigne remarked, "Man is certainly stark mad; he cannot make a worm, and yet he will be making gods by the dozens." And the 19th century philosopher, Friedrich Nietzsche, observed that "All religions bear traces of the fact that they arose during the intellectual immaturity of the human race."

And quite simply, religion was invented as a crutch for minds unable to come to grips with reality. Had people stopped at trying to explain what could be observed, and limited themselves to actual experience without resorting to fantasy, they would have been able to correct their own errors much sooner. But, their curiosity wasn't limited to events they could see, it extended to matters of pure speculation. The death of loved ones grieved our ancestors, it set their hearts heavy and burned their minds with mourning. As people grew more inquisitive they contemplated the end of life; even coming to obsess over their own certain deaths.

Could anything be done to counter the inevitable finality of death? The question tore at people's emotions like wolves on a carcass; it haunted them like a grim reaper, stalking their every move, lurking in the shadows, just waiting for one unsuspecting moment of weakness. The loss of children, parents, friends, brothers and sisters was too much to bear. Death seemed so cruel and so unfair that people simply resorted to fantasy and ignored reality to alleviate their fear and frustration. Looking back at primitive man's reaction to fear of the unknown, it's easy to see why Thomas Edison declared "religion is all bunk, born of our desire to go on living." The loss of everything people worked a lifetime to accomplish, and every memory and bond among friends, was so disheartening, so frightful, that simple man, in weakness, couldn't resist grasping at any contrivance of eternal life. That's why Karl Marx stated that religion was the opium of the people and Sigmund Freud compared it to a childhood neurosis.

The tragedy of entrenched ideology was set in motion early on. Children were hostage to the perspectives and beliefs of their parents. Premature conviction, the acceptance of doctrine that could not be observed, prevented people from continuing to search for the truth. Worse yet, people began to make decisions justified by their own pathetic myths.

By convincing themselves of their own truth, ancient people set life on Earth on an even more difficult path where error would be compounded by zeal. When people became entrenched in their beliefs they sought to impose them on others. And as truth was lost, it was hatred passed down through generations; with erroneous, even evil practices being demanded, disseminated and defended by all available means. Ancient zealots left future generations with archaic rules, invocations to errant and rampant violence, a warped sense of justice, and unfounded arrogance.

Before ancient people left written records, they'd compounded their errors many times over. Not content to just invent gods, people were concocting intricate relationships in the spirit world and elaborate rituals to appease their evermore peculiar gods; the gods that didn't seem to be responding to their pleas. How can it be that any thinking being might cry out in a vacuum and imagine an answer from nothing? What's worse, their fantasies of gods and demons fighting over mankind were the subject of the bulk of early writing. In the history of the world there's never been a fraud like religion. Is it any wonder at all that people would be easy targets of hucksters, charlatans, and frauds; when they

so enthusiastically embrace an empty promise of eternal glory? If a man wants something enough, can he not be convinced he shall have it?

Devilish absurdities were set in stone by devout followers that took what they were told to heart like they had seen it for themselves and then passed it to others with similar earnestness. The 19th century American speaker Robert G. Ingersoll characterized the passing of ideas between generations. He said, "For the most part we inherit our opinions. We are the heirs of habits and mental customs. Our beliefs, like the fashion of our garments, depend on where we were born. We are molded and fashioned by our surroundings." Unfortunately, people fiercely resist learning what they think they already know, and in efforts to maintain their own position and perspective they have campaigned violently to prevent others from seeking the truth.

Ideas of gods and supernatural phenomena became more powerful than the simple minds they controlled. Priests were appointed to specialize in supplicating the gods. Those priests became early examples of "experts" with a biased interest in propagating their own position. Priests' livelihoods, even their lives in many instances, were dependent on the religious conviction of the kings they served. Should the rulers of the land lose faith in the effectiveness of priests, then the priests were of little use and might as well themselves be sacrificed.

Unbeknownst to the common follower, seeking his own salvation, religious leaders had deeply vested mortal interest in multiplying the complexity and mystery of their craft. The more demanding and elusive the gods became, the more the services of the priests were needed. And by shaping gods into jealous, vengeful monsters, the priests gained a defense against expectations. They could then absolve themselves of failure by casting blame on the rulers and citizens for not satisfying the excessive requirements of fickle gods.

As people consumed with controlling matters they couldn't even influence, religious leaders were captives of the gods of imagination, they were absorbed by the desperate culture, and hadn't the wherewithal to distance themselves from their own fantasy. It was those experts and fervent devotees that couldn't see the light for the shadows, the forest for the trees, the truth for the castle in the sky. And it has been to those mental toddlers that the masses have looked to for guidance.

In their selfish desires they resorted to murdering their fellow earthlings in ridiculous exercises of futility designed to buy the favor of their imaginary lords. And people were so disturbed and delusional that fathers sacrificed their own children. Those were not rational people possessing refined character, capable of high thought, and privy to divine inspiration. They were savages that couldn't rise above superstition to free themselves of destructive dogma. Is it not concerning that humanity could be so base to believe in such nonsense? And is it not more concerning to realize the great tenacity with which people cling to their fortitude of ignorance?

Evolution of the Gods

Many gods flourished in ancient Egypt, with different communities adopting their own particular champion. Egyptian gods commonly had bodies of animal form that represented prized natural traits, like the flight of a falcon, the power of a ram, the potency of a cobra, even the practical work ethic of a scarab, or dung beetle.

Those Egyptian gods merged into a growing pantheon as their communities coalesced into larger and larger kingdoms, until all of Egypt was united. Some gods were combined, as when Amon and Ra were joined to form Amon-Ra, and other gods were assigned to different duties such as Set, the chief deity of Upper Egypt, assuming the position of god of the night, being inferior to Horus the sun god who was the primary deity of the conquering king of Lower Egypt. Horus the falcon was only one of the sun gods over the years, others included Ra with human form, Kheperer the winged beetle as the rising sun and many others.

In explaining life's trials and tribulations, Egyptian religious lore took on soap opera style intrigue. In lust of power, brothers turned on each other and children sought vengeance. That was the case with brothers Set and Osiris. Osiris had married Isis, his sister by tradition. And having come to envy Osiris, Set plotted to destroy him; luring Osiris into an ambush and murdering him. Osiris was placed in a coffin and put adrift in the Nile whence he was washed to sea. Some time after the grieving Isis recovered the body of her beloved Osiris, Set again found his body and this time dismembered it and scattered the pieces throughout Egypt. When Isis located the parts of Osiris she buried them where they lay, as a farmer might plant his crop. It wasn't until Osiris' secret son Horus was grown that Osiris' death could be avenged. After Horus defeated his uncle Set in an epic battle and delivered Set to his mother, he sought the aid of Thoth, the god of wisdom, and revived his father with the gift of his own eye lost in his battle with Set.

Symbolically, the eye of the sun god Horus had revived the "grains" of Osiris in the soil, just as the sun gives rise to the crops. That's but one example of the concerns of Egypt that the gods were fashioned to address. Of course, peoples' primary concern was the extension of life beyond death. For that they invented elaborate rituals to ensure safe passage to the "other side" and prosperity when they arrived. Among the treasures and miniature models of vessels and servants laid away with the deceased, could often be found the Book of the Dead, meant to secure eternal prosperity. The Book of the Dead contains many spells and incantations to acquire blessings of the afterlife and served as a general guide to the deceased for getting the most from their new land.

Myths of encyclopedic complexity evolved to describe the perils of reaching the last land; gaining the ferryman's assistance, negotiating wilderness, getting beyond hostile animals and unlocking secret passages. Of course the religion continued to evolve, and the characteristics and location of paradise itself changed with the times. As mankind's range and travels increased, the gods and heaven retreated farther and farther into the unknown. For Egyptians, paradise could variously be found at the end of the world near the mountains in the west where the setting sun met the stars of the underworld, across the great sea, or even in the Nile of the sky, the Milky Way. Once there, the rich were assured a life of plenty and leisure in a fertile land covered with great crops worked by their slaves.

In order to achieve such lasting bliss, the deceased had to show his worth by announcing to judges that he had done no evil. He would profess not to have: done those things the god abominates, allowed one to hunger, caused one to weep, murdered, caused a man misery, taken food or offerings from the temple, committed adultery, stolen, dammed running water, or committed similar evils. Should the man's heart be proven lighter than an ostrich feather on the scales of jackal-headed Anubis, he would gain entry into the blessed fields of Osiris. But should the man's heart be shown to outweigh the ostrich feather, his soul might be cast into a fiery hell or be eaten by the Devouress, a combination creature with the jaws of a crocodile on the forequarters of a lion and rear of a hippopotamus.

Egypt's long history allowed plenty of time to consider an after-life. For many hundreds of years after Egypt was united the land was virtually free from foreign invasion. The stability of the government, and the regularity of Nile flooding that provided fertility and water to the land to supply a steady food source, allowed the Egyptians to concentrate on great building projects such as grand temples, palaces, and the Pyramids. Religion in ancient Egypt lived long, prospered, and subsequently addressed many subjects. It showed especially high reverence for the lords of the land, the pharaohs, and the life-giving sun and Nile River.

But what was lacking relative to many ancient religions was an obsession with warfare and conquest. As heads of state and religion, pharaohs were interested in prosperity and stability. They weren't interested in stirring the citizens with stories of oppression and apocalyptic prophecies of cataclysmic wars marking the end of the world and establishment of a new order. Frustration and discord was contrary to the interests of not only the pharaohs and ruling families, but also to those of the influential priestly class.

Egypt's most immediate contemporary, Mesopotamia, had a similar history of religious development wherein the gods of tribes and small communities were brought together as cities grew and states merged. And, like Egypt, the result was an exceptional variety of myths; with the Gilgamesh flood epic being one of a long line that reflected Mesopotamians' concern over the unpredictability of river flooding. After being warned by the god Ea of a catastrophic flood that the gods were going to unleash on the people, Utnapishtim built an ark 140 cubits tall, with sides 120 cubits high to hold the future of life on Earth. The story is picked up with the end of the rain below:

When the seventh day drew nigh, the tempest ceased; the deluge,
Which had fought like an army, ended.
Then rested the sea, the storm fell asleep, the flood ceased.
I looked upon the sea, while I sent forth my wail.
All mankind was turned to clay.
Like a swamp the field lay before me.
I opened the window and the light fell upon my face,
I bowed, I sat down, I wept,
And over my face ran my tears.
I looked upon the world, all was sea.
After twelve days (?) the land emerged.
To the land of Nisir the ship made its way,
The mount of Nisir held it fast, that it moved not ...
I sent forth a dove and let her go.
The dove flew to and fro,
But there was no resting place and she returned.
I sent forth a swallow and let her go,
The swallow flew to and fro,
But there was no resting place and she returned.
I sent forth a raven and let her go,
The raven flew away, she saw the abatement of the waters,
She drew near, she waded, she croaked, and came not back.
Then I sent everything forth to the four quarters of heaven, I offered sacrifice,
I made a libation upon the mountain's peak.

The general trend of religion was from spirits in animal form in rural societies to more humanized gods as civilizations developed and people moved into urban areas. In most areas writing lagged so far behind religious development that the earliest deities had been largely humanized by the time their customs were recorded. By the time of the early Greek poet Homer (circa 8th century B.C.), the gods of the Greek pantheon were a fully humanized amalgamation of gods from early societies like the Minoans and Pelasgians, with those of Indo-European migrants from the north, of which the

Dorians were among the last. Among others, the Indo-Europeans brought with them their chief god, Zeus, who was also known as Dyaus Pitar by other Indo-Europeans and Jupiter when they introduced him to the Romans. Zeus also became king of all the Greek gods and married the local goddess Hera.

By that time the Greek gods were becoming highly idealized with super-human beauty to go along with their super powers and generalized job functions. They had also been largely gathered together at Mount Olympus from amid the Hellenic people. Though the Greek Pantheon was much larger, Zeus and Hera were commonly joined on Mount Olympus by Zeus' brother Poseidon, master of the seas; their Titan parents, Cronus and Rhea; Zeus and Hera's children, Hephaestus, god of forge and fire, Athena, the goddess of wisdom, the archer Apollo who had the power to hurt or heal, their nature daughter Artemis, and the warrior Ares; Zeus' daughter with Dione the goddess of love Aphrodite, the mystical Dionysus, son of Zeus and mortal Semele, and Hermes, the messenger, son of Zeus and Maia.

Apollo found some fame as the source of wisdom delivered to the famous oracle at Delphi, for centuries consultant to Greeks before momentous decisions. Try as they might however, people could never invent gods that knew any more than they did. To get around that failure of religion the Greek oracles, or fortune tellers, uttered nonsensical ramblings, or spoke in tongues as the Jews and Christians would say, that required interpretation. To this day failed interpretation is the crutch upon which religions stand in the face of their own obvious withering lack of knowledge.

But even the wisdom of Apollo and the strength of Zeus couldn't stand firm in the face of Greek enlightenment, or perhaps more accurately, a little common sense. As the gods lost their air of mystery by being domesticated; they were subjected to limited roles and their capabilities more precisely defined. Indicative of the gods decline was the slight by Diagoras of Melos when he was said to have thrown a wooden image of a god into a fire in the 5th century BC, and remarked that the deity should perform another miracle by saving itself. But still, Diagoras was in the minority and was forced to flee Athens with a bounty on his head. A contemporary of Diagoras, Greek philosopher Anaxagoras was also persecuted for opposing the absurd fantasies of religion.

Imaginative exercises of recitation and literature were instrumental in transforming feared gods into interesting and even entertaining characters. Playwrights were instrumental in exposing fantasy as such by producing adventures of god heroes such as Achilles, Dionysus, Zeus and Hercules. Theater helped bring the gods out of the sacred temples and into popular public imagination. The fantasy of religion was running its natural course; losing appeal in the light of creative license, free discussion, and philosophy that was growing more concerned with factual representation. As Greek civilization set new standards in thought and practice, religion held on, but its power declined as more people rose above the fantasy.

Religion in Rome, though different, ran a similar course. Even while Roman military power dominated the Mediterranean, people of the region remained Hellenized. Well before Rome flexed its military muscle, early Roman religion had a strong resemblance to magic. The many spirits that were honored in a multitude of ceremonies and festivals were bound to perform as directed by very particular ritual, similar to the Brahmin influence in Hinduism. But, the practical attitude of Romans clearly showed in their religion. Ceremony was approached as a demanding contract between god and person. If the ceremony didn't result in the desired outcome it was either because the ritual was not performed with meticulous exactness by the supplicant, or the god failed in its duty. In the latter case, people often found another god to worship.

Other influences, particularly Greek gods and traditions made their way into Roman religion as the Empire expanded. Much godly immigration was the result of the Sibylline Books, a collection of Greek oracles, or divine advice, that came to be consulted by priests at the influential Capitoline temple for important decisions. Of course, since the books were of Greek origin and the advice therein referenced many Greek gods, corresponding Greek temples were constructed in Roman territory.

In the latter stages of empire, Roman religion was largely shallow formality and even the city of Rome and Roman Emperors were deified. The symbolic religion, though still ritually practiced, was

largely pushed aside by real-world practicality. Lucius Annaeus Seneca the Younger concluded in the 1st century that: “Religion is regarded by the common people as true, by the wise as false, and by rulers as useful.”

Regardless of the state of Roman religion, the enduring influence of the Empire would help shape the future of western religion. One institution dating from pre-republic Rome that would later influence the formation of the Catholic Church was the College of Pontiffs of which the Pontifex Maximus was the chief priest. Later, Roman emperors held the title of Pontifex Maximus, until Emperor Gratian bestowed the title on Siricius, the bishop of Rome, in the year 382. Thus, the head of the official state religion which became the Catholic Church continues to be based in Rome. Modern popes are titled by the variant Pontifex Summus and elected by the similarly named College of Cardinals.

In the evolution of religion, old religions often give way to newer traditions, similar to the manner in which Christianity replaced the Roman pantheon. More religions have died out than could be named today. As older religions faded away the religion of the Indus River Valley of Northwest India, Hinduism, was left as possibly the oldest distinct religion still widely practiced today. Its archeological record, while pre-dating known Jewish works, doesn't rival extinct ancient Egyptian and Sumerian finds. But belief in Karma; which may be generally taken to mean one's experiences in this or future lives is the just result of one's previous action or behavior; and belief in reincarnation, may date to more than two millennia B.C.

While Indian writing lagged behind that of the Fertile Crescent, the oldest known texts that form the written foundation for Hinduism still date from more than one millennium B.C. Those Vedas included mantras that were chanted over and over to instill focus on a particular subject, along with other writing styles that covered topics such as philosophy and performance of rituals and sacrifices.

The vast collections of texts may not have been considered divinely inspired by their authors or those that compiled them, but much like the Bible, through time they became regarded as such. The eclectic nature of the Vedic collections reflects an openness of Hinduism. That lack of rigid control and limits allowed Hinduism to exceed other current religions in variety. Without progressive suppression of independent thought, characteristic of the Abrahamic religions, Hindus added their interpretations and perspectives to the embracing faith.

Gods and spirits are plentiful in the Hindu world, with Indra early being chief among them. Other popular gods include Brahma the Creator, Shiva the Destroyer, and Vishnu the Preserver. Vishnu has even appeared in nine earthly incarnations, known as avatars, which have come to be regarded as gods in their own rights. Some of the well known avatars include Rama, the righteous; Krishna, the adorable; Ganesha, the elephant headed; Hanuman, the monkey god; and Yama, the god of the dead. Kalkin, the tenth avatar of Vishnu, is supposed to usher forth the end of the world.

As a tolerant religion, Hinduism absorbed local customs as it spread and also evolved separately in remote areas, growing immensely complex. Hindus may worship one god or a hundred, or even no god, but a unifying essence that provides consciousness to matter. Self interest presented itself in Hinduism as the rising power of priests known as Brahmins. Similar to the Romans it came to be held by many Hindus that the gods were controlled by rituals, and as leaders and experts of rituals, the Brahmins were in control. In addition, the old brutality and injustice of animal sacrifice, and the restrictive nature of the maturing class system supported by Hinduism, led some of the more advanced Indian people to reject it.

An Indian religion offering greater equality and compassion was Jainism. Jains don't believe in a god, but rather the spirit in all life. The 6th century bc Indian prince, Nataputta Vardhamana came to be regarded as Mahavira, or hero. He's the man that denounced material goods and other desires, and walked around India naked preaching the way of peace and nirvana. With selfless objectivity he promoted the equality of males and females. Yet, by far his greatest attribute and contribution to the world was promotion of the practice of ahimsa, or non-injury to any living creature.

Mahavira placed great effort toward preventing harm to sentient beings by actively encouraging people to not only stop willfully killing and hurting their fellow earthlings but also to take great care not to hurt others by accident. He personally carried a whisk broom to clear his path of insects that might otherwise be injured by his passing, or presence. Jainism doesn't offer a creation myth or stories of a world ending war, and there's no jealous god demanding war on unbelievers. Nor did Jainism gain a huge following based on conquest and subjugation of native people, or even become the state religion of a powerful warring nation.

While all religions may be in error, they're far from equally erroneous or harmful. A large inherent family circle and loving disposition allows some to stand as wise giants among petty children. The kindness of Mahavira's Jainism, and its inspiration to grow beyond the self elevates it among the greatest of modern religions.

But Mahavira wasn't the only Indian prince to lead a religious movement in the 6th century BC. The prince from the area of modern Nepal named Siddhartha Gautama, is widely known today as the Buddha, or enlightened one. Like Mahavira, he chose an ascetic lifestyle, shunning pleasure. But then Buddha realized that a life of moderation was more sensible, and morally productive, than purposefully denying oneself pleasure. Gautama Buddha's style was more akin to a philosopher of contemporary Greece than the fire-brand prophets commonly associated with modern Western religions. He offered his vision of reaching enlightenment to those who cared to hear it. His was not a campaign to recruit the world or compete with the jealous gods for subjects. He offered simple Precepts to live a better life that were similar to what Mahavira had espoused the previous generation. Those Precepts included:

1. To refrain from taking life.
2. To refrain from taking that which is not given.
3. To refrain from sensual misconduct.
4. To refrain from lying. And,
5. To refrain from intoxicants which lead to loss of mindfulness.

Hindu authors retaliated against Buddha by naming him the ninth avatar of Vishnu; claiming that he was leading the evil toward their punishment. But, having considerable freedom to choose their own priorities, Hindu worshippers incorporated some of the teachings of Mahavira and Buddha into their own doctrine, with some Hindus adopting a policy of moderation and detachment in the way of The Buddha.

And many Hindus were also so impressed by Mahavira's example of compassion that ahimsa and vegetarianism became widespread in Hinduism. Fortunately for eastern civilization, Hinduism, Jainism and Buddhism are open and welcoming, with adherents freely partaking of each. One latter day popular historical figure strongly influenced by Jainism and Hinduism is Mahatma Gandhi, the man called the Father of India for his peaceful approach to securing independence for India from British colonial rule, and before that, seeking racial equality in South Africa.

The 6th century BC was quite notable for developments in Indian philosophy, but there was yet another celebrated teacher from the 6th century BC named Confucius. Confucius was a government administrator in China who's revered as the founder of a major religion, but he may be more accurately described as a philosopher, or even an organizer and motivator. By his own admission, he didn't develop a great deal of doctrine or philosophy. In fact, the simple premise of being a proper gentleman was at the heart of Confucian philosophy. He lived in a land of ancestor veneration, and reasoned that people should live by li as the ancestors had. Li is synonymous with good manners, proper behavior and courtesy. According to Confucius, if li, the cosmic harmony, could be achieved between men, Earth and heaven, Tao, the will of heaven, would be in place.

Confucius was a practical person, with order in society being one of his top priorities. His

professional career involved advising feudal governors, and he willingly embraced the feudal system. Proper respect with regard to one's place in society dictated his teaching. His Five Great Relationships were: kindness in the father, filial piety in the son; gentility in the eldest brother, humility and respect in the younger; righteous behavior in the husband, obedience in the wife; humane consideration in elders, deference in juniors; and benevolence in rulers, loyalty in ministers and subjects.

When asked what of repaying evil with kindness? Confucius replied, "Then what are you going to repay kindness with? ... Repay kindness with kindness, but repay evil with justice." But unlike many modern advocates and politicians he didn't believe a well-ordered state could be legislated into existence. Instead, he was a proponent of the Golden Rule, "What you do not want done to yourself, do not do to others," he said.

While Confucius helped shape Chinese culture for thousands of years to come, a man named Zoroaster was instrumental in forming thought in the west. Zoroaster lived in an area, some believe modern Iran, influenced by the same ancient Aryans that provided much of the basis for early Hinduism. And though he is not well-known today, his teachings, as set forth in the Zoroastrian religion, are familiar to many followers of the Abrahamic religions of Judaism, Christianity and Islam.

Western religion today is dominated by one god opposed by one evil rival. But before Zoroaster's time, popular religion was dominated by multiple gods engaged in complex relationships. Tradition holds that he had been tempted by the evil spirit to renounce the supreme god. But Zoroaster triumphed over that temptation, just as the supreme god, Ahura Mazda with his accompanying angels would eventually triumph over his brother Angra Manyu and his forces of evil to establish paradise where the righteous people, living and dead, would be reunited.

It wasn't the triumph of Ahura Mazda over Angra Manyu that spread Zoroastrianism. Rather, the conquest of the Fertile Crescent by Cyrus the Great, King of the Persian Empire, centered in what is now Iran, would help spread the concept of one god, ultimate in presence and power, opposed by one great essence of evil.

Mirage in the Desert

The interior of Canaan, less productive than Mesopotamia to the northeast and the Nile floodplain in Egypt to the southwest, remained primarily pastoral as powerful civilizations grew up around it. The area was subject to repeated foreign domination in the second millennium BC. Prior to 1,000 BC the Phoenicians and Philistines maintained prosperous settlements along the fertile strip of land bordering the Mediterranean coast in what is the State of Israel today. But the more arid and rugged interior was sparsely populated, with towns like Jericho, near the small fertile delta where the Jordan River emptied into the Dead Sea, being uncommon amongst predominant rocky hills and desert.

It was near the beginning of the first millennium before the common era, legend says, when the ten northern Hebrew tribes refused allegiance to Rehoboam after the death of his father Solomon. But even under kings David and Solomon, before splitting apart, the Hebrew nation was small, comparable in size to the Italian island of Sicily; and it was insignificant as a regional power.

Not all is as it seems in the Bible and Tanakh. In the 8th century BC Judah and Israel often opposed one another, and Judah was alternating between alliances with Egypt and Assyria. Many instances of biblical slander against the Israelites was not self-criticism by the Israelites as popularly perceived, but rather they were directed at Israel from leaders of bitter, impoverished Judah. In fact, the Christian and Jewish bibles are full of threats to all of Judah's neighbors as the poor Hebrew tribes alternately attempt to conquer territory, assert their independence, keep their independence, and long for independence.

Israel and Judah remained separate until King Sargon of Assyria, with the assistance of Judah, conquered Israel in 722 BC. In order to maintain control and prevent rebellion, King Sargon scattered many Israelis throughout the Assyrian Empire and settled Assyrians in their place. Those that remained in Israel were assimilated into the Assyrian culture and the Nation of Israel disappeared from the face of the Earth. The Hebrews of Judah, masters of little more than the Negev desert, and most often subjects of the regional powers, were bitterly disappointed in their own circumstances.

Bitter as they may have been however, the land that seemed like the armpit of the world to some, was the center of the universe to them. They longed for greatness, yet their people lived in tents and herded goats. Their utter anguish and frustration would show itself in Jewish culture; with insecurities and savagery ever near in sacred writings that they would rely on as the basis of their quest for self advancement.

Even so, the Hebrews shared many of their religious beliefs with their neighbors, picking from among the wealth of traditions in Egypt and Mesopotamia. The lunar calendar that Jews still cling to is the old Babylonian calendar that was in-turn derived from the Sumerian calendar, and a few of the months of the Jewish calendar are even named after Mesopotamian gods.

Jewish stories that later became the Jewish bible and Christian Old Testament, the Tanakh, relate that King Saul humbly consulted the witch of Endor to conjure the ghost of the recently deceased prophet Samuel. Saul, David and many other Biblical figures consulted magical objects, sought omens and cast lots to determine the will of their god. And it was also a common belief in the area that the god YHWH (Yahweh), alternatively known by the names El or El Shaddai (God of the Mountain), Jehovah, Adonai, Elohim, and others, was married to Asherah, the equivalent of the Mesopotamian goddess, Ishtar. Solomon, who built the Temple in Jerusalem, was also reported in First Kings 11:5 to have "...went after Ashtoreth the goddess of the Zidonians, and after Milcom the abomination of the Ammonites" in addition to building altars for the gods Chemosh and Molech.

Ask a Christian, Jew or Muslim today, and he'll tell you there's only one god. However, that's not the environment their god grew up in, and the wholesale borrowing of foreign religious traditions posed challenges that early Jewish writers, wanting so desperately to set themselves above fellow men, couldn't overcome. They went about trying to weave a variety of borrowed concepts into a compelling

history entitling them to advantage and blessing. Yet they never reached a consensus on something as basic as eternal life, or even an afterlife. In their world of fantasy, their god, all-powerful like Ahura Mazda, brought forth Earth and sky from the ocean, as did the gods of Egypt and Sumer. The lords of Jewish thought, even included a genealogy in their sacred books to allow Jews to track their birthright from God, so that the people of Israel might be “above all nations that are upon the Earth” as stated in Deuteronomy chapter 14, verse 12 (14:12). According to Jewish authority, God created heaven and earth about 6,000 years ago.

There were those in ancient times that believed outer space to be constituted of water and on occasion the firmament of heaven would open to allow some water to rain down on Earth. Today we know it’s not true, but it made sense in those days because people could see the rain fall down, but they never saw it go back up into the sky. That primitive belief is represented in the book of Genesis where, “God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters. And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament: and it was so. And God called the firmament Heaven.”

By the time the Jews returned from exile in Babylon after King Nebuchadnezzar banished them and smashed Jerusalem in the sixth century BC, they were anxious to share the wrath of their God by incorporating the Gilgamesh Flood Epic into their sacred writings as the story of Noah and his ark. And as the early zealots wrote and rewrote their books they were able to make stories more fantastic. One such example was the story of a champion of David’s army, Elhanan, slaying the warrior chosen to represent the Philistines; it was transformed over time to become the story of a young David using a mere sling to slay the fearsome giant warrior Goliath, who stood nine feet tall and carried a spear so large its iron tip weighed fifteen pounds.

As told in First Samuel, Saul’s army had cowered for forty days before the Philistine giant as he repeatedly challenged them to fight, but the Israelites, lined up for battle, fled from his path. According to the Jewish myth, David was just a small shepherd who happened upon Saul’s army that was paralyzed with fear. To add even more awe to his story the author had David smiting both a bear and a lion who had unexplainably partnered to abduct a lamb from his father’s flock not long before David’s encounter with the mighty giant.

Goliath was just one of numerous instances when Jewish writers injected giants of popular myth. Well before Christians imagined a divine conception for Jesus, the authors of Genesis, in chapter six, verse four stated the children of gods and human women roamed the Earth as giants: “There were giants in the Earth in those days; and also after that, when the sons of God came in unto the daughters of men, and they bare children to them, the same became mighty men which were of old, men of renown.” That mixing of gods and humans that was so common in Egyptian, Greek, Mesopotamian and unnumbered other myths, helped explain why the Bible includes a lengthy list of men that lived in excess of nine hundred years.

While popular myths contributed much colorful fantasy to add excitement and build interest in Jewish writing, they also added to the confusion and contradictions present in the works. David’s introduction to Saul before he lodges a stone in Goliath’s head was accompanied by another first meeting between the two described in the Bible. The other version involved a young David brought in to play music to make Saul feel better. In that story David did such a fine job that Saul had him stay on as a personal arms bearer.

In a similar ilk there were two versions for Saul’s death, wherein he committed suicide by falling on his own sword in the one and was slain by an Amalekite just a few verses later. Hebrew authors didn’t even make it far in Genesis, the first book of the Tanakh and Bible, before contradicting themselves. In Genesis it’s written that God created day and night on the fourth day; curiously, there’s no mention of how it came to be the fourth day before day and night were even created, that might explain why reference to creation of day and night was also included as an activity of the first day.

The writers worked independently through the ages and all had their own experiences and

reasons for writing. Contradictions were so abundant that it appears some authors purposefully rebuffed others. The evolution of God can be seen in the pages of scripture. The Jewish God would later be considered all-knowing, but in Genesis, he asks Adam and Eve where they are when they are hiding from him in the Garden of Eden. And in Hosea, Israel had made princes and God knew it not.

Even the debate between having one god or many was long in settling and Bible editors failed to remove all of the references to other gods. Long before Christian churches were torn by schisms over the nature of the Father, Word, Son and Holy Ghost; the concepts of which are strikingly similar to Zoroastrian and Hindu traditions; Jews were arguing about the singularity of god. In Genesis God is repeatedly referred to in the plural, and in the following book, Exodus, the Jewish God executes judgment against the gods of Egypt and is acknowledged as greater than all other gods.

Deuteronomy 10:17 states: "For the LORD your God is God of gods, and Lord of lords." Psalms 97 goes on to say that he is exalted far above all gods and ye gods worship him. Clearly, the Hebrews knew their god was one of many. Gods were plentiful in those days, and the Hebrews didn't question the abundance of other gods, they only concerned with how their god could raise them above other tribes and nations. It wasn't until generations were born and lived knowing of only the one Hebrew God, that the concept of him being the only god began to take firm root among the Hebrews and through them with later Christians and Muslims.

Time and time again the Jewish authors portrayed their god triumphing over other gods. What made him special wasn't that he was the only god, but he was their god. He was the god of the Twelve Tribes and would deliver the world unto them. Judaism wasn't meant to be a universal religion. The authors of ancient Israel weren't creating a religion for all people, and certainly not for all life, they were seeking advantage for themselves by creating a god of Israel.

Even Jesus was quoted in Matthew 15 as saying he was sent only to the lost sheep of the House of Israel. Just as people are shaped by their environment, so too were the gods. They were invented for specific purposes by people with certain motivations. And the god of the Hebrews that grew up while the Hebrews were trying to establish their own nation was invented to help his chosen people slay and smite their enemies. Still today, that warrior god of David and Constantine lives on among Islamic Fundamentalists.

Like many contemporary religions, the Hebrew religion was dominated by secretive priests and prophets that kept the people of Israel and Judah from questioning why they never saw their God, by issuing stern warnings of terrible punishments he would execute upon them should they try to learn his true nature. Certain death awaited any that should come too close to god. Even to say his name was a deadly offense, which is why you see many Jewish references to this day that abbreviate whatever name they use for their G-d. For looking upon the Ark of the Covenant Yahweh killed over fifty thousand men of Bethshemesh as related in First Samuel 6:19, "and the people lamented, because the LORD had smitten many of the people with a great slaughter."

More outlandishly, people and even animals were to be put to death for even touching the mountain upon which God dwelt in the early days; of course that was before others ascended the mountain, showing there was no resident god to be found, and the unknowable god had to be moved to heaven, or revealed as a fraud. In keeping with the great secrecy that shielded gods from questioning, early Hebrew authors even refused to disclose a name for their god, referring to him as the one who shall not be named, though later authors thought it more practical to assign names to their deity.

As the Israelites fought with their neighbors for supremacy and identity, they made their god violently jealous to win and hold converts, and steal the rank and file of other gods. In Zephaniah 3:8 God said "...all the Earth shall be devoured with the fire of my jealousy." Their god was also made to say in Ezekiel, chapter six, verses 4&5: "And your altars shall be desolate, and your images shall be broken: and I will cast down your slain men before your idols. And I will lay the dead carcasses of the children of Israel before their idols; and I will scatter your bones round about your altars."

Having only a meager literary tradition, authors of Jewish scripture elevated the art of hateful

expression to unknown heights. Unfortunately, the god of the Jews and later Christians, Muslims, and a few more religions, was exceedingly evil. Before Saul and David went to war against each other, David sought to marry Saul's daughter Michal. The price Saul set for his daughter was the foreskins of 100 Philistine penises. But David was a much greater killer than that. "Wherefore David arose and went, he and his men, and slew of the Philistines two hundred men; and David brought their foreskins, and they gave them in full tale to the king, that he might be the king's son in law. And Saul gave him Michal his daughter to wife."—1 Samuel 18:27

David would gain fame for much greater slaughters, but well prior to David, the Jewish God had warred against the Egyptians, smiting the firstborn of the people and all the beasts of the field, and killing all the cattle in Egypt, and smiting all the men and beasts in the field with stones of hail. Psalms 136:10 reads "To him that smote Egypt in their firstborn: for his mercy endureth for ever." "For his mercy endureth for ever," says the ancient Psalm. It's true that some people have neither concept of the purpose of life, nor redeeming quality. Like too much of humankind, many of those who conspired on the Bible didn't know the value of promoting a world of peace and pleasure, but rather obsessed and raved of violence, great slaughter and suffering, because they were too dumb to see or say anything else. They succeeded in inventing a cruel and wrathful egomaniac, who's persona would contribute to perhaps as much iniquity and devastation as they falsely gave him credit for.

In Deuteronomy 7 in furtherance of the Israelites' conquest of their "promised land" as God's chosen people, and in furtherance of their god's war it was said:

"When the LORD thy God shall bring thee into the land whither thou goest to possess it, and hath cast out many nations before thee, the Hittites, and the Girgashites, and the Amorites, and the Canaanites, and the Perizzites, and the Hivites, and the Jebusites, seven nations greater and mightier than thou;

And when the LORD thy God shall deliver them before thee; thou shalt smite them, and utterly destroy them; thou shalt make no covenant with them, nor shew mercy unto them:

Neither shalt thou make marriages with them; thy daughter thou shalt not give unto his son, nor his daughter shalt thou take unto thy son.

For they will turn away thy son from following me, that they may serve other gods: so will the anger of the LORD be kindled against you, and destroy thee suddenly."

And so it was written that the people wantonly butchered as the jealous god commanded them, as described in First Samuel 27:8-9: "And David and his men went up, and invaded the Geshurites, and the Gezrites, and the Amalekites ... And David smote the land, and left neither man nor woman alive, and took away the sheep, and the oxen, and the asses, and the camels, and the apparel. And David saved neither man nor woman alive"

Still, prior to David, God fought alongside Joshua, after the passing of Moses, to conquer the promised land they were invading, that stretched from Lebanon even unto the great river, the river Euphrates, all the land of the Hittites, and unto the great sea toward the going down of the sun. In Deuteronomy 20:16-17 it was written: "But of the cities of these people, which the LORD thy God doth give thee for an inheritance, thou shalt save alive nothing that breatheth: But thou shalt utterly destroy them; namely, the Hittites, and the Amorites, the Canaanites, and the Perizzites, the Hivites, and the Jebusites; as the LORD thy God hath commanded thee..."

The Hebrew authors went on to describe great slaughter of every kingdom and every city except the Hivites and Gibeonites. In all the rest, Joshua utterly destroyed all that breathed, the men and women, young and old, and ox, and sheep, and ass, with the edge of the sword. And the Israelites kept the valuables for themselves, and burned certain cities to the ground. Similar slaughter is listed in Deuteronomy, chapter two. In that accounting the Israelites took all the cities of Heshbon and utterly destroyed the men, and the women, and the little ones; leaving none remaining.

The god of the Hebrews continued to battle with humanity: "Moreover all these curses shall come upon thee, and shall pursue thee, and overtake thee, till thou be destroyed; because thou

hearkenedst not unto the voice of the LORD thy God, to keep his commandments and his statutes which he commanded thee,” Deuteronomy 28:45. Another account of sensational suffering illustrating a woman’s depravity after being afflicted by God’s famine is told in Second Kings 6:29: “So we boiled my son, and did eat him: and I said unto her on the next day, Give thy son, that we may eat him: and she hath hid her son.” And the theme was repeated in Deuteronomy 28:56-57 where it was written the delicate woman would eat the young one that cometh out from between her feet and the children that she bore. Again and again the religious fanatics that the world flocks to for guidance wrote that their God would cause father to eat son, son to eat father and women to eat their children.

In the book of Joshua, Saul killed all the men, women, children, and animals in the city of Nob. And in First Samuel 15 Saul utterly destroyed all the living things of Amalek except Agag the king and the best of the sheep, oxen, fatlings, lambs and all that was good. And after all the utter destruction, God was still disappointed that he had set Saul up as king of his evil empire because Saul had spared some lives in Amalek. But the conditioning of unquestioned obedience so pervades society that the wisdom in gruesome tales of shameless violence simply isn’t questioned by the masses. In *Letters from the Earth* Mark Twain asserted that the Bible, in describing God, is perhaps the most damnatory biography that exists in print anywhere, and that God is a malign thug.

As children with immature minds, or someone who is semi-conscious or whose mental faculties are impaired, primitive people convinced themselves of a need to sacrifice to the gods of their imaginations. Such people were true slaves of their own making; failing to realize their own fallacy or rise above the self for any purpose. And the god of Judaism could display no other quality than the depravity of his creators.

Throughout the Old Testament it was written that the smell of the smoke of burning victims was as sweet savor unto the Lord. Most any act or occasion was deserving of slitting some innocent animal’s throat with a knife, sprinkling or smearing its blood around, and burning it for the Lord. Great volumes of Jewish literature were devoted to torturing their fellow earthlings to earn blessings and absolve themselves of sins against their imaginary God. So lost were the believers in their own confusion that spirits, demons and omens became their reality.

Priests, in their constant striving to dominate all aspects of Jewish life, assigned animal sacrifices for just about everything they could think of. They maintained a continual burnt offering of two lambs every day and to that they added sacrifices for the new year, the new month, the seventh day, the planting, the harvest, in times of conquest, in times of defeat, in times of sin, in times of celebration, in times of feast, in times of famine, and so on and so on. To make the obsession complete, they designated sacrifices for normal bodily functions. Leviticus 15 states: “And if a woman have an issue, and her issue in her flesh be blood, she shall be put apart seven days: and whosoever toucheth her shall be unclean until the even... And on the eighth day she shall take unto her two turtle[dove]s, or two young pigeons, and bring them unto the priest, to the door of the tabernacle of the congregation. And the priest shall offer the one for a sin offering, and the other for a burnt offering; and the priest shall make an atonement for her before the LORD for the issue of her uncleanness.

Taking pause for one moment to ponder the motivation of such malignant writing, it’s easy to see how absurd Jewish, Christian and Islamic writings are. But still today many people are too weak to break free of such ancient barbarity. Though many know how evil it is, they refuse to renounce the cruelty. In time, society at large rose above animal sacrifices, but there are still a few that persist in the ways of evil ignorance. A great number of Jews use the excuse of the Temple being destroyed by the Romans to resist sacrificing animals to that old wrathful mythical being. It’s in that way fortunate that there will never be a messiah to rebuild the Temple and deliver the world unto the Jews and Yahweh.

But the delirious creators of Jewish practices didn’t stop at sacrificing animals. After conquering their neighbors and annihilating cities, human sacrifice was quite common according to the Jewish and Christian bibles. The Bible says that the Israelites sacrificed people, as well as the followers of Baal and other contemporaries. There are many instances of the earliest Hebrews burning

their firstborns, which they called passing through fire, for their Lord. In time many such references were toned down, but there are a few examples that remained as symbols of devotion to a primitive god.

The most famous example was Abraham, the legendary father of Judaism, Christianity and Islam. People of reason are put off by the story of a man who was so selfish he was willing to kill his firstborn son in order to gain favor for himself. That's the paradox of sacrifice, the true sacrifice was demanded of some innocent third party while the one offering the sacrifice was motivated by personal gain. In generosity God allowed Abraham to kill a goat instead of his son. But primitive people made Abraham out to be a brave and great man, when he was in fact a weak minded coward.

The Book of Judges relates a story of Jephthah in chapter 11. Jephthah asked the king of the children of Ammon why he would not possess only that which his god Chemosh had given him to possess. But the king of Ammon kept a desire for the land of Israel. As Jephthah prepared to make war against the Ammonites, he sought the favor of his god:

“... Then the spirit of the Lord came upon Jephthah, and he passed over Gilead, and Manasseh, and passed over Mizpeh of Gilead, and from Mizpeh of Gilead he passed over unto the children of Ammon. And Jephthah vowed a vow unto the Lord, and said, If thou shalt without fail deliver the children of Ammon into mine hands, Then it shall be, that whatsoever cometh forth of the doors of my house to meet me, when I return in peace from the children of Ammon, shall surely be the Lord's and I will offer it up for a burnt offering.

So Jephthah passed over unto the children of Ammon to fight against them and the Lord delivered them into his hands. And he smote them from Aroer even till thou come to Minnith, even twenty cities, and unto the plain of the vineyards, with a very great slaughter. Thus the children of Ammon were subdued before the children of Israel.

And Jephthah came to Mizpeh unto his house, and, behold, his daughter came out to meet him with timbrels and with dances: and she was his only child; beside her he had neither a son nor daughter. And it came to pass, when he saw her, that he rent his clothes, and said, Alas, my daughter! thou hast brought me very low, and thou art one of them that trouble me: for I have opened my mouth unto the Lord, and I cannot go back.

And she said unto him, My father, if thou hast opened thy mouth unto the Lord, do to me according to that which hath proceeded out of thy mouth; forasmuch as the Lord hath taken vengeance for thee of thine enemies, even of the children of Ammon. And she said unto her father, Let this thing be done for me: let me alone two months, that I may go up and down upon the mountains, and bewail my virginity, I and my fellows.

And he said, Go. And he sent her away for two months: and she went with her companions, and bewailed her virginity upon the mountains. And it came to pass at the end of two months, that she returned unto her father, who did with her according to his vow which he had vowed: and she knew no man. And it was a custom in Israel, That the daughters of Israel went yearly to lament the daughter of Jephthah the Gileadite four days in a year...”

Child sacrifice may not be all that surprising considering the selfish nature of the Middle East two to three thousand years ago. Children were not valued much beyond the value of their labor. The Book of Leviticus states “For every one that curseth his father or his mother shall surely be put to death.” But surely daughters were of much less worth than sons. Girls received so little recognition that Jephthah's daughter, murdered for the sake of Israelite military conquest, wasn't even referenced by name. Boys received the inheritance of their fathers' estates, not girls. Girls were actually treated as property to be bought from fathers by husbands.

A man was traveling home with a servant and concubine, or mistress, for whom he had just recently paid her father. When it drew late, they sought a house to stay for the night and found an old man kind enough to take them in. The story from the Book of Judges, chapter 19, continues as follows:

“...Now as they were making their hearts merry, behold, the men of the city, certain sons of

Belial, beset the house round about, and beat at the door, and spake to the master of the house, the old man, saying, Bring forth the man that came into thine house, that we may know him. And the man, the master of the house, went out unto them, and said unto them, Nay, my brethren, nay, I pray you, do not so wickedly; seeing that this man is come into mine house, do not this folly.

Behold, here is my daughter a maiden, and his concubine; them I will bring out now, and humble ye them, and do with them what seemeth good unto you: but unto this man do not so vile a thing. But the men would not hearken to him: so the man took his concubine, and brought her forth unto them; and they knew her, and abused her all the night until the morning: and when the day began to spring, they let her go.

Then came the woman in the dawning of the day, and fell down at the door of the man's house where her lord was, till it was light. And her lord rose up in the morning, and opened the doors of the house, and went out to go his way: and, behold, the woman his concubine was fallen down at the door of the house, and her hands were upon the threshold.

And he said unto her, Up, and let us be going. But none answered. Then the man took her up upon an ass, and the man rose up, and gat him unto his place. And when he was come into his house, he took a knife, and laid hold on his concubine, and divided her, together with her bones, into twelve pieces, and sent her into all the coasts of Israel..."

That story is a near copy of one about Lot in the Book of Genesis, chapter 19, where he also responds to men of the city gathered around his house by saying, "Behold now, I have two daughters which have not known man; let me, I pray you, bring them out unto you, and do ye to them as is good in your eyes: only unto these men do nothing; for therefore came they under the shadow of my roof."

Females were indeed treated as property in the Bible. Solomon alone had seven hundred wives and three hundred concubines according to the First Book of Kings chapter 11, verse 3. And men guarded over their women with cruel and bitter jealousy; no better than rutting baboons fighting over a harem that would kill the children to accelerate heat in the females. Such savages had an absurd obsession with virginity, and it's a clear parallel of jealousy, insecurity and rage among God and man in Judaism. In the Book of Numbers the Israelites killed all of the Midianites except for the female virgins which they kept for themselves. And in Leviticus 21:9 it's said "And the daughter of any priest, if she profane herself by playing the whore, she profaneth her father: she shall be burnt with fire."

The punishment listed in Deuteronomy 22:13-21 for girls who weren't virgins at the time of their wedding was death by stoning:

"If any man take a wife, and go in unto her, and hate her, And give occasions of speech against her, and bring up an evil name upon her, and say, I took this woman, and when I came to her, I found her not a maid:

Then shall the father of the damsel, and her mother, take and bring forth the tokens of the damsel's virginity unto the elders of the city in the gate: And the damsel's father shall say unto the elders, I gave my daughter unto this man to wife, and he hateth her; And, lo, he hath given occasions of speech against her, saying, I found not thy daughter a maid; and yet these are the tokens of my daughter's virginity. And they shall spread the cloth before the elders of the city.

And the elders of that city shall take that man and chastise him; And they shall amerce him in an hundred shekels of silver, and give them unto the father of the damsel, because he hath brought up an evil name upon a virgin of Israel: and she shall be his wife; he may not put her away all his days.

But if this thing be true, and the tokens of virginity be not found for the damsel: Then they shall bring out the damsel to the door of her father's house, and the men of her city shall stone her with stones that she die: because she hath wrought folly in Israel, to play the whore in her father's house: so shalt thou put evil away from among you."

Losing one's virginity was by no means the only occasion involving sex that was punishable by death among the Hebrews that were so fascinated with fornication. Chapter twenty in the book of Leviticus tells us that he that giveth his seed unto Molech shall be stoned to death, and any who go whoring after familiar spirits and wizards God will cut off from his people. Should any man have sex

with another man's wife, he and the wife shall be put to death. For any man that lieth with his father's wife, both of them shall surely be put to death. And if a man lie with his daughter-in-law, both of them shall surely be put to death. If a man also lie with mankind, as he lieth with a woman, both of them have committed an abomination: they shall surely be put to death. And if a man take a wife and her mother they shall be burnt with fire. And if a man or woman lie with a beast, the man or woman and the beast shall surely be put to death.

What the Hebrews considered sacred literature was an immense assemblage of mental masturbation ramblings of an adolescent society obsessed with war and menstruation. How people could find value in that compendium of hate speech is a damning conviction of their society. Yet Jews, Christians and Muslims not only still believe it, but still use it to drive their evil actions and try to force that archaic ideology on others. Surely that is a grand achievement for an incoherent jumble of fanatical utterings collected and edited over many centuries and ascribed to "prophets" of centuries past.

Hardly a hero was invented that wasn't blackened by the acid tongues of the priests, prophets and other zealots, that dreamt them up. Elisha, the authors said, performed many miracles, including parting waters, and raising up the dead. Coming nigh the time of his very ascension to heaven having never suffered death, for being such a good servant of the Lord, he took vengeance on children for mocking him. As was stated in Second Kings 2:23-24: "And he went up from thence unto Bethel: and as he was going up by the way, there came forth little children out of the city, and mocked him, and said unto him, Go up, thou bald head; go up, thou bald head. And he turned back, and looked on them, and cursed them in the name of the LORD. And there came forth two she bears out of the wood, and tare forty and two children of them."

It's important to remember the individuals responsible for shaping culture and the motivations for their actions. The influence of those individuals, often conflicting with one another, varied widely. Representative of vile Jewish writers was the foreboding prophet called Ezekiel. Although the Book of Ezekiel was later modified, with material added, the principal figure was among those relocated to Chaldea by Nebuchadnezzar in the Babylonian Exile. Life was punishment to Ezekiel, he was unaware of pleasure; consumed by blind religious fervor and very much dependent on and captive of the jealous god. To maintain the secrecy necessary to preventing his audience from learning of his deception, he preached that the Lord did not allow him to speak but when inspired to do so.

As a priest; and as many believe the son of a priest; who depended on the success of his religion, he was without rational contemplation and fervent in the extreme. One should understand what was expected of him and what he was brought up to expect of himself. As a priest exiled to Babylon, uneducated people looked to him for explanation of their misfortune. To that end he cast great vehement blame without revealing the true circumstances of their exile. In his own time, he was widely heard, but largely ignored due to the attacking nature of his discourse. His fanaticism led to miracles being credited to him. It was written that he revived the dead and was with the three Hebrews that were forced in the fiery furnace by Nebuchadnezzar but remained unharmed.

Ezekiel's real contribution to the world was the sense of rage, frustration and vengefulness that permeated his preaching. The Book of Ezekiel railed against many parties that people could believe responsible for the troubles of Judah, such as women weeping for Tammuz, the shepherd god called Dumuzi by the Sumerians, at the door to the Temple in Jerusalem, where, in his simple mind, the true god resided. In God's own house, Ezekiel bemoaned, his people were committing blasphemy against him. To prevail in his war of religion, the debased Ezekiel loosed the wrath of his tongue.

As punishment to Jerusalem for not strictly following his absurd laws, in Ezekiel chapter five God said "Therefore the fathers shall eat their sons in the midst of thee, and the sons shall eat their fathers; and I will execute judgments in thee, and the whole remnant of thee will I scatter into all the winds." Ezekiel's God continues by saying he "shall be a reproach and a taunt, an instruction and an astonishment unto the nations that are round about thee, when I shall execute judgments in thee in

anger and in fury and in furious rebukes. I the LORD have spoken it.”

Ezekiel’s obsession with angry violence continued to color the words he put in God’s mouth, “A third part of thee shall die with the pestilence, and with famine shall they be consumed in the midst of thee: and a third part shall fall by the sword round about thee; and I will scatter a third part into all the winds, and I will draw out a sword after them. Thus shall mine anger be accomplished, and I will cause my fury to rest upon them, and I will be comforted: and they shall know that I the LORD have spoken it in my zeal, when I have accomplished my fury in them.”

In chapter six Ezekiel’s jealous god declares: “And your altars shall be desolate, and your images shall be broken: and I will cast down your slain men before your idols. And I will lay the dead carcasses of the children of Israel before their idols; and I will scatter your bones round about your altars.” By the great evils that he wroughts will His people know he is Lord. The Lord’s vengeance continues in chapter seven: “Now will I shortly pour out my fury upon thee, and accomplish mine anger upon thee: and I will judge thee according to thy ways, and will recompense thee for all thine abominations.” But Ezekiel’s shallow god won’t know mercy, “And mine eye shall not spare thee, neither will I have pity: but I will recompense thy ways upon thee, and thine abominations shall be in the midst of thee: and ye shall know that I am the LORD.”

The ignorance and symbolism of Ezekiel is epitomized in chapter 23 in which Samaria and Jerusalem, the capitals of Israel and Judah, are labeled as the whores Aholah and Aholibah:

“And they committed whoredoms in Egypt; they committed whoredoms in their youth: there were their breasts pressed, and there they bruised the teats of their virginity... And Aholah played the harlot when she was mine; and she doted on her lovers, on the Assyrians her neighbours, Which were clothed with blue, captains and rulers, all of them desirable young men, horsemen riding upon horses. Thus she committed her whoredoms with them, with all them that were the chosen men of Assyria, and with all on whom she doted: with all their idols she defiled herself. Neither left she her whoredoms brought from Egypt: for in her youth they lay with her, and they bruised the breasts of her virginity, and poured their whoredom upon her...

And when her sister Aholibah saw this, she was more corrupt in her inordinate love than she, and in her whoredoms more than her sister in her whoredoms. She doted upon the Assyrians her neighbours, captains and rulers clothed most gorgeously, horsemen riding upon horses, all of them desirable young men... And the Babylonians came to her into the bed of love, and they defiled her with their whoredom, and she was polluted with them, and her mind was alienated from them. So she discovered her whoredoms, and discovered her nakedness: then my mind was alienated from her, like as my mind was alienated from her sister. Yet she multiplied her whoredoms, in calling to remembrance the days of her youth, wherein she had played the harlot in the land of Egypt. For she doted upon their paramours, whose flesh is as the flesh of asses, and whose issue is like the issue of horses...

And I will set my jealousy against thee, and they shall deal furiously with thee: they shall take away thy nose and thine ears; and thy remnant shall fall by the sword: they shall take thy sons and thy daughters; and thy residue shall be devoured by the fire... Thou shalt be filled with drunkenness and sorrow, with the cup of astonishment and desolation, with the cup of thy sister Samaria. Thou shalt even drink it and suck it out, and thou shalt break the sherds thereof, and pluck off thine own breasts: for I have spoken it, saith the Lord GOD.”

So it was that the god of the Jews was caught up in jealousy and rage and sexual infatuation and feuds with neighboring gods. The Hebrews failed to consider the larger picture, they didn’t concern with how they might live in peace with the people of the world. They instead asked their god to raise them above their enemies, all of the other people of the world: those not chosen by god. The priests purposefully rejected others.

And, as in most selfish societies, the priesthood passed by right of paternal lineage, yet even they faced discrimination: “For whatsoever man he be that hath a blemish, he shall not approach: a blind man, or a lame, or he that hath a flat nose, or any thing superfluous, Or a man that is brokenfooted, or brokenhanded, Or crookbackt, or a dwarf, or that hath a blemish in his eye, or be

scurvy, or scabbed, or hath his stones broken; No man that hath a blemish of the seed of Aaron the priest shall come nigh to offer the offerings of the LORD made by fire: he hath a blemish; he shall not come nigh to offer the bread of his God.”

When one considers how intolerant, discriminatory and hateful the Abrahamic religions are, it's no wonder that society reflects the same poor character. What is surprising is how discriminatory the Hebrews were, considering how insignificant their position among nations was. Nonetheless, those who couldn't establish their paternal Hebrew lineage were not welcome among God's people, as demonstrated in this passage from the Book of Numbers, “A bastard shall not enter into the congregation of the LORD; even to his tenth generation.”

Numbers also tells a story of Aaron's grandson Phinehas and his male descendants being rewarded with a covenant of peace and everlasting priesthood after Phinehas slew a couple of mixed heritage. “And, behold, one of the children of Israel came and brought unto his brethren a Midianitish woman in the sight of Moses, and in the sight of all the congregation of the children of Israel, who were weeping before the door of the tabernacle of the congregation. And when Phinehas, the son of Eleazar, the son of Aaron the priest, saw it, he rose up from among the congregation, and took a javelin in his hand; And he went after the man of Israel into the tent, and thrust both of them through, the man of Israel, and the woman through her belly.”

Unfortunately, even the aloofness and self-imposed isolation of the Jews didn't contain the poison which was Judaism. Judaism's illegitimate spawn, Christianity and Islam, the largest of the religions that trace their heritage to Abraham, would spread Yahweh's hate around the world. Because of their insistence upon their own superiority and stubborn refusal to assimilate in common culture, the Jews fervently hoped for another king like David to better their lot. They chose to rely on divine fantasy instead of cooperating and prospering by their labor. And their delirious hope became so great that it turned into confidence that an anointed one, a messiah, would lead them to greatness. For 2500 years every generation of Jews, and later Christians and Muslims have expected the messiah that zealous prophets had predicted to deliver the world to God's people in their lifetime.

And every generation produces a number of dim-witted people that get swept up in the fantasy, and claim to be messiahs, just as countless people claim to see ghosts, dream visions, and receive messages from their imaginary gods. And that goes to illustrate the fact there's nothing in a brain that causes it to automatically consider the truthfulness or totality of any action or statement. The mind is generally still too dependent on experience and example for substance. Where experience and example are adequate one may make wise decisions; but where they're lacking, too often people don't know right from wrong or even real from make-believe.

The famous scientist Albert Einstein didn't believe in God, yet he had more creative inspiration than a dozen Jewish “prophets.” He said God was a reflection of human frailty. “If people are good only because they fear punishment, and hope for a reward,” he noted, “then we are a sorry lot indeed.”

Most self-absorbed people that thought they were the fulfillment of prophecy were dismissed as the crack-pots they were and their names long forgotten by history. Still, the label was enthusiastically applied to many. It's not just a matter of personality that promotes the allegorical crowning of a messiah, the proclamation of a new savior requires a combination of personal charisma in the individual and corruption of the multitude by a controlling messianic idea. Where the idea is powerful enough, a messiah will be proclaimed; where people aren't familiar with, or aren't weak enough to succumb to the idea, no messiah can rise.

Just to show how eager people are to declare the anointed one, Cyrus the Great was labeled a Jewish messiah for liberating them from Babylonian captivity and allowing them to rebuild their temple. But Cyrus the Great was great compared to many so-called messiahs; even Adolf Hitler was believed infallible by many impressionable Germans in the 1930's when he proclaimed that he was put on Earth to finish what Jesus had started.

Thousands of years have failed to silence messianic fervor, and even today messiahs are

abundant. People remember David Koresh, the leader of the Branch Davidians that died in a government raid on their compound in 1993 in which another 74 Branch Davidians were killed. Koresh followed the familiar pattern of somebody dumb enough to believe that he was the subject of the mythology of his local culture. Growing up, he was a lonely boy who sought acceptance and acclaim.

His search for a place in the sun led him to join the Branch Davidians, a splinter group of a splinter group of the Seventh Day Adventists, but his ambition brought him into conflict with other members of the group and he was forced out. Years later he returned with armed followers, but was arrested while fighting for control of the Branch Davidian compound in Waco, TX. It wasn't until the Waco group's leader George Roden was convicted of murder, and the compound property was auctioned for taxes, that Koresh and his followers were able to raise enough money to buy the property and set Koresh up as leader. Koresh's fatalistic impressionism was apparent when he later referred to the compound commonly called Mount Carmel, as Ranch Apocalypse.

Certainly not all was as it seemed with Koresh, he grew up as Vernon Howell and took the name David Koresh in reference to Kings David of Israel and Cyrus of Persia; explaining that Koresh was the Hebrew term for Cyrus the Great. The idea of being a prophet was very appealing to Howell, and after proclaiming himself as such and announcing his "visions," he even went so far as to proclaim himself as the son of God, and finally as God on Earth.

The writing was on the wall, or, more precisely, in the book; as Howell was familiar with the prophetic legends of a coming warrior-king. And as such, he was especially attracted to the concept of leading his forces in a world-ending war that would establish his long reign on Earth. But Howell definitely had a physical side as well as a spiritual side, and he was also very attracted to the polygamy of men like Solomon. And so, as god of the desperate people that lived with him, he dissolved their marriages and took the women for himself, fathering a dozen children by girls as young as twelve years old.

Typical of religious fanatics, Howell thought he saw just what he wanted to see; somehow lowering the status of a god to suit his circumstances. He had no extraordinary abilities, and wasn't powerful, popular or even prosperous; but he still managed to convince himself that he was a god. It's easy to say that his followers also thought that he was god returned, and apparently they did. But, they were generally there for lack of having anywhere better to go when they arrived.

Believing as he did, that he was responsible for carrying the faith of God through Armageddon, it was foreseeable that he would seek out the "final war." And in his mind when the government raided Ranch Apocalypse, it had begun. But, what was also foreseeable was that Vernon Howell, or David Koresh, or whatever he wanted to call himself, would fail in his quest for eternal glory; just as every other "messiah" has and always will.

It's no surprise that he died in a miserable fiery failure. But what is surprising, is the overlooked similarity he had to Jesus. That is, some people continued to believe he was a messiah, just as followers of Jesus had, and they have since looked forward to his triumphant return. Various dates given for that shocking return from the grave have, however, come and passed while Howell's corpse continues to shrivel in the ground of Tyler, Texas.

Of course, the public majority looks upon followers of David Koresh as rubes caught up in pure fantasy. And they are, but so too are the multitudes that constitute the majority. Sadly, there is not much difference between the two groups, except that the false hope of one has been dead for about two thousand years longer than the other. But when one just steps back and objectively considers the circumstances that motivate people to attach their hope to any promise of salvation, it's really not surprising to see a lingering acceptance and following of any man called messiah, regardless of how unrealistic such expectations are. Through proximity and reinforcement, almost any idea can gain acceptance in the minds of those lacking sufficient example or experience; just as children see people in televisions, when they really see only images.

A more popular modern day messiah was the founder of the Growing in Grace Ministry, Dr. José Luis de Jesús Miranda. Before his death he maintained a wealthy lifestyle near Miami Florida, flaunting expensive cars, a beautiful house, and gold and diamond jewelry, financed by his mostly Hispanic followers in Latin America and the United States who contribute millions of dollars to his ministry. Born in Puerto Rico in 1946, Miranda grew up poor, and claimed to have received a "vision" in 1973 in which the spirit of Jesus integrated with him. Of course, that "vision" came after Miranda battled a heroin addiction and spent time in prison for drug and theft violations.

At his public appearances frenzied people shouted Lord! Lord! and pushed to be near him as he told them what they wanted to hear. Miranda was not cast in the typical preacher's mold however; through live appearances, radio and television programs he proclaimed that there was no hell or sin or devil. He taught that people may do anything they want, including murder and theft, for there is no sin and by only believing in him people will have eternal life in paradise. In that respect he partly mirrors a quote attributed to the Protestant reformer Martin Luther in a letter to Philip Melancthon in 1521, "... It is sufficient that we recognize through the wealth of God's glory the lamb who bears the sins of the world; from this sin does not sever us, even if thousands, thousands of times in one day we should fornicate or murder."

Miranda's fantasy grew with his success. It's reported that when he founded Growing in Grace in the 1980's he preached as a mere mortal. But in time he announced that he was a reincarnation of the apostle Paul, and later he announced that he was Jesus Christ returned. Still later he announced himself as the antichrist and acquired a tattoo of 666 to represent that he replaced Jesus of Nazareth. And though he eventually claimed to be greater than Jesus and would lead the largest government the world has ever known and never die, he did finally realize some degree of his delusion and faked his death in 2013 so that he could appear resurrected to his followers before his actual death a few months later.

Sun Myung Moon was another contemporary Christian that laid claim as the messiah. Born in Korea as Moon Yong-myung, he assumed the name Sun Myung Moon, which has been translated as "the word made clear," to represent his role as a prophet. Moon too, professed having visions, and chartered the Holy Spirit Association for the Unification of World Christianity in Seoul, commonly called the Unification Church but later renamed the Family Federation for World Peace and Unification, in 1954. One of the successful business enterprises Moon parlayed from donations of worshippers was involved in munitions production in South Korea. And Moon spent time in a U.S. federal prison in the early 1980's for conspiracy and filing false income tax returns. Apparently the anointed one shouldn't be expected to pay taxes.

For all of his shortcomings, Moon was regarded by adherents to his faith as the Returning Lord, Savior, Messiah and True Father of heaven and Earth. And Reverend Moon also exercised considerable political influence; partly by way of his newspaper, the Washington Times: not to be confused with the larger and older Washington Post. With additional influence having been conveyed through the millions of dollars his organizations contributed to politicians. Moon's political influence was evidenced by former U.S. President George H. W. Bush's engagement in a speaking tour on behalf of Moon's Women's Federation for World Peace. And in 2004 Moon was even ceremoniously crowned in Washington, D.C. by a United States congressman.

And those like Moon and Miranda are a small sampling of the scores of people running around saying they're the son of god, prophets reincarnated and god on Earth, just as there has always been in Jewish, Christian and Muslim societies. For example, besides just generally being a hotbed of fervent, militant hatred, the Middle East today is overrun with junior warlords recruiting impoverished youths of limited intelligence to fight for them by claiming they're returned caliphs and prophets. One such terrorist was Dia Abdul Zahra Kadim, supposed leader of the Iraqi cult Soldiers of Heaven, who excited fervent Muslims by claiming to be a reincarnation of the Shia Imam, Ali ibn Abi Talib. However, his reputation as a messiah took a pretty big hit when he was killed in a battle near Najaf,

Iraq in 2007.

The religious fervor pervading the Middle East today isn't all that different from the Jewish fanaticism under Roman Occupation two thousand years ago. Of course, there were moderate, amicable Jews, that's one reason why the Tanakh is full of threats and accusations against Israel by the rabid biblical authors. Besides the usual conflicts of self interests, competing sects such as the Essenes, Sadducees and Pharisees couldn't agree on basic concepts such as the existence of angels and an afterlife. Nazareans, in fact, are reported to have been opposed to slavery and harming animals. But peaceable people are rarely noted in history, being overshadowed by the perverse and warlike.

The Jews formed an independent state under the Maccabees and what would be called the Hasmonean Kingdom following the Maccabee Revolt that began in 167 BC. In the tradition of Judaism and the majority of political enterprises, the kingdom was expanded by conquest of neighboring territories and forced conversion to Judaism. But the Jews under the Hasmonean Kingdom were highly divided by ideological differences and power struggles that led to civil wars.

To suggest the Hasmonean Kingdom was unified would be akin to ignoring enmity similar to that between Jews and Palestinians today. Life in the Jewish state was so bad after more than one hundred years of independence that many citizens of Judea welcomed Roman rule when Pompey intervened in one of the Jewish civil wars by marching an army down the Levant and establishing Rome as the supreme authority in the land. While self governed, they fought amongst themselves, and while subject to neighboring powers they still fought amongst themselves. But the Jewish people continued to long for the promised messiah to deliver them from the difficulties of reality.

The New Testament of the Christian Bible referenced numerous men proclaimed to be messiahs, though the theme of Christianity is the proclamation of the most famous Jewish messiah, Jesus. In the Book of Acts, chapter five, a famous Jewish lawyer named Gamaliel, speaking on behalf of some followers of Jesus, "said unto them, Ye men of Israel, take heed to yourselves what ye intend to do as touching these men. For before these days rose up Theudas, boasting himself to be somebody; to whom a number of men, about four hundred, joined themselves: who was slain; and all, as many as obeyed him, were scattered, and brought to naught. After this man rose up Judas of Galilee in the days of the taxing, and drew away much people after him: he also perished; and all, even as many as obeyed him, were dispersed."

Judas of Galilee was credited by the Jewish-Roman historian Josephus with being a founder of the Zealots, another faction of Judaism. In the year 6 CE, Judas led an unsuccessful revolt against the Romans, joining the list of other Jewish revolutionary leaders of the period including a slave named Simon, Athronges, Menahem ben Judah and the culmination of Jewish military messiahs, Simon bar Kokhba, who led the last disastrous major Jewish rebellion against Rome. It might seem that the Jewish people would have grown weary of investing their hopes in failed messiahs, but such was the blind conditioning and desperation of Judaism in the time of Jesus. Even the recruiter of Jesus, the prophet John the Baptist, was considered a messiah; until he was executed.

As a Jewish messiah, Jesus didn't rebuild the temple, nor did he lead the Jews in military or governing matters. He was another in a long list of failures. But, if his story could be made appealing to a broader world audience, his legacy might live on. Legend of the controversial preacher Jesus would have died along with him had it not been for some creative invention of some of his followers, most notable among them being Paul from Tarsus.

Paul was a man that hadn't met Jesus and admitted to gaining his intimate knowledge of the divine through "visions" and contact with the apostles. It was Paul who was said to have convinced the apostles to teach their religion to Gentiles after the death of Jesus. And Paul was influential in spreading the religion around the Mediterranean and establishing churches during his missionary trips. He was also the foremost contributor of the New Testament of the Bible.

Tarsus was a city on the heavily Hellenized coast of Asia Minor where a man like Paul could incorporate the Jewish devotion to one god with Greek philosophy and culture into the icon that was

Jesus. Paul's Jesus followed in the tradition of the Greek god Dionysus who was very popular in so-called mystery religions of the time. Partaking of bread and wine was popularly associated with Dionysus, who was also the son of god. As the son of Zeus and the mortal Semele, Dionysus was dear to many in the Hellenized world because people could relate to a god that shared their human heritage.

The story of Jesus bears a resemblance to that of Dionysus, but it's even more strikingly similar to that of Apollonius of Tyana, another town in Asia Minor. Apollonius lived during the time of Paul and Jesus and was said to have been educated in Paul's hometown of Tarsus. Like Jesus and many other conjurers among the superstitious primitive people, Apollonius was a miracle worker who was claimed to have revived the dead. He too was a healer and prophet who cast out devils. But, the similarity didn't end there, Jesus and Apollonius both also shared the common divine fate of resurrection after death.

But unlike so many western deities, Apollonius rose to a much higher level; as a vegetarian who spoke out against eating and wearing his fellow earthlings. What Apollonius and Jesus truly shared above all else were pseudo biographical authors that felt free to partake of the riches of oral and written fantasies to embellish the accounts of their lives. Christian authors borrowed the circumstances of the birth of Moses and applied them to the story of the birth of Jesus. Both babies were hidden in Egypt to escape the execution of infants ordered by monarchs in reaction to prophecies of their births.

And, holding to Jewish tradition Jesus was tested for 40 days shortly after being introduced in the Christian New Testament. Like Jesus, Elijah had also gone 40 days without eating. Forty was a popular number for the Jews, as it rained for 40 days and 40 nights during the worldwide flood, Moses was on the mountain with God 40 days, Moses was on the mountain another 40 days, Israelite spies explored the promised land for 40 days and the people of Israel subsequently had to wander the desert for 40 years, Goliath taunted the Israelites for 40 days before little David stuck a rock in his head, Nineveh was given 40 days to reform, and Jesus even appeared to his followers 40 days after his crucifixion.

Virgin births and the union of god and mortal to produce offspring was another common element of popular mythology. The legendary founder of Rome, Romulus, and his brother Remus were born to a virgin mother and the god Mars. Under threat of death, they were abandoned to the river Tiber, but they were saved from exposure and predators by a she-wolf who suckled them as her own. Many years later, after founding the city of Rome, Romulus died and appeared to his friend Proculus on a road three days after his death, then he was raised to heaven by his father Mars.

In answering a question from Proculus, Romulus said "It pleased the gods, O Proculus that we, who came from them, should remain so long a time amongst men as we did; and, having built a city to be the greatest in the world for empire and glory, should again return to heaven. But farewell; and tell the Romans, that, by the exercise of temperance and fortitude, they shall attain the height of human power; we will be to you the propitious god Quirinus."

Just a few of the many historical figures born to virgins include Perseus, born when Jupiter visited the virgin Danaë as a shower of gold; Attis, conceived by his mother from a pomegranate nourished with the blood of Agdestris; Horus, son of Isis; Mercury, son of Maia; and Krishna, son of Devaka. The theme was even found in the Americas, for instance the Aztec god Huitzilopochtli was born to the virgin Catlicus. Legend even arose of Genghis Khan's virgin mother fertilized when bathed in a great light.

As it was shown with the advent of giants on Earth, the Jewish Tanakh also referred to gods getting women pregnant, such as the sons of God coming into the daughters of men, and the Lord doing unto Sarah as he had spoken and Sarah conceiving a son. And the hero Samson was fathered by an angel as well. It turned out that throughout superstitious society, so powerful was the urge to invent fantasies that people even claimed Buddha was a god born through an opening in his mother's side even though he made it clear to people in his lifetime that he wasn't a god and shouldn't be considered as such. Still yet, many people worship him today, failing to realize he was just another popular

philosopher that died about 2,500 years ago.

Those people that so desperately wanted a savior they claimed superhuman attributes for Jesus failed to escape the jealousy of their Jewish god. So it was that they not only retained Yahweh's message of hate and racism, but some Christian writers and editors added a little more to it. Luke 19:27 says: "But those mine enemies, which would not that I should reign over them, bring hither, and slay them before me." And the Second Book of Thessalonians states in chapter 1, versus 8&9: "In flaming fire taking vengeance on them that know not God, and that obey not the gospel of our Lord Jesus Christ: Who shall be punished with everlasting destruction from the presence of the Lord, and from the glory of his power;"

However, by and large, the early Christian message was much more welcoming than the Judaism it was founded on. Besides offering people salvation as simple as believing in Jesus, Christianity tried to make God into a nicer entity by creating a large function for Satan, also known as Lucifer, Beelzebub and the Devil. Satan wasn't prominent in Judaism because he wasn't a necessary complement to their already evil god. The Tanakh, and Old Testament, describe God punishing unbelievers with what seemed everything the priests and prophets could imagine, from dragons to brimstone, from floods to infanticide, from hornets to thunderbolts, from cannibalism to open sores, and even by smearing poop on their faces.

Some Jews saw the fulfillment of the messiah in Jesus, while most did not, especially when he didn't return as his followers so often predicted, as in 1 John 2:18: "Little children, it is the last time: and as ye have heard that antichrist shall come, even now are there many antichrists; whereby we know that it is the last time." And every generation has been proclaiming the last days are at hand, for the past 2,000 years. Yet, despite the reluctance of most Jews to acknowledge Jesus as divine, for a short time Judaism and Christianity existed side by side.

But jealousy and contempt eventually won out, and as their scriptures denounced unbelievers and heretics as evil people deserving of death, they set against each other; with Jews driving away Christians and Christians blaming Jews for the killing of their namesake hero. As the majority Jews turned on the minority Christians, the minority Christians recruited among the Gentiles, or simply the non-Jews. Christianity eventually grew from a persecuted minority; where myths such as Daniel remaining unharmed in the lions' den; and Shadrach, Meshach, and Abednego in the burning fiery furnace didn't carry much weight; to the dominant religion of the Roman Empire, and itself, a major source of persecution.

But after the Roman Empire declined, another aberration of Judaism came to challenge both Judaism and Christianity. The founder of Islam, Muhammad, was the son of a priest. Though his father wasn't Jewish, Muhammad adopted the precepts of Judaism, and dictated an abbreviated version of Judaism to an assistant that wrote it down as the foundation of Islam. However, perhaps due to his own illiteracy, his version of a holy book, the Quran, is a hopelessly repetitive way of basically saying submit to Allah or burn in hell.

The Quran is essentially Judaism with much of the Jewish history removed. Like the Jews he learned from, he rejected that Jesus was part of or equal to Allah (Yahweh or the nameless one), but he did expand Allah's mission to all people as the Christians had, and he accepted Jesus as a prophet. As for the rest, there's hardly a difference between Judaism and Islam, from holy scripture right on through the volumes of supplementary commentary and interpretation that has the effect of law to many sects.

Many Muslims, particularly those called militant or extremist, are hung up on the hatred, jealousy and violence of the Quran. And largely due to their shameful example, much of the world knows Islam as the most vile and contemptible of the major religions. And while the Quran is laced with hatred, it's a typical Abrahamic religion, as the good mixed amongst the evil was transferred from Judaism and Christianity to Islam.

Enslavement

And so, it came to be that people of Western Civilization found in the variants of Judaism all the evil justifications and discriminatory doctrine they sought to aid in enforcing their will upon others. Beyond justification, the Abrahamic traditions even inspired evils among future generations, with Jews, Christians and Muslims seeking to destroy each other and everyone else that didn't share their allegiance. Jonathan Swift was prompted by religious intolerance to write: "We have just enough religion to make us hate but not enough religion to make us love one another."

There should surely be little wonder at the hateful state of past and present affairs. The Jewish Tanakh is overflowing with tales of great slaughter, threats of grave evils, social domination, hatred, and calls to violence. And from it sprang Christianity and Islam. Hate and violence born of religion isn't the root of all evil, but it is very much an important accomplice; a very useful tool for those so inclined to malevolence. And that instrument of discord and deceit is aided in its course by the human desire for self aggrandizement that fully embraces the argument of competition. Though people say they stand for principle, often they're actually projecting themselves into ideas and then undertaking their own defense.

After separating from Judaism, the dominant group of Christians, the Roman Catholics, set about unifying their control of Christianity. They waged war on Gnostics, Arians, Adoptionists and others that tried to make sense of the conflicting Christian myths. Some unorthodox thinkers went so far as say Yahweh of the Old Testament was the evil creator god, and the New Testament god was the pure god of love.

That concept wasn't widely accepted, but Christianity as a whole may have been better served to adopt the belief of Marcion of Sinope. Marcion rejected Jewish scripture and the evils that came with it. He also discarded most of the writings that would be adopted as the New Testament by other Christian groups, choosing to minimize the extraneous material and concentrate on a positive message; in a manner reminiscent of the message of Matthew 7:12: "So in everything, do to others what you would have them do to you, for this sums up the Law and the Prophets."

Unlike Gnostics, for instance, who could attain salvation individually, the Roman Catholic Church convinced people that no one could attain heaven but through the Church. Such a ploy was no more than an instrument to grab power by greedy priests and those that held influence in the church, but it's success has been proven for thousands of years of recorded history. And with the aid of terroristic force, Christianity, and its sister faith Islam, were wildly successful.

At the Christian Council of Elvira in 306 marriage and social interaction with Jews was prohibited. At the time, the Catholic Church didn't have the power to physically punish people, having to rely instead on withholding communion, preventing sinners from receiving salvation. Communion was essential to salvation according to the Church, and one group singled out for punishment was women that left their husbands without acceptable cause and joined another man; they couldn't receive communion even when death approached. Parents and other Christians who sold their own bodies were also barred from receiving communion even at death. In fact, to engage in any of numerous sexual activities, or leave a husband under all but a few circumstances also warranted the eternal death penalty; which, though not at all real, was very frightening to those that believed in that sort of thing. In addition, Christian girls were prevented from marrying pagans, Jews or heretics; yet for all the strictness, slavery was still sanctioned.

Slavery was one of the more heinous practices that persisted into modern time. Like an evil time capsule, customs recorded in sacred writings were locked in place by tradition; able to withstand even the highest moral arguments. And as has been the case with so many evils, many of those repugnant souls that sought profit through slavery readily pointed to biblical heroes doing the same.

Mankind had lowered itself to inventing gods, no longer to explain the unknown, but to justify abominable practices. Prior to the Civil War, United States senators argued that slavery was destined

by God, and no man had a right to separate what God hath joined. Such sentiment resounded with the president of the Confederate States of America, Jefferson Davis, who proclaimed slavery to be established by decree of Almighty God and sanctioned in the Bible. Leading the Union forces in the fight against the slave states was Abraham Lincoln, who stated he could never assent to the long, complicated statements of Christian dogma.

Even a conquering king could see the evil of slavery, as previously mentioned of Cyrus the Great. Some words of wisdom attributed to a man with control of an Empire the size of Persia more than two thousand years ago are worth repeating: "...And while I am the monarch, I will never let anyone take possession of movable and landed properties of the others by force or without compensation. While I am alive, I prevent unpaid, forced labor. Today, I announce that everyone is free to choose a religion. People are free to live in all regions and take up a job provided that they never violate other's rights. No one could be penalized for his or her relatives' faults. I prevent slavery and my governors and subordinates are obliged to prohibit exchanging men and women as slaves within their own ruling domains. Such traditions should be exterminated the world over ..."

But the wisdom attributed to Cyrus wasn't to prevail. Slavery returned to prominence under the Greeks and successive rulers of the land that was the Persian Empire. Men rule empires, but ideas rule men, and unfortunately, centuries after Cyrus' lifetime, leaders of various Christian denominations included much of the Jewish Tanakh, in the form of a Greek translation from Alexandria known as the Septuagint for their Old Testament.

And like the Jewish collectors and editors before them, they picked among the multitude of religious writings popular at the time to set the New Testament which was generally fixed by the third century, though the various denominations have never been in complete agreement over which books to include. The result was again a conflicting mix of hate and love, practicality and mysticism, and fantastic illusions that continued to be called the pure, infallible word of God. As Mark Twain said in *Letters from the Earth*: "It is full of interest. It has noble poetry in it; and some clever fables; and some blood-drenched history; and some good morals; and a wealth of obscenity; and upwards of a thousand lies."

Calls for tolerance and moderation were overruled by long term leadership in the Roman Church. Then, as now, there was considerable debate as to the role of religion; was it to be a free gift or was it to be a burden forced upon everyone? In 308 a Church scholar named Lactantius, who opposed rigorous science, nonetheless advocated freedom of choice in *Divine Institutes* when he wrote: "If you attempt to defend religion with bloodshed and torture, what you do is not defense, but desecration and insult. For nothing is so intrinsically a matter of free will as religion."

But the culture of the time was one of conflict, and as Christians gained power they quickly moved to solidify that power by adopting strong methods of suppression. But, to be fair, it may be accurately stated that the mechanisms of suppression already present in the Roman Empire were converted to Christianity. However, by the time Theodosius declared Catholic Christianity to be the official Roman religion in 380, the Empire was falling apart at the seams. The Visigoths sacked Rome in the year 410, and opportunity existed for Christianity to fill the growing power vacuum.

Once government favor had been gained, official persecution wasn't the only means of quelling dissent. Near the end of the 4th and beginning of the 5th centuries, Christian mobs burned the famed Library of Alexandria and slayed Hypatia, an early female mathematician and teacher. At the time, the Library of Alexandria contained the most important collection of cultural and scientific documents in the world. But the Christian battle against science was just beginning. Anything not in agreement with the archaic views of the ancient Jews and early Christians was deemed heretical, and subject to attack. Christian attitude toward learning and discovery was characterized by Peter Damian, chancellor of Pope Gregory VII, in the 11th century when he declared all world sciences to be absurdities and fooleries.

Certainly, Christianity has warred against more than science. The battle of Christians and Jews

that culminated in the murder of six million Jews by Hitler and his Nazis, has been ongoing for almost two millennium. Initial Jewish success in suppressing Christianity was soon offset by Christian proselytizing outside of the Jewish community. And since the Christianization of the Roman Empire, the battle has been decidedly one-sided. However, prior to Constantine, both religions were at times persecuted by Rome.

From the beginning of the second century the two groups had shunned each other as demonstrated by the prohibitions of the Council of Elvira of 306. Late 4th century Tirades of John Chrysostom, who would become archbishop of Constantinople, helped to fuel even the Nazi anti-Semite fire more than 1600 years later. He ranted about the evils of the Jews, claiming they were lustful, rapacious murderers who killed their children and offered them to the devil. Of course, Christians shared the same scripture, wherein God commanded men to offer him their firstborn children, that was the source of such claims which were to be repeated over and over through the centuries.

About a century after the Visigoth King Reccared of Spain was converted from Aryanism to Catholicism, the 12th Council of Trent decreed forced conversions of Jews in 681. Five-and-a-half centuries later, in 1218, the Catholic Church compelled Jews to wear distinctive clothing so that they were easily identified and marked as outsiders. And in 1482 relations took a turn for the worse when the Pope authorized inquisitors to prevent the practice of Judaism, Islam and other strains of religion.

In Spain, Jews and Muslims had to convert or leave, but in time the Jews and Muslims that had converted to Christianity were still perceived as a potential threat and they too became targets of the dreaded inquisition, with many hundreds burned at the stake. By 1555 the pope confined Jews in Rome to a ghetto and restricted Christian and Jewish contact. Throughout Europe in the second millennium Jews were periodically restricted in their occupations, treated as a lower class of people, forced into ghettos, attacked by mobs, expelled from cities, and even expelled from entire countries including England, Germany, France, Spain and Portugal.

But even the ongoing fight against Judaism and Islam couldn't keep Christians united, as disputes of theology led to numerous schisms over the years that created the major branches of Christianity including Nestorian, Oriental Orthodox, Eastern Orthodox, Roman Catholic, Anabaptist, Protestant and Anglican. But, much more importantly, Christian insecurity and disputes over theology are overshadowed by the ugly Christian institution of inquisition and related witch hunts.

The cowardly fight of heresy pre-dated Yahweh's war with Baal; as people have always sought their own position of dominance, both physically and ideologically. And the persecution of alleged witches goes back almost as long as people have been believing in spooks, spirits and demons. Inquisition as a legal institution was popular with Romans in the early days of the Republic. Anyone suspected of using witchcraft to stunt crops was sacrificed to the goddess of agriculture Ceres more than 400 years before the birth of Jesus. The Christians accused Priscillian of Avila of heresy within a few years of becoming the official state religion; and following trial and imprisonment he and six of his followers were executed in 385.

Some were murdered by the Church for their beliefs in the first millennium, but inquisitional executions mushroomed in the second millennium. Beginning in the 12th century, increased persecution was largely in response to theological disputes with those who were called Cathars and Waldensians in what is now Southern France and Northern Italy. Pope Innocent III initiated a crusade against the Cathars of Languedoc which terrorized the region with wholesale slaughter of Cathar cities. When organized resistance to the power of the Pope was killed off, an Inquisition was set up to mop up remaining dissenters. Inquisitors roamed from town to town demanding Cathars to punish, and like modern prosecutors they offered some leniency to accused Cathars that would cooperate by accusing additional people of being Cathars. In the ensuing years of terror as many as 200 Cathars were reported murdered in a single burning.

After failing to peacefully restore the Cathars to Papal subjugation, Dominic, who would later

be declared Saint Dominic, founded the Dominican Order. He intended his monastic sect to be every bit as zealous, ascetic and righteous as any future dissenters; but, he conceded, "In my country we have a saying. Where words fail, blows will avail ..." Afterwards prosecution of inquisitions was assigned to the Dominican Order. And during the military crusade against the Cathars, before the massacre of one Languedoc town called Arnaud-Amaury the papal legate in charge of the crusade, was reported to have quipped the now infamous phrase "Kill them all, the Lord will recognize his own."

Peter Waldo was a wealthy merchant in Lyon, France, and the father of the Waldensian sect. It was his devotion to Christianity that led to persecution by the Catholic Church. Having been deceived since a child that the Bible was the infallible word of God, Waldo gave away his wealth and walked about preaching the gospel as the Bible directed. But the Church and Pope Alexander III forbade him to preach because he wasn't a member of the Roman Catholic clergy. Waldo faced a painful, yet simple, decision; he was forced to choose between heeding the calling of God or the orders of power-lusting men. Because he chose to stand true to his beliefs the Waldensians were tortured and executed with unrelenting zeal.

The collective mind of Roman Catholics was so infected with superstitious ignorance that Waldensians were portrayed as witches literally flying around on broomsticks. In fact, the affliction of dullardry that shadowed Europe wasn't nearly so incapacitating in the latter half of the first millennium when Church leaders and influential statesmen such as Charlemagne rejected the notion of witchcraft and the fantasy that the devil was working through humans to wreak havoc on the world. Ironically, in the first millennium it was heretical to believe in witchcraft.

Proving successful in suppressing Cathars and Waldensians, inquisitions quickly spread throughout Europe to solidify Catholic control. And in the Colonial Age, inquisition was even exported to the Americas and Asia, where it ravaged native populations and to some extent settlers. Catholic inquisition was such a successful institute of political intimidation that it served as a useful model for future strong armed organizations such as Stalin's secret police organizations and the storm troopers of Adolf Hitler. In Spain, in particular, the target of inquisition gradually evolved from perceived threats to the Church, to threats to the State. The targeting of political opponents in Spain became apparent, but it should be remembered that the impetus for the monarchy to establish the inquisition in the beginning was to create a homogeneous political state.

Roman Catholicism was a political machine disguised as religion worthy of the envy of the most ambitious of politicians. Only power was respected by the Catholic Church, which even allied itself with Genghis Khan, and cowered to Benito Mussolini and Adolf Hitler. Hitler was raised a Catholic, but Genghis Khan wasn't a Christian, though many in his horde were Nestorian Christians. The Catholic Church could burn people for the pretend crime of witchcraft, but wouldn't risk a fall from power by standing up to genocide. Catholics fervently opposed Nestorius when they ousted him from their ranks, but they lost their antimony toward his later followers when they were seen as a common link to the great army of the Khan. As for the Church's tyranny, it thrived on its own vicious cycle; as Church cruelty increased, more people sought other teaching, which triggered ever more oppression. The cycle expanded to the point that the Church was the principal source of fear among the people of Europe.

The perverseness of Christian dogma would eventually be challenged by the one thing that it feared most and had most successfully suppressed since the burning of the Library of Alexandria. The prescription for putrid beliefs of religion was rational thought and the truth associated with it. Intelligence was the principal casualty of the Christian Dark Age.

From the time Greek philosophy and science was suppressed in the Christian realm, until the time it was re-discovered in the Italian Renaissance, Christianity had succeeded in debasing reality. Christianity alone held human civilization back for more than a thousand years. "Nothing can be more contrary to religion and the clergy than reason and common sense," Voltaire wrote in the Philosophical Dictionary in the 18th century, adding, "If we believe absurdities, we shall commit atrocities." Any

blossoming of creativity, learning or artistic expression made the Church more vulnerable to change, and Church officials were in no mood to let that happen.

Martin Luther was one reformer the Catholic Church was unable to burn to death, though he was condemned as a heretic and marked for death. But Luther was fortunate to have something most dissidents did not: the protection of powerful German princes. Luther's teachings were quite popular in Germany and other European countries. The principal that first divided Luther and the Catholic Church was the selling of indulgences by the Church. Indulgences were purchased in lieu of other temporary punishments for sin. The practice reinforced the position of the Catholic Church that salvation couldn't be obtained but through the Church and gave the impression that forgiveness and salvation were for sale by the Church. Whatever the impression, the Church wasn't eager to give up the income of indulgence. Luther took the common contrary position that salvation came through belief in Jesus, not through the Church.

Another Catholic dissenter that proved beyond papal control was the English King Henry VIII. When Henry assumed control of the Church of England after being denied a papal annulment of his marriage to Catherine of Aragon, the Roman Catholic Church no longer seemed so mighty. Others broke free of the Roman Catholic Church, but they didn't break free of the evils of the Abrahamic religions. Though enlightenment was spreading, the masses were still slaves to religious dogma. And their leaders were fighting not for free will, but for their own version of the evil empire. In fact, the depths of depravity were still being explored, and Protestant witch hunts would rival Catholic inquisitions for merciless barbarity. Eighteenth century French author Denis Diderot put it bluntly when he said "Man will never be free until the last king is strangled with the entrails of the last priest."

Christians obsessed about demons and witches; finding witches among men and women; but some held that women were inherently more vulnerable to vexation. Abrahamic religions have always institutionally degraded women, for women, it was taught, introduced sin, suffering and death into this world that was paradise. Wives were created from man to serve man, as man was created by God to serve him. Women were described as evils from which men were free to seek pleasure; and their highest use was receiving the seed of men to bear male heirs. The Quran states that men who fear desertion by women should admonish them, leave them alone in the sleeping places and beat them. The *Malleus Maleficarum*, or the *Hammer of Witches*, completed in 1486 by two German inquisitors, was a leading reference to other judges of inquisition, and held that: "All wickedness, is but little to the wickedness of a woman."

Superstition took such a hold on the feeble minded Christians that they had completely reversed from proclaiming people that believed in the existence of witches as heretics, to proclaiming people as notorious heretics if they denied the existence of witches. The mindset of those that felt themselves important for torturing people for a living may be partially revealed in the passages of *Malleus Maleficarum*.

To wit: women, the evil of nature and inescapable punishment, were more susceptible to the lures of the devil because women were more carnal than men and therefore more desirous of copulation with an incubi than men were desirous of fornication with a succubus. It was noted that women are imperfect animals that always deceive due to defect in the first woman from the bent rib of a man. Midwives, in particular, had a bad rap from witch hunters. Witches often masqueraded as midwives, when they didn't kill newborn children they blasphemously offered them to the devil. As soon as the child is born, the midwife, if the mother herself is not a witch, carries it out of the room on the pretext of warming it, raises it up, and offers it to the Prince of Devils, that is Lucifer, and to all the devils.

Children of witches and devils were more powerful than other men. This was known because the mighty men of old mentioned in the Book of Genesis were the stock of angels, and devils are fallen angels. Devils also knew how to ascertain the virtue in semen, best matching it between the men they obtained it from and the women best fitted to receive it. And devils knew what constellation was most

favorable for the desired effects. Witches were also said to kill newborn babies and roast them in ovens so as to use their ashes in potions.

For idiots like inquisition judges, equally powerful magic had to be employed to counter witchcraft such as carrying blessed salt and herbs in blessed wax worn around the neck. Techniques such as blind-folding the victim or making her walk into the room backwards were devised to prevent the accused witch from touching or making eye contact with the judges, and in that way giving the devil some power over the decision of the judges. And because witches were so feared, judges weren't obligated to publish names of accusers. In that manner the accusers were safe from retribution from witches, especially poor witches, who were alleged to have many evil accomplices.

A witch may have been led to suppose she would be exiled or receive another mild punishment for supplying evidence which would lead to conviction of other witches. But she would afterwards be imprisoned for life on bread and water, or kept for a period of time and then burned. If the witch could not thus be tricked into confessing, or talked into confessing by influential treatment, she was to be tortured for up to three days, longer if it was still believed she might confess. However, before being tortured, she was to be stripped naked and shaved, ostensibly to look for marks or tools of the devil, but in reality to further break the will of the accused and humiliate her, so that she might be quivering in fear and discomfort before ever being tortured by the pious henchmen.

The authors of *Malleus Maleficarum* noted as example the trial by red-hot iron of Cunegonde, by her husband, the Sainted Emperor Henry, who suspected the virgin Cunegonde of adultery. The *Malleus Maleficarum* was considered a book of authority on a number of topics it addressed, such as: the way witches copulate with devils; how devils enter the human body; how witches make men think they're beasts or that their manhood is missing; how witches cause hail storms and other calamities and cause lightning to blast men and beasts; and many more fanciful topics.

In the aftermath of Protestant reformation continental Europe was gripped by tension of heresy concerns of both Catholics and Protestants. The doctrinal tug of war stirred up anxious suspicions and the witch hunts, or Burning Times, reached a peak in the federation of German Kingdoms in the 16th century. As the British philosopher, Bertrand Russell, said, "Religion is based mostly on fear... Fear is the parent of cruelty, therefore it is no wonder if religion and cruelty have gone hand-in-hand."

Germany was an excellent example of hysteria feeding on itself. Like a frightened child at a horror movie, when one person started screaming witch, it seems the whole neighborhood did. But that hysteria wasn't merely the result of word of mouth, it was fed by sensationalist press. Sixteenth century Germany provided a market saturated with books and pamphlets on witches, each trying to out-compete the others by proclaiming more horrific and thrilling deeds of witchcraft.

Still today people lacking the mental capacity or desire to distinguish right from wrong are over-abundant. Fools persist in holding meaningful such nonsense as the words of Mark 16:17-18: "And these signs shall follow them that believe; In my name shall they cast out devils; they shall speak with new tongues; They shall take up serpents; and if they drink any deadly thing, it shall not hurt them; they shall lay hands on the sick, and they shall recover." That's why people continue dying from snake bites in churches, and gibbering nonsense in Pentecostal revivals in attempts to demonstrate a participation in the spirit world. But yet, nobody is healing the sick by laying on of hands.

But delusion is certainly more dangerous than people making fools of themselves and handling poisonous snakes. Even in the 21st century hundreds of people have been murdered in Africa, India and other areas by men engaged in witch hunts. As an example, in 2002, members of the Oraon tribe in eastern India were arrested for killing five witches. The victims, all women, were accused of being responsible for illnesses including malaria and diarrhea. Many other suspected witches were burned or hacked to death in east-central India in 2002.

And in Africa, news reports from the Democratic Republic of Congo (DRC) in 2001 described the murder of as many as 300 people for suspected witchcraft. The reports stated that Ugandan troops were required to stop the killing spree because Congolese officials were hesitant to intervene because

witch killings were a part of life in the DRC. Victims were said to have been beaten into confessing and then hacked with machetes or further bludgeoned with clubs until dead. One victim was forced to “confess” to killing people and using their blood to travel around at night at superhuman speed. In order to continue the carnage, victims were made under torture to accuse other witches before being killed.

But stories of rural Africans and Indians hacking each other to death in morbid sorcery anxiety is little different than Muslim men hacking women to death for failing to keep their faces covered. Islam, one of those illegitimate children of the religion of the Jews that Cyrus freed from Babylon more than two millennia ago, is still a major menace to world society. Islam today is where Christianity was a few hundred years ago, still firmly gripped by archaic tradition and obsessed with superstition and ritual.

Most Christians wouldn't want to admit the commonality of Islam and Christianity, but they're remarkably similar; differing more in their modern practice than in their traditional doctrine. Few realize that Joan of Arc was executed for violating the Catholic dress code of the day. It's true that the dress code charge was an excuse for the English to burn the French hero at the stake, but the dress code and official charge that led to her execution were real. And most of those hateful references and barbaric practices the more zealous Muslims have associated with Islam in public perception is a true reflection of its Jewish roots. People familiar with the the Bible or Tanakh would notice the remarkable similarity with the Quran and vice-versa.

The Taliban, Hamas, Al-Qaeda and other radical Islamic groups are throwbacks to the dark ages that demonstrate the danger of the false fantasy that is religion. The members of such groups are fooled into thinking that they will receive a “mighty reward” from Allah in return for fighting for him. They're commonly under the archaic sexist illusion that Jihadists, or Allah's warriors, will be delivered to a paradise full of “high bosomed virgins” upon death.

Whatever the chosen fantasy, it's a testament to how vacant the human mind is at birth and how it can be polluted with absurdities to see how society has been misled into a firm belief in gross mythology. Friedrich Nietzsche also observed that “Faith means not wanting to know what is true.” When one observes the disturbing events of the world today, two motivations are clearly present: the first is that same old original desire for the self, and the second is devotion to fantasy that supersedes reality. But, despite periods of overwhelming ignorance and superstitious savagery, some people have stood like beacons in the dread of night to counter the mental affliction of mankind. The truth of life has always been there in bold reality for those brave enough to accept it.

In this world of imitation one should remain always mindful of the example he sets for others. Mentally stifled individuals commonly call for theological schools and governments with apparent ignorance of the fruits of such endeavors. They need only look closely at the modern Muslim states and similarities with their own history and “scriptures” to understand the ludicrous nature of such pleas for submission to religion. And that kind of naïve rhetoric is to be expected in politics, the grand contest of idiots with high opinions of themselves. Beware the politician relying on fantasy to guide the course of real world events. In the contest of idiots, shun the ones that wrap themselves in either the flag or retreat into religion to cover their shortcomings. For, theirs is the weakest position. Appeals to patriotism and religion are the crutches of the weak and hateful, whereas good policy can stand by itself

It's a lie of the ne'er-do-wells that the founding fathers of America sought a government of Christian doctrine. The culture was Christian, but in separation of church and state the wise sought to protect the nation from religion. Famous statesman, businessman and inventor, Ben Franklin found Christian dogma unintelligible and avoided Christian assemblies from early in life.

One of Franklin's acquaintances, Thomas Paine, who's pamphlet *Common Sense* was instrumental in galvanizing America's resolve for independence, and the same that is credited with proposing the name of the United States of America, wrote: “All national institutions of churches,

whether Jewish, Christian or Turkish, appear to me no other than human inventions, set up to terrify and enslave mankind, and monopolize power and profit.” Paine went on to write in *The Age of Reason*: “Whenever we read ... the cruel and tortuous executions, the unrelenting vindictiveness with which more than half the Bible is filled, it would be more consistent that we call it the word of a demon than the word of God. It is a history of wickedness that has served to corrupt and brutalize humankind. And, for my own part, I sincerely detest it, as I detest everything that is cruel.”

Men that were instrumental in declaring independence and drafting the Constitution of the United States, who later served as presidents, also sought to keep the government free of religion. The second president, John Adams, said, “This would be the best of all possible worlds, if there were no religion in it.”

Thomas Jefferson more boldly expressed his view of religion. “Religions are all alike,” he said, “founded upon fables and mythologies... I do not find in orthodox Christianity one redeeming feature.” Continuing, he said: “The Christian god can easily be pictured as virtually the same god as the many ancient gods of past civilizations. The Christian god is a three headed monster; cruel, vengeful and capricious. If one wishes to know more of this raging, three headed beast-like god, one only needs to look at the caliber of people who say they serve him. They are always of two classes: fools and hypocrites.” That religion should govern was an obscene thought to the third president of the United States, as he made abundantly clear, “History I believe furnishes no example of a priest-ridden people maintaining a free civil government. This marks the lowest grade of ignorance, of which their political as well as religious leaders will always avail themselves for their own purpose.”

“Religious bondage shackles and debilitates the mind and unfits it for every noble enterprise.” concluded President James Madison. He went on to say: “During almost fifteen centuries has the legal establishment of Christianity been on trial. What has been its fruits? More or less, in all places, pride and indolence in the clergy; ignorance and servility in the laity; in both, superstition, bigotry, and persecution.”

The other principal institution that fundamentalist Christians are working fervently to defile is education, insisting that religion should form part of the foundation of all children’s knowledge. They’re right in the belief that religion should be studied in school. But not the pack of single perspective lies they advocate. Let the true history of superstitious thought and ritual be known to all. Expose the fallacies behind the pulpit and the collection plate. What better way to be done, once and for all, with the greatest deception the world has ever known. For the logical conclusion was set forth by the American author Ernest Hemingway: “All thinking men are atheists.”

The truth is, every good person desires a loving higher authority to right injustice, prevent suffering, and establish eternal paradise. We all wish for a god with the magic to make our fondest dreams come true and spread happiness and joy around the world. But in the absence of such a mythical figure, we’re left with the world we make, and there’s a terrible disconnect between selfishness and decency.

Savage Lord

Sol's smile flooded the room as he peeked through the open window. The warmth felt good on Bobby's face, and charming sounds of songbirds caused him to smile just as brightly as the morning sun. Opening his eyes, he rolled over in bed and hugged his best friend Buddy, who yawned and stretched a big waking stretch before giving Bobby some sweet puppy kisses. Kisses made Bobby giggle and he squeezed Buddy tighter.

Then the two friends shuffled out of bed and hurried to the kitchen where mom greeted them with a warm smile. "Good morning boys," she said, "breakfast is ready." Bobby rushed over and hugged his mom; Buddy right beside him, wagging his tail a mile-a-minute.

Curtains fluttered in a light summer breeze gently blowing in the kitchen window while the boys ate. After enjoying a delicious hot breakfast they gathered up the dishes and dirty clothes for mother to wash. Then all three were off on their regular morning adventure. Into the woods they walked, mom and her two little ones, on a well-worn path trod most nice days. They walked among giants: ancient red oaks, white oaks, and hickories that nearly blocked the sun; and they walked among parades of ants scavenging the forest floor for food to carry back to the nest.

The woods were full of life in the morning. Squirrels chattered back and forth amongst the limbs, occasionally stopping to cast a curious gaze at the ponderous trio down below. Sometimes deer and turkey were coming back from the meadow, and always there were birds going about their treetop business. Bobby marvelled at how it must feel to soar far above the ground and zoom between the outstretched arms of giants. Among the celebration of life Bobby and Buddy were happy as pigs in a garden as they looked for turtles, moths, lizards, chipmunks, treefrogs, and other acquaintances to make. And it never failed that they got dirty because they never tired of lifting looking in the nooks and crannies that might be harboring toads and crickets and moths and slugs and centipedes and roly-poly's and those ever-industrious ants.

On this particular morning, adventures lasted until the sun was high in the sky and pond frogs were basking in full warmth. When at last they returned to the house, mom left the boys in the soft warm grass of the yard while she went inside to do a few chores. The yard was a busy place; butterflies, bees and hummingbirds danced all about, attracted by the sweet fragrance of a thousand blossoms.

But as much as Bobby loved watching the bright fliers, he was looking for something else. When at last he spied his favorite ball lying in the grass, he raced over and kicked it as far as he could kick it, and the great game was on. Bobby laughed and Buddy barked with delight as they chased that ball. Over and over Bobby kicked the old ball and Buddy chased it down and slobbered all over it until Bobby could catch up and kick it again. Buddy's tongue nearly dragged the ground, and soon the ball and his whole face was a dirty, slobbery mess. But no amount of dirt and slobber bothered those boys because they enjoyed nothing more than playing ball together.

Time flew by, and the laughs and giggles grew louder and more boisterous in celebration. During moments like that, it was good to be alive. At that time the world was as big as a ball, a yard, a wide open blue sky, and a best friend to play with. Inside the house momma smiled knowing the boys couldn't be any happier as she stood at the window and watched the simple fun go on and on as they played, without a care in the world. Paradise was the fun and happiness of youth, and clearly nothing could be better. After a while, momma went outside and joined in the fun. And she too was laughing and grinning ear-to-ear with a smile brighter than all the stars of heaven. Perhaps momma even laughed hardest of all; because in her heart she knew that joyous and blissful moments like those were truly the time of their lives.

It was nearly lunch time when the boys' fires cooled and they started to run out of steam; leaving them ready to take a break to rest awhile. By the time they were cleaned up, mom had lunch ready to eat. And after eating a hearty lunch worthy of growing boys, Bobby and Buddy laid down for

a welcome nap and fell fast asleep.

Having some errands to run, momma couldn't join them for a nap however, so she let Buddy out and carried Bobby to the car, still asleep. When he awoke he was in the car as it wheeled into the grocery store parking lot. But after a few shopping stops, they were back on the road home, and Bobby was standing on the seat with a smile on his face as they drove up their driveway. He was always happy to get back home to his best friend. But his brow wrinkled and he started looking all around as they made their way down the drive to the house. "Where's Buddy?" he asked.

"I don't know," his mother replied. "He's usually waiting by the drive when he hears us coming."

When the car stopped Bobby got out and yelled for Buddy. But, still Buddy was nowhere to be seen.

Bobby's mom took his hand. "That's odd," she said. "It's not like Buddy to leave the yard by himself."

Then the two of them started walking down their favorite trail, calling Buddy's name. "Buddy! Buddy!" they called. But still no reply; still no sign of their true friend.

They walked the whole trail calling for Buddy. Then they walked up and down the road. And they circled behind the house and around the other side. But they couldn't find Buddy anywhere. By the time they had looked the last place they knew to look, Bobby was really worried for his best friend. He started to think something bad might have happened to him. Tears started welling up in his eyes and his lips started to tremble and his cheeks puckered up as he called out for his best friend as loud as he could; hoping more than anything that Buddy would hear him.

But Buddy couldn't hear him. Buddy was in a crate in a stranger's truck, surrounded by other dogs in crates. And when the truck pulled down a long, bumpy driveway and stopped beside a dirty old house, the man got out and went inside, leaving Buddy and the others in the truck. Buddy called out for Bobby. But the other dogs were barking and Buddy couldn't tell if Bobby could hear him. And Buddy kept barking from inside the crate, and miles away Bobby stood in the yard calling for Buddy. And they both called for each other into the evening until their throats were too hoarse to call anymore. And Buddy finally whined and laid down in the hard old crate, and Bobby finally went inside and cried himself to sleep.

Bobby woke many times throughout the night, crying for his best friend. But Bobby's anguish and tears couldn't help Buddy, and early the next morning the dirty man came outside, started the truck and hauled Buddy and the other dogs down the road. Back home, Bobby arose in the daylight and looked over, hoping that it was all just a bad dream he would wake up from and his best friend would be right there beside him. But Buddy wasn't there. He was on the way to a hellish abomination called a research laboratory.

Bobby felt sick and he got dressed and went outside. His mom tried to console him and get him to come inside and eat breakfast, but Bobby didn't want to eat and couldn't feel good while his best friend was missing. So, mom went inside and grabbed a staple gun and the missing friend posters she made the previous night. Then she went back outside, took Bobby by the hand and walked down the road to staple posters on power poles and road signs before getting in the car and driving to the vet's office, the newspaper, the radio station and a few other places to pass out posters and ask for help in finding Buddy.

Nobody they asked knew where Buddy was, and even as Buddy was being taken into the research lab, Bobby was walking around their house calling his name. Buddy was still calling for Bobby too, but neither could hear the other. Buddy was too far away, locked in some cold concrete building that smelled like chemicals inside. For the rest of the day the two boys felt sad and frustrated, as they occasionally called out for each other. Buddy pawed at the cage door, and Bobby pounded his little fist on the floor. And both went to sleep that night still hoping that the other would soon show up.

After another long night in a cold, cramped cage, Buddy sprang to his feet when he heard the

building door opening. Somebody came in and turned on some faint lights. Buddy thought Bobby might be coming to get him, so he started barking and wagging his tail and scratching at the door to his cage, hoping it would open and he could run to Bobby. But Bobby wasn't with the man that came in the building, and that man didn't even come over to see Buddy and the other dogs, he just went into another room and turned on some more lights and sat down at a desk. Before long, more people came in the building. And all the dogs got excited, thinking someone was about to come over and let them out of their cages and let them go home. But one by one they walked on past, not paying them any attention.

Finally, someone came over to Buddy's cage. But he didn't pet Buddy and he didn't open the cage door. He just filled the food and water dispensers and left. Buddy couldn't do anything but sit and wait. It wasn't until almost lunch that a man came over and opened one of the cage doors. When he did, a cocker spaniel bound out, ready to go. "Where do you think you're going?" the man said, grabbing the golden dog by the neck. Then the man carried the cocker spaniel into another room.

It was quiet for a while and then Buddy heard the golden dog yelp. It wasn't a really long bark, or a really loud scream, but it made Buddy nervous and he stepped back in the cage, which seemed so strange, and he looked for a way out, but the only way out that he could see was through the metal bars of the door. So, he stepped forward again and started scratching and pushing at the bottom of the door. Now, on top of missing Bobby, he was getting scared.

When the man brought goldie back, she was pretty quiet, she didn't seem as energetic as she was earlier, but her breathing sounded a little quick, shallow and shaky. The man had no sooner put her back in a cage, when he opened another cage and carried another dog away. Some of the dogs were starting to turn circles in their cages and yap excitedly, but Buddy just wanted to go home, he wanted to find a way out of there. Every time the man came back to the cages, Buddy backed away from the door. But finally it was his door that opened, and Buddy slumped down just a little. "Come on you," the man in the white overcoat said, and he picked Buddy up and carried him into the other room.

Buddy was normally happy and friendly, but he didn't like the feeling he was getting as the man sat him on some scales to be weighed. Then he was picked up and put on a cold metal table. There, another man put a hand on Buddy's face, and shone a bright light in his eyes, before lifting his ears and looking inside them, then he put his fingers in Buddy's mouth and pried his mouth open before lifting Buddy's tail putting something cold in his butt.

Buddy was really starting to wonder what these strange people were doing to him, when the second man grabbed a handful of skin on Buddy's back and pulled it up. Just then Buddy felt a stick and tried to turn his head to see what it was, but the handler was holding his head, keeping him from being able to see what was hurting him. And then the sting started to burn and Buddy cried out in a yelp like the other dogs had made. And Buddy tried to get away. He tried to squirm, and wriggle, and push to free himself; but the man's grip was too tight. And the man carried him back to his cage.

The place where he was stung on the back was really hurting and he reached back to check on it and lick it but he couldn't quite reach it up between his shoulder blades. But pretty soon Buddy started to feel hot all over, and dizzy. So he sat down. And the longer he sat there, the more tired he became. His mouth started to water, and he got a little shaky, and he laid down. The longer he laid there the worse he felt, he ached all over, and his head throbbed, and he started to get a nasty metallic taste in his mouth, and his stomach started to hurt real bad. For the rest of the day Buddy lay there in terrible pain hoping Bobby was going to come get him, and all through the night he barely dozed off due to the pain.

Buddy felt like he was going to burn up, and the long, dark night seemed to drag on forever. Even when the people came back the next morning and turned on some lights, Buddy didn't feel like getting up. Neither did the rest of the dogs. They were very quiet, even when the man came to check on their food and water. He didn't need to give Buddy anymore food and water, because Buddy felt too sick to eat or drink. But, Buddy did manage to stand up on wobbly legs and scoot back in the cold,

steel cage when the man came near.

In time the man started to take the dogs, one by one, back to the other room. And when it was Buddy's turn, he mustered his strength and tried to run. But the man grabbed him hard by the scruff of the neck and slapped Buddy in the face, poking him in the eye. Buddy, ducked his head down, his eye blinking, and tried to pull away but the man was too strong and he just squeezed harder and started cussing at Buddy. After the second man examined Buddy on the steel table again, he pulled a syringe out of a drawer and stuck it in Buddy's front leg. Ow! that felt a little like the thing that stung Buddy the day before. He instinctively tried to reach down and bite the stinger.

Wham! the man holding the stinger hit Buddy on the side of the head with his fist, bruising Buddy's left eye. "Hold that dumb son-of-a-bitch still!" he yelled to the handler.

With that, the first man with the white overcoat picked Buddy up and shook him, and then slammed his head on the steel table. "Don't move, you little bastard!" he threatened. And Buddy began screaming. He was scared, hurting and confused and all he knew to do was scream.

The second man grabbed some straps and threw them over Buddy and then cinched them down tight, holding Buddy pinned against the table. Buddy struggled, but the straps were too tight, and he was too weak to go anywhere. With the handler holding him, the second man inserted the needle in a vein in his leg and drew out some blood. But that didn't burn like the day before. That was just a blood sample. It was the second syringe that the man picked up and inserted in Buddy's back that contained the awful, burning chemical. Buddy was scared out of his mind and he started screaming for help again; but the man grabbed his face and squeezed his mouth shut, and Buddy couldn't breathe.

With the shot complete, they took the straps off and put him back in the cage. In the cage it's not clear how much shaking was from fear, and how much was due to the poison racking his body. He tried to stand up, but the poison was too strong and his body couldn't fight it. He laid down in his own filth and started to heave. He felt so sick. He was heaving, but there wasn't anything in his stomach to vomit. There was just some bitter stomach acid coming up, and diarrhea that came out the other end. Everything hurt, so much. He was burning up inside, but he shivered and felt so cold in the steel box. His head hurt, and that nasty metallic taste was only getting worse. Even his muscles and joints ached terribly.

That day Buddy didn't get any better, he only got worse. He hurt so bad he couldn't sleep that night. By the next day, he was too weak to even sit up. The handler in the white overcoat came and looked at the dogs, but he didn't take any to the other room. "They won't make it another day," he announced. And he walked into the other room and sat down to read a newspaper.

The man that gave all the shots got up and walked toward the door. "I'm gonna go get some fresh air," he said. "These little bastards make me sick."

Buddy just laid there, trembling on occasion. But he was tough. He tried to be brave and he held on as long as he could. He watched the men leave at five o'clock. And he laid there. He laid there into the night; cold and shaking, with cramps in his stomach that felt like his intestines were being ripped out. He thought of Bobby and he moaned. Where are you Bobby? Bobby had always been there for him. Now Buddy was hurting more than one can imagine. It hurt so bad. He didn't want the man to hit him again, he didn't want another shot that burned, and he didn't want to feel so sick anymore, he just wanted his best friend back.

Buddy didn't know why any of this was happening. He didn't know why he couldn't just be happy with his best friend in the whole world. He didn't know why they couldn't wake up together and go walk the trail, or why mom couldn't make them breakfast and play ball with them. He didn't know why Bobby didn't come to get him. But it was too late. He was getting sicker and the terrible pain was more intense than ever. And finally, through that night and into the dark hours of morning he got away from the pain. As he lay there convulsing with muscle spasms, the agonizing pain in his head started to fade away, and finally his heart stopped beating, and a while later the spasms and gasps for breath ceased too, and Buddy was gone.

The next morning the man with the white overcoat walked over to the cages and looked inside. “We’ve got some wringers,” he said, as he opened Buddy’s door. “Get the knives out.”

And he grabbed Buddy and pulled his limp body from the cage, and held him by the scruff of the neck as he carried him in and dropped him on the cold, steel table. “Slice and dice time,” the handler quipped with a smile.

And the man that gave the shots took a scalpel and made some deep incisions high inside Buddy’s back legs to drain Buddy’s blood before setting the knife down and picking up a small spoon from a tray and resting his hand on Buddy’s head. Then he put the spoon on Buddy’s eye and guided it to a corner and worked it under an eyelid, and then forced it down inside the eye socket with a little squish.

The handler in the white overcoat held his hand out. “Let me have that one.”

Without saying a word the dissector pried Buddy’s eye out with the spoon. The eye socket made a little slurping sound as the eyeball came out. And the dissector pulled the eye out, stretching the optic nerve and blood vessels until they snapped. “Here,” he said, handing Buddy’s eye to the cage keeper.

“How do you like me now?” he asked the eye. Holding it up in front of his own face.

“Take a good look, because it’s the last thing you’re going to see.” After passing Buddy’s eye over his own lifeless body on the table, the cage keeper dropped it on the floor and slowly stepped on it, until it popped and squirted fluid across the floor.

The dissector laughed. “You’re cleaning that shit up,” he commented.

“Oh, well. There’s plenty more where that came from,” the handler replied.

Then the dissector removed Buddy’s other eye before picking up a scalpel and cutting off one of Buddy’s ears. And then he cut Buddy’s belly open and started to remove the internal organs. With every piece the evil monster cut from Buddy, Bobby died a little more inside. Finally, the dissector cut the top of Buddy’s skull off and removed his brain, setting it in a chest with the internal organs. Then the cage keeper picked Buddy’s mutilated body up and shoved it in a trash bag, before going to get the next dog.

It couldn’t get any worse for Buddy, the men took a happy boy that shared all the love in the world, and they tortured and mutilated him and stuck what was left of him in a trash bag. But what makes the tragedy even worse, if that’s even possible, is that Buddy was killed for no reason – the chemical he was injected with has been known as a deadly poison for more than a century. But that’s just a cost of doing business for the Food and Drug Administration, the Environmental Protection Agency, and other institutions. For the lab it was a little more profit, and for the arrogant demons in lab coats it was just another day and another dollar.

Animal testing is a huge business of torturing and murdering fellow earthlings as if they have no feelings and no fears and no hopes at all, and ranks among the most egregious demonstration of man’s selfish immaturity. While man’s pyramid of technical knowledge has grown volumes, true wisdom has stagnated like a sickly weed in the shadows of selfish brutality. As Mahatma Gandhi said “The greatness of a nation and its moral progress can be judged by the way its animals are treated.” And America has been setting a terrible example.

Throughout history evil barbarity has been a constant companion of mankind. For instance, animals have always suffered in man’s wars. Horses forced to serve in the armies of men have had hard lives. Many times they were beaten by their riders, and pushed to the point of collapse, suffering untold heart attacks and broken legs before the enemy even began to attack them. And the aforementioned Mongols were like all the other soldiers trying to shoot horses out from under enemy combatants. Every horse ever forced into a cavalry charge was a target for swordsmen, javelin throwers, archers, riflemen and other warriors. All the while, the men behind all the misery and devastation were hiding behind their horses, pack mules, camels, and even elephants. And when food got scarce soldiers slaughtered their own trusting, enslaved servants.

In fact, the wanton destruction of war has been particularly hard on animals. Armies of warriors and civilians alike shoot, hack and slaughter every animal they can get in their sights in war, sometimes when they're not even hungry. No animal's safe in the presence of a hungry army, and quite often, animals were killed just to keep them out of enemy hands. Almost no place on Earth is more desolate of animal life than an active war zone; especially with the advent of modern weaponry. Those animals not directly targeted have no place to hide from saturation carpet bombing, random shell and rocket strikes, napalm fireballs, machine gun strafing, and so many more implements of death.

But while wars among men have come and gone. Man's war on animals has been viciously constant. Even now, militaries around the world are burning, drowning, poisoning, electrocuting, shooting, and slicing innocent animals at a frenzied, barbarous pace. And among the worst offenders is the United States Department of Defense. Is that the kind of power America wants? The power to brutalize innocent babies? How long shall America continue to be a land of such tremendous dishonor and still have the audacity to proclaim freedom, liberty and justice?

In 1945 America dropped two atomic bombs on Japanese cities. Many of the people that were scorched and poisoned by the radioactive blasts deserved what they got, however, many animals likewise killed or injured did not. Still, in the context, the use of atomic weapons wasn't a mistake, in that more would likely have been killed had the war continued in conventional fashion.

But, shortly thereafter the Japanese surrendered and America subsequently occupied Japan, having unprecedented opportunity to witness firsthand the horrid effects of nuclear explosions. The center and extent of the blast zone was well known, and effects to all life in the vicinity were obvious. Japanese civilians would be treated for burns and radiation poisoning for many years to come, and the effects of radiation they suffered was available for extensive study. Yet, for no obvious benefit, and secret from the American public, in 1946 the U.S. military loaded 4,000 sheep, goats and other animals onto a boat they called the Atomic Ark in the Pacific ocean and exploded a nuclear bomb overhead, killing and severely burning all on board.

For such a warmongering species, man has surely been cowardly. People are strong enough to subjugate fellow earthlings, but not brave enough to take responsibility for their own health. Because of that cowardice, man wasn't even the first earthling in space. The United States and Russia launched a mouse, numerous monkeys, dogs and even fruit flies into space before the Russian Yuri Gagarin became the first human in space. Since then many different species have been sent into space; some as no more than elementary school projects.

Monkeys had electrodes implanted under their skin to monitor their vital signs during flight, and a chimp was trained by painful electric shocks to operate levers while in space, not levers to perform a necessary procedure of course, just levers to demonstrate a chimp could pull levers in space. And that's a tiny sample of tests monkeys were subjected to in order to demonstrate the already known effects of all kinds of injury. Donald Barnes was a U.S. Air Force officer that described the fate of some rhesus monkeys trained to keep a platform level by painful 12,000 volt electric shocks from metal plates under their feet.

The little monkeys didn't know why they were being shocked or what would stop the pain. They struggled but couldn't escape the electric chairs, and some monkeys died of heart attacks from being shocked repeatedly. Others happened to react in a certain way that got the shocking to stop. In time over a thousand would die in the same useless experiments.

One of those monkeys that endured many months of shock training, called Susie, was described as being very nervous when she was taken to a strange room one day and secured on a shock platform with only one arm free to operate the control joystick. For ten months she had been trained not to let the platform tilt or she would receive the painful shocks. But strange noises made it difficult for her to concentrate on her task. A large cylinder rose from the floor near Susie and startled her, causing her to lose control of the platform until the painful electric jolts pulsing through her body caused her to get

the platform level again.

An unseen man counted down from ten to “pulse,” and the cylinder emitted a pulse of radiation so powerful it lit up the room. The intense radiation instantly caused her head to hurt and made her sick. The cylinder sank back into the floor and Susie vomited. Fright and wooziness caused her to lose control of the platform. And the more it wobbled, the more she was shocked and the harder she tried to hold it still. But the radiation damage was too great for her to keep the platform level and, in terror, all she could do was hold on tight like she was riding an electric chair on a roller coaster. The shocks kept coming until she lost consciousness and slumped forward.

Sadly, Susie died a terrible death combining radiation and electric shocks, but the result was already known because the Air Force had conducted the same tests for years. The operators knew Susie wouldn't be able to withstand that amount of radiation, just like they knew it would fry her internal organs and make her sick. But did they show any decency whatsoever? No, they just carried her away, cleaned up the vomit, and locked the next victim in the chair.

To the imbeciles in lab coats that like to call themselves scientists Susie was just a number and means to a paycheck, like Buddy and millions more each and every year in the U.S. alone. The more monkeys the airmen could kill, the more money their department stood to receive to kill even more monkeys the following year. And when money's involved, the U.S. military's an equal opportunity abuser. For decades it's been infected with devils testing all manner of weapons on sheep, dogs, goats and pigs. And they don't just blow up groups of pigs with new bombs and shoot German shepherds with new guns and redesigned bullets. They create new excuses to satisfy a seemingly insatiable appetite for shooting animals.

They even get colleges in on the action. Michael Carey of Louisiana State University convinced officials to pay him to shoot cats in the head to model human injuries. Of course, it'd be nice if people weren't being shot and there were no human gunshot injuries to observe. Unfortunately, with persistent warfare and violent crime, there's no shortage of gunshot victims. Nonetheless, Carey's team received military money, and had 700 kills in it's war on cats before public outrage got the plug pulled on that tax-funded cruelty.

The military doesn't just demonstrate the killing and maiming power of new weapons. They torture animals to test defensive equipment as well, like when they blow up goats wearing bullet proof vests. There really aren't many tortures the U.S. military hasn't tried on animals. They may not be particularly efficient or effective, but they can dip rats in boiling water and set others on fire without recompense or remorse.

One of the Department of Defense's most popular means of animal torture is the “wound lab.” That's where dogs, sheep and goats have been shot, burned and blasted for decades to introduce medics to wounds. It makes sense that medics could assist veterinarians or perform needed services such as spaying and neutering if they're to learn medical procedures on animals, or that they could assist doctors in treating the abundance of human injuries. But that's just how evil those military authorities responsible for the needless carnage really are.

People that torture animals don't want the public to see the horrible things they do to friendly animals on a daily basis. Wound labs and other dens of death are kept hidden, they're secret because those monsters don't want the public to see a friendly Labrador retriever like Russell walk into a room smiling and wagging his tail. They don't want the public to see a rope placed around his neck to keep him from walking away. Because they don't want good people to see the pain on his normally cheerful face.

When the rope was placed around Russell's neck he sniffed it, but didn't think much about it because he was used to a leash. But when he started to walk out with the technician that had walked him into the shoot room, the rope stopped him and he looked around, curious that the man wasn't carrying the leash like people usually do. Then Russell barked as if to say, “Hey, you forgot me.”

But the Army had something else in mind for Russell, they had him right where they wanted

him. He looked around the dim, quiet room with his bright eyes; ears perked up and still smiling. The only light in the room was facing him, but he could hear something at the other side of the room and cocked his head, trying to get a better look. As his eyes focused in that direction a shot rang out and Russell dropped to the ground.

His eyes squinted and ears pulled down as his face contorted in pain. He struggled to stand on wobbly legs and tried to run away, but the rope choked him and he spun around trying to get free of the choking rope. When he spun on his shaky legs he fell down again. But, try as he might, he couldn't get up. Russell trembled as he tried to push himself up; his legs didn't have the power and they just slid on the slick floor; and Russell fell on his side with legs still reaching.

For about a minute his legs ran on, but they only swung in the air. Blood oozed from his mouth and bubbles formed on the end of his nose as his mouth involuntarily gaped open as wide as it could. Russell held on for a little while, swinging his head trying to breathe through the blood filling his lungs, as his head smeared the growing frothy puddle of blood on the floor. Then Russell, a fine friend to all who met him, took his last horrific, burning gasp: just another number in a long list of casualties nobody hears about. One by one, and sometimes by the dozens or hundreds the U.S. military keeps on killing hundreds of thousands of animals per year and wasting hundreds of millions of taxpayer dollars like a huge life and hope crushing machine.

Obviously man has acquired the knowledge to conquer the world, but not the wisdom to live in harmony. Maybe things would be different if people experienced the kind of pain they inflict on others. Of course, that's what justice is: experiencing the effect one intends for others. Common people can hear about lab animals being drowned or set on fire and it means nothing or almost nothing to them. But people should be very thankful that they don't know much pain. The pain most people experience is bad at times. But it's more like discomfort compared to the pain inflicted on our fellow earthlings, by vile, wholly contemptible scourges that call their torture science.

Mark Twain had good reason to say: "I am not interested to know whether vivisection produces results that are profitable to the human race or doesn't ... The pain which it inflicts upon unconsenting animals is the basis of my enmity toward it, and it is to me sufficient justification of the enmity without looking further." He could imagine the unjust suffering our fellow earthlings are subjected to. But apparently the common dullard cannot.

People think they know pain, but generally they don't. Let him that gives no consideration to the pain of others perform some very simple, quick tasks. Let any man that doesn't recognize the evil of torturing animals learn better by: A. bringing a large pot of water to boil, and B. inserting hand in said pot of scalding water. Just as simple as that, people lacking the wisdom to know right from wrong could gain a simple, basic perspective of the harm they cause.

The simple truth is this: **over 20 million animals are tortured and killed for research and education in the United States EVERY YEAR in just about every way imaginable.** Whatever way the reader can imagine to torture and kill an animal and call it research has probably been done. Twenty million animals per year! That's 200 million animals mutilated in the name of science in the U.S. alone in just a decade. Some animals are injected with chemicals, and others are forced to ingest chemicals. Just about every stupid scheme to burn, poison, drown, electrocute, infect, drop, explode, crush and dismember animals has been carried out against innocent babies.

A few of the more common tests are the lethal dose 50 (LD₅₀) and Draize eye and skin irritancy tests. In the LD₅₀ test, animals are poisoned to determine how much of a chemical or product is required to kill them. Somewhere, in some secret locations, buried under other useless data, are the records of how much rusty-bolt remover, and how much lipstick, has to be force-fed or injected into a group of rabbits to kill half of them. That really doesn't tell people how much lipstick they would have to eat or how much rusty-bolt remover they would have to inject into themselves to become very ill, but it really doesn't matter. Like the overwhelming majority of laboratory animal torture, those tests serve no useful purpose. They're designed to cover the asses of soul-less government workers and

greedy corporations that say they're keeping the public safe. They keep people safe in about the same manner that they keep the sun rising in the east every day.

In the Draize eye irritancy tests, rabbits locked in metal traps that prevent them from moving have chemicals applied to their eyes which are held open by clips to prevent blinking. The rabbits are forced to endure the chemical burn on their unblinking eyes for as many as several days before they're murdered; just so the chemicals can be rated from mild to corrosive. Obviously people could just try to keep chemicals like battery acid out of their eyes, and when some poor schmuck accidentally gets it in his eye he can tell the rest of the world if the harm was mild or severe. But that would take money out of the pockets of animal abusers, and that greed is a critical leg of the animal testing syndicate.

The pharmaceutical industry, animal agriculture, government agencies and other animal abusers have so much clout with degenerate lawmakers that they were able to get special legal protections for animal abusers under the Animal Enterprise Terrorism Act of 2006. Of course, enterprises that torture animals already had the same legal protections as everyone else. But politicians are so reprehensible that they enacted special protections, above and beyond the common citizen, for some of the most evil, heinous monsters to ever infect the Earth. What better example of the evil spawn of the three-way blood-orgy between torture, lies and politics could there be than special protections for animal abusers, and criminal terrorism charges against people trying to help the innocent? And animal abusers are so powerful they've passed ag-gag laws in morally bankrupt states to keep the public from learning the truth about their abuse and torture.

The government, pharmaceutical industry and large consumer product companies have long led the way in stuffing rats into little bottles barely large enough to hold them and forced to inhale toxic gases. Monkeys and baboons are strapped into machines that smash their skulls and break their necks. Car companies formerly used pigs and baboons as crash dummies. Columbia University researchers pried out baboon eyes and inserted clamps on blood vessels to cause strokes. University of North Carolina technicians cut the toes off mice with scissors as means of identification.

Even many charities, such as the March of Dimes are villainous mutilators. The March of Dimes has had kittens' eyes sewn shut for a year before they were killed, injected baby opossums with alcohol, destroyed the eardrums of unborn sheep, and funded numerous other experiments that tortured and killed monkeys, pigs, dogs, rats, mice, rabbits, guinea pigs and others.

Animal torture in the name of science is a huge industry that continues to invent every excuse to perpetuate the atrocities in their lust for money. Readers were earlier warned to beware of so-called experts because of inherent bias and limited perspective. Well, when "experts" in other fields mislead the public the greatest harm is often a waste of money. But when animal abusers mislead the public, the result is more animals like Buddy, Susie and Russell being tortured to death.

Given the shocking amount of harm done there has been almost no benefit. Invasive animal research is a colossal waste. The truth is, stupid, lazy people are happy to be paid billions of dollars per year to torture animals. Many adults can recall dissecting a frog or baby pig or some other animal in a high school biology class. Many of those victims were drowned to provide what? Most people that dissected an animal in a high school biology class couldn't begin to describe any useful information they retain from the experience. And that's all the practical benefit of most animal research. But regardless of any perceived benefit, "Atrocities are not less atrocities when they occur in laboratories and are called medical research," as stated by George Bernard Shaw. Mr. Shaw also said that: "Vivisection is a social evil because if it advances human knowledge, it does so at the expense of human character."

Seeing that there is clearly no meaningful purpose served by drowning frogs so that they can be mutilated in classrooms all across the country, what is the motivation behind such senseless torture? The true motivation is shocking stupidity in the educational community combined with the greed of frog killers promoting their industry.

That's what drives candy companies to feed their products to animals and make them perform

strenuous exercise like swimming in a pool with no place to rest in hopes of making health claims for their products, much like tobacco companies that locked animals in smoking masks and later dissected them to “prove” that smoking wasn’t as unhealthy as other studies indicated; as if the yellow fingers, hardened arteries and emphysema of millions of smokers weren’t sufficient indicators of the effects of smoking. There was never a benefit to be gained, the effects of smoking was always available for observation in the millions of people that chose, and still choose, to smoke. It’s hard to believe that people can be that cruel. But they most certainly are. Most animals that die in laboratories never feel grass under their feet, or smell fresh air, or feel the warmth of sunshine, or the patter of rain. Most animals tortured and killed in labs spend their entire lives in small cages, never able to run or play.

Unfortunately, these brutal killers are wolves in sheep’s clothing. Most proponents of animal research torture lie about some good intention, and some actually make the outrageous claim to be working for the environment and even for animals. Some popular environmental groups have lobbied strongly for massive chemical tests on animals, while opposing non-animal testing alternatives. It sounds like a group called the World Wildlife Fund would be against poisoning and dissecting animals in huge chemical tests, but the World Wildlife Fund, Environmental Defense, and the Natural Resources Defense Council pushed for just such atrocity.

Poisoning lab animals won’t improve fuel economy, it won’t burn less coal, it won’t prevent massive oil spills, it won’t decrease consumption and solid waste. Animal torture won’t prevent erosion, or forest fires, or tsunamis, or toxic chemical spills. Yet the Environmental Protection Agency has poisoned and killed millions of animals in such colossal programs as the Endocrine Disruptor Screening Program and High Production Volume chemical tests. And the European Union has a similar program of torture called the Registration Evaluation and Authorization of Chemicals program. That’s despite the fact that: A. much of the resulting data will be redundant because most of the chemicals have been in widespread use for decades, B. most of the data will be absolutely useless, and C. it won’t affect the way business is conducted anyway. Regardless of test results, dangerous and poisonous chemicals will continue to be widely used.

For example, even though thousands if not millions of pets and other animals, and some children have been poisoned by ethylene glycol contained in automotive antifreeze, manufacturers have long refused to add a simple, inexpensive bittering agent to keep children and animals from drinking the sweet liquid. So, no, useless torture data isn’t needed, what’s really needed is a central clearinghouse and mandatory reporting of what we already know, along with information about accidental poisonings, and much better evaluation coordination. Management of chemical information is woefully inadequate and inefficient. People don’t have the foggiest idea what tests have been performed and what the results were.

With 20 million animals killed in research every year, and countless other chemical tests and analysis, there’s way more information floating around out there than people know what to do with, and it’s not even accessible. Well, first things first, all existing information should be made available and evaluated to discern what other information is even needed and stop collecting information for the sake of collecting information and killing animals to cover corporate and political asses. As things now stand, animals are being tortured in useless and redundant tests.

There’s a long running debate about the possible benefit of torturing animals for research and education, especially considering the many good alternatives presently available, and even more alternatives that would be much further advanced had animal abusers not wasted so much time and money torturing animals. But such debate is completely without merit because it’s obvious that injuring others to profit from their suffering is evil of the highest order.

Thomas Edison said long ago that “Non-violence leads to the highest ethics, which is the goal of all evolution. Until we stop harming all other living beings, we are still savages.” And that cannot be stated too plainly: as a society we are savages. Any assertion that humans have any inherent right to torture and abuse fellow animals is a greed driven lie; much more heinous and harmful than even the

lies of about 150 years ago when America was at war with itself because slave holders insisted they had a right to harm fellow people for their own gain. The question is clear. Shall America be a land of torture or shall America be a land of peace? Hopefully it won't take another war for America to choose peace and realize some semblance of justice.

True Worth

Henry only weighed a couple of pounds when he was born. His soft pink skin didn't offer much protection from the cold steel floor, so he spent all of his time huddled with his seven brothers and sisters when he wasn't nursing. His brother Frankie was weaker than the rest, however, and didn't get much to eat. What he did eat seemed to go right through him as diarrhea. Without the strength to stay in the huddle as it periodically moved, Frankie laid by himself on the merciless floor, and by the second day a man came along and picked him up. But he wasn't there to help Frankie, instead the man swung Frankie violently and smashed his little head into the hard floor before throwing him on the dead pile; stiff with traumatic brain injury seizure and bleeding from his nose.

The next day of what would be a hellish life Henry was awakened by a man picking him up, along with the rest of his siblings, and taking them to another pen. In that other pen Henry heard one of his sisters start squealing, and everybody started moving around looking for momma; not knowing what to do. Then one of Henry's brothers started squealing, then another, then a man grabbed Henry and held him against the floor.

Henry was squealing too, hoping someone would get that cruel, vicious man off of him. But the man put a couple of fingers in Henry's open mouth and held it that way while he inserted some pliers and snipped the ends off Henry's eye teeth. "Help! Help!" Henry screamed, as the man continued by cutting notches in his ears before flipping him around and cutting off his tail too. Ow! that hurt! Little Henry really went to squalling then and kept it up after the man dabbed some iodine on his ears and tail and let go of him, and he ran around swinging his little bloody tail stub in agitation.

About a week later two men moved Henry and his brothers to a different pen. They had only been inside a few minutes, meeting their new penmates, when the horror began. By that time the little pigs were leery of men and they all ran into a corner, trying to escape. But there wasn't anywhere to run, and the men closed in and grabbed one while everybody else ran to the opposite corner. Henry's heart was racing from the thought of being trapped in the pen with those bullies, recalling what savage brutes they are.

Then one of his brothers tore into a blood-curdling scream, the loudest Henry had ever heard, and Henry's heart about leapt out of his throat. It sounded like they were killing him for sure. On and on he screamed for what might have been a minute but seemed like an eternity. Then they let him go and he was still screaming. He ran over to the rest of the group and forced his way into the middle, with his stubby tail swinging frantically and still screaming. Right behind him was one of the abusers, and another of Henry's brothers wasn't lucky enough to get away. And when they cut into him, he was also screaming to the top of his lungs.

Henry was panicking. He was devastated for his brother, and scared to death. He looked about for some way out of there; any way out. But all he saw was steel pipe fencing. He was hopeful someone would hear the screams and come to help, but the gigantic maze of pens was a constant madhouse; somebody was always screaming in there. And he was in a little pig's hell. Over and over the men caught someone, tortured him and then came after another. Henry was pretty smart, he figured out that if he just stayed back by the fence, all the other pigs would shield him from the men and he wouldn't get caught. Round and round they went. The boys that had already been hurt felt lucky to get away with their lives and were terrified they would get caught again.

Henry was doing a fine job of staying away from the henchmen. Round and round he ran. Until ... Wham! a man with a cane-size stick clobbered Henry across the bridge of the nose. To Henry it felt like his head had been knocked off, or at least that his nose was laying on the ground. It must have knocked the sense right out of him, because he just sat there with his eyes closed and head twitching to one side, feeling like his nose was broke.

When Henry got his wits back about him he was penned to the ground again, this time with the cane man sitting on top of him holding his back legs up off the ground. The man was hurting Henry's

back and it felt like it might break. But then came an unimaginable pain that shot through Henry like a bullet. Henry was being castrated! He screamed with all his might. Right then and there one of those butchers was cutting into Henry's scrotum with a knife, and it was slicing right into one of his testicles! The barbarian squeezed Henry's sac and a bloody ball popped out, split wide open like a swollen bean, with blood just pouring out. That mad savage grabbed the cleaved, bleeding testicle and ripped it right out of Henry. And Henry felt like his whole insides were being ripped out. Then the barbarian squeezed his scrotum again and grabbed the other testicle and ripped it out too. Oh! it hurt! It hurt like fire; pain like Henry had never imagined!

All the rest of the day Henry and the other boys hurt. They felt sick to their stomachs and their backsides throbbed with pain at the same time. And Henry's nose hurt from being hit with the stick. It was a hideous experience none of them would ever forget. Unfortunately, it wouldn't be the last brutality they would have to endure, or the last accidental hellish suffering. Little Lenny even had the bad fortune of falling through a hole in the floor. When his front foot hit the hole he fell head first through the floor, and as his back feet caught the floor on the way through he flipped over and landed on his back. Splat! he hit and sank into a sloppy, soupy mix of urine and feces. Lenny righted himself and got his head above the putrid excrement, covered nose-to-tail in that nasty sewage.

Lenny tried to find his way out of the pit, but there was no way out! All he could do was call for help. But nobody could hear him amid the constant cacophony of hundreds, or even thousands of other victims of that concentration camp. The other pigs couldn't help him, and the camp henchmen weren't about to rescue him from the crap trap even if they did hear him. All day and all night Lenny stood down there calling for help. He grew more and more exhausted, and the cries became more faint. Many times exhaustion got the better of him and his head drooped down into the poop. Shit was caked all over his face, it nearly had his eyes matted shut, and it made his head that much heavier.

The longer he went the more his neck hurt with bitter agony of holding his heavy head out of the slop to breathe. With every passing minute it became harder and harder to keep the encrusted slits where his eyes should have been open, and more excrement rained down on top of him. For a while staying upright was annoying and difficult, but as the hours passed it went from challenging, to unbearably painful, and finally to impossible. Lenny just couldn't hold his head up forever. His neck muscles burned and he moved around to stay awake. His muscles cramped, and later still they tremored, and toward the end he lost control between spasms like seizures and his head repeatedly fell into the soup of urine and feces. Exhaustion robbed him of his strength and mental acuity. Lenny sank lower and lower, and trying to stay awake and standing was a long, drawn-out hell that few can even imagine. He was tired like no one could know, but to get even a moment's relief asleep was to die.

He held on. He struggled to stay alive; terrified, with every long moment sheer agony of exhaustion and burning muscles. He held on while it was light and dark, he held on as people passed overhead and then went home to their soft, warm beds. He held on until there was no more power to fight. At the end he couldn't struggle any more. As hard as it had been to will his self awake for so long and hold his head up when it hurt like hell, he just didn't have anything left. He found the impetus for a few more desperate, frantic jerks as his head was going under, and he managed to prolong the suffering with a few more gasps of air. But in the end he went under and hadn't the strength to come back up, even as he sucked acidic urine and scours into his lungs and coughed and breathed some more in and coughed and breathed some more in and coughed and kicked and fought death another half minute. And even after his heart and breathing stopped, every now and again his body mustered the energy for another gasp. And nobody heard his cries, and nobody cared about the hell he went through all by his little lonesome.

Generally, life in that enclosed, sprawling hell-hole of a hog farm was miserable. The air was so nasty it was hard to breathe and constantly aggravated the eyes. The floor was so hard and slick with urine and feces that it was difficult to stand up and not at all comfortable to lay on. Henry's joints were swollen from living every moment on hard, cold concrete and steel. And the darkness, and constant

squealing and yammering was simply maddening. At the farm where Henry lived, his mom, and the other mothers were kept in cruel little gestation and farrowing crates too small to turn around in. They couldn't walk in the grass, they couldn't even walk at all in their coffins of steel and concrete. They couldn't see the sky, or sunlight, they couldn't lay down in comfort, or even see their own tails; and they would never escape, until it was their turn to suffer the hell of transport to the slaughterhouse to be electrocuted; or worse.

The feeder pigs like Henry were bound for slaughter before they were a year old. And not surprisingly, the farm hands are brutal, taking out their unchecked aggression on the innocent victims. Obviously, the pigs are scared and confused and don't know which way they're supposed to be going. They're beaten, poked and prodded with electric rods down corridors and onto trucks. Some are crippled in the process of being beaten and trampled; others are crippled by other accidents and disease. And hog farmers have different ways of treating pigs that can't walk.

First, they'll do everything they can to get them to walk. They beat and whip the crippled pigs and hold electric prods against their skin or stick them in their butts, ears, mouths and eyes. If the pigs are unable to walk even under torture, then they have to be dragged out. At Henry's farm, there wasn't room to get a front-end loader in between the pens in the barn, so downed pigs were dragged out by hand. Sometimes they were beaten to death with pipes and hammers before being dragged out. Others just had a rope thrown around them and were dragged outside to wait until a butcher arrived to haul them off.

It was the cold of winter when Henry was loaded onto the truck bound for the slaughterhouse. Henry and the other pigs weren't used to exercise or strenuous activity, they had never stepped foot on the ground, yet they were shocked and beaten until the truck was practically bursting at the seams. The last to be loaded were driven forward until the pigs in front were buried under a wave of thrashing pigs. One of those buried was squished so hard her intestines were forced out her butt, in an all too frequent occurrence known as rectal prolapse. She did, however, manage to get up, while another pig that couldn't get out from under the pile of frantic flesh died of suffocation.

For those unfortunate pigs pushed up against the outside walls of the trailer, it was a bitterly long ride in the freezing wind. By the time the truck arrived at the slaughterhouse, a few were actually frozen to the walls. There they remained, stuck, after the others had gone down the chute to a holding pen. A little warm water would have unstuck them slick as a whistle. But the truck driver came in yelling and kicking, and the pigs started squealing and struggling. When kicking didn't get the pigs unstuck, the truck driver went to his toolbox and came back with a pry bar.

"I oughta knock you stupid *****'s in the head!" he threatened. And then he went to jamming the prybar in between the pigs and the walls. Sometimes the bar hit the wall, sometimes it hit the pigs. They screamed in agony as he thrust the pointed bar into their flesh, and he wailed even harder. "Get off there you dumbass hog!" he yelled as he pried against the wall. Twice he managed to rip the half-frozen flesh and pull pigs away, leaving hunks of skin and fat stuck against the side of the trailer.

Inside the slaughterhouse, the night shift was getting tired, but the line was still running at full speed. The holding pen and kill room workers were very abusive, and were it possible to be scared to death, they would have been, but they weren't that lucky. Henry's brother Dale was getting really nervous, the smell of blood and strange sounds made him too scared to go in the kill room. A holding pen worker jabbed his electric prod onto Dale to get him up the lead chute. Dale went up screaming and fidgeting. "This ought to liven things up in here a little boys," the stunner said with a smirk as he gave Dale a half-powered shot of stun from the electrocution paddles.

That only stunned young Dale for a few seconds, and he started kicking and screaming when the shackler was trying to get him hoisted. He jerked himself free and 'plop' landed on the kill room floor. That was like jumping out of the frying pan and into the fire. Little Dale was damned if he did and damned if he didn't. The kill room floor was a bad place to be. One of the shacklers swung wildly at Dale with a lead pipe. Dale tried to get out of the way, but Whack! the pipe hit him on the nose,

breaking it badly. Blood came pouring out of Dale's disfigured nose and he took off running ... right into a wall. And the killer with the lead pipe was still swinging away. Wham! Wham! Wham! Dale was spinning as the blows crashed into his head and shoulders. By the time he went down he had blood streaming from one ear and a crushed eye socket. His legs stuck out straight as pegs as the bludgeoning continued on the ground.

"Don't finish him!" the stunner yelled. But it was too late, Dale was dead. "I wanted to have a little fun with him."

The stunner wanted to send Dale down the line alive. At least Dale was finally dead, they couldn't hurt him anymore. But poor Henry was up next at the stunner's station. The electric shock hit him like an invisible hammer slamming repeatedly, 60 times a second, all the way through his body; leaving him paralyzed. By the time Henry could move again he was hanging upside down on the bleed line, just about to be sliced by the sticker! At the last second he kicked and swung wildly, trying to get off the line; almost kicking the sticker.

"Just do your ***** job!" the sticker yelled at the stunner, as Henry passed on by; twisting and running in mid-air, working to free his legs from the painful restraints and get off the conveyor of death. But the line kept moving, hauling him toward a fate worse than death; a torture that would make anyone beg for death. From the time he was a cute-as-a-button baby all Henry ever wanted was the simplest of pleasures: the love of his mother, some wide open room to run, warm sunshine and soft grass under his feet. But all he ever got was contempt and abuse; and now he was headed toward the scald tank!! – a huge vat of almost boiling water that loosened the hair from pigs' skin. And all of Henry's thrashing wasn't keeping him from it: closer and closer the line carried him to the scald tank, and fight as he might, there was absolutely nothing Henry could do to stop this hell. And then that sweet, innocent baby hit that boiling water! Face first he went into the pool of scalding water. The pain was unlike anything one lives to tell about. Poor Henry; never hurt a soul; and there he was being boiled alive and drowned at the same time.

He was instantly ablaze! The pain was so intense it at once flooded his mind and his whole being. Scalding hot water filled his veins, permeated his bones, and ran through his mind like a train of liquid fire; his whole insides were burning like his blistering skin. He screamed and splashed uncontrollably. Scalding water was all Henry knew. Whatever happened before, whatever memories he had, were all gone now. Mind and body were searing liquid. It was all around him, it burned his eyes and ears, his nose and belly, his throat and lungs. There's no words to describe the complete, total, overwhelming and excruciating pain. For more than a minute he thrashed in absolute, horrendous agony. For more than a minute; a lifetime when being boiled; he knew nothing but the most intense, unimaginable pain.

One ...

two ...

three ... the seconds passed like days. Gentle, lovable Henry tried with everything he had, hanging upside down in a lake of fire, and feeling utter pain with every nerve in his body, but there was nothing he could do. Oh! the assault was relentless. On and on the searing, burning, boiling pain consumed him. You cannot comprehend the extreme agony.

Insidious cruelty bubbled his skin, cooked his insides, and disintegrated his lungs... until finally, after what seemed an eternity, death overcame him like a match finally consumed by fire.

Like Dale and Lenny, nobody was there to help Henry when he needed it the most. He never had a friend that could help, nobody cared about him, nobody even tried to help, people laughed and mocked his absolute misery. Nobody but his doomed family even knew him. But the suffering he endured wasn't isolated. Every day nice boys and girls like Henry are brutalized in unspeakable acts of cruelty. People kill many times more animals for food each year in the United States alone than there are people in the whole world.

And to add insult to unimaginable injury, much of that "food" is wasted. How many animals

are killed just because people don't eat what's on their plates? How many animals are brutally killed just to be discarded by restaurants, cafeterias and kitchens as leftovers? And how many more are killed in "safety recalls?" Killing the best of our distant relatives, the innocent earthlings, only to throw them in the trash and bury them in landfills is especially unacceptable today, when there are so many delicious meat alternatives.

And so, the question is simple, what is your role in all this greed and misery? Will you continue murdering the innocents?

The great artist and inventor Leonardo da Vinci was one luminary in a dark world. "I have from an early age abjured the use of meat, and the time will come when men such as I will look upon the murder of animals as they now look upon the murder of men," he lamented. Centuries later, Albert Schweitzer professed that "Until he extends the circle of his compassion to all living things, man will not himself find peace."

Killing is not a pretty business. But it is a business. It's an ugly, bloody mess repeated many millions of times a day around the world. And the procedures of the bloody business of slaughter are driven by greed, and that greed is satisfied by profit. The faster the death lines run, the more money operators make; and the higher the "processing" throughput, the higher the profit. In their continual war with animals, slaughterhouse operators see concern for animal pain and suffering as personal assaults. They could choose controlled atmosphere killing, where animals just go to sleep and don't wake up. They could make humane handling and slaughter a top priority. But they choose not to, money is their only real priority. They choose to wallow in an orgy of blood to turn a little extra profit.

No business operates perfectly. In most businesses, error results in poor service, product defects, and loss of quality. But in the slaughter business, error results in automatic throat slitters cutting chicken legs and conscious chickens going into scald tanks; and cows being hit multiple times with captive bolt guns to incapacitate them, with some going through alive, having their hooves cut off and being skinned while still conscious. Horses suffocate in blood collection pits. Animals on transport trucks freeze to death in the winter and die of heat exhaustion in the summer. An estimated 420,000 pigs are crippled, and 170,000 die during transport in the U.S. every year. Still, that's just a small fraction of the millions of chickens and turkeys crippled and killed during transport every year.

One reason animal "production" and slaughter is so horribly cruel is because it's nasty, underpaid work. While corporate managers and stockholders earn millions of dollars per year, the loathsome degenerates performing the critical job of killing billions of animals are paid little more than minimum wage. Many slaughterhouse employees are illegal immigrants because slaughterhouses don't pay enough money to interest most American workers. The result is animal slaughter being carried out by the dregs of society, like the animal testing industry. The most critical aspect of slaughter, the actual killing performed by kill room workers, is staffed by the lowest of employees. The reasons are simple: no decent person wants to kill animals for a living, only the cruel and unintelligent would want to do that; so the people working kill rooms are either monsters that like to kill or people that don't want to be there. Either way, the ugly, critical task of killing billions of animals is left to barbarians.

Many times unreasonable production policies and poorly designed or maintained equipment that causes live animals to be cut and skinned alive, but in too many cases the torture is intentional. The first heinous abuses perpetrated on animals when they reach the slaughterhouse are performed by truck drivers that try to jerk the heads off chickens and turkeys, cripple larger animals with clubs, and even run over some downers or escapees. Many of them think it's funny to shock the pigs and cattle so much with hot shots that they're too wild for the stunners to work with, which leads to missed kills and more live dissections.

It's not unusual for chickens and turkeys to get their heads and feet stuck in cages, and when that happens frenzied workers break their legs and necks by yanking them out of the cages. Shackling lines move so fast workers have to hustle to keep the line full. The poorly paid workers grab birds by whatever they can get a hold of and hang them by their feet on the line. The combination of low wages,

difficult work, and a very limited hiring pool, leads to high levels of frustration in excitable employees. Shacklers swing birds like baseball bats and slam them against walls, cages and equipment; they kick and stomp chickens and turkeys; pull handfuls of feathers from shackled birds; and even try to tear them in half by their legs. One shackler bragged of “popping” turkeys by stomping them so hard their guts exploded out their butts. Other workers show off by intentionally sending chickens to the scald tank alive.

It’s all a big joke to some slaughterhouse workers. In groundbreaking investigative work Gail Eisnitz revealed some very disturbing behavior and rampant slaughter industry cruelty in the book *Slaughterhouse*. Many workers complained that they couldn’t stop the line for live animals, and production speeds were too fast for workers to kill all the animals before they had their feet cut off, were skinned, or drowned in the scald tank. One veteran worker reported dragging pigs that wouldn’t or couldn’t move with a meat hook in their “bungholes,” and how, as a result, he’d seen thighs and intestines ripped out. Another worker reported how sickening it was to see conscious hogs blowing bubbles in the blood collection tank.

But many workers show no remorse for their heinous acts of barbarity and even brag about their cruelty. To understand how people can behave in manners about to be described, one must understand the low worth and intelligence of such violators and the environment they’re operating in. They live and work in a culture that denies or disregards the suffering of our fellow earthlings. One man reported working with a guy who chased hogs into the scalding tank. Another worker showed a morbid immaturity by taking pride in having a reputation for sucking on eyeballs. Giving such people weapons and total control over defenseless animals is just inviting malicious violence.

A sticker, one of the men responsible for cutting the throats of pigs to “bleed them out,” was quoted as saying: “... A live hog would be running around the pit. It would just be looking up at me and I’d be sticking, and I would just take my knife and – eerk – cut its eye out while it was just sitting there. And this hog would just scream.”

He went on to say: “One time I took my knife – it’s sharp enough – and I sliced off the end of a hog’s nose, just like a piece of bologna. The hog went crazy for a few seconds. Then it just sat there looking kind of stupid. So I took a handful of salt brine and ground it into his nose. Now that hog really went nuts ...”

Another worker from a pork processing plant admitted: “Sometimes, when the chain stops for a little while and we have time to screw around with the hog, we’ll half stun it. It’ll start freaking out, going crazy. It’ll be sitting there yelping.”

Any good person would wonder what kind of evil motivates people to cause such atrocious harm. And one of the workers interviewed for *Slaughterhouse* summed it up rather succinctly, showing what little consideration people have for terrible suffering of their own doing by explaining: “Because it’s something to do. Like when our utility guy takes the ol’ bar and beats the hell out of the hogs in the catch pen. That’s kind of fun. I do it too.”

The slaughterhouse is a brutal end to some miserable lives. Animals killed for a plate have already been branded, de-horned, castrated, debeaked, de-combed, ear notched, tail docked, and otherwise painfully injured on the farm. Some sheep have the skin cut off their rear ends to prevent botfly infestation, and they’re only susceptible to botfly infestation in the first place because they’ve been bred to have extra wrinkly skin to hold more wool. And a lot of farm animals never even make it to slaughter. Broiler chickens and turkeys live in large sheds that often contain thousands of birds. Because health conditions are so poor, the mortality rate is very high. The common method of dealing with sick chickens and turkeys is to club them to death, or even stomp them, or slam them against something, or grab them by the head and swing them around until their necks break or their heads pop off.

Male chicks born on egg farms are often thrown into plastic bags to suffocate or ground up for pet food. In some operations, mating roosters kept with hens have sticks inserted into their nostrils to

prevent them from eating out of the hens' food trough. When the females are old enough to lay eggs, they're placed in tiny wire cages too small to stand up in, where they'll spend the rest of their lives, or at least until they're shipped to slaughter, in a dark room reeking of ammonia. Because the hens are so crowded in the wire cages, their feet actually grow around the wire in many instances.

And always beware the unscrupulous advertisers, keeping in mind the tremendous difference between eggs from "free range" hens and those from "cage free" hens that are crowded by the thousands in filthy sheds similar to "broiler" chickens. And wouldn't it be nice if dairy cattle in California were actually happy as the dairy industry so deceptively claims, instead of having their babies murdered and being artificially milked until their production falls off and they're too sent to slaughter. The biggest con of all may be those lies about milk and meat products being essential to healthy bodies. Any fool need only look at an elephant, giraffe, rhinoceros, race horse or rabbit to realize that eating the flesh of another isn't necessary for robust health.

Dairy cows lead lives of servitude just a little better than egg laying hens. From the time they're old enough to breed, they're kept on a cycle of pregnancy. Much of their lives they spend lugging around an unnaturally large, uncomfortable udder, and spending twice a day on the slick, feces covered, concrete floor of a milk barn. When their milk production declines, they're impregnated again. When consistent milk production drops below a certain level, they're shipped off to slaughter.

Calves are taken from milk cows when they're only a few days old so people can drink the milk that would naturally go to the growing babies. Some female calves are kept to become milkers but most calves will be slaughtered at a young age. Many of those will be veal calves. Veal calves are kept in small stalls, often too small to turn around in. In addition to being tightly confined to minimize exercise, they're also kept anemic to prevent their little muscles from getting tough, until they too are shipped off to slaughter, to be "harvested" like a grain of wheat.

Like the veal calves, foie gras geese are also manipulated to produce a distinctive food. They're force-fed through tubes shoved down their throats to produce an extra fat liver known as foie gras. The forced-feeding is so severe that the stomachs of some geese rupture from being overstuffed with food.

Of course, farm work for near minimum wage is also far from desirable employment, and beatings on farms are commonplace. Almost all farm animal abuse goes unreported and unknown by the public. Even when a person is courageous enough to document vicious beatings and other abuse like drownings, local authorities in farm country often won't do anything about it. Prosecutors won't enforce the meager laws that are on the books, and judges don't want to hear animal abuse cases. Everyday people are getting away with beating, shocking, starving, drowning, kicking, stomping and hanging farm animals. And there are the malfecant that take brutal abuse to levels of pure sadistic torture like those that skin pigs, rabbits, dogs, racoons and other animals alive.

Yet where is the outrage? It's still muffled by the inherent selfish nature of people, and by the strong-arm lobby of the animal exploitation industry that has succeeded in passing ag-gag laws in numerous states and labelling animal welfare advocates as terrorists. Members of the beef, pork and chicken industries vow to fight attacks on their "livelihood". But these characteristics they defend aren't like genetic traits such as brown eyes or curly hair, they're greedy, evil choices. Meat producers choose to put profit ahead of ethics, they choose to hide the barbarity with lies instead of doing what's right. They could just as soon grow beans, but they choose to murder and then act like they have no choice at all and their "livelihoods" are in jeopardy. Well there are lives at stake, billions and billions of innocent lives, made miserable and snuffed out by an evil industry and culture of greed.

The motivations are simple. On the one side stands an elite minority of the population with the wisdom and courage to grow beyond themselves, on the other side are people in varying stages of immaturity that take pride in their own greed and lack even basic intelligence of understanding. Where the public sees no apparent personal gain, it forbids some brutal abuses such as bullfighting, dogfighting and cockfighting. But it's not just dirty laborers that take pleasure in causing animals to mutilate each other, even the wealthy and famous, like NFL quarterback Michael Vick, are willing to

risk his career and reputation for dogfighting. That's why good parenting is so important, if children aren't taught to be considerate, they're often too dumb to learn on their own. Rap star Busta Rhymes was reported to have bragged to Vibe magazine how he tortured mice caught on glue traps: "We used to stick burning cigarettes in their bodies, watch them wiggle til they just stopped moving. Can't live in the crib and not pay some kind of rent." With role models like that in popular culture, it's critical that the birth rate be brought under control and parenting skills more carefully considered.

Unfortunately, deranged people are continually coming up with more ways to showcase their barbarity, like the recent popularity of people setting killer dogs loose on pigs and other animals. It's all part of a cruel culture that's seen a surge of thousands of private hunting resorts in the U.S., with many offering "canned hunts" of exotic animals like giraffes, lions, zebras and rhinos and less expensive targets including deer and goats. Those animals are shipped in from petting zoos, circuses, farms and roadside attractions to be hunted in pens.

Hunts consists of such "sports" as shooting a declawed leopard hiding under a truck, and shooting a domesticated tiger as it sits under a shade tree. Pinned deer and goats often approach the "hunters" thinking that it's feeding time, only to be chased around the enclosures by bow and arrow wielding idiots that are all excited about having the opportunity to kill something, as they fire arrow after arrow into terrified victims standing in a corner of a pen bleating for help. So scared, they're shaking, it takes a long time for the innocent babies to bleed to death, or become so incapacitated that a hunter can try to cut its throat, often resulting in a nasty cut that's too shallow to sever the carotid arteries and the goat is left gasping for air through a bloody, gaping hole in its neck. Bowhunting in particular is a gruesome practice. Outside of enclosures where domesticated animals can't escape their pursuers, bowhunters wound more animals than they recover. Some of the wounded animals may live for a while with an arrow hanging out of them, but they're generally doomed to great agony until they finally succumb to the injuries.

That leads one to wonder why there are special seasons set aside for archery, black-powder guns and other archaic weapons. The answer to that question is simple: state conservation and wildlife management departments are little more than hunt-clubs funded by massive sums of taxpayer money, managing hunts on public lands, and assisting landowners to proliferate murderous activities. Those agencies exist to supply men with recreational killing opportunities. It's outrageous that they should stock and maintain animal populations to enable hunters and fishermen to enjoy "sports" of bloodlust; and like animal testing and farm subsidies, it's even more infuriating that they are doing so with money extorted from taxpayers very much against the barbarity.

To take pleasure in maiming and killing is purely evil. But people should also be on guard for less intentional harm. There are even times that people don't realize the harm they're causing. Take for instance the purchase of a puppy or kitten from breeders, also known as kitten and puppy mills. If people would only stop and think about the consequences of buying from breeders, they'd quickly realize that the number of dogs and cats killed in pounds and shelters, shot as strays, drowned, stabbed or beaten to death is directly related to the number of puppies and kittens produced by breeders.

That simply means that for every puppy or kitten bought from a breeder, an unwanted puppy, kitten, dog or cat is "knocked in the head," shot, drowned, or poisoned. Some of those homeless pets are even doomed to suffer at the despicable animal torture labs. Clearly all commercial breeding operations should be immediately halted, and no purposeful breeding should be allowed until every stray is off the street, no more homeless cats and dogs are being euthanized, and every last shelter is empty. The most logical solution is to simply remove the motive of greed by prohibiting the sale of dogs and cats. Just as easy as that, the killing of millions and millions of homeless pets every year could come to an end.

Millions of dogs and cats killed, health defects caused by selective breeding and large financial, labor and time burdens imposed on good people trying to stem the pet overpopulation crisis underscore the importance of being mindful of the effects of greed. But of the greatest concern by far is the

intentional torture and callous abuse inflicted by evil demons that is so pervasive that it's spearheaded by the federal government. It's most imperative that the heinous, black-hearted monsters of the world be stopped from inflicting terrible pain on innocent victims, and spreading their infectious poisonous attitudes.

"We have enslaved the rest of the animal creation," William Ralph Inge said, "and have treated our distant cousins in fur and feathers so badly that beyond doubt, if they were able to formulate a religion, they would depict the Devil in human form."

How many times has it been asked what is the worth or value of a life? Despite the same origin and billions of years of living together, extreme selfish greed and ignorance has led people to proclaim human life superior to that of our other animal relatives. And, while more noble, there are those that say all life is equal; but is that true? Most certainly it is not.

Pleasure is the value we inherently seek for ourselves, but **true worth** of what's good and fair is an individual's effect on others. When considering the pleasure or pain we cause others, it becomes abundantly clear not all life has a net worth. There's no overall benefit served by mosquitos, fleas and virus's; just as there's no net worth in the vast majority of people.

What's the worth of a man that tortures his fellow creatures? One innocent life is worth more than all the cruel, malicious killers combined. More telling for most, it should be asked what's the worth of an average American whose appetite is responsible for the death of 16,000 animals, not to mention all of the other animals he harms and kills for fun, fashion, mining, transportation, habitat destruction, pollution, "nuisance" abatement, etc? Even the butterflies smashed across our windshields, and worms squished under heavy equipment, are lives that matter; they are individuals we dearly wronged. And we can't undo the harm we've caused; just as being nice to a dog in no way undoes the abuse and butcher of a pig, a pig that longed for love, peace and happiness just like us. We can't undo his murder and make things right, but we can prevent more murders like that and make life on Earth better.

For every monkey that sits alone in a metal cage, poisoned to the point it's tail literally rots off, shaking from a combination of fear, sickness and cold; and for everyone like Henry being castrated without anesthesia, sleeping on a steel grate floor, and beaten on his way to a gruesome slaughter; the consequence of individual decisions couldn't be greater. Every personal victory over greed, every decision to not eat, wear, abuse or torture our distant relatives, means the world to that fellow earthling spared the misery. And the fact our everyday decisions literally mean the world to innocent babies is an awesome responsibility.

Though we're killing this planet, mankind's greed is still celebrated by defining "progress" in economic terms of increased production and consumption. It's as if we're winning some race to transform paradise to wasteland by cutting down the forests and chasing animals from their homes so we can dig up, pollute and pave over the land; choke the rivers with dirt and trash, and fill the oceans with poison and plastic. As an example of our wanton consumption we use about 100 million barrels of oil each and every day worldwide, that's roughly 36 billion barrels, or 1.5 trillion gallons, of oil consumed each year, with the United States making up about one-fifth of that total. And that's in addition to the 7 to 8 billion tons of coal we burn each year.

Yet while we destroy the home to the only known life in the universe, we seek paradise in a land of fantasy, even though the reality of here and now is all we really have. And no true loving god would give everlasting reward and an unspoiled world to people that have been so cruel and made such a mess of this one. If there was a just, all-powerful lord, then all that one wished for another would be manifest on himself. But in reality life on Earth is being savagely brutalized by selfish people and would be better off without the horrible disease of humanity.

There is however, despite the overwhelming cruelty of the majority, a special group of people working for a legacy of love and consideration. And those altogether rare true heroes, not the common false heroes celebrated in a society with no true value that get paid to wear uniforms, but the real

heroes that freely give their time and energy to help the innocent, deserve special thanks for their sacrifice.

When it's all said and done, fairness asks but one thing of us, always do what's right by protecting the innocent from harm. And in the end we're only as good as our actions: for True Worth has no measure in riches, only kindness.