

SUMMER 2006

# TANGENTS

THE JOURNAL OF THE  
MASTER OF LIBERAL ARTS PROGRAM  
AT STANFORD UNIVERSITY



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John Devine, Nancy Krajewski, Denise Osborne,  
Loren Szper, and Bryon Williams

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VOLUME 5

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## PUBLISHING NOTES

This is a publication featuring the work of students and alumni of the Master of Liberal Arts Program at Stanford University.

### *Editor*

Oscar Firschein

### *Assistant Editor*

Lindi Press

### *Reviewers*

Oscar Firschein

Mary MacKinnen

Lindi Press

### *Faculty Advisor*

Dr. Linda Paulson

### *Original Design*

Suzanne West

### *Layout of Current Issue*

Geoff Ahmann

Principal

AKA – Ahmann Kadlec Associates, Palo Alto, CA

### *Contributions*

Contributions to support the production of *Tangents* can be sent to the attention of Dr. Linda Paulson, Stanford University, 482 Galvez Street, Stanford, CA 94305-3004. Please make checks out to Stanford University and clearly mark "For *Tangents*."

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Wyoming horseback photo by Nancy Krajewski.

## LETTER FROM THE EDITORS

We are proud to present this issue of *Tangents*, the journal of the Stanford Master of Liberal Arts Program. For the fifth edition we have chosen a diverse group of works by students and alumni, including:

- ✦ A story about two brothers and a powerful horse
- ✦ Three quite varied poems
- ✦ To celebrate the centenary, William James's observations about the San Francisco earthquake
- ✦ Some thoughts about marriage in *The Odyssey*
- ✦ A discussion of the 1832 Parisian Cholera epidemic
- ✦ An analysis of the effects of technology on society
- ✦ And—for the first time—personal essays: one on Kierkegaard, and one on Rodin's statue set *The Burghers of Calais*.

We are indebted to Theda Firschein for her contributions as a reviewer and proofreader.

Be sure to read about this issue's contributors on the last page. We hope that our choices will give you hours of enjoyable reading—and that they will inspire future contributions.



*Then there were two short, cracking sounds, like a double-barreled shotgun blast, followed by a most God-awful, almost human scream...*

*The half-blind horse and the terrified boys faced each other.*

by Andy Grose

"Today's the day," Toad announced to his brother, Pete, who was still buried deep under the covers of the bed they shared.

"For what?" Pete asked, sleepily.

"You know what for," Toad said. "For my tooth."

Toad was sitting up in bed, playing with his loose front tooth, as he worked his toe into Pete's armpit, tickling him more fully awake. The tooth moved easily in his upper gum, and when he pushed it with his tongue he could feel the rough edge where the root had dissolved.

Toad had already turned six, and he was tired of being baby faced. He wanted his own new teeth, big square teeth, like eight-year-old Pete.

Pete unwound the wrinkled sheet from his knee, rubbing his foot. As the numbness slowly turned into tingling he propped himself up on two feather pillows.

"Look, Pete," Toad said, holding his open mouth over Pete, mumbling and spraying, "thee, i'th 'weady."

Toad had been trying all week to make his first loose tooth come out. He tried biting into apples, and chewing a whole pack of gum at once. The tooth was too loose to stick in the apples, and chewing gum made it hurt. It wiggled but held fast.

"Give it time," his mother had said. "It's a baby tooth, you know. Babies don't come out until they're ready."

"Try these," his father had laughed, offering him some old pliers. But Toad didn't want to break the tooth. He was going to leave it for the tooth fairy.

Toad dug his toes in harder, rocking his brother back and forth. "You promised you'd help, Pete."

Pete yawned as he swung his feet into the patch of sunlight dancing through the lace window curtains onto their battered brass bed. His toes were almost all awake.

"Well," Pete said, "did you get the silk thread?"

One of their classmates had told the brothers you could pull a loose tooth out with a silk thread.

"Scout's honor," the boy had said, "silk. A silk thread will do it every time."

After breakfast, the boys looked all over the house for something silk. They pulled at the hem of their mother's petticoats, but all the strands broke. They found an old necktie—one their father wouldn't miss—but its threads were too short.

Finally they discovered a spool of black button thread in their mother's sewing basket. It shimmered like the neckties. It felt strong. Pete looped one end carefully around his little brother's front tooth and tied the other end to the glass knob of the bedroom door.

"Shut your eyes, Toad," Pete said.

"Okay," Pete said, bracing himself on the lumpy mattress with both hands. But when Pete slammed the door, it only jerked Toad onto the floor.

"Not silk, I guess," Pete said.

Toad sat on the floor with his upper gum bleeding, the tooth still in place. His eyes filled with tears as he looked up at Pete, whose first tooth had come out all by itself, while they ate chili. Just landing on the table, sitting there like a white bean.

As Pete worked to untie the thread, his square white front teeth filled Toad's eyes. Toad studied the fine lines running down the front of them, admiring their perfect bottom edges, each one crowned with its own row of neat pearly bumps. Even teeth had teeth, Toad thought, sadly, to himself.

But when the string was finally off, he frowned at Pete and said, "Who wants horse teeth anyway?"

Pete was quiet getting dressed, and while the two of them tossed the bedding from the floor back onto the old four-poster.

"Horse tails are made of silk, I think," Pete said. "The saints made shirts and stuff with horsehair."

Toad pondered on that for a while. Then with a broad, bloody smile, he said, "I almost forgot about horse silk."

The only horse the brothers knew, Patsuras, belonged to Gus Ludokus, who lived across the street, beyond Rex McAdams. Last summer, their father had hired the horse to harrow their field, before seeding it with alfalfa. The boys rode on the steel-toothed harrow to weigh it down as it bounced along, chewing the fresh-plowed clods into soft soil. Jumping off to clear the larger stones unearthed by the giant square rake, sometimes digging them from between the harrow's rusty fangs with a small crowbar.

Their father paid them a penny a stone. Better yet, they got to keep the rocks, which they piled at the far end of the field, saving them to build a fort. They earned over a dollar. But the money was soon gone.

A nickel for gum, another for candy. A whole quarter lost somewhere riding their bikes. The last dime went into the church collection.

"We still have the stones," they agreed, with satisfaction.

In the boys' eyes, the rocks were buried treasure. They were beautiful, one was speckled with quartz diamonds that glittered in the sun, another was flecked with what might be gold. But best, they were full of mystery, with marks that could only be writing in a secret code.

Even the name Patsuras sounded magic, fit for an ancient pirate, though the boys knew the horse had been named after a small town in Greece. Mrs. Ludokus talked about it all the time. The beautiful, mountain town where she grew up as tiny Angeliki Xenopoulos. She left home at thirteen, to become a bride in America. The bride of a man she had never met, who chose her from a handful of smudged photographs on the same day he picked up his first pay check as a mine helper.

Mrs. Ludokus, Angie to her friends, preferred to talk about her past.

The boys loved her stories. She made her hometown sound like Troy, fabulous with kings and feasts, as she told them of her childhood on its rocky slopes. Her stories filled the boys' imagination as they played in the hills outside their own small town, where they could be the pirates and Greek kings.

Patsuras, the place, would always belong to Angie.

But Patsuras the horse belonged to Gus, whose rule with wives and workhorses was clear, "Obey or else."

The boys and even the neighbors tried to avoid Gus.

But, Patsuras was a horse for hire, and she got hired for the hardest jobs, those that required power. Like pulling stumps, or dragging harrows through stony earth. Gus got top dollar for her.

They knew from their parents that Angie never saw a cent of the horse money.

"She probably never asks," their father said.

"Afraid to," their mother said.

"Strongest horse I ever saw," their father said.

Other horses, he told them, would buck and kick, biting at the harness straps when they cut in.

Patsuras only flexed, and pushed with her great haunches, never breaking stride, the skin rippling over her muscles like living brown bark.

Patsuras fascinated Pete and Toad.

When their father hoisted them onto her back at the end of the day, to wipe her down and to loosen

the reins from her collar, she stood calmly smelling them. With her neck flexed and her head rolled back, she would let the boys rub her ears. Soft fur on the back, with fine feathery edges. Warm and silky smooth inside. Her shoulders glistened, but the boys could see a cobwebwork of scars across her haunches, where she had been whipped. They ran their fingers over the tangled pattern that half obscured the crude brand, "G.L."

The horse brought the boys their hidden treasure. She brought Gus his beer money. And a stake in the card games he played. Sometimes he would be gone for days drinking and gambling.

Patsuras's corral was shut, but the boys unwired the gate to get in.

"Dad says she's twenty hands high," Pete said, studying the horse.

Toad held his hand at arm's length, measuring it against the horse. She seemed to fit in his open palm. Patsuras cocked her head to smell the boys, recognizing them. Her broad chest widened over them. As she snorted, her silver mane fell across her dust-gray eyes, the right one long since clouded by an injury.

Their plan was to distract the horse, and steal a tail hair. A horse-silk tail hair.

Pete climbed atop the hay trough against one side of the stall, standing on his toe tips to hold an apple to Patsuras' lips. She took it after one quick sniff, snapping it in two with her giant incisors, rolling one half back with her great tongue, and crushing it loudly between her molars.

"Hurry up," Pete said, "before I lose a finger."

As Pete fumbled with the other half, the horse shifted her weight, shaking her massive head impatiently, and nudging Pete, who twisted trying to regain his balance. But his foot slipped, and he pitched forward into the stable. Pete lit with a muffled splash, sliding across the fresh pee-soaked manure. As he rose to his hands and knees, green straws and clods of manure clung to his chest and face.

"You dropped the apple," Toad cried, mockingly. "But I got the silk." Toad ran from the corral, laughing and trailing the long white tail hair. Pete tore after him, slamming the gate aside, and spooking Patsuras.

Not thirty feet from the gate, Pete tackled Toad, landing on him hard and wasting no time rubbing manure down his little brother's neck.

"Here's your lunch," he said, forcing a pinch of wet brown crud in past the loose tooth.

Patsuras almost tripped over the brothers as she loped down the path, one great front hoof striking Pete, then folding back as she broke stride. Her hind legs grazed over their backs as the frightened beast, staggering to regain her balance, headed across the street into Mabel Soddlemier's apple orchard.

The boys stopped fighting and sat up.

"Ludokus will be mad as hell," Pete said, picking manure from his blond hair. The air was still, and the boys could hear Patsuras champing on apples, and breaking branches to reach the higher ones.

"If she gets sick on apples, he'll whip us," Toad said. He stretched the sleeve of his t-shirt to clean his mouth. His tooth was still in place.

Then there were two short, cracking sounds, like a double barreled shotgun blast, followed by a most god-awful, almost human scream, unlike anything they'd ever heard before. It had come from the direction of the orchard.

Both boys jumped to their feet, looking for the source of the sound.

"Where's Patsuras?" Toad asked.

Pete shrugged. The horse had vanished.

Then Pete and Toad heard faint splashing sounds.

The boys crept into the orchard cautiously, moving from apple tree to apple tree. Far off, they saw someone running toward them.

"McAdams," Toad said, relieved that it was not Ludokus.

"Probably drunk," Pete said.

As they got closer, they could see the ends of several rotten planks poking at odd angles into the air, ringing a large hole. The planks plunged down into the hole itself. One was creased with deep gouges, where the moldy wood had been ripped away. A long nail was visible half way to the murkiness below. Hanging on it was what looked like a long strand of silver hair.

"Patsuras?" Toad whispered into the darkness.

The horse, hearing his voice, snorted back softly.

McAdams, staggering only slightly, held each boy by the belt as they took a turn leaning out to squint into the hole. It narrowed as it deepened. At the bottom, about twelve feet below, Patsuras was struggling to keep her head above a greenish scum. Her kicking had stirred up a slimy foam. The stench made them turn away.

"Old cesspool," McAdams said, gagging.

"Will she drown?" Toad asked.

"Probably," McAdams said. "Shitty luck. Even for a horse."

Afterward, the neighbors would all talk about the day.

None of them, not even McAdams, had heard the planks shatter.

But no one missed the awful scream.

The boys' parents at the breakfast table, their forks frozen in midair, steam rising from plates of scrambled egg, had been paralyzed by it, as immobile as tombstones.

The priest, alone at mass, just beginning the consecration, intoning the ancient words, "Hoc est enim corpus . . ." had lost his place, something that he had not done for years. And, just as he began again, he heard the firebell. He had done his best to hurry, rushing his communion, swallowing the host whole, flinging the unwashed chalice into the tabernacle, fleeing the church still cassoaked, to search the sky for smoke. Only this time there wasn't a fire.

The old clerk at the store would laugh about how his bloody thumb accidentally caught on the corner of the meat scale, making the pot roast bounce off onto the floor.

Miss Gray, Toad's schoolteacher, who always pretended not to notice the butcher's thumb, would laugh about it, too. About how they raced to ring the firebell.

And how she could still hear the scream.

But those stories came later.

In the moment, only Rex McAdams, his head half inside his icebox, rummaging through rotten lettuce and dry cheese, looking for more beer, recognized the sound for what it was. Banging his bald head on the door, cursing that he hated animals, McAdams had run straight toward the crisis.

The fire truck arrived in minutes, the old clerk hanging from one side, his ears blue from running, and years of cigar smoking. Miss Gray, her hair a mess from wrestling with the firebell rope, rushed up moments later. The boys had never seen her so upset.

"Is anyone hurt?" she asked McAdams, searching his eyes.

"Better ask Patsuras," he said, nodding toward the septic tank.

Everybody had a different plan. The fire department, if it could be called that, was an all-volunteer affair, and each volunteer—especially in times of crisis—acted as the captain.

"Too rocky to dig a ramp."

"Maybe she has a broken leg."

"Better get Ludokus."

Patsuras, for her part, was managing to keep her head above water. Barely.

While the men argued, the boys' father backed his tow truck, the one he used to haul cars to repair shops, across the orchard, maneuvering the heavy double wheels between the trees. But as he neared the lip of the cesspool, a large slab broke loose, falling into the hole. Hearing the earth give way, Patsuras looked up just as an avalanche of dirt and rocks washed over her. One of the larger rocks, the size the boys hauled from the field, struck her on the snout, cutting her badly, and knocking loose her front teeth. A shower of fine soil settled onto her, coating her mane, and filling her ears.

"No good," their father said, turning off the truck, and looking at the boys.

"A horse needs room to swim," one fireman said, "She can't tread in place for long."

"She should have been a duck," someone said.

"Damn strange duck," another said, laughing as if something had been funny. "Maybe all that brown stuff is horsefeathers?" he added, bringing a few chuckles.

The boys had never heard of horsefeathers.

"We're going to need a scaffold," someone said. "To get out over her."

"To hoist her out." Finally an idea was catching on.

"We need lumber!" someone cried, as the idea gained steam.

"Big beams."

"Hurry!"

Two men jumped into the tow truck with their father, and sped off to get material for the scaffold. Others pulled away the broken planks. When Toad could finally glimpse into the hole, he saw that Patsuras had tromped the sand and stones into the bottom of the tank. She stood silently, still deep in the ground, all but her head and neck submerged.

After the fire department arrived with its army of captains, Rex McAdams had been watching things from the comfort of a rusty lawn chair he had drawn up, sipping slowly on can after can of beer. One can remained from a sixpack, resting on a second chair.

From time to time, Pete saw McAdams turn his head as if there were someone sitting beside him. Rex would laugh and make comments, too soft to be heard by the men working to save the horse.

As the tow truck left, the priest arrived, still in his cassock. He walked directly to the septic tank. Standing on the very edge, nodding rhythmically, he sprinkled holy water down into the hole, mumbling to himself something that the boys took for Latin.

"Holy shit!" McAdams shouted out, when the priest finished. Everyone turned, but the priest just smiled and came over to stand by McAdams, who offered him the last beer. To the boys' amazement, the priest took it, and settled onto the other lawn chair.

"What a circus," McAdams said to the priest. "It's only a damned horse."

"Not anymore," the priest smiled, sipping on his beer.

"Just fill the hole," McAdams yelled to the firemen.

"Alive?" the priest asked.

"Of course, alive," McAdams said. "If they hurry."

By this time, several of the men began to talk among themselves, standing off to one side. A few others had drifted away. No one was making jokes.

"Does anybody have a gun?" one finally asked out loud.

Through it all, Mabel Stoddlemier had been standing on her porch alongside a pale Angie Ludokus, chatting with the boys' mother. Watching. Waiting.

"Well, Mabel," one of the men finally said, "She's on your land. It's up to you."

"True, dear," Mabel said, after a pause. "She is indeed. But, dear, she still belongs to Gus. What would Gus do, I wonder? And where could that dear man be?"

Angie, who seemed not to hear, just looked away.

Then the tow truck returned with a load of wooden beams, and the men all rushed back to the rescue.

Night fell with Patsuras still trapped, mired up to her neck, her hind legs and body cramped behind her, the men all exhausted, the scaffold only half built, and Gus Ludokus nowhere to be found.

Toad watched McAdams struggle to stand up. Folding his lawn chairs as he went, he wobbled across the orchard cursing under his breath as they caught first on an apple branch, then on the fence. He kicked the picket gate open, before tromping off heavily along the irrigation bank towards his house. The chairs clattered and banged in the growing darkness, but he made it across the street without falling, and soon he had vanished into the weedy field around his shack. Behind him the ditch bank, crushed by his booted gait, began to ooze the irrigation water that had been waiting there, forgotten.

"At least he didn't fall in, too," Pete said to Toad.

But ten minutes later, to everyone's surprise, McAdams was back, waving an old long-handled shovel.

"This is all you need," he shouted at the men working on the scaffold. He stuck the shovel into ground, but seeing Pete and Toad, McAdams whispered almost apologetically, as he staggering off for good, "I'd do it myself, but I'm a little drunk."

Everybody went to bed to wait. Some for morning light to get back to work. Some for Ludokus to come home. Most for what now seemed inevitable.

The priest left the church open, in case anyone wanted to pray.

Their father left a lantern hanging from an apple tree.

The boys said their prayers together, under the covers, still fully dressed.

"Do horses have guardian angels?" Toad asked.

Pete thought for a while. "There are good angels and bad angels, for sure, because bad angels lose their wings. That's why they fall."

"I heard about fallen angels," Toad said. "Hell is full of them."

"I don't know about horse angels," Pete said. "We haven't studied them."

"Oh," Toad said, somberly.

"Noah had two horses on the ark," Pete said.

"Yea," Toad said, closing his eyes. "Does that mean there's a horse heaven?"

But Pete had to admit he didn't know.

Finally the boys fell asleep, their window open to the troubled night.

About four in the morning, the irrigation water that had been seeping from the ditch suddenly became a steady flow, running across the orchard. The thirsty ground drank it all at first. But when the ground was satisfied, the sheet of water found a fresh-shoveled channel leading to the tow truck tracks. They, in their turn, running side by side, led the water straight toward the septic tank.

Nearer the side of the hole, where it had caved in, the water gurgled, gathering speed, forming a waterfall and drenching Patsuras with rocky mud and silt. Her front legs soon lost their place, and she again tried to swim. Seeking some path that allowed forward movement, fighting to keep her head above the muck, kicking frantically, Patsuras turned in a slow, ragged circle, scraping her muzzle along the gravel walls, banging her loose teeth painfully with every kick.

The water level rose steadily. As it did, the horse rose with it.

When the hole was full, the water again flowed off silently across the sleeping orchard. Patsuras could finally rest her front hooves again, this time on the crumbly lip of the tank itself, to support her quivering body.

Several times she tried to pull herself out, but she was too tired, her skinned front legs too weak to drag her massive body. The horse's nostrils flared with the scent of the fresh night air, sweet with the fragrance of the apples still hanging on the trees all around her, out of reach.

She whinnied softly before letting her head drop onto her forelegs.

Pete and Toad both sat up, hearing something.

"Was that an owl?" Pete said, throwing back the covers.

"No way," Toad said.

The lantern light gave a flickering green glow, making long shadows everywhere. They saw the cat high in one tree. Then they saw something rising from the hole. It was one of the horse's ears, white and still, above the rim of her death trap.

"Is she . . ." Toad whispered, ". . . dead?"

"Only one way to find out," Pete whispered back.

The ground, soaked black with irrigation water, gripped their feet, making a sucking sound with each step. Pete tied a rope the firemen had left to Toad's waist and wrapped it around an apple tree, to keep him from falling in. Toad eased toward the lip of the hole. The muck in it, even diluted by the irrigation water, was still lumpy.

Toad reached out to touch the horse's neck, but his foot slipped in the mud and his hand bounced off the horse's battered nose, slamming into the loose teeth.

Patsuras, seized by sudden pain, whipped her head wildly. Her front legs caved in a new section of the edge and her weary body sank back down under the slime. The horse thrashed frantically, trying to regain the surface, banging hard against the walls, until at last one massive hind leg caught on the side of the pit, where the water had softened it.

Then, after several clawing kicks, her other hind leg caught the muddy wall, and her head emerged.

The half-blind horse and the terrified boys faced each other.

The scum streaked surface calmed, rippled only by the horse's panting. Then Patsuras shut her eyes, coiling her neck, and slipping beneath the mire, leaving only a slow, shallow swirl.

"Don't," Toad said. "Please don't." The swirl came to a stop.

Pete pulled his brother back toward him with the rope. Just in time.

The scum shuttered, then exploded.

Patsuras erupted from the water, scrambling up the rocky side of the eroded hole, falling to one knee, and finally lurching out into the lantern-lit orchard.

She shook herself like an enormous dog, sprouting two huge arching wings as the wet muck flew from her sides, sparkling silver feathers in the lantern light, swarms of falling stars floating back from the sky to tinkle through the apple trees.

Patsuras snorted dirty water from her nose, and she began to cough.

One of her loose front teeth flew free, striking Pete in the chest.

She sneezed a few times, her nostrils flaring, her head rolling to sniff the air. Catching the smell she sought, she looked once more at them with her good eye, then she limped off, wingless once more, toward her stall.

Pete handed the tooth to Toad.

As the brothers turned to go inside, Pete caught a faint light off beyond the irrigation ditch. A tiny red glow flickering through the black night sky.

Like when McAdams flipped his cigarette.

But by the time Pete poked Toad to look, nothing was there.

Back in bed, Toad slipped the Patsuras tooth under his pillow. For the tooth fairy.

He checked the horse silk looped around his own front tooth. He rolled the rest of the tail hair carefully into a ball, tucking it inside his cheek like gum, safe for the night.

"Tomorrow, Pete," he muttered, sleepily.

"Tomorrow for sure."

But Pete didn't hear him.

He was staring through the lace curtains, wide awake, watching the apple trees sway in the lantern light, studying the long shadows, thinking about the light he had seen fluttering away.

Wondering why horse angels were red.

And if they had silk feathers.



Perhaps no text has been more influential on the Western mind's understanding of the origins and nature of divine punishment for human transgression than the opening chapters of Genesis. The Hebrew Bible's stories of the expulsion from Eden and of the flood have codified the idea that disastrous punishments, and even total destruction, are the judgments of a righteous God upon a wicked and disobedient humankind. Genesis is not the West's earliest account of creation and divine anger, however, as it has its own origins in older accounts from ancient Mesopotamia. *Atrahasis* is a poem that served as a source for *Gilgamesh's* flood narrative and for Genesis's creation and flood stories; the poem's title hero (whose name means "extra-wise") is a Noah prototype, the sole human selected to survive a destructive flood sent to wipe out all of humanity for offending the gods. Placing the central episodes of the poem back into their original contexts — and thereby removing them from the highly moral and ethical sensibilities of the Hebrew framework for which they were borrowed — allows us to examine with fresh eyes the essential nature of the behavior for which humans are punished. Such an examination reveals that the humans' offense that draws divine wrath in *Atrahasis* is *not* primarily one of sin or disobedience; rather, humans are too successful at fulfilling the very purposes for which they were created. Unlike its Biblical counterpart, the *Atrahasis* poem presents a humanistic conception of a fundamentally innocent humankind with an essential role in the operations of the world.

The *Atrahasis* epic is unique in being at once among the most recent and ancient of texts. In terms of exposure to modern readers and scholars, it is a latecomer on the scene of ancient Near Eastern texts. Although one of the three tablets was discovered in the mid-19th century, the first and third tablets were not recovered until the mid-20th century, and no complete edition of the poem was published until 1969. While late in this regard, the poem is one of the oldest and perhaps most influential of all literary texts; composed in the 17th century BCE, it predates by far both the canonical *Gilgamesh* and the earliest Biblical writings. Scholarly consensus acknowledges the debt owed by the later texts: "The dependence of the Biblical story upon the Babylonian to some degree is granted by virtually all schools of thought" (Finkelstein 363). The recovery of a complete version is regarded as potentially monumental, as "we now have available to us the Sumerian-Babylonian model for that

# A FLOOD OF MISBORROWING: SIN AND DELUGE IN *ATRAHASIS* AND GENESIS

by Bryon Williams

section of the book of Genesis that begins with the Garden of Eden, the creation of Adam and Eve, and ends with the story of Noah and the Ark" (Kilmer 169-70). The older narrative nonetheless reveals a conception of divine punishment that is in crucial ways startlingly different from that of the Genesis authors.

The poem's opening lines — "When the gods like men/ Bore the work and suffered the toil" (Lambert 43, lines 1-2) — thrust us into the epic's distinctive context. The narrative opens in the distant days before humankind, when gods were required to do the work necessary for the operation of the world. This divine world, in both structure and activity, reflects the thoroughly agricultural concerns of the human culture that produced the myth. We find out immediately (lines 5-6) that a managerial class of gods (the Anunnaki) forces a laboring class of gods (the Igigi) to do the backbreaking irrigation work that is required to feed them all. Such an organization mirrors that of Mesopotamian society; extensive irrigation systems and surpluses of food meant that certain people were freed from the need to work in the fields. Soon came the stratification of society into powerful

classes that controlled water-supplying canals and laboring classes that "suffered the toil" of producing and maintaining the food supply. After forty years of such toil, the Igigi declare a strike (setting fire to their tools, spades, and hods) and storm the dwelling of the powerful god Enlil, creating a great clamor. The account of their disturbance introduces the crucial term — the Akkadian *rigmu*, "noise" — that later lies at the very center of the human offense that elicits devastating responses from the gods.

In response to the strike, the gods decide to create humans with a sole purpose in mind: "[L]et man bear the toil of the gods" (57.191). The gods' project is successful; they not only create the new laboring beings but introduce marriage and reproduction so that humans may multiply. Of the new humans it is said, "With picks and spades they built the shrines/ They built the big canal banks/ For food for the peoples, for the sustenance of the gods" (66-67.338-339). All goes well for a while, but trouble eventually arises:

Twelve hundred years had not yet passed  
When the land extended and the peoples multiplied.  
The land was bellowing like a bull,  
The god got disturbed with their uproar.  
Enlil heard their noise  
And addressed the great gods,  
"The noise of mankind has become too intense for me,  
With their uproar I am deprived of sleep.  
...let there be plague." (67.352-360)

So it is that Enlil sends a plague (and, since the trickster god Enki helps *Atrahasis* frustrate Enlil at every turn, subsequently a drought and famine before the final solution of the flood) to quiet the human noise that disturbs him. *Rigmu*, the term for noise used here, occurs in multiple instances in the poem, more frequently referring to gods than to humans. The term occurs most often to variously characterize elements of the divine



storm sent to destroy humankind (93.50, 93.10, 95.23, 95.43). *Rigmu* is used to describe human noise in only two contexts: the aforementioned noise that keeps Enlil awake (67.356, 73.7), and the cry of heralds following Enki's orders to announce changes to ritual practice in an effort to end the series of plagues (69.392, 75.22).

In light of these various instances, can we discern the nature of the offensive noise for which the humans are punished? One school of thought, perhaps hopelessly influenced by the Biblical flood account, simply *assumes* that the noise is a transgression: "There can be little doubt that the noise of mankind which disturbs Enlil's repose is only the metaphoric or mythological guise for what is clearly meant to be the wicked behavior of man" (Finkelstein 365). G. Pettinato maintains that the human noise is essentially one of rebellion, and for this reason also treats *rigmu* as "sin" against the gods.<sup>1</sup> Such a view, while supported by the use of *rigmu* to characterize the initial strike of the lower gods, does not hold up in light of the poem as a whole. Nowhere does the text state anything about human rebellion against the gods (and the poem's conclusion, as we shall later see, points to a

more likely cause for the gods' concern). Rather, a look at the instances of noise in the poem indicates that *rigmu* is not good or bad in itself. Peter Machinist holds this view when looking at the use of *rigmu* (which he understands essentially as "activity" of either humans or gods) in another text, the *Poem of Erra*; the tension between activity and inactivity, he says, "is morally neutral...both beneficial and deleterious. Thus, activity is necessary for the universe to function. But too much activity brings on violence and potential chaos. Likewise...too much inactivity is the equivalent of paralysis and death" (Machinist 225). Anne Kilmer moves even further way from the connection of *rigmu* to sin by claiming that the essential nature of the human offense is not one of noise but of numbers: "[O]ur understanding of man's offense must be based primarily on his numerical increase, and only secondarily on his noisiness" (Kilmer 167). The many occurrences of *rigmu* in the poem bear out support for such a view, since only when speech and activity become extreme do they become *rigmu*. It is not the nature of the human actions that disturbs the gods, but the volume; human activity reaches extreme levels only after, according to the text, "the peoples multiplied" (67.353). It is thus overpopulation that becomes the catalyst for the devastation sent upon humans by the gods, and since the gods created humans to work actively and made them self-propagating, humans can hardly be seen as guilty of anything that could be considered a crime.

Not only is the noise of human activity innocent, but it is ultimately of divine origin. When the gods decide to create a new being to perform the labor, Enki gives the directions:

Let one god be slaughtered  
 ...  
 From his flesh and blood  
 Let Nintu mix clay  
 That god and man  
 May be thoroughly mixed in the clay,  
 So that we may hear the drum for the rest of time  
 Let there be a spirit from the god's flesh.  
 Let it proclaim living man as its sign,  
 So that this be not forgotten let there be a spirit. (59.208-217)

When humans are formed from clay mixed with a slain god's flesh and blood (the rest of the gods later spit upon the clay, as well), the sound of a "drum" (*uppu*) shall be the sign of the spirit (*temu*) that the god contributes to make "living man."<sup>2</sup> What is this sound that the gods wish to hear? It could be the sound of an actual ritual instrument (an *uppu* is a small drum or tambourine) that humans will use in honoring the gods. More likely, the *uppu* here is metaphorical. Professor Kilmer posits two possibilities. The sound could be the "pat-pat" of mixing the clay, but this would not last "for the rest of time," would it? More likely (in her eyes and mine), the *uppu* refers to the heartbeat, and "the heartbeat is the sign of life on the one hand, and the constant reminder of the god in man, on the other" (Kilmer, 163). Most importantly, the crucial element of the *uppu* trope—and this is the link that Kilmer fails to pursue—is that the sign of life is an *auditory* one, and a sound of divine origin at that. Humans are created to be active, to do the necessary work that feeds themselves and the gods, and the gods *want* to forever hear the reassuring sound of human activity. It is only when the number of *uppu* becomes too great—for even tambourines in uncontrolled multiplicity could raise a racket, it seems—that the sound becomes *rigmu* and offends the very gods who initiated the sounds in the first place. Numbers, not noise in itself, do indeed stand as the defining feature of the offense. The gods created humans to be active; the gods also made humans procreative while neglecting to limit their life spans; if humans are now too busy and too numerous for the gods' liking, can humans really be seen as culpable for some kind of sin? If this human behavior offends the gods, then such an offense is an innocent one.

The essential innocence of the humans emerges in the account of how the *gods* behave during the flood and its aftermath. The violent flood's most prominent characteristic is its noise: *rigmu* is repeatedly used in the passage to describe the storm and floods sent upon the land. The gods destroy human noise with an even greater divine noise—the storm gods, whose voices are called *rigmu*, "shattered its [the land's] noise (*rigmu*) like a pot" (93.10)—and the poet's carefully developed parallels between the divine and the human suffice the entire passage. The gods' goal of total destruction is realized, and in the profound silence that no doubt followed the flood they are faced with a seemingly unforeseen consequence: in the absence of humankind, its

labor and its produce, the gods now suffer from thirst and starvation. The descriptions of their deprivation echo the depictions of the humans suffering from the famine previously sent upon them by the gods. The gods weep and "their lips were feverishly athirst, / They were suffering cramp from hunger" (97.21-22); they are compared to sheep crowding an empty trough (97.20). The birth goddess herself is not only "surfeited with grief" for the loss of her human children but also "thirsted for beer" (97.16).<sup>3</sup> The gods' too-extreme response to the noise of human activity results in a too-extreme silence—the silence of death.

Though the gods' helplessness and lack of foresight is in ways darkly comic (conjuring the image of a bunch of spoiled royals who in a fit destroy the pantry and fire the staff only to end up hungry at teatime), two important insights come from the scene. First, the picture of the divine that emerges is of perhaps powerful but none-too-wise deities; the gods clearly have made a serious tactical mistake. Second, the only act referred to as evil in the entire poem is the act of a god, as Enlil's total destruction of humankind through the flood is characterized as a moral mistake. The birth goddess, bitterly distraught at the sight of her offspring annihilated, indicts Enlil in direct terms: "Enlil has had enough of bringing about an evil command, / ...he uttered abominable evil" (95.39-40) in ordering the flood. In a subsequent passage, an angry Enlil discovers Atrahasis's ark and accurately charges Enki with helping the man survive. Enki proudly acknowledges his assistance and levels his own charge against Enlil in return, claiming that Enlil committed evil by failing to distinguish between the guilty and the innocent. If you send punishment, Enki urges, "Impose your penalty on the criminal / And whosoever disregards your command" (101.25-26), not on those who have done nothing to deserve punishment.<sup>4</sup> Thus the accepted moral framework of the Bible's derivative flood narrative—a righteous God sends a deserved destruction upon an unrepentantly wicked humankind—inverts the ethical order of the older deluge story: in *Atrahasis*, "[t]here is not a single mention of sin, a subject for which Akkadian has a rich lexical stock, until after the Deluge, when Enki...bitterly reproaches Enlil for a wanton destruction that ignored all distinction between innocent and guilty" (Moran, 40). It seems that divine noise, not human noise, may carry the designation of sin.

Enlil, convinced by the charges against him (and, no doubt, by his own imminent starvation), orders his accusers, the birth goddess and Enki, to come up with a solution that will allow humans to live and work but not raise the extreme noise that so disturbs him, and their proposal highlights the essential problem that led to *rigmu* in the first place: they introduce population controls. The three specific measures mentioned in the text—the existence of barren women (95.2), infant mortality in the form of a demon (95.3-4), and three classes of celibate priestesses (95.6-8)—not only serve a narrative function in the poem but also serve to explain these conditions that were evident in the world of the poem's composition. Still, the conclusion that population is the crucial factor is not without its dissenters. Bernard Batto interprets the poem's solution as follows: "In *Atrahasis* the gods reconvene the divine creative pair, Enki and Nintu, and have them adjust 'human nature' by imposing... additional regulations [that] were not so much population control measures... as the imposition of mortality as a natural condition upon humankind. With this adjustment the final definition of humankind was apparently achieved" (Batto 53-54). Batto's reading depends upon a restoration of the broken *Atrahasis* tablet based on a key *Gilgamesh* passage in which Enki urges Nintu to create death, i.e., mortality and a limited natural lifespan. That a mortal lifespan is introduced at this point in *Atrahasis* is plausible, although, in contrast to Batto's reading, it would appear to complement, not supplant, the other measures that are clearly there to limit numbers. Even if we grant Batto's central point—that the key purpose of the text is that humans at last achieve a final form—we can still conclude what is, in my eyes, a more essential point: that this delay in the remedy results because the gods' understanding of the cosmic order is not yet in final form. In other words, the gods are still learning through trial and error. Yes, the text presents human beings as a work in progress, but what is not clearly acknowledged in such a reading is the more important point that *the gods are a work in progress*. The gods are responsible at every juncture: by making humans active and procreative but not mortal, they create the conditions for the *rigmu* that offends them. Blind to their mistake, they send complete destruction upon the humans and only compound their initial errors by destroying their own means of sustenance. The text presents their punishment as not only a tactical error but an ethical wrong; by ignoring the ethical dimension in the devastating deluge, Enlil and the other gods are the only party charged as guilty of anything suggesting sin or evil in the entire poem.

Such a myth seems a strange candidate as a source for the Biblical flood story that seemingly codifies the righteousness of God's devastating punishment upon a depraved humankind. The Genesis account has traditionally been seen as a text of superior moral content; a representative comparison of *Gilgamesh* and Genesis



states, “The ethical motive, which is but feebly developed in the Babylonian account, obtains clear recognition in the hands of the Hebrew writers; the Flood is a divine judgement on human corruption” carried out by an “almighty and righteous God—a Being capable of anger and pity...but holy and just in His dealings with men” (John Skinner, quoted in Finkelstein 364). Any argument that Genesis is a greater ethical account than its Mesopotamian counterparts faces difficulty standing against two types of counterargument. One type of response negates the grounds for such a comparison by holding that the Mesopotamian poems were *not* primarily ethical accounts—in *Atrahasis*, “the solution to the problem of man is completely a-ethical” (Moran 71), says one commentator. While *Atrahasis* is certainly not directly a story of human sin, close attention to the concluding section of the poem, however, reveals that ethical culpability—the guilt of the gods in punishing a guiltless humankind—is not completely irrelevant. No, a more compelling reason to reject the claim of Biblical superiority is that the Genesis flood story, in terms of ethical and even narrative coherence on key points, simply does not make sense in ways that its Near Eastern forbears do.

Even a cursory comparative reading of the deluge stories in *Atrahasis* and in Genesis finds the Biblical account puzzling in fundamental ways. We have seen that the flood in *Atrahasis* is sent in response to the extreme noise caused by the activity of too-numerous people. The reason for God’s distress in the Genesis flood narrative is straightforward but vague: “The Lord saw that the wickedness of humankind was great in the earth, and that every inclination of the thoughts of their hearts was only evil continually” (Gen. 6.5). God’s response to human corruption is the complete destruction of life: “I will blot out from the earth the human beings I have created—people together with animals and creeping things and birds of the air, for I am sorry that I have made them” (6.7). One wonders what Enki would have to say about God’s indiscriminate decision to “make an end of all flesh” (6.13)—including the ostensibly innocent animals—for the crimes of only humans. In any case, both stories describe floods that do indeed destroy all of life except for the divinely chosen survivors, *Atrahasis* and Noah (and his selected animals). After the flood, the divine powers decide that human life is worth having upon the earth again. In *Atrahasis*, the reason is apparent: the gods would starve without

ATRAHASIS, THE SOLE HUMAN SELECTED TO SURVIVE A DESTRUCTIVE  
FLOOD SENT TO WIPE OUT ALL OF HUMANITY...

...THE GODS ARE A WORK IN PROGRESS.

IN THE ABSENCE OF HUMANKIND, ITS LABOR AND ITS PRODUCE,  
THE GODS NOW SUFFER FROM THIRST AND STARVATION.

the offerings of human produce. The Hebrew God, too, is seemingly influenced by the “pleasing odors” of Noah’s “burnt offerings on the altar” (8.21, 20), although, through the preservation of mating pairs on the ark, God presumably had already planned to repopulate the world. Finally, in the Mesopotamian poem, the gods put into place population controls by which to temper the overall magnitude of human activity by controlling numbers—that is, they learn from mistakes and solve their central problem. In the Biblical narrative, God responds to Noah’s postdiluvian offerings by stating, “I will never again curse the ground because of humankind, for the inclination of the human heart is evil from youth; nor will I ever again destroy every living creature as I have done” (9.21). God acknowledges that humans will do evil (just as Enlil and the other gods accept that humans “must” be active), but instead of seeking to limit numbers, God follows his acknowledgment by saying to Noah and his sons, “Be fruitful and multiply, and fill the earth” (9.1), a command given twice more in the Noah narrative (8.17 and 9.7) and a verbatim reiteration of the initial charge given the first human pair

created by God (1.28).<sup>5</sup> The *Atrahasis* solution makes sense in that the gods adjust the conditions that led them to destroy humankind in the first place, but God’s decision to repopulate the earth makes little sense when we note that he does nothing to address the problem of human evil that initially prompted the deluge: “From the Biblical text alone it would appear that the behavior of mankind was no worse before the Flood than after it” (Finkelstein 366).<sup>6</sup> The logical consequence to this combination of factors is a world teeming once again with human wickedness. This lack of internal logic robs the Biblical flood narrative, especially when seen beside the Mesopotamian versions, of considerable explanatory power. In *Atrahasis*, the complete destruction of humankind by the gods *can’t* happen again; the gods depend on humans for their own very survival and must find other means of controlling offensive conditions. In the Genesis account, complete destruction *won’t* happen again according to God’s promise—but what is actually different after the flood?<sup>7</sup> All that appears to be different is God himself: “God reconciles himself to his flawed creation and accepts an imperfect humankind on its own terms...after the flood the deity commits himself under solemn oath to work with this imperfect creation, no matter how evil the impulse which beats within the human breast” (Batto 55). Such a reading has its merits; it is perfectly legitimate, and probably accurate, to see God’s character as evolving in dynamic ways throughout the course of the Biblical epic, and his reconciliation to his “flawed creation” after the flood is a crucial juncture in that progression. Accepting such an interpretation however—and here is the crux of this comparative reading’s purpose—means reconciling ourselves to the conclusion that the Genesis flood narrative is consequently stripped of any conceivable *ethical* power. In this story championed and invoked to the very present for its moral power, what, if any, is the ethical lesson? If there is one, it apparently has little to say about human culpability for sin. In this seminal story, as in *Atrahasis*, the need for repentance belongs not to humans, but to the divine.

The heaviest judgment, however, falls not on the Genesis flood account itself—it is a crucial episode in the grand story of the Israelites—but on the orthodox interpretation of the story that has been constructed to support a larger theology of human sin. The Biblical adaptation of the older deluge myths from Mesopotamia is full of



problems—the most salient being that the punished humans are, in the final analysis, essentially innocent—but has nonetheless managed to codify something that does not belong: the dogma that humans are inherently wicked and thereby deserve heavy punishment from a just and righteous God. The opening chapters of Genesis are perhaps the foundational text of Western ethics and theology, and the flood narrative contained there has helped lay down a template for a crippled understanding of sin and punishment to this very day.<sup>8</sup>

Thus the Biblical appropriation and manipulation of the ancient Near Eastern deluge myths have perpetuated misplaced ideas about sin. There are problems, however, not only with what we *have* inherited from the Genesis flood story but with what we have *not* managed to inherit from the older poem. *Atrahasis* proposes a refreshingly dignified conception of human beings and their place in the world. The poem’s humans are guilty not of sin but of nothing more than fulfilling the mandate of their creation too well, and the narrative relays the divine adjustments that allow for the essential activity of humans within an overall balance of tensions in

the cosmos. While the “stress in the Old Testament [is] on man’s depravity as the cause of the Deluge” (Moran 45), the flood in the Mesopotamian account signifies a completely different valuation of humanity: the deluge there “is a supremely important event, for it revealed to the gods their need of man... The Atrahasis Epic is an assertion of man’s importance in the final order of things” (Moran 43). In this oldest of texts, the energy of human beings in fulfilling their essential purpose—in the face of fateful, indifferent powers that inevitably cast down even the innocent—strikes a decidedly modern tenor: “The record of the Babylonians may be of relevance to one of the great issues of our time, whether or not man can be committed firmly to an ethical rule of life that is not rooted in theology” (Finkelstein 371). The *Atrahasis* poem, appropriated for a Biblical context that ultimately institutionalizes the notion of inherent human depravity, stands on its own terms as a humanist account of a cosmic balance that emerges only when human beings hold a rightful—and uniquely essential—position in the order of the world.

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#### NOTES

- <sup>1</sup>Pettinato’s article (written in German) is referred to in articles by Kramer, Machinist, and Moran.
- <sup>2</sup>Compare the materials used and the origins of spirit here to those in the Genesis account of the creation of the first human, in which “the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul” (Genesis 2:7).
- <sup>3</sup>“The worshipers in Mesopotamia considered... ‘sacrifices’ purely and simply as the gods’ ‘meals’”; barley beer was a staple of ritual cult offerings (Bottero 225).
- <sup>4</sup>Although the broken *Atrahasis* tablet makes other parts of this passage unreadable, Enki’s speech in *Gilgamesh* XI (the section borrowed directly from *Atrahasis*) includes a more thorough and forceful indictment of Enlil’s decision.
- <sup>5</sup>William Moran holds out the intriguing possibility that the charge to multiply in Genesis 9 is “a conscious rejection of the Atrahasis Epic” (Moran 45).
- <sup>6</sup>As a result, Jewish rabbis had to resort to extensive midrash (rabbinic interpretation of Torah) in attempts “to supply appropriate grounds for such an extreme measure” as the flood (Finkelstein 366).
- <sup>7</sup>God’s covenant with Noah and his descendants (one in a series of such divine-human pacts) is often invoked as a “solution” to the problem of human evil that precipitated the flood. While a full examination of the covenant is beyond the scope of this paper, it is clear that God’s postdiluvian proposal, while a start, actually solves little in any lasting way. According to Genesis, God acknowledges that humans are as evil as ever (Genesis 8:23), and then issues a prohibition against murder before promising to never again send “a flood to destroy all flesh” (Genesis 9:15). Before too long, however, before we read that “sulfur and fire from the Lord out of heaven” (Genesis 19:24) rain down upon the descendants of Noah in Sodom and Gomorrah—another kind of destructive punishment for another kind of wickedness.
- <sup>8</sup>A recent illustrative example: in the aftermath of Hurricane Katrina, Alabama State Senator Hank Erwin issued a statement in which he called the storm God’s judgment for human sin. “New Orleans and the Mississippi Gulf Coast have always been known for gambling, sin and wickedness. It is the kind of behavior that ultimately brings the judgment of God... As harsh as it may sound, those hurricanes do say that God is real, and we have to realize sin has consequences... Why were we surprised when finally the hand of judgment fell? Sadly, innocents suffered along with the guilty. Sin always brings suffering to good people as well as the bad” (The Birmingham News 28 September 2005). Erwin’s God sounds a lot like Enlil.

THREE

POEMS

OF

LOVE-GONE-BAD,

IN

ORDER

OF

INCREASING

DISTURBANCE

by Mason Tobak

I

#### DOLL LOVE

I loved you like a doll loves the little girl,  
stuffed with straw and  
dragged along by skinny legs, without complaint,  
feeling I was safe with no control,  
perched against the toy chest on my head.

I loved you like a doll loves the little girl,  
looking out with button eyes,  
lying in the dark beneath your hair,  
feeling I could see enough  
for simple child love, which simply is.

I loved you like a doll loves the little girl,  
not wanting to have flesh which hurts  
or nerves which tingle danger when she's at school  
too long.

I loved you like a doll loves.

I didn't love you like a doll loves.  
That's just a poet's trance.  
In the world of analogies,  
I owned all the toy shops on Earth,  
snapped my fingers to let you buy a doll  
and lay down in the box myself.  
My chest was feeling flesh,  
with not a single stalk of straw.  
My real eyes saw more of you  
than all the dolls in the playroom ever did.  
I was dragged along, by choice,  
and felt it,  
relaxing like a lethal cat at play,  
until your days at school were much too long,  
and I, not a doll, knew what it meant.

So in the playroom dark,  
your fading halo all around,  
my real nerves tingling danger,  
I deftly slid from under your hair,  
scratched your face,  
and walked back to the shop to find another box.  
Not doll behavior at all.

There is a theory at your school  
that had you not stayed away,  
you'd soon have seen impostor doll pretending love,  
and you'd be stuck in place,  
and tricked, and sad.  
And, for ease, you nod your head.  
But in your gut you know they're wrong.  
You remember owning toy shops of your own,  
for years,  
and know that  
time's so precious,  
that we lie down  
in a doll box,  
pretending doll love,  
only when we know it's real.

## II

### BEING WITH THE ONE YOU WANT

They bound the feet of little girls,  
the Chinese did.  
Hobbled for life, they hung around,  
did what they were told.  
So quiet, that in their graves, the village sounds the  
same.

They sold slave boys  
all over the world,  
someone did.  
To live out lives  
of thwarted will.  
So passive, that when they died,  
nothing in the city changed.

You have the novel right  
to not love me,  
or to love me from afar,  
just as you please,  
to mate with that one there,  
without my say,  
to play the game of learning,  
I think that's the word you use.

You have the novel right  
to condense my heart  
to scribbles in a pad,  
which you never set aside,  
and keep pressed close  
instead of me.

I learned these rules just as you,  
though from where I don't recall,  
and go along,  
like some sort of good citizen  
of the modern world.

But, inside, I'm not.  
Inside, I'm ancient,  
and I know  
the Chinese binders  
and young boy buyers  
were smart.  
They lived their lives with the one they loved.

So, I calmly wait for physics  
to conquer time,  
so I may travel as far back as I please.  
I saved your hair and shoes,  
so I may draw you back,  
back to where my guards  
will do to you  
what a lover scorned  
may not,  
come future times.

## III

### WHALE'S CORPSE

I'm larger than a whale's corpse.  
When glowing brides emerge from church,  
I snag them with a pincers arm,  
and quickly flick them to a hole,  
where they are ground to paste,  
slowly enough they feel they're punished  
for their brideness state.  
I flick so many  
they cease to be.  
The idea bride goes away for good.

I'm larger than a whale's corpse.  
Pink cherub boys  
who come from schools  
with toddling steps in mother's grasp  
take up space.  
My jaws expand.  
I eat the centers from their face,  
quickly, but they comprehend,  
push them by the millions  
with tractor claws into a ditch  
beside the world.  
I bite so many they cease to be.  
The idea boy goes away for good.

I'm larger than a whale's corpse.  
The green and leafy world of  
self-caring living things  
is vomit.  
I bathe all things which pulse  
in acid from my throat.  
They feel the burn  
and writhe to nothing.  
I bathe so many, they cease to be.  
The idea life goes away for good.

I'm larger than a whale's corpse.  
The spirit overhead embracing all  
is feces stinking in the city mud.  
I take a curvy magic blade  
and plunge it into the spine of god,  
twisting it to hear  
the loudest screams that ever were.  
The screams die down, they cease to be.  
The idea spirit goes away for good.

Then, not even nothing,  
and I cry,  
for there's nothing left to bite.

I'm in love.

I've never been in love before,  
but there's no speck of doubt.

I'm in love.

At long, long last,  
in love.

The first thing  
that comes back  
is all mine.

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# WILLIAM JAMES OBSERVES SAN FRANCISCO'S DISASTER

by John P. Devine



Courtesy of The Bancroft Library, University of California, Berkeley

When an earthquake and fire destroyed much of San Francisco in 1906, a number of disparate accounts of the event arose. One of the chroniclers of the catastrophe was William James, who had earlier gained renown for his academic work in philosophy and psychology. In June 1906, William James published his observations, based on two visits to San Francisco immediately following the earthquake, in an essay entitled "On Some Mental Effects of the Earthquake" (James 209). While James partially described the material ruin of San Francisco in the essay, he noted, "My business is with 'subjective' phenomena exclusively. . ." (James 217). The reason for his attention to subjective phenomena ostensibly occurred because even though the physical destruction of San Francisco could be described in the most catastrophic terms, those same terms could not similarly be used, according to James, to describe the effects upon the mind and spirit of San Franciscans and Californians. But Oliver Wendell Holmes once caustically remarked about

James, "His wishes made him turn down the lights so as to give miracle a chance" (Menand 436). While James's remarks about the "subjective phenomena" did accentuate human nature at its best, his remarks corresponded with contemporaneous evidence of the events in San Francisco and the actions of San Franciscans and Californians, who demonstrated a unique luminosity during the cataclysmic events of 1906.

In December 1905, William James traveled from Massachusetts to California to teach at Stanford University for the semester. Shortly before departing the Atlantic coast, the eminent scholar received a farewell from former Californian Charles Bakewell, then a philosophy professor on the Yale faculty. To the good-bye, James's longtime Californian friend added: "I hope they'll give you a touch of earthquake while you're there, so that you may also become acquainted with that Californian institution" (James 209). A few months later the ill-defined "they" acceded

to the request and furnished William James with the acquaintance of an immense earthquake.

On April 18, 1906, the ground shook savagely in San Francisco, commencing at 5:12 a.m. "From a point off Cape Mendocino in Humboldt County to near Hollister in San Benito County—a total of 270 miles—the Pacific Plate moved suddenly in a north-westerly direction, leaving the landward North American Plate behind by varying offsets."<sup>1</sup> The earth's paroxysm jarred people awake. Brick or stone residences cracked and crumbled; wooden houses swayed and groaned. Edifices and facades of buildings cascaded into the streets. Some roadways liquefied.

to the passionate desire for sympathetic communication (James 210-211).

James's account of the earthquake's power was not an embellishment of the events that morning. Indeed, the *fortior* and *fortissimo* shaking devastated Stanford University. The Gothic spire of Memorial Church collapsed and demolished much of the interior, after it had been shaken like James's proverbial rat.<sup>2</sup> The entrance archway to the campus, as well as the campus library and gymnasium, were ruined. Fourteen of the fifteen buildings on campus suffered damage, some irreparable. A statue of Louis Agassiz, a renowned



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Railway tracks twisted and water mains snapped. The earthquake lasted forty-five seconds. When the ground ultimately stopped convulsing, fires ignited throughout the city.

In Palo Alto, Visiting Professor William James felt his bed "waggle" at a little past five that morning. He provided this account of the subsequent events:

'By Jove' I said to myself, 'here's B's old earthquake, after all!' And then, as it went *crescendo*, 'And a jolly good one it is, too!' I said. Sitting up voluntarily, and taking a kneeling position, I was thrown down on my face as it went *fortiori* shaking the room exactly as a terrier shakes a rat. Then everything that was on anything else slid off to the floor, over went the bureau and chiffonier with a crash, as the *fortissimo* was reached; plaster cracked, an awful roaring noise seemed to fill the outer air, and in an instant all was still again, save the soft babble of human voices from far and near that soon began to make itself heard, as the inhabitants in costumes *negligés* in various degrees sought the greater safety of the street and yielded

geologist and natural historian, was propelled from its niche on the Zoology building. After a downward flight of thirty feet, the statue penetrated the earth headfirst. The nosedive led to "the campus quip that the 'head-foremost' scientist was 'better in the abstract than the concrete'" (Burkhart 183). Another statue, that of the Angel of Grief, also suffered significant damage.

William James noted that he "felt no trace whatever of fear" (James 211). Likewise, he claimed that his wife had not been afraid (James 211). In an instructive anecdote about "the way in which the tremendousness of a catastrophe may banish fear," James relayed the adventure of a particular student who was on the fourth floor of Encina Hall when the earthquake struck (James 214). With the building giving way, he descended three stories to the basement, where the debris of the crushed building surrounded him; he then decided to make his way back to his room because he was only wearing a nightgown. Upon returning to the fourth floor, he discovered that his

room no longer existed. He noticed pain in his injured feet and returned down the stairs with difficulty. William James spoke with him ten days later while the student was still in the hospital. During the entire event, the student claimed he had not been afraid. William James accounted for this by noting that "The experience was too overwhelming for anything but passive surrender to it" (James 215).

Upon his arrival in San Francisco on April 18, 1906, James made the following observations:

By midday, when we reached the city, the pall of smoke was vast and the dynamite detonations had begun, but the

that remained were the leveled and charred remnants of the largest conflagration ever to sweep through urban America. The Committee on Reconstruction reported about the burned area of San Francisco, which approximated 5 square miles, as follows: "508 city blocks wholly destroyed, 13 blocks partially saved; 28,188 buildings gone, 24,671 were wooden framed."<sup>5</sup> Moreover, the earthquake and fire destroyed "Thirty schools, 80 churches, and homes of 250,000 San Franciscans" (Olmstead 50).<sup>6</sup> Tragically, an estimated 3,000 residents lost their lives in the earthquake and fire (Chase 145).

Five days after the earthquake, William James wrote tersely to a friend, "as for poor San Francisco, it is



*Courtesy of The Bancroft Library, University of California, Berkeley*

troops, the police and the firemen seemed to have established order, dangerous neighborhoods were roped off everywhere and picketed, saloons closed, vehicles impressed, and everyone at work who could work (James 217).

James returned to Palo Alto near 11:00 p.m.<sup>3</sup> Meanwhile, the fires in San Francisco increased hour-by-hour and day-by-day. The ability of firefighters to contain the widening fires was reduced, and in certain instances altogether eliminated, by ruptured water mains. Paradoxically, "a fire department unsurpassed in all the world stood helpless before the raging holocaust, while a thousand feet away reposed three-fifths of all the water on the globe!"<sup>4</sup> The emergence and confluence of other factors, such as a drunken munitions man who started sixty fires in Chinatown with his dynamite charges, further hindered the ability to control the fires (Chase 145). In three days' time, an immense portion of San Francisco was reduced to a smoldering heap of rubble. For block after block after block, all

practically wiped off the map."<sup>7</sup> Three days after penning these words, William James returned to San Francisco to view the immense destruction that had occurred since his visit to the city on the day of the earthquake.

James's essay emphasized two of his most emphatic impressions about the citizens' response to the catastrophic event. "The first of these was the rapidity of the improvisation of order out of chaos" (James 221). The rapid improvisation of order out of chaos seems questionable when one looks at other examples of catastrophes, where chaos only bred further chaos. Confusion and criminality are frequent companions of chaos. As a result of this widespread perception, James noted that in the case of San Francisco,

With lights forbidden in the houses, and the streets lighted only by conflagration, it was apprehended that the criminals of San Francisco would hold high carnival on the ensuing night. But whether they feared the disciplinary

methods of the United States troops, who were visible everywhere, or whether they were solemnized by the immensity of the disaster, they lay low and not 'manifest,' either then or subsequently (James 217).

While James correctly noted that criminal behavior did not occur, he only sparingly examined the following reasons most commonly attributed for its absence: a proclamation ordering the summary execution of anyone looting or committing a serious criminal act; a prohibition against the operation of saloons and the sale of all intoxicants; and the evacuation of more than 225,000 individuals from the city in six days. For

San Francisco, like all great sea ports, has its own proportion of men who would, if possible, have taken advantage of existing conditions to sack and plunder its banks and stores, besides indulging other vices and forms of lawlessness which demoralize a community. These men soon realized, however, that the quiet, businesslike men armed with magazine rifles were under orders to shoot down any malefactors caught in the act of looting, and this sort of crime was reduced to minimum.<sup>10</sup>

Given Mayor Schmitz's proclamation and the federal troops' very visible presence, the allure of criminal activity inevitably diminished. William James must certainly have recognized, even if he did not emphasize,

IN THREE DAY'S TIME  
AN IMMENSE PORTION  
OF SAN FRANCISCO WAS REDUCED  
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OF RUBBLE.

TROOPS HAD BEEN ORDERED  
TO KILL LOOTERS.

instance, William James's use of the euphemistic phrase about the troops' "disciplinary methods" failed to mention, let alone hint, that they had been ordered to kill looters. Indeed, in the early morning hours of April 18, 1906, Mayor Schmitz issued a proclamation, whose first sentence read as follows: "The Federal Troops, the members of the Regular Police Force and all Special Police Officers have been authorized by me to KILL any and all persons found engaged in Looting or in the Commission of Any Other Crime."<sup>8</sup> The proclamation was apparently issued when police, who were busy conveying the injured to temporary hospitals, had no time to arrest thieves, and no place to incarcerate them even if caught. Coupled with the proclamation was the agreement that morning of Brigadier General Frederick Funston, in command of two thousand United States Army soldiers, to place his troops at the disposal of Mayor Schmitz.<sup>9</sup>

The effect on reducing criminal behavior was profound. As General Funston observed,

the effect of Mayor Schmitz's proclamation on the reduction of criminal activity. Similarly, James must also have realized that Mayor Schmitz's order to close all the saloons and to destroy all alcohol successfully assisted in curtailing lawlessness.

James altogether omitted mention of the massive evacuation of San Francisco. He only pithily and euphemistically commented that when he returned to the city eight days later "the inert elements of the population had mostly got away. . ." (James 221). This statement entirely fails to convey the then unprecedented, and perhaps still unmatched, evacuation of an American city. At the time of the earthquake, the population of San Francisco was approximately 400,000 people (Chase 146). After the earthquake, the Southern Pacific Company immediately repaired its damaged railroad tracks in San Francisco. After the repairs were completed, "Thousands of refugees crawled in and onto the railroad cars; every inch of every piece of rolling stock was occupied by human beings who

wanted to flee the burning city.”<sup>11</sup> The exodus from San Francisco occurred on an immense scale. On April 25, 1906, a day before William James’s return to the city, the *San Francisco Chronicle* reported the following news story about the evacuation:

Between 6 a.m., Wednesday, April 18th, and Sunday night the Southern Pacific ran 129 trains, with over 900 cars to the main line and local and eastern points, carrying free refugees from San Francisco. During the same time 610 suburban trains were run from Oakland pier with 4880 cars, and a total of 739 trains with 5783 cars. During the same period about 50 trains with 500 cars were run from points between Third and Townsend streets and Ocean View to the South. The number of people carried exceeded 225,000.<sup>12</sup>

In addition to the railroads, an extensive ferry system throughout San Francisco Bay assisted in the evacuation of city residents. One-half of the refugees from San Francisco stayed in nearby towns. The other refugees were provided free railroad transportation to any place less than five hundred miles distant from San Francisco or Oakland.

James’s omission about the evacuation, along with his notable reluctance to accentuate the other salient facts about Mayor Schmitz’s orders, suggests that he tailored his account of the events to fit an idealized perspective about “the improvisation of order out of chaos” in San Francisco. But suggesting that James tailored his account, does not likewise imply that he misapprehended important events. Rather, he seemed intent to focus on the creation of order by ordinary individuals. As James observed,

It is clear that just as in every thousand human beings there will be statistically so many artists, so many athletes, so many thinkers, and so many potentially good soldiers, so there will be so many potential organizers in times of emergency. In point of fact, not only in the great city, but also in the outlying towns, these natural ordermakers, whether amateurs or officials, came to the front immediately. (James 221-222)

James then cited two examples to illustrate his point. He relayed the heroic efforts of two anonymous individuals to save the artwork of William Keith. He also relayed the collective efforts of the residents of Palo Alto to prepare for the arrival of refugees. In citing these examples, instead of the actions by Mayor Schmitz or General Funston, he deliberately chose to highlight the labors of amateur “ordermakers.” By

doing so, James suggested that all people must examine their own natures or abilities, especially those that lie latent until times of crisis.

James explored whether criminals were “solemnized by the immensity of the disaster.” Perhaps they were. Such solemnity is plausible, and it might explain at least some of the lack of criminal activity. According to various subsequent reports, federal authorities or local law enforcement officers shot only six individuals for crime in the aftermath of the earthquake. Therefore, criminals might well have been solemnized by the disaster, instead of merely deterred by the “disciplinary methods” of the military. Regardless, James had made a crucial inquiry about how our human nature, or more precisely our better nature, might prevail during a catastrophe. Unfortunately, he never attempted to definitively answer his own question about criminal behavior in his essay. Although he did not directly answer this question, he did make the sanguine comment that the improvisation of order out of chaos in San Francisco was “reassuring as to human nature” (James 221).

James emphasized the “universal equanimity” of San Franciscans and Californians during the catastrophe (James 223-224). While equanimity, especially that of a universal variety, typically absents itself during most catastrophic events, contemporary accounts are invariably in accord with James’s observation about the composure of San Franciscans. One of the most prominent contemporary accounts was by Jack London. On the day of the earthquake London journeyed to San Francisco, just as James had done. As a result, both James and London were in San Francisco on Wednesday night April 18, 1906. London soon after wrote an account of what he had observed, which was published in *Collier’s Weekly* magazine on May 5, 1906. Interestingly enough, London’s article also commented on the equanimity predominating in San Francisco during the disaster. He wrote,

Remarkable as it may seem, Wednesday night while the whole city crashed and roared into ruin, was a quiet night. There were no crowds. There was no shouting and yelling. There was no hysteria, no disorder. I passed Wednesday night in the path of the advancing flames, and in all those terrible hours I saw not one woman who wept, not one man who was excited, not one person who was in the slightest degree panic stricken.<sup>13</sup>

London’s account mirrors those of others. The eyewitness accounts constantly and repeatedly

acknowledge the equanimity of San Francisco’s residents on the day of the earthquake and in the weeks that followed. In addition to the equanimity, or perhaps accounting for it, San Franciscans also displayed a characteristic optimism. For instance, William Wood, who at the time of the earthquake was the former Mayor of Seattle, noted, “San Francisco’s optimism is based upon fearlessness and clear-headedness. She triumphs in her trial because she has never for a moment lost those faculties.”<sup>14</sup> Indeed, after surveying various first hand accounts, a later author noticed,

What was exceptional about the San Franciscans was the swift strength of their resiliency, the optimistic power of their bounce that brought them to say, not a month later or a year later, but within a week, “Let’s not stand around feeling sorry for ourselves. We’ve had good times. Now this is a bad time, and there’s work to do. Let’s get going” (O’Brian 249).

This optimism did not go unnoticed by James, who also observed, “Every one looked cheerful, in spite of the awful discontinuity of past and future, with every familiar association with material things dissevered. . . .” (James 221). Although it is natural to view with some skepticism any observation about cheerful participants in a catastrophe, James’s observation is again supported by numerous contemporaneous accounts. One remark, originating close to the time of the earthquake, wonderfully captured the prevalent cheerfulness. A lady in the park seven days after the earthquake, and a day before James visited the city for a second time, remarked,

I have money, if I could get it and use it. I have property, if I could realize on it. I have friends, if I could get to them. Meantime I am going to cook this piece of bacon on bricks and be happy. (Morris 107)

James explained this paradox, cheerfulness during catastrophe, by observing that people who suffer collectively do not possess the anguish of those who either suffer alone or suffer at a geographical distance from catastrophic events (James 225). Everyone in San Francisco experienced the earthquake itself. Moreover, the fires burned indiscriminately. As a result, the disaster leveled distinctions between rich and poor because all equally needed food, water, and shelter.

James insightfully perceived:

The hearts concealed private bitterness, no doubt, but the tongues disdained to dwell on the misfortunes of

self, when almost everybody one spoke to had suffered equally. Surely the cutting edge of all our usual misfortunes comes from the character of loneliness. We lose our health, our wife or children die, our house burns down, or our money is made way with, and the world goes on rejoicing, leaving us on one side and counting us out from all its business (James 224).

James’s perception, that the cutting edge of misfortune is loneliness, readily accounts for the cheerfulness in San Francisco. No one suffered misfortune alone. James’s insight is aptly corroborated by Pauline Jacobson, who just ten days after the earthquake, wrote,

Everybody was your friend and you in turn everybody’s friend. The individual, the isolated self was dead. The social self was regnant. Never again shall we feel singled out by fate for hardships or ill luck that’s going. There will always be the other fellow. And that was the sweetness, the gladness of the earthquake and the fire. Not of bravery, nor of strength, nor of a new city, but of a new inclusiveness (Olmstead 52).

This inclusiveness, and the corresponding cheerfulness, further clarifies why no psychological calamity befell the residents of San Francisco and California after the earthquake. Again, people were optimistic because they were in this catastrophe together.

From the contemporaneous historical accounts of the 1906 earthquake and fire, it becomes apparent that William James’s wishes had not made him “turn down the lights so as to give miracle a chance,” as Oliver Wendell Holmes had once remarked. Indeed, something unique occurred in the echo of the destruction. As James emphasized in his essay, a prevalent order and apparent equanimity dwelt throughout San Francisco. James’s essay undoubtedly accentuated particular points, but he effectively portrayed the mind and spirit of Californians and San Franciscans. Stanford President David Starr Jordan, in the aftermath of the earthquake’s devastation at Stanford University, commented, “Men, not buildings, make a college.”<sup>15</sup> Likewise, people, not buildings and houses, make a city. San Franciscans recognized this. William James recognized this. He wrote a personal letter to a friend in Italy only five days after the earthquake. James presciently stated, “A better city will grow up on the spot.”<sup>16</sup> James was not wishing. He knew.

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## NOTES

<sup>1</sup> Philip Fradkin, *The Great Earthquake and Firestorms of 1906—How San Francisco Nearly Destroyed Itself* (Berkeley: University of California Press, 2005) 53.

<sup>2</sup> William James apparently borrowed a terrier/rat analogy from his wife Alice, who wrote to her relatives in the East on April 18, 1906, that she "... sat up and watched the pitching house shaken as a terrier might shake a rat, creaking timbers and falling articles on every side." (Stanford University Library Special Collections).

<sup>3</sup> Alice James, letter to relatives, 18 April 1906.

<sup>4</sup> Ethelbert Burrows, "San Francisco Yesterday, Today and Tomorrow," *New San Francisco Magazine* May 1906: 6.

<sup>5</sup> Nancy Olmsted, *The Ferry Building, Witness to a Century of Change* (San Francisco: San Francisco Port Commission; Heyday Books, 1998) 50.

<sup>6</sup> Charles K. Field, a Stanford graduate (1895) and local raconteur at the time, upon learning that eighty churches had been destroyed in the earthquake and fire, queried, *If, as some say, God spanked the town, For being over frisky, Why did He burn the Churches down, And Save Hotaling's Whisky?*

<sup>7</sup> William James, letter to Ferrari, 23 April 1906, (Stanford University Library Special Collections).

<sup>8</sup> Proclamation by San Francisco Mayor E. E. Schmitz, 18 April 1906 (Stanford Library Special Collections).

<sup>9</sup> Thomas S. Duke, *Synopsis of the San Francisco Police and Municipal Records of the Greatest Catastrophe in American History*, (San Francisco: Board of Police Commissioners, 1910) 2.

<sup>10</sup> Brigadier General Frederick Funston, "The Work of the Regulars," *New San Francisco Magazine* May 1906: 35.

<sup>11</sup> Emmet Condon and Gladys Hansen, *Denial of Disaster—The Untold Story and Photographs of the San Francisco Earthquake and Fire of 1906* (San Francisco: Cameron & Company) 1989: 81.

<sup>12</sup> "Vast Army Has Left the City—Southern Pacific Alone Has Taken Away Over 225,000 Refugees," *San Francisco Chronicle*, 25 April 1906.

<sup>13</sup> Jack London, "The Story of an Eye-Witness," *Colliers* May 5, 1906: 22.

<sup>14</sup> William Wood, "San Francisco's Optimism and Reasons for It," *Pacific Monthly* June 1906: 54.

<sup>15</sup> David Starr Jordan, "No Backward Step For University," *Stanford Alumnus* May 1906: 24.

<sup>16</sup> William James, letter to Ferrari, 23 April 1906 (Stanford University Library Special Collections).

# THE BURGHERS OF CALAIS:

A PERSONAL VIEWING EXPERIENCE

by Jennifer Burton

*Character is the essential truth of any natural object, whether ugly or beautiful; it is even what one might call a double truth, for it is the inner truth translated by the outer truth; it is the soul, the feelings, the ideas, expressed by the features of a face, by the gestures and actions of a human being, by the tones of a sky, by the lines of a horizon.*

Auguste Rodin (Gsell 20)



❖ EUSTACHE DE SAINT-PIERRE: THE SPIRIT OF SACRIFICE

Placed in the center front of the group, Saint-Pierre is obviously the leader; as Gsell comments, "it is he who offered himself first" (36). Rodin achieved the sense of Saint-Pierre's leadership not only through positioning, however, but also through other details more revealing of his character.

Saint-Pierre is the eldest burgher, indicated by his wrinkled face and venerable beard. His steadfast, almost stern expression contrasts with his younger compatriots' looks of dismay, anguish and reluctance.

In 1884, Auguste Rodin received a commission from the mayor of Calais to sculpt a monument honoring the heroes of the Hundred Years' War, six wealthy burghers who surrendered themselves to King Edward II to end the eleven-month siege of Calais. Rodin was inspired by the courage of these men, and determined to capture their moment of sacrifice: gaunt from the long siege, with halters around their necks and the keys to the city in their hands, they made their way out of their beloved city, past their weeping family and friends to an almost certain death.<sup>1</sup>

The statue group *The Burgers of Calais* located in the main quadrangle at Stanford University brilliantly evokes the ideas stated in the epigraph above. Rodin took pains to ensure that the burghers were appropriate Calaisian types in terms of physiognomy, but it is the "essential truth" of their emotions that makes the group a masterpiece of "lifelike humanity" (Butler 205). Studying the face of each statue, I find that Rodin, without idolizing or idealizing, presents them as genuine men. Their feelings of despair, dismay, hesitation, determination, courage, and acceptance come through clearly and realistically.

The precisely-molded rope binds his neck more tightly than it does the other men, some of whom do not have any indication of a rope at all. Most physically marked by the long starving months, Saint-Pierre's stooped shoulders and emaciated figure seem to bear the weight of his decision.

Significantly, Saint-Pierre is the single figure who is depicted as moving deliberately ahead, though his steps clearly cost him great effort. His entire body is pitched forward, his front (left) foot lies nearly flat along the ground, and his front knee bends under his weight. His drapery drags in heavy folds down his front and over his back leg. He looks, in fact, like he might stumble or collapse at any moment, but a glance back at the face reveals the determination and spirit of sacrifice that will hold him upright.

Interestingly, though he is "the one who inspires the others" (Gsell 36), Rodin did not depict him as urging or even communicating with the other burghers. His glance takes in only the road in front of him—the road he walks to his own presumed death. Appropriately for a sculpture, his inspiration of the other prisoners thus lies in his actions rather than his words.



✦ **PIERRE DE WIESSANT: WRENCHING INDECISION**

Based on the features of the Comédie Française actor Coquelin Cadet, Pierre de Wiessant's gesture and position are the most extravagant of the group. His pose is so contorted—evocative of the tortuous choice he must make—it seems hardly humanly possible, and yet entirely believable.

Where Saint-Pierre's forward movement communicates his firm purpose, de Wiessant's twisting evokes a sense of indecision. His body seems simultaneously to move both forward (his left arm and leg), and backward (his right foot and right shoulder). The turn of his head especially indicates his reluctance to

leave behind his life and loved ones. Agony contorts his face: brows knit in pain, ears tipped forward, and mouth slightly open.

The figure of Pierre de Wiessant dramatically enacts the risk Rodin took in presenting the burghers as other than saintlike stoics. Upon seeing the first maquette, or model, the Calais newspaper *Patriote* accused Rodin of creating a monument evoking not civic pride and heroism, but "sorrow, despair, and endless depression" (quoted in Butler 203). Rodin's realistic depiction of de Wiessant's struggle to commit to self-sacrifice, however, is one reason why *The Burghers of Calais* continues to move the viewer today.



✦ **JEAN DE FIENNES: SELF-DOUBT**

Like Pierre de Wiessant, Jean de Fiennes also seems to experience irresolution at the crucial moment. However, de Wiessant's pain is directed inward, toward his body with his gaze directed down. In contrast, de Fiennes appeals to those he is leaving with his arms flung open and his eyes searching outward. His mouth open, he seems to cry out for help, for someone to rescue him from his own decision.

His bearing is more erect than the other burghers' (with the exception of the stalwart Jean d'Aire) and his drapery sits rather smoothly and lightly on his broad shoulders. He looks in much better health than the others: his face is filled out, his hair long and thick, and his forearms rather fleshy. He may be the youngest burgher and therefore the least physically affected by the long siege; at the same time, however, he seems the least emotionally prepared for death.



✦ **JACQUES DE WIESSANT<sup>2</sup>: RESOLUTION**

Jacques de Wiessant seems to be experiencing a moment of hesitation as well—or rather, he seems to have just experienced it and then affirmed his decision. His body shifts to the side as he takes a step; like most of the others, he is not moving directly forward. He pulls his right hand a way from his face, as though a moment earlier he had his head in his hands like his compatriot Andrieu d'Andres. His mouth, now set, and his eyes, fixed on the horizon, indicate his resolution.

This statue displays several intriguing technical characteristics. It bears more of an "unfinished" look than the other statues (except Andrieu d'Andres; see below). There are many tool and burlap marks, especially down the right rear side, along with what appears to be a random thumb indentation under the drapery. Lumps of clay bump out from the drapery and in front of one ear. The drapery over the right breast is rather sloppily molded; in fact, it looks barely "tacked on," as it probably was, given Rodin's method of sculpting nude forms and then clothing them (Lampert 107). Rodin's apparent lack of attention to these details (seen also in other figures) may reflect his preoccupation with the face as the most important mirror of the "double truth" of character.

... GAUNT FROM  
THE LONG SIEGE ... THEY  
MAKE THEIR WAY  
OUT OF THEIR BELOVED CITY,  
PAST THEIR WEEPING  
FRIENDS TO AN ALMOST  
CERTAIN DEATH.



✦ **ANDRIEU D'ANDRES: DESPAIR**

Like Pierre de Wiessant, d'Andres's body is turned inward such that it forms an almost cylindrical composition. Though his left leg is bent, he is clearly not taking a step. His right foot is firmly planted, indicating that he has stopped, grief overtaking him as he clutches his head in his hands. With the slight upward and inward turn of his left knee and the downward pull of his elbows, hands, and neck, he seems almost on the verge of crumpling to the ground in a fetal position. However, the straight right leg and expression of the face (see below) counteract this tendency. Additionally, the bulging biceps muscles and powerful legs indicate the fundamental fortitude of this man who, as we know, *will* keep going.

D'Andres, like Jacques de Wiessant, displays several signs of Rodin's process. Tool marks are embedded into the left side, and the drapery roughly modeled. Perhaps most interesting, the more visible parts of the head—the back and sides—are patently unfinished. A large oblong piece of clay sits on the very back of the head, and lumps protrude from between the thumb and forefinger of each hand. Smaller clay "stripes" run down the sides of the face.

The face itself, however, displays careful attention to details of character. Rodin captures d'Andres's strength in the aquiline nose, prominent cheekbones and jaw; he grimaces in pain, but does not cry out. Curiously, his expression is nearly impossible to see unless the viewer crouches directly underneath the statue and looks straight up.<sup>3</sup> This fact may again point to the importance of the face to Rodin—he would carefully mold it even if it were hardly visible. It may also reflect his desire to invite interaction on the part of the viewer: Lampert comments that "he sought...to [enter] the spectator's space" (110).



# DIONYSUS AT SEA

By Tamara Tinker

In the book *The Dramatic Festivals of Athens* is an illustration of an Attic cup, a kylix, on which is depicted a laughing Dionysus sailing at night. The depiction may represent the Athenian Anthesteria festival "in which Dionysus was escorted riding in a car shaped like a ship on wheels." The late-winter festival is believed to have welcomed the fertility god from overseas. Though the grape arbor and car are staple motifs of Dionysiac procession, each artist treats the subject differently. The kylix artist referred to here ignored the festival and depicted Dionysus alone under the stars.



He steers with the sail, his rudder trails.  
He might seem adrift. If so, the dolphins  
leaping are equally lost.

How did that vineyard get in the sky?  
Who painted an eye on the prow?  
Why does he lounge on the deck smiling?

His lap robe makes him look like a mermaid.  
Schooning at night is test enough of manhood —  
a shooting star to reckon by on an iridescent sea.

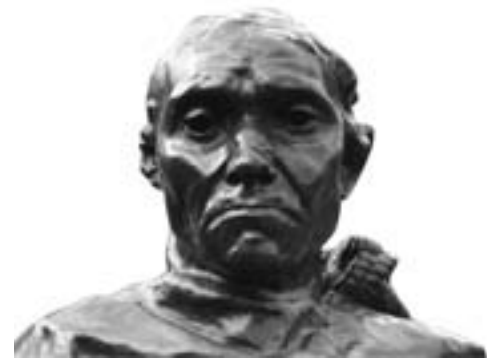
He and his bark are dark as nature  
except for his snow-white jib. Dionysus lives  
by his own light; indeed, knows no night.

Achilles would none of it;  
he'd strip the drunk of his leafy crown and ready  
a crew for battle.

The touring god is too old for that.  
He fans away acrimony, sings to himself  
and watches for port.

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#### ✦ JEAN D'AIRE: FIERCE COURAGE

Jean d'Aire stands with feet planted and arms extended. His hands clench an enormous key, which because of its central horizontal position appears larger than Jacques de Wiessant's. The rope is explicitly modeled, and even knotted at the side of his neck. The two symbols of the burghers' martyrdom are thus given major prominence in this figure.

His gaze is particularly interesting. Directed outward, it is not pleading, like Jean de Fiennes's, or faraway, like Jacques de Wiessant's. Rather, d'Aire's look seems to bore into the eyes of his fellow townspeople almost as a challenge, saying, "Be strong! Be worthy of our sacrifice!"

There is a fierce tension in the figure, revealed in the clenched hands and straining neck tendons and clenched chest muscles. D'Aire looks almost like a weightlifter, a fourteenth-century Atlas who, with his brethren, shoulders the whole town's grief and hope.



#### ✦ THE GROUP AS A WHOLE

Following the gaze and movement of the figures leads the eye from one to another, around the circle and back to Saint-Pierre. The Stanford sculpture is unique among the casts of *The Burghers of Calais* in its separation of the individual statues. This separation decreases both the sense of community between them, and also the feeling of urgency and confusion found in other, more closely-grouped compositions, such as the original cast installed in Calais in 1895.

However, placing the burghers individually does allow for a closer inspection of each statue. The viewer can walk around each figure, noticing details that may be lost when the figures are grouped. In this sense, the separated composition permits more spectator involvement, which was one of Rodin's goals in placing the group on the ground rather than on a pedestal (Lampert 111).

#### ✦ CONCLUSION

Rodin presented the burghers as real human beings, living in a particular moment of terrible loss and yet triumphant selflessness. At the same time, his attention to character gives these men a certain universality that transcends their time to reach our own. We see ourselves reflected in the tortuous despair, overwhelmed confusion and, hopefully, stoic acceptance of the six heroes. Rodin thus accomplished his goal of making "each spectator...live vicariously [the burghers'] experience" (Lampert 114). In doing so, he created not only an historical monument, but also a living testament to the human spirit.

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CHARACTER ... IS THE SOUL,  
THE FEELINGS, THE IDEAS,  
EXPRESSED BY THE FEATURES  
OF A FACE...

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#### NOTES

<sup>1</sup> According to Jean Froissart, a contemporary chronicler, the six burghers were eventually spared through the intervention of Queen Philippa, King Edward's pregnant consort. See, for example, "Tales from Froissart," ed. Steve Muhlberger. [http://www.nipissingu.ca/department/history/MUHLBERGER/FR\\_OISSART/TALES.HTM](http://www.nipissingu.ca/department/history/MUHLBERGER/FR_OISSART/TALES.HTM)

<sup>2</sup> Jacques de Wiessant and Pierre de Wiessant were brothers.

<sup>3</sup> D'Andres' face could be viewed easily if the statue was on a pedestal, but we know from Rodin's second maquette that he had rejected that idea (Lampert 111).

At the moment of reconciliation between Odysseus and his wife, after twenty years of separation and hardship, Penelope hesitates and asks herself, "... should she keep her distance, probe her husband? Or rush up to the man at once and kiss his head and cling to both his hands?" (*Odyssey*, 23:97-99). The answer to this question, and the subsequent actions of husband and wife as the story plays out, demonstrate the nature of an exemplary marriage in ancient Greece. By contrasting two components of marriage, sexual union and private conversation, Homer suggests that the ideal marriage in ancient Greece was defined, more than by conventionally expected sexual intimacy, by the intimacy of knowledge.

A sexual relationship is usually central to a marriage. However, in two important sections, *The Odyssey* depicts sex in direct contrast to marriage. First, on Calypso's island, where the goddess offers him immortality, Odysseus spurns her in favor of returning home. Calypso tempts him explicitly with her beauty and power (traditional sexual qualities) and even asks Odysseus how his mortal wife could possibly compare with her. Odysseus admits that Penelope is not as sexually alluring as Calypso, but insists that it is his wise wife and his home that he seeks. "Look at my wise Penelope. She falls far short of you, your beauty, stature... Nevertheless I long—I pine, all my days—to travel home and see the dawn of my return" (5:239-43). This story is reiterated when Odysseus describes his stay with Calypso to the Phaeacians. Here, Odysseus unambiguously states that even though Calypso's power was strong, he would not consent to be her husband. "True enough, Calypso the lustrous goddess tried to hold me back, deep in her arching caverns, craving me for a husband. So did Circe, holding me just as warmly in her halls... But they never won the heart inside me, never. So nothing is as sweet



## MARRIAGE IN THE ODYSSEY: AN INTIMATE CONVERSATION

by Jennifer Swanton Brown

as a man's own country" (9:32-38). The marriage/country association is strong and emphasized in the repeated telling of the tale. Odysseus has sexual relations with Calypso for seven years, but never once does he consider himself her husband.

In Book 8, the bard Demodocus sings about "the Love of Ares and Aphrodite," another relationship in which sex and marriage are opposed. This time, the adultery seems doubly egregious because it took place in "Hephaestus's mansion," and "showered Hephaestus's marriage bed with shame" (8:303-5).

To explore whether Homer uses the word *bed* symbolically, as a euphemism for sexual relations, rather than literally (domestic furniture), consider several text sections in which lovers are described. Fagles's translation makes available enough examples, referring specifically to lovemaking without using the word *bed*, to make the case against euphemism: Aphrodite and Ares "first made love ... lost in each other's arms and making love" (8:303, 808); Odysseus and Calypso, "long in each other's arms they lost themselves in love" (5:251). Even when the time finally comes for Odysseus and Penelope, they speak about lovemaking in personal terms: "delight in each other" (23:290), and "once they'd reveled in all the longed-for joys of love" (23:342-3). Homer does not use the term *bed* to allude to sex.

Of further interest is Homer's repeated reference to beds as belonging to men, particularly to husbands. Homer labels the bed in which Aphrodite and Ares make love as Hephaestus's bed, no fewer than three times:

"Hephaestus's marriage bed" (8:305), "Once he'd spun that cunning trap around his [Hephaestus's] bed" (8:320), "Just look at the two lovers...crawled inside my [Hephaestus's] bed, locked in each other's arms" (8:355). Would the lovemaking of the two gods have been so scandalous had they not desecrated a marriage bed?

Another example of the husband's claim to his bed occurs when Penelope, at the beginning of the long reconciliation scene in book 23, invokes Helen. "Remember Helen of Argos, Zeus's daughter—would she have sported so *in a stranger's bed* if she had dreamed that Achaea's sons were doomed to fight and die and bring her home again?" (23:247-249; italics added). The bed is the man's domain, and in this case, the domain of Paris, who is not Helen's husband. Odysseus provides the last example himself, when he goes to great pains to remind Penelope that their bed is his, that he built it, that it is the very foundation of his home, "Who could move my bed? Impossible task [...] I know, I built it myself—no one else" (23: 206-214). In *The Odyssey*, beds belong to husbands, not to lovers.

The great rooted bed is the crowning symbol of Odysseus's long journey. It is congruent with the house, originating directly from the soil of Odysseus's beloved Ithaca. The bed is carved from a single olive tree, an important physical symbol in ancient Greece. The secret of the bed is evidence of Odysseus's cunning and wisdom, and ultimately the sign by which Penelope knows this strange traveler to be her husband. "There's our secret sign, I tell you, our life story! Does the bed, my lady, still stand planted firm?" (23:227). Odysseus seeks the answer to his question both literally (is the bed still in the house?), and figuratively (does the symbol of his home, that is, his marriage, still exist?). Odysseus's bed is a powerful sign of his union with Penelope, a

... THE ODYSSEY DEPICTS SEX IN DIRECT CONTRAST TO MARRIAGE.

PENELOPE AND ODYSSEUS CONSUMMATED THEIR REUNION WITH THEIR CONVERSATION AS WELL AS SEX.



symbol simultaneously sexual and domestic. For her part, Penelope ultimately recognizes and accepts her husband not by his physical nature, or by his sexual conquest of her, but because he possesses *knowledge* of their marriage: "... you have revealed such overwhelming proof—the secret sign of our bed, ... you've conquered my heart, my hard heart, at last" (23:253-8).

Perhaps the most startling evidence that marriage for the ancient Greeks was something more complex and valuable than just sex, is how Odysseus and Penelope act when they finally go to bed. They *talk*. They tell each other tales of their long adventures, reveling "in each other's stories, the radiant woman telling of all she'd borne at home...And great Odysseus [telling] his wife of all the pains he had dealt out to other men and all the hardships he'd endured himself" (23:343-51). And then they keep talking, planning what they will do next, as husband and wife, going forward to defeat their enemies. Odysseus's bed is both the literal foundation of his home and the symbol of the stability of his marriage, the locus of domestic experience and intimate knowledge. Penelope and Odysseus consummated their reunion with their conversation as well as sex. Athena extended the night for them, and Odysseus told his wife "his story first to last, and she listened on, enchanted..." (23:351-353).

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# A DEADLY AGENT OF CHANGE:

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## THE 1832 PARISIAN CHOLERA EPIDEMIC AND THE FRENCH PUBLIC HEALTH MOVEMENT

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by Loren Szper

The nineteenth century was a time of great change for the field of medicine. Paris, particularly during the first half of the century, was the leading city in this burgeoning medical landscape. Empiricism was replacing the outdated “library medicine,” a practice based on philosophical theories, not observation or experience. The established concepts of what was and was not considered “scientific” were being challenged. Also, French physician Marie-François-Xavier Bichat’s work on dissection was helping to make Paris the early-nineteenth century center for medical exploration and advancement (Furst 1-18; Vess 10). This changing medical arena was a concomitant of the tumultuous political landscape of Paris from the late eighteenth century throughout the nineteenth century (Vess 16-17, 41-68). Within this cauldron of late-eighteenth and early-nineteenth century changes in medicine and politics, the public health movement (*hygiène publique*), or hygienist movement, emerged.

Although concepts of the “public” and of “health” were both important to the Enlightenment, the term “public health” did not come into common use until the early nineteenth century (Kudlick 35-36). This

movement was born out of French Enlightenment ideals in the late eighteenth century, developing from the Enlightenment’s focus on progress, rational reform, natural law, orderliness, empiricism, and humanitarianism (La Berge, “Mission” 11). As Dr. J. F. Rameaux stated in 1839, “Public health concerns itself with the man in society, and considers him as a species. Religion, government, morals and customs, institutions, relations from man to man, and from people to people—all of this is its jurisdiction. In a word, [public health] touches upon every aspect of our social existence” (qtd. in Kudlick 72). The nineteenth-century hygienists focused on endemic disease, occupational hygiene, sanitation, water distribution, bathing, prostitution, and food safety, to name a few of their areas of interest (La Berge, “Mission” 18, 186-213, 249-267). Although the movement grew both in size and reputation during the early nineteenth century, the Parisian cholera epidemic of 1832 disrupted it and caused people to lose confidence in its theories and practices. Ironically, the cholera epidemic, a frightening mirror of death, eventually improved the French public health movement by revealing its hubris and weaknesses.

Throughout most of the eighteenth century, health as a social issue largely remained outside the oversight of the central government; issues of public health existed primarily within the local, private sphere. Charitable assistance was principally dependent upon morality and Church claims regarding the generosity of the faithful, and such financial support was limited. Disease and poverty were also viewed through a religious lens. Poverty was often perceived as a type of religious “test,” and the ill and poor were understood to be children of God, deserving of kindness. Yet the political and social changes of the late eighteenth century, the same changes that were beginning to reshape the practice of medicine, altered the general attitude toward the poor and also redefined the role of the French government in the lives of the people. Impoverished peoples began to be judged more harshly, as the association between poverty and holiness weakened. At the same time, however, a new sense of public welfare and a new desire for government intervention in the lives of the French people emerged (Kudlick 32-35; Coleman 26).

This blossoming sense of public welfare and governmental responsibility was in part expressed through the public health movement, which was composed of doctors, pharmacist-chemists, engineers, administrators, and others. This hybrid group coalesced, and the practitioners were referred to en masse as “hygienists.” In 1802 the movement was further legitimized as a profession with the foundation of the Paris Health Council (*Conseil de salubrité de Paris*). In 1829 the journal *Annales d’hygiène publique et de médecine légale* first appeared, which served as the movement’s central body of work. Both the Paris Health Council and the *Annales d’hygiène publique* were prominent in establishing public health as a professional scientific discipline (La Berge, “Mission” 1, 44; Coleman 18-20; Kudlick 71-72).

As hygienists were a composite of professionals from several disciplines, training was not uniform. One of the movement’s leaders and most influential hygienists, Alexandre Parent-Duchatelet, however, had specific guidelines regarding how he thought a public hygienist ought to be trained. According to Parent-Duchatelet, once a man has obtained formal academic preparation, the best training ground for becoming a public hygienist was the Paris Health Council (*Conseil de salubrité*). He believed strongly that the only way to properly train to be a hygienist was through practical, on-the-job training. Whereas public hygiene did have a place in the medical curriculum of the early nineteenth century, it was only one small

part of the larger curriculum. Of the five exams required to receive a medical degree, only one tested knowledge of hygiene. The hygienic curricula in the medical schools were also not uniform and medical students were not being taught the principles of scientific hygiene. Parent-Duchatelet believed this preparation was insufficient and thus touted practical training measures (La Berge, “Mission” 45-47).

The Napoleonic Wars in the late eighteenth and early nineteenth centuries, however, had given medical professionals a new and unique array of experiences that prepared them for the practices of the public health movement. Military medical professionals worked in tumultuous environments involving large numbers of people. The military also demanded detailed, comprehensive reports. In this environment, such professionals received practical experience investigating health issues among large numbers of people, while thoroughly documenting their work—ideal preparation for public health investigation. The conditions of the French Revolution and the wars also created a desire among practitioners for a medical model that attempted to eradicate disease through the improvement of foul, loathsome conditions. These experiences were part of the impetus behind the movement (Coleman 23; Vess 140-150).

The public health movement had several goals, stemming both from national and humanitarian interests, including lowering the mortality rate, improving the quality of life, reducing disease, increasing life expectancy, and reducing pain and suffering (La Berge, “Mission” 42). The main thrust of the movement was urban. The industrialization of France during this time created social changes such as the concentration of populations and the erosion of traditional social bonds, resulting in increased mortality, destitution, and morbidity among the urban poor. Industrialization had created social problems that became part of the primary focus of the movement (La Berge, “Mission” 42; Coleman xvi-xvii).

Another salient feature of the hygienist movement was “moralization,” an outgrowth of the belief that a correlation exists between the moral and the material. Continuing an older tradition among physicians, hygienists attempted to help the urban poor internalize middle-class morals and habits, while also working to improve their living standards. Believing in a connection between morality and health, the public health officials thought that improvements in health, surroundings, and hygiene would serve to improve the moral state (La Berge, “Mission” 40-42).

While health councils did exist in other cities such as Lille and Lyon, and between the years of 1815 and 1848 important health reforms came out of Lyon, Paris was the heart of the movement. The movement itself was deeply connected to the French government, both nationally and municipally. The health councils served under the direct supervision of prefects (the prefect of police in Paris), who were themselves under the jurisdiction of the Minister of the Interior. The national academies also helped shape the movement in serving as forums for debating public health issues, since many of the leading public hygienists were members of the Royal Academy of Sciences and the Academy of Political and Moral Sciences. Furthermore, the city of Paris served as a "laboratory" for the hygienists, as it contained numerous records and statistical data for investigation and historical research, and offered a plethora of locations and public health concerns for investigation (La Berge, "Mission" 22-25, 184).

Endemic to the Ganges Valley in India, cholera started its world-tour via trade routes and colonial outposts in 1817. Fifty percent of those who contracted cholera died, usually within one day, and often as a result of acute dehydration (Coleman 171; Quinlan 309; Kudlick 1). The French, however, were certain that cholera would not enter their country, believing that their unique, accomplished levels of civilization, industry, and commerce would protect them not only from the cholera epidemic, but also from all other epidemics. They understood themselves to be the most advanced, civilized country in the world; they viewed France as a perfected nation with the most enlightened physicians, who were also the most trained and experienced in maintaining public health (Delaporte 1-2).

The French also believed that cholera physically could not enter the country. Many thought France's topography was a physical barrier to disease, and considered their sanitary measures to be so well advanced and followed as to prohibit cholera from entering through the seaports. If the disease did make its way to the ports, it would be quickly confined and would not spread to the rest of France. By 1831, the French had such confidence in their enlightened physicians, in rational medicine, and in their public health practices that they simply did not imagine that the rapidly spreading cholera epidemic would affect them (Delaporte 1).

Despite a prevailing belief that cholera would not pose a threat to their country, French physicians,

hygienists, and administrators did take preventive measures against the epidemic, particularly once cholera reached England in 1831. By 1830 the French government had sent Parisian physicians to Russia and Poland, the locations they perceived to be the cholera "front," to investigate the epidemic. Quarantines were established in the ports, sanitary cordons were set up on the borders, unhygienic living quarters were inspected, and health committees were created in each district of Paris. Financial assistance came from the Chamber of Deputies, which allocated emergency funds. Donations were also collected from charities. The doctors of the Royal Academy of Medicine (*Académie Royale de Médecine*) discussed the epidemic and debated disease etiology as well. Despite such well-intentioned actions, however, a lack of government interest in the cause along with little desire to spend public funds on prevention resulted in relatively little being done (Delaporte 9; Quinlan 306-308).

On March 15, 1832, cholera entered France at Calais; on March 26th, it entered Paris. Once cholera struck, the results were devastating. Death from cholera was painful and gruesome; throughout much of the scourge, hundreds of people were dying per day. Although the outbreak lingered into early October, on September 25, 1832, the administration declared it over. The cholera epidemic lasted 189 days, or twenty-seven weeks. In total, about 18,000 Parisians, roughly 2% of the city's population, died from cholera between the 26th of March and the 30th of September (Coleman 171-172; Quinlan 309; Kudlick 15).

The epidemic shocked the Parisian elite-consciousness; confidence in French and European cultural superiority was shaken to the core. The fact that an "Oriental" disease could so ravage the most civilized city in the world created questions and doubt among governmental administrators, public health officials, medical professionals, and laypeople alike. Cholera not only created a fissure within the public health movement, but also within the sophisticated bourgeois self-concept (Quinlan 309-310).

The cholera epidemic directly and substantially altered the public health movement, forcing the hygienists and the movement to take an honest look at their strengths, weaknesses, and abilities. The epidemic served as a horrific learning-tool that stimulated the movement. It confirmed social and environmental theories of disease causation, increased awareness of local sanitary conditions and the importance of municipal clean-up campaigns, and forced Parisian administrators to take a serious approach to

sanitary reform. Although the protective actions of the hygienists had failed, the epidemic fostered the notion that cleanliness was the best measure of prevention. It encouraged the hygienists to continue their work on unhealthy sites such as dumps, sewers, cesspools, unclean streets, and unsanitary homes (La Berge, "Mission" 21, 187). As Dr. J. Howard Beard states, cholera "taught with terrible emphasis the necessity of sanitation, the danger of procrastination and the cost of indifference" (Beard 516).

When the epidemic hit Paris in 1832, the public health movement was at the pinnacle of its activity and the hygienists were thus primed to study the disease with rational scientific inquiry and methodology. The investigating hygienists were deep in the "trenches" of the epidemic; they cared for cholera patients and conducted door-to-door sanitary investigations. Hygienists were also involved with the contagion from the standpoints of investigation, prevention, management, and care. They used the outbreak to scientifically test their theories regarding disease causation. The hygienists' final report on the epidemic, *Rapport sur la marche et les effets du cholera-morbus dans Paris*, is now considered a "masterpiece of socio-hygienic investigation" (La Berge, "Mission" 185).

While there were several theories of disease causation prevalent at this time, the social theory of epidemiology was predominant among French hygienists. This theory emphasized social factors in disease, arguing that social status and class play a direct role in disease causation, or stated more simply, that poverty causes disease. The hygienists expected more poor people to die of cholera than wealthy citizens, which is what their investigations confirmed (Quinlan 314-316; La Berge, "Mission" 185). As the epidemic seemed to support the social theory of epidemiology, the cholera commission gave the hypothesis quasi-official sanction, leading physicians and hygienists to place more emphasis on social class in disease analysis. Epidemic disease began to be viewed as a symptom of degeneracy. Moreover, during the epidemic, the lower classes also struck a chord of fear among the bourgeois because the disease had spread from the lower classes to the upper classes, shattering the elites' assumption that they were immune to cholera, and forcing the bourgeois to take a greater interest in the uncouth parts of Paris (LaBerge, "Mission" 187; Kudlick 63; Quinlan 315-316).

As is now commonly known, cholera is caused by a water-borne microbe, a bacterium, that enters the body through contact with or ingestion of infected

water, food, clothing, or other items (Quinlan 305). In meliorating sanitation practices, the hygienists were improving the city's resistance against another epidemic. While they made positive, concrete improvements, they did so based upon a fallacious theory.

In entering and ravaging Paris, the cholera scourge proved that the public health movement had clearly failed in some way. In falsely confirming the social theory of disease causation, the hygienists were not forced to challenge their notion and mission of moralization. Although their incorrect theories did lead to tangible improvements for the city and for public health, it was not until the German physician Robert Koch isolated the Asiatic cholera bacillus in 1883 that the social theory could be scientifically challenged and further progress made against the disease. Even

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with this new discovery, however, late-nineteenth century public opinion regarding bacteriology remained skeptical, even as the discipline became more central to medicine (Furst 12-13).

While their conclusions regarding the social theory of disease causation were incorrect, the epidemic forced hygienists and physicians to challenge their beliefs through detailed research. The hygienists' rigorous methods of investigation produced thorough public health reports that dealt with such variables as topography, sex, age, atmospheric conditions, humidity, soil, elevation, levels of habitation, and prison populations. They thought that such reports would also strengthen the movement by garnering and solidifying public support for their sanitation movement (Quinlan 311). In addition, the cholera epidemic "problematized traditional thinking about disease and environment, forcing doctors to consider epidemics in different ways" (Quinlan 312). Because

the epidemic forced physicians and hygienists to challenge their preconceived notions of disease causation, whichever theory they prescribed to, hygienists and the medical community were obliged to question scientifically and methodically what they thought they knew.

The changes brought about by the 1832 epidemic, both within the discipline of public health and among society at large, resulted in a nearly silent reaction to a second Parisian cholera epidemic in 1849. Statistically, both epidemics affected Paris in a similar manner, both striking the city in March and lasting throughout the summer. Whereas in 1832 nearly one in every nineteen Parisians was diagnosed with cholera, in 1849 approximately one in every twenty-eight inhabitants contracted the disease. Paris lost over eighteen thousand of her citizens in 1832 and nearly twenty thousand in 1849. Yet, the epidemic of 1849 was greeted with silence throughout Paris. The latter epidemic received less attention in newspapers, government reports, non-government reports, memoirs, and medical reports (Kudlick 1-5).

This divergence stems from the new and different attitudes toward disease that Parisians held in 1849. At this later date, Parisians witnessed better cooperation among city administrators, doctors, and Church officials, which alleviated some of the tensions of the 1832 outbreak. The Parisian community also showed more compassion and gave greater assistance to the urban poor during the time of the second outbreak (Kudlick 1-5). The fact that the 1832 epidemic strengthened the public health movement and fostered public desire for sanitation reform and assistance to the urban poor created a distinctly different environment in the capital city when cholera struck again.

Cholera, although devastating, was thus an agent of positive inquiry and change for the public health movement. Dr. J. Howard Beard argues that “diseases which do most for public welfare strike suddenly, kill quickly, destroy commerce, and cause panics” (515). The fear of cholera produced very practical results, both within the public health movement and among the public at large. Out of disaster and tragedy were born improved living conditions, a cleaner city, better sanitation, and a sense of social responsibility (Beard 515-521).

The importance of the public health movement, and accordingly the 1832 cholera epidemic, must not be understated. In investigating issues such as sewage, water supply and dispersal, prostitution, food and drink safety, and disease control, the nineteenth

century public health movement in France was a precursor to many of the public health works that we, at the turn of the twenty-first century, take for granted. Today, throughout much of the world, people enjoy safe and monitored drinking supplies, efficient sewage management, and food and drug supervision, among other public health measures. What we benefit from today has deep roots in the public health movement in France throughout the late eighteenth and nineteenth centuries, which itself was improved and made more visible by the Parisian cholera epidemic of 1832.

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# ON THE PATH TO THE POND

by Jennifer Swanton Brown

On the path to the pond  
she walks ahead of him.  
He hears the distance between them vibrate  
with light,  
he watches her shoulders tipping  
like small craft in a storm  
even though the hot afternoon  
is calm—

She inhabits their marriage  
with her estuary of sentences,  
he sings in the mountains  
his *no* language.  
She came up to him from her turtle-  
wide water, she named  
the yarrow—

He imagines the distance  
moves with music,  
the mated phrases alive  
between the bar lines of his  
body and her body,  
the tones in their rows  
a complicated syntax  
of pitch, length  
and breathing—

She stops ahead of him,  
rotates her ankle to free  
her foot from its sandal,  
her toes touch the ground briefly  
as if to shake out a stone,  
a graveley word that  
worked its way into her  
walking—

but her gesture reveals  
another name, this time for lovenge.  
He sees how  
she lives all the time this way,  
as if with her very gait,  
every dipping breath,  
she is testing the temperature of the earth  
before stepping in.

PROLOGUE: *Soren Kierkegaard (1813–1855), the Danish Christian existentialist, wrote a meditation about Abraham’s ordeal on Mount Moriah. God had commanded Abraham to go to the mountain to offer his son, Isaac, as a sacrifice. Fear and Trembling<sup>1</sup> begins with four differently imagined accounts of Abraham’s journey to the mountain. In each of these re-tellings Abraham’s response is different, but always lacking in faith. The body of the meditation tells what is, for Kierkegaard, the real story. In this account, Abraham accepts God’s command, goes willingly to sacrifice his son because God has commanded it, and believes paradoxically in both the necessity of the sacrifice of Isaac and the necessity that God will save Isaac from death. This absolute faith makes Abraham completely outside the understanding of any other person. Abraham, in his lonely and unquestioning faith, is the heart of the existential dilemma.*

perhaps like this one, scalable by a horse or donkey, high and cold. Abraham goes to the mountain, and the journey may have been beautiful, but he holds in his mind and heart a purpose known only to himself and to God. He goes to the mountain to kill his own son as a sacrifice. He goes as God has commanded, but he dreads the journey. Journeys, no matter how much anticipated, begin with a sense of dread, a foreboding that is anticipation and even excitement, and continue with movement toward the as yet unknown and the discovery of a future still hidden. Faith stronger than the dread is needed, and if the journey is successful, freedom is attained at the end: freedom of knowledge, completion and resolution. Abraham’s journey began in dread and in faith, in dread of the purpose, in dread of the absurdity of the command he was obeying, in faith that the journey into the unknown would find him at the end free of the burden of his purpose, free in his faith. But we must imagine that the purpose of Abraham’s journey made this, of all journeys, the most dreadful.

After a little way up the narrow trail, we are in a deep woodland out of sight of the road. The trail will continue at a steep incline for most of the ride up to the peak. The woods are cool and sheltered, studded with filtered sunlight and woodland flowers, and interspersed with lovely small alpine meadows in full bloom. The meadow flowers are arranged like rock gardens with mixtures of bluebells, Indian paintbrush, white yarrow, yellow mountain sunflowers, and light purple asters. It is as if someone had carefully planted each flower to be perfectly spaced among the others, the colors perfectly harmonized. In the more shaded areas are blue lupines, pink wild geranium, and the red fruits of the poisonous baneberry. This is where we see the stripped trunks of the bear trees, and we think this a perfect habitat for a bear, flowery, quiet and sunny.

# KIERKEGAARD IN WYOMING: REFLECTIONS ON FAITH AND FREEDOM IN THE HIGH MOUNTAINS

by Nancy Krajewski



We are riding horses up to a high ridge in the Absaroka Range in northwestern Wyoming on a crisp, sunny day in August. We will spend three to four hours on the trail up to Soubllette Peak, at about 11,000 feet, where we will have a picnic lunch and then ride back down. The 15 of us, two wranglers and 13 guests, have brought the horses by trailer from the guest ranch in Grand Teton National Park up to the trailhead about 3,000 feet below our destination. We can see the mountains of the Teton Range to the west of us and we know that the ranch is down there, although its green-roofed barns and cabins have disappeared into the folds and valleys of the foothills below us. We start up the steep trail into the woods and meadows through which we will go until we reach the tree line at about 9,500 feet. This is grizzly bear country, and we see a few “bear trees,” recognizable because the trunks are stripped of bark up to about 10-12 feet from the ground. We will most likely not see any bears, although we know that the bears will see us. We are safe because there are 15 of us and because we are on horseback, and even a single horseback rider seems very large and formidable to the bears. We place our faith in the wranglers. They have ridden these trails before, and they have cell phones and, if we were left alone, downhill in any direction leads to roads and help.

I am reminded of Abraham going to the mountain to sacrifice his son Isaac, as Soren Kierkegaard once imagined it in his passionate work, *Fear and Trembling*. Kierkegaard meditates upon Abraham’s journey, how it could have been and how it must have been. I imagine our journey up the mountain as being like Abraham’s journey. He came from an arid valley, as we are doing, and saw the mountain in the distance, a mountain

Did Abraham ride through flowery meadows and cool shade? He surely experienced the ride: the footsteps of the donkeys, the slow progress, his own anxiety. His purpose continually in his mind, he did not speak to Isaac. Kierkegaard notes how glibly we speak of Abraham’s journey, how easy the story is for us to tell, and how little we understand of it. Abraham’s journey is an ordeal, and the three and one-half days are slow and arduous (53). Kierkegaard begins with the journey and its pain. This is where Abraham, in his faith, gives up Isaac, gives up speaking, gives up his hope and his future, gives up everything and resigns himself. Abraham’s task, which he has accepted from God, is to sacrifice not just a son whom he loves more than himself, but to sacrifice Isaac, who is the son God had promised, for whom Abraham had waited 100 years, and in whose life lies the hope of future generations. The absurdity and contradiction are apparent, and who of us would have kept faith when faced with such a demand from such a God?

For Abraham, however, faith was not a question: it was simply a matter of his being. He answers the call of God “cheerfully, freely, confidently...” (21). How can one understand this? Kierkegaard is accurate when he asks who among us has ever answered cheerfully to the trials and difficulties of life. We timidly hide from the real trials. Thank goodness it isn’t me, is our usual reaction to hearing of the illnesses, accidents, and misfortunes of others. How can we be as Abraham in the face of the tasks of our lives? Kierkegaard would remind us to remember the preposterous. Abraham’s faith was not that he would die and receive eternal life; it was that he would be blessed in this life, that he would be the father of multitudes, as many as the stars in

the sky (Gen. 17:1-8)? It is preposterous for Abraham to hold to his faith in God's promise for the future and at the same time fully resign himself to the sacrifice of his son as God requires. Who among us would go to the mountain with Abraham, with a task like his and with his faith?

As we ride up past the tree line, the trail disappears and we continue across broad meadows that fall off steeply on each side. Each meadow lies higher with little swales in between, so we are always climbing up to a grassy ridge, then down the shallow depressions, and up across the next meadow to the next ridge. The riders ahead of me become silhouetted and lonely on the ridges and seem to disappear over the tops, but I catch up and see that this is only an illusion. Like them, my horse and I drop down the steep slopes and then climb up the far sides again.

All along the ride up the mountain, we have little tests, little temptations to lose faith in ourselves and our horses, to give in to fear, worry, even panic. The bear trees are a test, as are the steep climbs and descents. Abraham's faith was tempted beyond our comprehension: he must not doubt God and he must not try to avoid God's request. Abraham was tested as an individual alone in his relationship with God. Kierkegaard describes this as putting the individual, Abraham, above the universal ethic. Abraham's response to God's command, his "faith that God would not demand Isaac of him" together with his willingness to "sacrifice him if it were demanded" (35), is absurd. The two outcomes are mutually exclusive in human terms and cannot be comprehended in reason, but they are exactly comprehended in Abraham's faith. Abraham's temptation is to revert to the universal ethic, to reason with God and with himself and by reasoning to save Isaac. But if he is not to lose himself and his faith, he must put his duty to God above his duty to conform to ordinary ethics. Abraham does not lose his faith and he follows the command of God until, as he is ready to kill Isaac, God intervenes and provides a ram for the sacrifice.

The final paradox is that Abraham is ethically right as he prepares to sacrifice his son's life at God's command, and at the same time, the prohibition against killing another human being is not erased. The universal ethical demand for a father to love his son and to place the son's life before his own was as operative before Abraham as it is after him. There are only two possibilities: either Abraham is a murderer, for any that commit murder in their hearts are indeed murderers (Matthew 5:21-22), or the universal ethic is suspended and Abraham is above it. For Kierkegaard, neither of these are true: the universal command, "thou shalt not kill," can never be compromised or broken, and, at the same time, Abraham's intention to murder his son is righteous, a paradox that cannot be accepted by reason but must be accepted by faith.

Kierkegaard finds no analogies to Abraham's situation, except perhaps a "later one" (56), by which he may have meant Christ. We can perhaps see an analogy in contemporary choices regarding the end of life: continuation, or not, of life support for a loved one or, for ourselves, continuing or not continuing treatments for terminal disease. We are all Abrahams in our world, asked to make decisions not covered by normative ethics. The usual right/wrong of ethical thinking is suspended for such choices, as it was for Abraham. The duty is to the absolute, the ultimately human and humane, and those who never need to make this choice will never understand what it is to be, like Abraham, beyond the universal ethic in this way.

We continue to ride through meadows of grass where flowers are fewer, and as we climb higher, the wind blows and the air grows colder. Finally, we reach a shallow, bowl-shaped meadow bordered with outcroppings of rock at the top of the highest ridge. The wind is fierce and very cold, and we put on more layers of jackets and sweatshirts.

On the peak, we are as if on top of the earth. Mountains surround us in all directions, and we look down on a valley floor with a small river connecting three tiny lakes like a string of intensely blue beads. The snow-covered mountains to the east are the Wind River Range, one of the most remote and wild of the wilderness areas of Wyoming, and we see Grand Teton far off to the west. We dismount to let the horses graze, and we dig out our packed lunches from the saddlebags. Then, looking for sheltered places to eat, we find pockets in the rocks along the edge of the ridge overlooking the valley, and miraculously we are all warm and cozy sitting in our little crevices and depressions. I choose a flat, sun-warmed rock slightly below a larger one so that I have everything one could want: warmth from the rock I am sitting on, a place to set my lunch, and a warm backrest.

Our views from here are immense. The mountains stand back from us, lovely and silent, and we hear only the wind rustling the grasses across the meadowy ridge. A small bird flits by, and I wonder what kind of living he makes up here where there are no trees, and if he nests so high up or if he is only a day visitor.

There are tiny butterflies lighting on small flowers hidden in the grass. Someone sees a coyote far across on another ridge, making his way up higher, looking as though he knows where he is going, and we wonder at seeing one alone this high up.

We feel that we are heroes on this ridge, and that not many can come up this high. Abraham may have felt exhausted, weighted by his purpose, imagining the sacrifice he was to make, but did he also feel the rush of being on top of the mountain? Did he feel like a hero? For Kierkegaard, Abraham is not a hero in the usual sense of someone who has accomplished a great achievement. He is not even a tragic hero. Abraham is a hero of faith. He is never going to be understood either before or after his act of obedience to God's command, and he will never be able to explain himself or his journey.

Kierkegaard's individual hero, his "knight" of faith, gives up everything human and understandable in his duty to the absolute. Abraham is unlike the classic tragic hero, who gives himself up for universally understood values. In Kierkegaard's view, Agamemnon, sacrificing his daughter for a favorable wind and victory for his people, is a tragic hero. He gives up his human desires and sacrifices the daughter he loved. His is a personal tragedy that happens through a confluence of events, tragic but understandable. Abraham gives up the universal, that is nobility, glory, understanding, for his individual duty to the absolute. The tragic hero and the knight of faith both violate the universal ethic — Agamemnon and Abraham are both murderers of their own children. But for Abraham, the murder of his son is above the personal and the humanly tragic; it begins in his relationship to God, not in events of ordinary life; it is absurd since the sacrifice of Isaac would have destroyed the very future that God had promised.

We need to go down from the mountain, and so we gather up our lunch bags, in order to leave nothing behind. We want to think that our passage is invisible, that the meadows and this beautiful high ridge are pristine and unaffected by the horses or ourselves. But we have left marks: flowers trodden down, grass eaten by the horses. The mere fact of our being here perhaps forced the coyote to go up the far ridge rather than the one we are on. We want to believe that we have discovered this place, that it was untouched before we got here, and that no one will be here again.

One of the wranglers points to Grand Teton, far off in the distance, and we know that the ranch lies that way and down from here. The ranch, invisible and small in the grand scale of this landscape, is where we will be before the end of the afternoon. From up here, it seems impossible. Where do we find confidence to start, and how can we believe that we will make our way back to the ranch? How will we find our way down through the meadows and the trees to the right trail? Our horses will touch each foot of the way down, each slope, each steep path.

The wind blows and blows. We mount up and start down, pushing around the side of the ridge into more wind, riding across a large meadow, and finally dropping below the tree line where the wind stops and there is a resting place. It takes about an hour to get down this far, and we have more than another hour to go to the trail that leads to the road.

What did Abraham think as he came down the mountain? Kierkegaard reflects on his relief and joy (22–23, 37), but says little more. Abraham could not be understood by anyone, and perhaps even Isaac never understood why the intended sacrifice was to have been himself. In the end, it doesn't matter so much what Abraham thought or did after the journey to Mount Moriah. He stands as an individual whose unique task was to await a promise in faith for 100 years, to gain the fulfillment of that promise in his son, then to be asked to sacrifice him in an unthinkable act of faith. And no one would understand this.

As we ride down the mountain, we are on our way back to the ordinary world, the world of roads and signposts, and people. At the ranch, food will be waiting, and there will be rest and warmth and comfort. But we have ridden our horses to the top of the mountain. We have felt the wind and the cold and the loneliness of the wilderness.

#### NOTES

<sup>1</sup>All page numbers are from Kierkegaard, Soren. *Fear and Trembling*, in *Fear and Trembling/Repetition: Kierkegaard's Writings, Vol. VI*, trans. by Howard V. Hong and Edna H. Hong. Princeton, NJ: Princeton University Press, 1983.

<sup>2</sup>Biblical citations are from *The Holy Bible*, Revised Standard Version. New York: Thomas Nelson & Sons, 1952.

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# DO LAWS GOVERN THE EVOLUTION OF TECHNOLOGY?

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by Denise Osborne

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In *Gesture and Speech*, Leroi-Gourhan poses the idea that we neither direct nor control our technological progress, but that it evolves as a consequence of natural processes, just as we do. If this suggestion is correct, then we must wonder what these natural processes are. Could the processes that steer our technological evolution be resolved into physical laws, and if so, what might these laws be? What determines the evolution of technology—what laws govern it?

Attempting to understand ourselves by searching for laws of nature is not new. In an ironic twist, the same Enlightenment that gave us absolute dominion over nature immediately discovered ways in which we are subject to it. Newton looked at gravity and found that we are held fast to this earth by predictable rules, and Carnot and Clausius further restrained us with the laws of thermodynamics. Since then, scientific advances have continued to codify into the laws of physics a system that describes how we are restricted by our universe. We cannot exceed the speed of light; we cannot create new energy or matter, and we cannot stop an endless increase in entropy.<sup>1</sup> Physical laws limit even simple motion and movement, require that momentum be conserved, and require that, for every action, there be an equal but opposite reaction.

Conservation laws are a category of physical laws of particular interest. The restrictions resulting from these laws—like conservation of energy and mass—tell us that some things have persisted unchanged throughout the evolution of the universe, even since the Big Bang. Conservation laws ultimately govern all movement and change, remaining constant and objective even in the face of relativism. They require

that for every change of a conserved quantity, an equal and opposite change must likewise occur.

In fact, quantities that are conserved—called *invariants* by physicists—seem to have a more meaningful existence than many other physical quantities. Invariants are the ultimate basis for most solutions to the equations of physics, and they simplify our understanding of the structure of our universe. Because invariants remain unchanged in the midst of change, they seem to preserve for us a kind of a physical reality, echoing Hanna Arendt's conviction that our reality is best understood by identifying and examining those things which remain constant:

Only where things can be seen by many in a variety of aspects without changing their identity, so that those who are gathered around them know they see sameness in utter diversity, can the worldly reality truly and reliably appear (Arendt 57).

Thus, to best understand the evolution of technology, perhaps we should look for its invariant—its aspect that remains unchanged—and maybe we'll find our natural law there. If, as Leroi-Gourhan has suggested, natural processes and laws direct the "movement" of technology, then, as in all physical systems of movement, there would be a conservation law that would limit it as well. Rather than conserving energy, which is the motive force for motion in physical systems, it would conserve "benefit," which is the analogous motive force of technology. Benefit can be defined as the goal that a technology aims to achieve; it is the way in which the results of the technology do good. Conserving benefit would mean that every benefit that humankind has received from its technological advances would require an equal, but opposite, "disbenefit."

Perhaps we could call this law the "Conservation of Benefit." It would be inescapable, just like the Conservation of Energy and Conservation of Momentum and all the other physical laws of conservation. And it would predict that for every benefit mankind has generated through the mastery of technology, there has been an inescapable disbenefit. However, unlike the conservation laws that are quantifiable in measurable units, such as mass and energy, conservation of benefit is more of a conceptual construct.

Moreover, perhaps this quality that we call "benefit"—which we have likened to energy—would have, like energy, its own kind of entropy. Like all entropy, it would demand that a kind of unpredictable chaos and disorder be increased each time we release "benefit" into nature.

Of course, we would be irresponsible if we blithely postulated a new law of nature without any evidence. Science has strict standards that we must respect. However, even without scientific proof, we intuitively suspect that a law of Conservation of Benefit might exist because this suspicion is supported by widespread anecdotal evidence. For instance, we have benefited agriculture by creating pesticides to eliminate harmful insects. However, consistent with a law of Conservation of Benefit, there were concomitant disbenefits to these pesticides, such as the unintentional creation of pesticide-resistant insects, and the elimination of beneficial populations of honeybees. Moreover, this disbenefit, following the rules of entropy, spread randomly, so that the pesticides found their way into the drinking water supplies in neighboring communities, increasing the risk of cancer. Similar observations regarding benefit and disbenefit can be made for antibiotics that have created far more virulent, antibiotic-resistant diseases; and chlorofluorocarbons which made superb refrigerants for air conditioners and propellants for deodorants, yet produced continent-size holes in our planet's protective ozone layer.

As we consider this more, we realize that the idea that every benefit has an associated disbenefit—the proverbial "double-edged sword"—is not new. It appears whenever the genie in the bottle grants you three wishes, yet mischievously leaves you with unwanted and unexpected consequences. It is the voice of Faust's Mephistopheles, questioning whether science and technology will ultimately demand its price.

Perhaps until now, Conservation of Benefit has been difficult to recognize because of the inherent lag between the time when we begin to enjoy the benefits of our technologies and when their negative consequences become known to us. Perhaps it is not that disbenefit needs time to evolve—it can be created simultaneously with benefit. Instead, this may be due to the time it takes for us to recognize the disbenefit we have created. Until then, we are simply unaware of what we have done.

But if our technological progress is governed by a law of Conservation of Benefit, then our error would be to ignore it, carelessly pretending instead that we are somehow free of its consequences. We have already seen what happens when we are simply unaware that a disbenefit has been created: species expire due to DDT poisoning, the ice caps begin to melt, and forests wither under acid rains. Have we deluded ourselves into thinking that we are making progress, as we watch our technological advances increase almost

exponentially? What if disbenefit—the shadow side of this progress—is likewise increasing exponentially? What if there really is a law of Conservation of Benefit, so that the sum total of all our "progress" is zero?

But I have digressed. Proposing a law of science still requires that one offer proof of its existence, and anecdotes are not sufficient. Perhaps this law could be proved by postulating its opposite, namely: has there ever been a technology without disbenefit? Is there any technology that humankind has created that has not had negative consequences?

Mankind's original technology—fire—led to deforestation. Early hunting technologies, even though they were primitive, caused the extinction of species. Since then, each technological age has left its negative impact. Mining practices during the Industrial Age released lead, mercury, and radioactive minerals which continue to leach into today's drinking water supplies. The Chemical Age left a legacy of lethally contaminated Superfund sites, Bhopal-like explosions, and environmentally-persistent carcinogens. The Nuclear Age still threatens us with world-wide annihilation, and the Genetic Age, still in its infancy, holds the risk of a strange new world that we can only as yet imagine. Concurrently, the Modern Age of consumerism has left us with mountains of non-biodegradable trash to throw away, even though no "away" exists.

Does every technological advance have its downside? Most of even the simplest household conveniences from toasters and electric toothbrushes consume electricity, and generating this power necessitates the exploration, extraction, transportation, refinement, and combustion of fossil fuels which leave a trail of negative environmental impact, social injustice, and even war behind it. Similarly, nuclear fission energy—a technological breakthrough that could replace fossil fuels with almost unlimited electrical power—creates a deadly waste with a lifetime far longer than ours, while it simultaneously proliferates knowledge and materials that increase the likelihood of nuclear war.

Remember too, that for each of these disbenefits, entropy is still at play, spreading disbenefits across the planet unpredictably—irreversibly unless great effort is expended—in ways that were rarely ever anticipated when these technologies were first deployed. Thus, exhausts from cars and urban centers may be creating a global warming that will change the earth's climate, turning distant pasturelands to desert and threatening coastal cities world-wide. Similarly, chemical toxins have spread to organisms living in the remotest regions of the ocean floor.



Although we have not yet proved our law, what would be gained if we did? Generally, we hope to discover the laws of nature so that we can better understand our world. They let us know what we can and cannot do. Accordingly, if we could prove the existence of a law of Conservation of Benefit, how would it change our understanding of the “bottle” we live in, that aforementioned bottle of physical laws that constrains us on earth?

Perhaps it would change our perception of our relationship with Nature, altering our assumptions about where power lies. As Horkheimer and Adorno stated in *The Dialectic of Enlightenment*, not only did our Enlightenment fathers leave us with an alienation and disenchantment from Nature, they also taught us to arrogantly presume our superiority to her, exploiting and dominating her to suit our whims. Consistent with eighteenth-century conventions, she was intentionally feminized, further underscoring her subjectship to patriarchal notions of Reason and Rationality. We have felt bound only by abstract physical laws—laws like Einstein’s  $E=mc^2$ , governing lifeless substances like energy and light—while no laws limited our authority over Nature.

But even though our technological power has made us feel that we dominate the earth, other evidence should remind us that we remain somewhat insignificant on both a cosmic and an earthly scale. Carl Sagan once used a universe-in-one-year metaphor to demonstrate our cosmic unimportance. In it, he showed that if the history of the universe were compressed into a single year—one that begins with the Big Bang on New Year’s Day—all of our known human history would occur in just the final seconds before the year’s end (Sagan 13). In Sagan’s model, even the voyage of Christopher Columbus occurs in the last second before midnight on December 31st, and human history is only a blip in cosmic time.

And on an earthly scale, we are merely part of the mix in a thin layer of biota on the surface of the planet. We operate so interdependently as an ecological web, that from a distance we could almost be considered a single organism. Perhaps it is this organism—this biotic layer—that is actually evolving over time, while we are as extraneous as a human appendix. Of course, this is not the impression we have of ourselves. In our view, we stand above earth’s ecological web. This idea can be extended one step further, by postulating that we can be so far removed from this layer of biota that the human mind could exist without either the flesh or the planet which houses it (Lyotard).

Perhaps our delusions about our importance result from our perceptions about our own evolutionary progress. We still think of ourselves as the most erect of the hominids in hierarchical exhibits in Natural History museums—those exhibits that show our evolution from shrew to ape to Neanderthal to man. We appear there at the pinnacle of something, an ultimate position that proves our significance.

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(1) YOU CAN’T WIN,  
(2) YOU CAN’T BREAK EVEN,  
AND (3) YOU CAN’T GET  
OUT OF THE GAME.

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Perhaps to better understand our relationship to the earth, we need a more accurate representation of our evolution, one that recognizes that there is no pinnacle in the system.

Let’s use a tree to depict the evolution of life on earth. The branches of this tree, which we will name Nature, support over one million leaves, and each leaf represents an individual species. Nature has shed these leaves many times, sometimes dropping entire branches without warning. Since the beginning of life on earth, 99.99% of these leaves have fallen, only to be replaced by new growth (Bryson 3). We too, the human species, are just a single quivering leaf on this tree, and if history is a guide it is 99.99% likely that one day we too will fall, perhaps due to causes of our own making. If so, Nature’s tree will probably replace us, continuing to thrive as long as our sun continues to shine, and she will mourn us no more than she mourns the dinosaurs.

If we are limited by a law of Conservation of Benefit—that law that we have still not proven—does our lack of awareness of it threaten our existence on Nature’s tree? Does each new technology that we deploy, ostensibly to reap increasing levels of benefit, contribute to increasing disbenefits? And are these disbenefits steadily sawing off our branch of Nature’s evolutionary world tree?

Even if we could prove that Conservation of Benefit was one of Nature’s immutable laws, and even if it shed light on our technological limitations, changing our perceptions of ourselves and of Nature, could we

save ourselves from its consequences? Or is it possible that we cannot stop the evolution of technology any more than we can stop our own physical evolution? The genie has been out of the bottle for quite some time, and technology could be a manifestation of humanity that we might find unstoppable.

Moreover, even if we had the power to stop the development of new technologies, would we? If we knew with certainty that all of the benefits granted by our technologies were to have inevitably equal and opposite disbenefits, would we continue to manufacture them anyway? Would we continue producing new technological advances if we knew that entropy and a law of Conservation of Benefit would randomly spread deadly and unpredictable disbenefits such as cancer, global warming, mass extinctions, antibiotic-resistant diseases, social injustice, and possible nuclear annihilation? Of course we would, because this is what we do now.

Today we allow a combination of human inquisitiveness, technological ingenuity, manufacturing advances, market forces, and nationalist economics to create a juggernaut of world-wide technological competition. Competition between corporations and countries for technological superiority has made us hesitate to discontinue the most dangerous technological inquiries—like nuclear, chemical, and biological warfare—for fear that if we don’t pursue them, our competitors will.

Perhaps we are apt to ignore the consequence of a law of Conservation of Benefit due to the randomness with which entropy distributes disbenefit. We feel lucky, and our sanguine nature grants us a sunny optimism that we, personally, will not be the ones who experience dire consequences. It’s like the lottery in reverse, with the loser spared the consequences of the disbenefit. Thus, *someone else* will get cancer, and *a species I don’t know* will expire. Global warming won’t destroy American agriculture *until after my life* is over, and *I don’t live* in Bangladesh or the Maldives or any other place that will soon be underwater. Optimism makes the lottery of disbenefit easier to accept.

If indeed we are governed by a law of Conservation of Benefit, it would mean that every technological advance would have a concomitant disbenefit, entropy would spread this disbenefit randomly and unpredictably, and “by law” these consequences would be inevitable. The evolution of technology would thus parallel Dennis Overbye’s summary of the three principal laws of thermodynamics: (1) you can’t win, (2) you can’t break even, and (3) you can’t get out of

the game (Bryson 77). However, in accordance with Hanna Arendt’s proposition that we do “nothing more than to think what we are doing” (Arendt 5), we would at least understand that we are part of the “game,” an understanding that might tempt us to change our patronizing subject-object relationship with Nature. We could turn to her, like Augustine, posing the question: “What am I?” And she would tell us that we are simply subjects under her dominion.

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#### NOTES

<sup>1</sup> Entropy is a measure of the relative disorder and randomness of a system. One way to understand entropy is to note that many thermodynamic properties of matter (such as gas pressure, density, and temperature) tend to equalize with their environment. For example, if a cup of hot water is placed in a cold room, the water in the cup will eventually cool until its temperature equals that of the room. In this case, the heat has left its state of order (i.e., concentrated and contained in the cup), to become released freely into the room, increasing entropy as it does so. Eventually, even the water will release itself from the cup (via evaporation), to equalize itself with the air pressure in the room, further increasing entropy. In systems with high entropy, it is difficult to extract energy to do work, and work is required to return order of the system (e.g., to gather the moisture and heat that has been distributed into the room, in order to put them back into the cup). The second law of thermodynamics states that the total entropy of any isolated thermodynamic system tends to increase over time. Thus, it has been speculated that the universe is fated to a “heat death” in which all the energy ends up as a homogeneous distribution of thermal energy, so that no more work can be extracted from any source. For a good layman’s explanation of entropy, see <http://en.wikipedia.org/wiki/Entropy>.

## CONTRIBUTORS

JENNIFER SWANTON BROWN is currently in her second MLA year, has degrees in Linguistics, German Literature, and Nursing. Once an oncology and hospice nurse, working now as a free-lance medical/technical writer and editor, she is also a published poet, a poet/teacher with California Poets in the Schools, and a long-suffering soccer mom. Brown's interests (academic and otherwise) include: literature, letter writing, mental health, images of the modern mother and wife, collage, knitting, yoga, California's natural and human landscape, and classical singing. She lives in Cupertino with her family.

JENNIFER BURTON graduated from the MLA program in 2005. Her thesis, *Making Room for a View: Tourism and Authenticity in E.M. Forster's Italian Works*, allowed her to indulge two of her great passions: travel and Victorian/Edwardian literature. Since graduation, she has spent her time trying to reverse the chaos caused by five years of housekeeping neglect, while keeping up with the antics and tribulations of her three young sons (ages three, five, and seven).

JOHN DEVINE is a second-year student in the MLA program. He grew up in San Francisco, where coincidentally, all his grandparents lived on April 18, 1906. He attended UC Davis and, while there, earned NCAA All-American honors as a hurdler for the track team. After college, he developed an abiding interest in sea tales and adventures while working on a commercial fishing boat. He attended law school at the University of Oregon, and he is a Deputy Attorney General for the California Department of Justice. John and his lovely wife Mercedes have two children and are expecting the arrival of another child in 2006.

ANDY GROSE is a 2001 graduate of the MLA program. His thesis explored the convergence and interaction of two once prominent nineteenth-century intellectual currents, language reform and zealous millennialism, in the creation of the now largely forgotten Deseret Alphabet. A graduate of the University of Notre Dame and the University of Utah College of Medicine, he is a full-time practicing physician. He lives in Saratoga, California. "The Silk Horse" is one of a set of linked short stories.

NANCY KRAJEWSKI is a second year MLA student, is enjoying the seminars, and is very grateful that she does not yet have to choose a thesis topic. She has a BA in Education from Concordia University and an MBA from Northern Illinois University. She was an elementary and nursery school teacher for

some years before switching to a business career in accounting and financial management. Extracurricular interests have included raising three kids, volunteering and board memberships for arts organizations, reading and photography. After retirement she plans to focus on the MLA program, prose writing, playing the piano, and her current obsession with English horseback riding.

DENISE OSBORNE is a fourth-year MLA student. Prior to joining the MLA program, she voluntarily left a 20-year career in mechanical engineering and structural analysis to pursue a lifelong interest in history, literature, and the arts. She studied mechanical engineering at the University of California at San Diego, and San Diego State University. She hopes to one day embark on a new career that combines her interest in science and technology with her love of the humanities.

LOREN SZPER is a third-year MLA student, planning to graduate in 2007. In addition to the MLA program and full-time work, Loren enjoys participating in sports and physical activities, playing and studying the piano, reading, and traveling. She also serves on her homeowner's board, recently became a certified open water scuba diver, and took a ride in a hot air balloon.

TAMARA TINKER is a third-year MLA student. She attended the Oxford Summer Program in English in 2005 where she studied poets Chaucer, Byron, Shelley and Keats.

MASON TOBAK is an MD who works in psychiatric emergency rooms in the Bay Area. He completed the Stanford MLA program in 2002, submitting a thesis on the philosophy of mind. Readers will be relieved to learn that, despite his misanthropic poetry, Mason enjoys Valentine's Day and believes that all you need is love.

BRYON WILLIAMS is in his second year of the MLA program. He teaches high school English at Crystal Springs Uplands School in Hillsborough and leads student travel groups to Oxford for literary-historical tours of England. Bryon lives in San Carlos with his wife Clair and daughter Ella.

MASTER OF LIBERAL ARTS PROGRAM  
482 Galvez Street  
Stanford, CA 94305-6079

