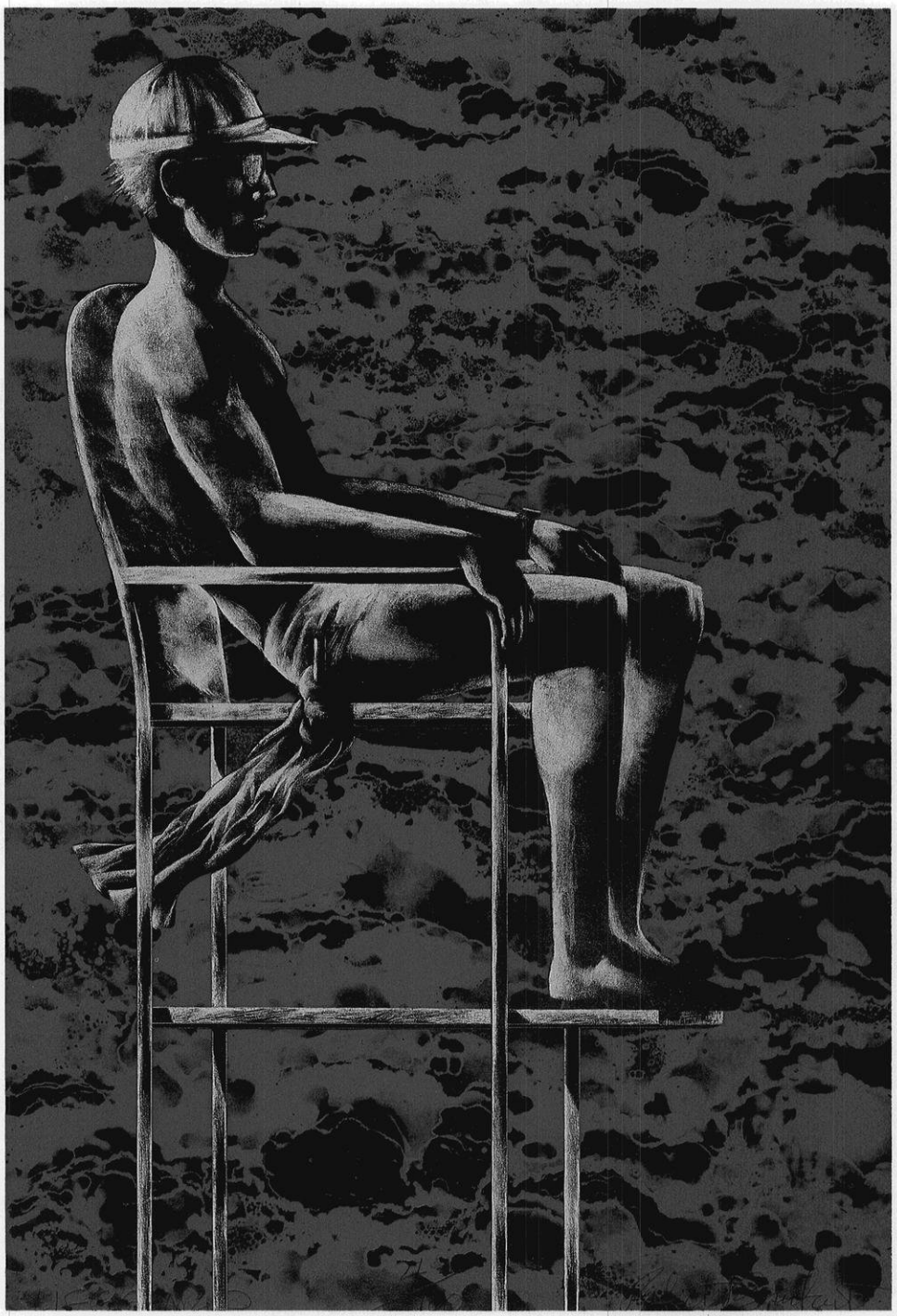
Wisconsin Academy review. Volume 33, Number 3 June 1987

Madison, Wisconsin: Wisconsin Academy of Sciences, Arts and Letters, June 1987

WISCONSIN ACADEMY REVIEW

Published Quarterly by the Wisconsin
Academy of Sciences, Arts, and Letters.



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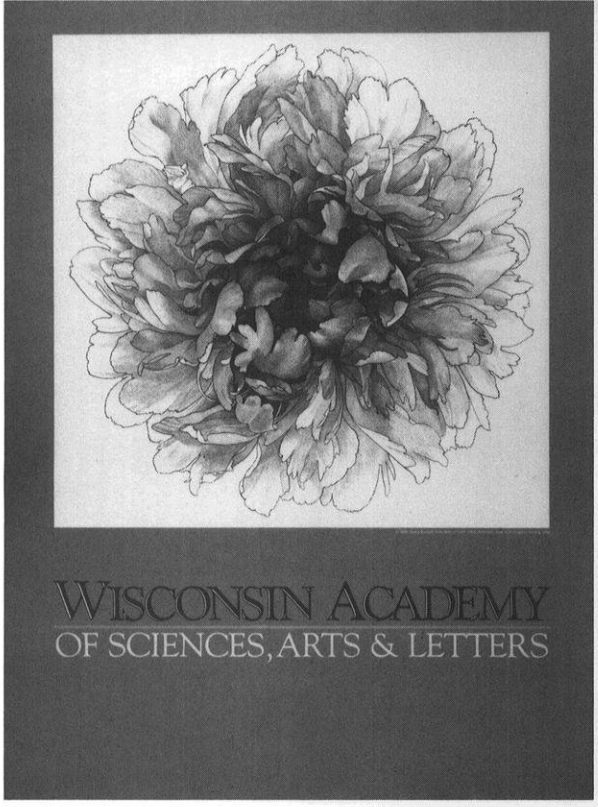
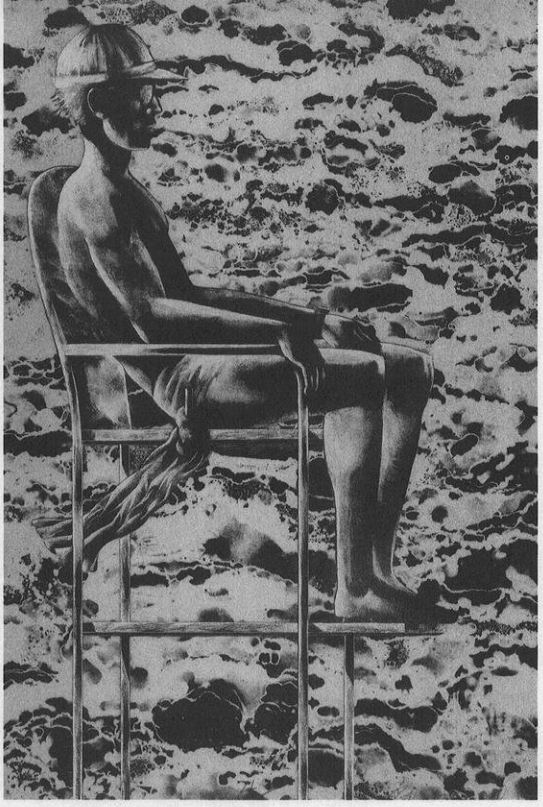


Nancy Burkert, "Centre & Circumference"
Original image in brush and watercolor, ©1980
Poster is high-quality color reproduction designed in 1986 for Wisconsin Academy



Robert Burkert, "Lifeguard"
Two-color lithograph, umber black and cobalt
15″ × 22 1/2″, 1986
Edition of 100, 50 now available

Wisconsin Academy Gallery

The Wisconsin Academy Gallery is a noncommercial exhibition space accessible to Wisconsin artists in all media. The gallery, remodeled in summer 1986 to provide a more diverse space, is managed by a committee of artists. Past gallery fund-raising events have included prints by John Wilde and original works by such Wisconsin masters as Aaron Bohrod, Warrington Colescott, John Colt, Dean Meeker, Don Reitz, James Watrous, and Lee Weiss.

In return for a specified contribution to the gallery patrons may select a poster or a limited edition lithograph. Funds donated help support Wisconsin Academy art programs and publications to advance the interests and understanding of art in Wisconsin.

Contribution—Gift Selection

_____ $40 contribution is eligible for UNSIGNED COLOR POSTER of Nancy Burkert's "Centre and Circumference"

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The *Review* (ISSN 0512-1175) is published quarterly by the Wisconsin Academy of Sciences, Arts, and Letters, 1922 University Avenue, Madison, WI 53705. All correspondence, orders, manuscripts, and change of address information should be sent to this address. Distributed to members as part of their $25 dues. Available by subscription at $15 per year. Second class postage paid at Madison. Typeset by Impressions, Inc. Printed by American Printing, Madison.

Courtesy Circus World Museum, Baraboo, WI.

Excerpt from Suite for Calliope:

A Novel of Music and the Circus

By Ellen Hunnicutt

Norma Bellini, a musician and fugitive, has taken refuge with a group of elderly circus veterans who tend a circus museum and, in summer, stage shows for tourists. Twenty years old, slightly crippled in one leg, Norma plays the steam calliope at the museum. Her elderly friends do not know of her background. Included in their company are Belle, a former aerialist; handyman Popcorn Joe; and Alexander, who leads the show band. A spider monkey has just joined the small colony of people and animals, abandoned at the museum by unknown owners. It is winter and the time is the present.

The arrival of Popcorn Joe in the calliope hall alarms the monkey. He leaps suddenly from my lap onto the keyboard, then to my shoulder. He throws his scrawny arms about my neck and clutches me in terror, peers down the stairway to see the sudden menace, the dull, echoing shuffle of approaching footsteps.

"Is someone coming, Scaddegood?" I ask in a syrupy voice that astonishes me. Although I have lived with this circus and its menagerie for two years, I have formed no close bonds to animals. Traces of my father's dislike for cats and dogs linger in me. If the lioness Monumenta intrigues me, she also repels me; yet this monkey is different. His ability to communicate amazes me. "Who's coming?" I ask. At this moment, Scaddegood wrinkles his nose. He has caught the scent of a friend. He relaxes his grip, nearly smiles, and as if he has understood my question, moves his hands in the motions of turning a steering wheel. The purring hum of an automobile engine ripples from his lips. This performance deserves a reward. I stroke the fuzzy pinhead with real admiration. "It's Joe, then! You're a clever little beast, aren't you?"

Joe appears in the shadowed stairway. "Norma, Belle wants you!" he shouts. "She says you should come. There's a package in the mail for you. She phoned me to come and run you back." Reaching my secluded nest, he discovers Scaddegood on my shoulder. "Belle thinks that monkey's lost!" he exclaims.

"He followed me, Joe. He can open doors. He came in after you left."

"She said she's been searching for him. She thinks he's hidden in the roof of the house somewhere. Who'd send you another package?"

"I ordered blue jeans from the catalog." This is a lie and Joe knows it. I am stalling. During my first

year with Belle, my presence at the farm went undetected beyond our local community. At the beginning of the second year, Reynard started sending me packages. I don't know how he manages to mail them from the hospital nor how long his curious method of addressing them will go unnoticed by others who may be looking for me. There is a package about every three months. With sinking heart, I wonder if I should put the score for the suite under my shirt and start walking. If it is time for me to go, I do not wish to linger one day too long, one moment even. I have learned the lesson of not obeying that quick, hard grip at the heart, that signal to go without delay; but cold weather and the knowledge of Belle's warm kitchen make me reluctant. "Blue jeans," I say again.

"Naw," says Joe, "a big heavy package."

I try again. "I was kidding, Joe. It's old magazines for Belle. This man said they were free and I asked him to mail them to me for Belle."

The excitement slips from Joe's face. The mystery is mostly solved. "There's that writing all through them," says Joe. Belle, then, has opened the package, probably rewrapped it, and already told Joe of its contents over the phone. "Why would there be writing all through them?"

I have answered this question before. So far, all of Reynard's packages have been alike. "That's why they were free. Who wants magazines that are written in? But Belle will still like them."

"The postmark is Richmount, like all the others." Joe is mollified and disappointed. Reynard, then, has not slipped, has not inadvertently provided Belle with my real identity.

I put my music away, rise to go with Scaddegood in my arms, but Joe takes the monkey from me and posts himself across the top of the stairway, barring my exit. He has lost interest in the mystery package. I notice for the first time that he is carrying a rolled poster under his arm. Leaving Scaddegood to cling unaided to his shoulder, Joe now unfurls the poster with delight and begins to explain it to his captive audience. It is a shiny, colorful picture of circus horses pulling a beer wagon, an advertisement. He found it posted in a bar, he explains. The owner of the bar gave it to him, believing it was suitable memorabilia for the circus museum. It is not; the poster is not old enough to be a vintage artifact, but the photograph has enthralled Joe. He wants to tell somebody about these horses and this beer wagon. "Those are Clydesdales," he says, changing to a dry, scholarly voice. "Not Percherons. Percherons are usually gray, dappled. These are ginger brown, don't you see?"

"With the big white hairy feet." I wonder if it is conceivable that the authorities have traced Reynard's package, are even waiting for me at Belle's farm by now. My imagination goes wild for a moment. With my bad leg, I cannot run. I picture myself awkwardly stumbling off across the stubbly winter fields. If I returned to the farm and discovered an ambush, perhaps I could shout, The lion is loose! Create a diversion and buy a little time. Find the toy gun and draw it ominously, stage a standoff. This is ridiculous. What is a little writing in a few magazines? It is cold in January. I stare at the fuzzy feet of the horses in the picture, hear Joe's voice rolling on. Maybe no one cares about my whereabouts anymore. I am twenty, no longer a minor. For the moment, the calliope loft seems safe. A warm lethargy slips over me. When Joe's voice stops, I say, "Tell me about the horses. Tell me all of it. Were they harder to drive than elephants? Than camels?"

Comparing Clydesdales with exotic animals does not interest Joe. He has no easy repertoire of answers for these odd questions and so ignores them, goes on with the story he is already telling me. "April, nineteen thirty-three, prohibition went out. They wanted circus horses to celebrate, for parades, pulling beer wagons. Trucks wouldn't have done it. Not that they didn't have trucks then, motor trucks. Sure they did! They could've had trucks, if you see what I mean." He pauses now, a little helpless, searching for words to express the enormous feeling that possesses him. "It was a celebration they wanted, you see, so it all went together." Scaddegood raises one hand to his mouth, grooms it daintily with his agile tongue, manipulates his tail in sweeping motions, a bit like an orchestra conductor waving a baton. "They wanted circus horses."

I slip comfortably into the refuge of Joe's story, a temporary shelter warm as a fuzzy blanket. The Clydesdales in the photograph are dressed out in bright blue and silver harness, red and white ribbons. It is an eight-horse hitch. Two drivers in green circus livery sit atop the wagon's box. Joe studies the picture intently, dangling it at arm's length with one hand, idly stroking the monkey with the other. Scaddegood is content enough, slack-jawed now and relaxed. Perhaps he is weary from his day's adventure. "Using horses," Joe continues, "was ceremonial. There weren't more than a dozen men in the world could handle an eight-horse hitch." It is as if some detail of the picture has eluded him. "They wanted circus horses," he says, growing more and more animated, a little frantic.

I think of Ezra. "I once had a friend who said both sides of the soul merge in the horse," I tell Joe. "It's an animal suited for both drudgery and ceremony, work and play, dark and light. He said the figure of the horse admits all dark genius into workaday sunshine."

Joe appears to understand perfectly. "Circus people work hard. Folks never appreciate that part of our lives."

"And he said man and the machine merge perfectly in the motorcycle. Perhaps it's the same thing."

"Motorcycles." Joe nods, relieved of his anxiety, grateful for my support. He pats his polished hair with satisfaction.

But I have inadvertently put an end to his story, and I am not yet ready to return to Belle's house. "Joe, this monkey doesn't like music," I say, stalling. "Watch this." I raise my hands above the keyboard as if to

play. Scaddegood has been chewing idly on the collar of Joe's shirt. Now, swiftly, he drops the collar and claps both hands over his ears. He grimaces and sways precariously on Joe's shoulder while he regains his balance.

"Look at that!" Joe exclaims in dismay. "He's been tethered to a calliope, or maybe a big organ." Joe has finished with the poster. He rolls it up and turns his attention to Scaddegood. "Monkeys are abused more than any other animals. Once a publicity man from Cole's had one shaved in a barber shop to get a newspaper story. Had him shaved clean."

"Tell me the story, Joe."

"He caught cold and died," says Joe, but he is done with stories for now. "Belle says to come," he remembers, "come right away."

"I can walk. There's no hurry."

"No need. We don't want this monkey to take a chill. If I drive him back, you might as well ride, too."

Belle is waiting for us, peering through the window. No one else is in sight. I feel swift relief.

As I suspect, the package has been carefully rewrapped in brown paper and tied with raffia. The original creases in the paper are visible. Belle proffers it at the door, now torn between her relief at recovering the monkey and her curiosity over the package. "The mailman brought it," she says.

"The monkey followed Norma," says Joe, handing Scaddegood to Belle. "He was sitting in her lap up in the calliope loft. He's been tethered to one. He covers his ears when he sees her start to play."

I accept the package. Across the front of it, in my father's careful hand, replete with misspellings, is written: Too the girl with the bad leg who playes music at the lion farm. Followed by the name of our village.

Belle is comforting Scaddegood but now turns to me eagerly. "Well, open it up! Maybe it's a nice present!"

Inside the wrapping are four copies of *National Geographic*, the magazine available in most plentiful supply in Reynard's dayroom. "The Swiss Alps!" I exclaim. "What a treat!"

Joe says, "She got them for you, Belle. For free, like before."

Belle sends him a sharp glance for betraying the fact she has already opened the package. "Who are they from, Norma?" she asks.

"A dealer in Richmount." I turn the pages of the first magazine, pretending that my interest is only casual. In the margins, in careful script, Reynard has copied out the book of Leviticus from the Bible. I skim through the words looking for significant insertions or deletions, but the text appears to be unaltered. To Belle and Joe I read, " 'And the Lord called unto Moses, and spake unto him out of the tabernacle of the congregation, saying, Speak unto the children of Israel, and say unto them, If any man of you bring an offering unto the Lord, ye shall bring your offering of the cattle, even of the herd, and of the flock.' " Instructions for orderly worship in the tabernacle. More intriguing perhaps, for my father, lessons in hygiene and sanitation. Beside a photograph of mountain climbers in the Swiss Alps, almost as a caption, Reynard has inscribed the treatment for leprosy. "Listen to this, Belle. 'And the priest shall look on him the seventh day: and, behold, if the plague in his sight be at a stay, and the plague spread not in the skin; then the priest shall shut him up seven days more.' " Perhaps Reynard now believes he has been shut up in the hospital for leprosy. It is the King James version of the Bible, graceful and flowing, secretive, rambling, lending its meaning in a grudging, circuitous fashion. Like my father.

"You haven't been to Richmount," Belle presses on. "Who do you know there?"

"Someone who knows me only as a girl with a bad leg." I set this forth for her consideration. "If the person had known me, wouldn't he or she have written my name on the package?"

Belle sees the logic of this and sighs. Despite her curiosity, she will not betray me. No surreptitious phone calls will be made, no letters to authorities written. I am a little giddy with relief. "Actually, Belle, they're from my father. He has second sight. That's how he found me, but he can't remember my real name."

She sniffs her disdain.

It amuses me to trail traces of the truth right under Belle's nose and watch her reject them as too preposterous to be true.

Belle proceeds methodically. "You say someone in a shop promised to send you magazines but they didn't know your name?"

"They probably just forgot my name. The magazines are free because they're written in. Who wants to buy written-in magazines?" I have decided not to worry about the package. I will simply be cautious in the next days, watch for new developments, but I am always cautious. "Here's Birmingham," I say, turning to the second magazine. Its margins are filled with the poems of Robert Browning. "My Last Duchess" leads off on the table of contents page.

"Birmingham, Alabama, or England?" Belle asks.

"Alabama."Joe says, "I was robbed once in Birmingham, Alabama." He has been preparing to leave. Darkness has now settled over the farm. But he decides to linger, to remember Birmingham, Alabama.

"I once played there with the Cooper show," Belle offers, beginning to prepare our supper. "While we were there, all of the camel men quit in an argument with their boss, a man named Childers. He wanted them to dress up as fake Arabs. They all walked out and there was no one to look after the camels. Then the manager told everyone to sleep in the camel tent that night, to watch them, but I refused. I never lowered myself to such things."

"Birmingham, Alabama," says Joe warmly.

The margins of the photographs of Birmingham have been illuminated with lines from "Pippa Passes." Scaddegood joins me, bends over the magazine with apparent interest, then swings his head swiftly to bite my thumb. This attack seems meant in play, but still

manages to break the skin. "Joe," I say with sudden resolve, "if this animal is going to keep biting me, I'll take him in for inoculations. Can you drive me into town in the morning?"

"That's nonsense!" Belle scoffs. "He's a nice, clean monkey."

"Can you, Joe?"

"Sure," he replies, "be glad to. Belle, let her do it. You know it's a good idea. We've never been able to keep a monkey." Belle and her friends usually doctor their animals themselves. During their working years, they were always strangers passing through strange towns. They mistrusted the local people they played to, wanted no outsiders handling their beasts. Often they could not afford veterinarians and consulted them only at times of real emergency. Sometimes local veterinarians were not trained to treat circus animals, or were fearful of the big cats, the colorful snakes, the rhinos, the larger apes. The circus folk are masters at preparing poultices, lancing abscesses, suturing wounds. Skillfully, they minister to the bloated and flatulent. They deliver the pregnant, abort the unwanted. They deworm and unconstipate, force fevers up or down as desired. When they must, they execute, with cool deliberation, knowing the exact path a bullet must take in each exotic animal to bring swift and merciful death. But their mistrust of outsiders causes them to ignore vaccinations. A working circus administered its own inoculations, had a full medicine shelf. But the vials and syringes of Belle and her friends were empty long ago. Pharmacists will not hand over the medications without prescriptions, veterinarians insist on administering injections themselves. The circus folk make do, and do without.

Belle agrees to my plan by simply ignoring it.

"Will you have a bite with us?" she asks Joe.

Reminded of the hour, he declines and hurries on his way. "Keep the place closed up good or you'll lose that monkey again," he cautions.

"He's calming down," Belle announces confidently. "I doubt he'll go off again."

When Joe has gone, Belle sets before us a supper of fried potatoes and smoked sausage. From somewhere, bananas have appeared. The arrival of Scaddegood has been acknowledged and heralded in the circus community. In the next days, many offerings will be brought to the door for him. A monkey brings luck.

Scaddegood is, indeed, settling in. As we eat, he moves about us languorously, taking bits of food from our plates and eating daintily. In the middle of the meal, he locates the box of cat litter Belle has prepared for him and defecates noisily.

"There's a good boy," Belle says approvingly. And to me, "He has a little gas but his bowels are open. That's a good sign."

The litter box is located in a corner of the kitchen, and now the heavy, sour odor of Scaddegood's accomplishment drifts to us. I wonder if this monkey is humiliated by his confinement, or if he accepts it with grace and rises above it. As if to demonstrate the latter, Scaddegood now sails up into the air and settles on a high shelf.

"Cover it up," Belle tells him firmly. "Scritch, scritch." She makes a small, clawing motion with one hand. To my amazement, Scaddegood comes meekly down, returns to the litter box, and covers his excrement.

"Did someone teach him to do that?" I ask.

"Not well enough," says Belle, "but he'll catch on."

"Where will he sleep?"

"With me, I expect," says Belle.

The cat litter does its work and the odor disappears. I am surprised, as always, at how easily circus people live with animals. Impressed by Scaddegood's intelligence, I make one more gesture of friendship toward him. I offer him a bit of sausage from my fingers. He approaches carelessly, then without warning, snatches the sausage from me and again sinks two teeth into the back of my hand.

"Stop that!" cries Belle, but Scaddegood has once again sailed upward, out of reach. This time he clings to the top of a door frame.

"He doesn't like me, Belle. Yet he sat on my lap in the calliope loft."

"That was work," says Belle, "or he thought it was. He thought it was an act, and he's been trained to behave in acts."

"But when he's off duty he's his own man?"

"I expect so."

"It's the music he doesn't like, Belle. Music and musicians. Yet he followed me. He must have already known I was a musician."

"I imagine he did," says Belle without further interest.

"I'll wash up," I offer, and Belle quickly accepts. She is eager to be at the stack of *National Geographics*.

"I won't cut them up yet," she assures me. I suspect she is as curious as I am to peruse Reynard's carefully copied lines but if this is her goal she is quickly distracted from it. "Here's a picture of zebras!" she announces with pleasure. "I once worked over a pen of zebras. I wore a striped outfit. I guess I looked like one of them all right. It was a big hit."

When the dishes are washed, I join her, find a *National Geographic* featuring British Columbia. The third magazine is embellished with The Book of Esther, the fourth with essays by Ralph Waldo Emerson.

"New York," says Belle, wistfully turning a page. "The Staten Island Ferry." Her voice softens; she extends the photograph for my examination. "Once Alexander and I had a free day and New York was such a delight, so filled with novelty. Europe was the center of all real culture, of course, but New York was so pleasant."

"And Alexander?" I mask my curiosity by returning my attention to my own magazine and staring resolutely at the page before me.

"In New York," Belle continues, "you could find all the fancy, frivolous little things. Thread in every color. I sewed all of my own costumes. On the continent, I wore mostly pure white, but in New York I found

more colored fabrics. I could have been a dress designer, you know."

"What did you wear on the ferry boat?" I urge.

"A simple little shift. It was yellow. And a big hat, white lace with a yellow ribbon. I always wore a hat for protection from the sun. Alexander said the hat made me look even smaller. He could never believe how tiny I was." She laughs lightly, remembering. "We took a picnic and slipped away one day." Scaddegood, as if drawn in by the tale, comes quietly down to nestle in Belle's lap, and she falls silent.

"What was Staten Island like then?"

"Oh, there were lovely open fields with wildflowers blooming, goldenrod and chicory. But on the ferry coming back, I lost my hat. The wind caught it and it sailed out across the water. We never saw it sink. It floated away, carried by a wave, until it was out of sight."

"What did Alexander say?"

But the tale is over. Belle muses, then looks up from the page with genuine surprise. "What did he say? You won't believe this latest story he is telling, to everyone but me. He says he's firing Danny Brundage and hiring a new drummer. Everyone's talking about it. It's all for my benefit, of course. He thinks if he threatens me over Danny I'll agree to his moving the calliope." She pauses to give me a contented smile. "Danny Brundage was drumming for me when I did my first triple. Alexander would never dare fire him. Norma, do you know the problem with the triple? The audience cannot really count that fast. It looks no harder to them than a double. The ringmaster must always announce a triple. The two-and-a-half, where the flyer is caught by the legs, is much more impressive to watch."

But I did not want to hear about triple somersaults, nor about Danny Brundage. I wanted to continue dreaming of the white and yellow hat sailing on forever over the sea.

In the morning, when Monumenta has been fed and Belle and I have eaten breakfast, I fasten a leash and collar on Scaddegood.

"Shots are not necessary," says Belle, "not necessary at all. In a healthy animal community like ours, isolated from diseased animals, there's absolutely no danger."

"What about the sick horse?" I ask. "What about Scaddegood himself? How can you say we're isolated?"

"Not at all," Belle murmurs, but she locates her purse in a kitchen drawer. "If you insist, I'll pay for it, of course. He's my monkey." She presses a fifty-cent piece into my hand. "If that's not enough, you tell me."

"Thank you, Belle. I'm sure it will be enough."

At the sound of Joe's truck, Scaddegood comes to life in my arms, wriggles to look past my shoulder and out of the window. "He remembers riding in the truck," I say to Belle.

"Of course," she replies.

"He's just like a child. He wants to go for a ride." Despite the bites, I do not dislike this monkey. I venture to stroke his head and he responds with an affectionate pat to my cheek.

When we are underway, Joe turns solicitous and conspirational. "Norma, I know Belle doesn't go for shots, but you're doing the right thing. Monkeys are delicate." With two fingers he retrieves a dollar bill from his shirt pocket.

"That's not necessary, Joe."

"I know, I know, but I want to. Let's just say I'm buying an interest in the little fellow."

"Thank you, Joe."

The veterinarian, a woman in her sixties, sturdily built, with bobbed gray hair, is curious. "How is the lion?"

"Old and nearly toothless."

She smiles. "A lion doesn't need many teeth to do damage."

"No, not many."

"They have mostly dog acts?"

"Mostly, yes."

"And they don't bring their dogs in for shots. Do you realize many of the skunks and raccoons in this area are rabid?"

"The dogs are usually confined. What do you make of the monkey?"

"His lungs are congested. I'm going to give him an antibiotic along with the vaccinations. I doubt he's ever had one before, and in that case they work very well, almost miraculously. Otherwise, he looks good. It's probably just a heavy cold." She administers a series of shots and charges me thirty dollars. "You strike me as an intelligent young woman. Tell them to bring the dogs in, persuade them."

"Couldn't you just sell me the rabies vaccine? Circus people know perfectly well how to give injections."

"I'm not allowed to do that."

"They're wary of doctors, of all outsiders. Couldn't you bend the rules?"

"No, but I could drive out there and vaccinate the dogs. I'd do it free, charge them nothing. Try to persuade them."

"Yes, I will. I'll try to persuade them."

Scaddegood is rubbing his bottom from the sting of the shots but as I pick him up to go, he suddenly extends his right hand to the veterinarian. "So, you want to shake hands!" She laughs, taking the small, wrinkled hand.

"I seem to be the only one he bites," I venture.

"I had a monkey once," the woman offers. "They're peculiar little beasts, very peculiar."

Ellen Hunnicutt is a writer and music teacher in Big Bend, Wisconsin. Her novel *Suite for Calliope* will be published in July by Walker and Company in New York. Her short story collection *In the Music Library* is the 1987 winner of the Drue Heinz Literature Prize selected by Nadine Gordimer and will be published by the University of Pittsburgh Press this fall.

The Farm Problem In Wisconsin: Synopsis and Solutions

By Edward V. Jesse

Volume 33, Number 1 of the *Review* was devoted exclusively to articles about the current and future status of farming in Wisconsin. The "farm problem" was appropriately characterized as complex and multidimensional. Authors noted concerns with low farm prices, high debt, structural concentration, environmental degradation from farming, and regional competitiveness. There was much attention to future shock in the form of agricultural biotechnology.

This article attempts to refine further the nature of problems facing Wisconsin farmers. Four dimensions of the current farm crisis are identified, and four broad policy options are discussed.

The nature of the problem

The most visible manifestation of trouble in America's Dairyland is financial stress among farmers. Financial stress means, very simply, a combination of income insufficient to pay bills and equity insufficient to support debt. Four financial measures come to bear in measuring farm financial stress: gross income, production expenses, assets, and liabilities.

All of these measures have changed in such a way as to contribute to current farm financial stress. Gross income has fallen with commodity price declines. Production expenses are high by historical standards because of high interest rates. Assets have declined because of a precipitous drop in land values. And debt is historically large because farmers acquired high-priced farmland using borrowed capital.

Farm financial stress is only a symptom of the current farm problem. Causes are different and more complex. And the problem is broader than what can be measured in terms of financial stress. It is at least partly related to the increasing inability of traditional family farms to compete in modern U.S. agriculture, at least under current farm price and income support policies.

The price problem

Measured in real terms (net of inflation), farm prices for many important Wisconsin farm commodities are at historical lows. The price problem is relatively simple: U.S. farmers are producing more than can be sold at reasonable prices—it is a clear case of supply exceeding demand at prices judged to be acceptable.

The aggregate volume of farm production has changed little since 1980, when the agricultural economy was in generally good shape. What has changed is agricultural exports. In 1972, a combination of international economic events set in motion an unprecedented expansion in U.S. grain production. Farmers responded to lucrative export opportunities by increasing harvested cropland by nearly 60 million acres (20 percent) between 1972 and 1982. Commodity prices were profitable and farm programs were dormant. Cropland previously made idle by government programs was put back into production. So was marginally productive land that had never been cultivated, spawning the terms sodbuster and swampbuster.

The bubble burst in 1982, when U.S. agricultural exports dropped for the first time since the early 1970s. Suddenly, all of the forces underlying increased U.S. farm exports flip-flopped. The U.S. dollar increased in relation to the currency value of our trading partners. Debtor countries stopped borrowing money and initiated an export-at-any-price trade policy to attract the foreign capital necessary to service their loans. General economic depression and escalating oil prices prompted developing countries to delay their conversion from plant-based to animal-based diets, causing a corresponding drop in feed grain imports from the United States.

Conditions unfavorable to U.S. farm exports proved to be chronic. But U.S. farmers continued to produce record crops in spite of falling prices for two reasons. First, government deficiency payments to grain and cotton producers prevented them from feeling the full effect of market price deterioration, and second, many farmers were obligated to expand sales at lower prices in order to meet large fixed interest commitments. Constant production combined with falling exports inevitably led to rising stocks of grain. And livestock product surpluses emerged as livestock producers increased production in response to cheap feed.

Thus, the price problem is one of excess productive capacity. American farmers continue to produce grain for export markets that no longer exist. Much of the cropland brought into production during the 1970s is not needed, but continues to be harvested.

The policy problem

U.S. farm programs contribute to the problem of excess capacity by blunting the supply-reducing effects of deteriorating market prices. Federal crop programs use deficiency payments and nonrecourse loans as basic methods of price support. Target prices are set and deficiency payments made to farmers in the amount that market prices fall short of the targets. Loan rates, set below target prices, serve as a price floor for eligible grain producers. Farmers pledge harvested crops as collateral for crop loans at the loan rates, collateral that is forfeited to the government without recourse if market prices fail to exceed the loan rates. Acreage set-asides, percentages of historical acreage devoted to program crops that must remain unplanted, are usually required as a condition of eligibility to receive deficiency payments and crop loans.

These provisions largely insulate farmers from the realities of the marketplace. Their production decisions are made on the basis of target price and loan levels and set-aside requirements, not on their expectation of market prices. Since the collapse of export markets, the deviation of target prices from market prices has widened. For the 1986 crop year, the target price for corn, for example, was $3.03 per bushel while the market price is expected to be around $1.50 per bushel. Obviously, the government is giving farmers a much different signal about corn value than the marketplace, an artificial signal that is inducing corn surpluses.

Government-induced cheap grain means cheap feed. Pricing feed grains well below their production costs is especially counterproductive in the dairy sector, where the government attempts to maintain milk prices at specified levels. On the one hand, it lowers milk production costs, while on the other hand, it promises to purchase any surpluses that might result from expanded milk production due to these reduced costs.

Regional distortions are also induced. This is a particularly serious problem for Wisconsin dairy farmers, who are typically diversified in the sense of growing most or all of the required feeds for the dairy enterprise. Hence, their feed costs are the costs to produce these feeds. Dairies in the South and West typically purchase their feeds. When market prices are forced below production costs, relative milk costs shift in favor of feed buyers. This places Wisconsin dairy farmers at a competitive disadvantage to other regions, which, not surprisingly, are increasing their market share of U.S. milk production.

Debt problem

While farm debt is large in the aggregate, the debt problem is very unevenly distributed. Most seriously affected are those farmers who assumed large amounts of added debt in response to escalating equity and good farm prices during the late 1970s and early 1980s. A 40-percent fall in land values since then has left many technically insolvent, since purchases were typically highly leveraged. Worse, falling commodity prices have reduced their cash flow well below what they budgeted when the debt was incurred.

It is estimated that in 1984, more than half of Wisconsin's farms generated insufficient family income to cover farm costs, debt service, and family living expenses. Of this group, more than 11,000 farms had a debt-to-asset ratio greater than 40 percent, and 2,000 had debts exceeding assets. With negative cash flow, the probability of survival decreases rapidly as debt/asset ratios exceed 40 percent.

On the other side of the debt spectrum, the Wisconsin Agricultural Reporting Service estimated in February 1986 that 42 percent of Wisconsin farmers had no real estate loans and 48 percent had no nonreal estate loans. However, debt-free farmers tend to be older. Both debt and debt/asset ratios are significantly higher for farmers under forty, farmers typically more progressive than their older peers. This has negative implications for the future productive efficiency of the farm sector.

The structure problem

Farm numbers in Wisconsin have declined steadily since the mid-1930s, with the largest drop in the 1960s. Yet family farms remain the norm in the state. Farms have been consolidated as labor-saving technology allowed family-sized units to operate at an expanded scale.

For most of the last fifty years, there has been only limited public concern about farm structure trends, mainly because farm exit was driven by superior nonfarm employment opportunities and because remaining farmers were capable of generating sufficient economic activity to maintain viable rural communities. Widespread public concern now reflects the fact that farm exit is more a push than a pull phenomenon and that many rural communities are struggling to maintain satisfactory public services in the face of declining business volume and tax bases. There are also less measurable but no less valid social concerns about increasing population densities in large metropolitan areas and declining rural values as the number of family-owned and operated farms decreases.

Maintaining family farms is often defended on grounds that further concentration of the food production sector runs the risk of monopolistic pricing and artificial shortages. This is simply not a realistic threat. In fact, there is contrary evidence from broilers and hogs that concentration results in lower food prices. Neither can it be demonstrated that family farms use more environmentally sound farming practices, though poor conservation methods are more apparent when practiced on a large scale.

While the volume of farm production may not change, further increases in farm size and decreases in farm numbers will unquestionably cause hardship for rural communities as well as for displaced farmers. Many small-town businesses rely on numbers of customers rather than volume. Moreover, large farmers are more likely to purchase production inputs and market their commodities outside

their local communities. If present structural trends continue, the viability of many small Wisconsin towns and villages may well depend on their ability to provide nonfarm employment opportunities for displaced farmers.

Policy options

In discussing possible solutions to the four-part farm problem, it is important to note two things at the outset. First, the state has limited power and resources to modify farming conditions. Second, there is no general public strategy that can simultaneously correct the four separate and distinct problems. Consequently, the focus here is on *federal* policies and the *tradeoffs* involved.

The free market approach

Eliminating government farm programs is a worthy long-term objective if the dominant public goal is to remove policy-induced distortions in farm prices. But termination of government programs in a time of substantial excess capacity would likely worsen the price, debt, and structure problems. Government payments to farmers in recent years have been a major source of farm-related income. A free market approach would drastically cut farm income in the short-run, even though grain prices would probably be as high or higher than currently. Milk prices, on the other hand, would drop to market-clearing levels without price supports, probably $2-3 per hundredweight lower on average.

Without government supports, commodity prices would eventually rise to levels dictated by costs of production. Excess capacity would be eliminated by a downward adjustment in asset values, especially land. Hence, costs of production, which include market return to assets, would be lower since current land values are propped by land's ability to garner government farm payments.

Absence of government payments combined with lower land values would intensify the farm debt problem, since more farmers would be placed in the financially untenable position of having negative cash flow and debts exceeding their assets. Structure problems would be exacerbated due to a faster exodus of farmers and a reduced tax base.

Mandatory production controls

At the opposite end of the farm policy spectrum from the free market approach is compulsory production control. Under this approach, agriculture would be treated as a public utility, with target rates of return assured by setting commodity prices and adjusting marketings accordingly through farm quotas.

Mandatory controls are advocated by many in the farming community as a solution to the price, debt, and structure problems. Prices would be higher by fiat. In spite of reduced sales volume, gross farm income would increase because of the inelastic demand for farm products. Higher income would allow indebted farmers greater opportunity to repay debt. Greater farming profitability would, logically, slow the exodus of farmers. However, to the extent quotas elevate per unit returns to smaller farmers, they have a proportionally greater effect on the incomes of larger farmers. Economies of size cannot be offset by offering higher prices to all.

Compulsory controls would not solve the policy problem, and, in fact, would lock in some of the regional distortions generated by past programs. Quotas would also raise consumer prices, reduce export earnings, and elevate production costs to the extent quota values become capitalized.

Voluntary land retirement

An approach to reducing excess capacity that has been successful in the past is paid land diversion—paying farmers to retire land. Voluntary land retirement is a part of current farm legislation in the form of the Conservation Reserve Program, which pays farmers an annual rent for taking highly erodible land out of production for ten years. However, the eligibility requirement limits both the amount and the productivity of land offered. The soil bank program of the 1950s was more unrestricted and required whole-farm sign-up. Hence, it represents a model for a potentially more effective means of idling farmland through voluntary paid diversion.

Those participating in land diversion gain directly from program payments. Nonparticipants gain to the extent idled productive capacity reduces supply and raises commodity prices. Program payments and higher prices may or may not alleviate the debt problem. Structural effects are equally ambiguous.

A problem with voluntary land retirement is that participation may be regionally uneven, causing hardship to input supply and marketing firms in some areas. However, paying farmers for not producing has not been a politically popular strategy in the past.

Directed benefits

Federal commodity price and income support programs result from a political decision to redistribute income from taxpayers to farmers. Hence, it is incongruous for the bulk of these benefits to be distributed to the largest farmers, many with incomes well above the taxpayers from whom they are being subsidized. The distribution of farm program payments reflects neither the distribution of financial stress nor the size distribution of farmers.

Attention to the debt and structure problems requires closer targeting of farm program benefits. Family farm targeting has been attempted in the past through payment limitations, maximum total payments per farm. These limits have been easy to skirt through ownership reorganization, and they have been too high to benefit family farms differentially. Targeting would be most effective if tied to income maintenance and debt restructuring plans, both of which would be subject to criticism on grounds of special treatment.

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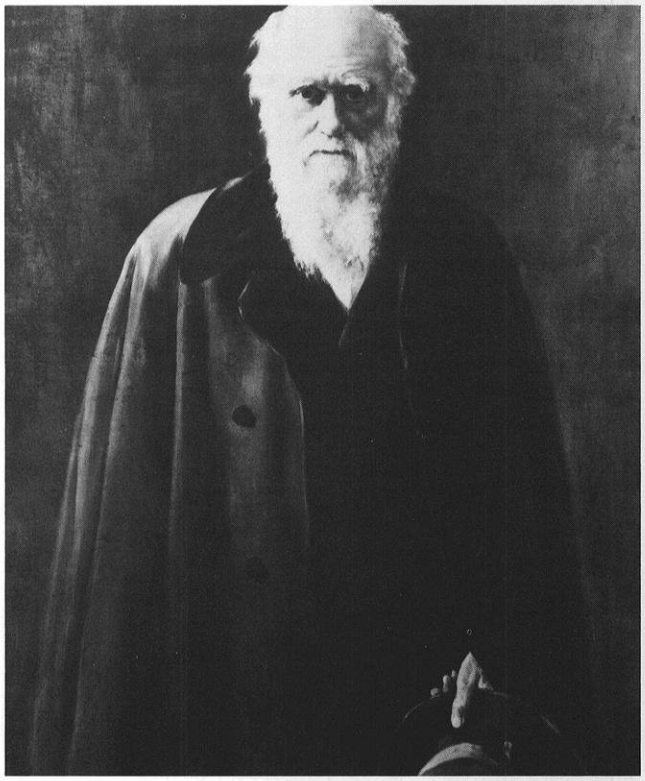
Darwin in 1881. Courtesy National Portrait Gallery, London.



Side Glances at Darwin

By Lester P. Coonen

Although Darwinism is, in layman's language, often synonymous with evolution, biologists more pointedly identify him with natural selection, the theory that explains The Theory. And his image, although sharp in a stylized way, comes through more as a Rembrandt than as a good photograph.

This paper attempts to show some of his hidden qualities, the accidents of his emergence, and certain unusual vignettes. This is not to make him less great, but to meet him, as it were, without his waistcoat, and to view changes in his psyche as well. In double coincidences, America's Lincoln and England's Darwin were born on the same day in 1809, and both were liberators in their respective realms of influence. Darwin, though, was born to wealth and social prestige: Wedgewood fortunes (pottery) on his mother's side; on his father's, wealthy physicians. In modern American terms, he grew up among millionaires.

Darwin was a mediocre student, with a desultory interest in both of his projected careers: in medicine at Edinborough and in theology at Cambridge. Julian Huxley has said of him that he might have had difficulty gaining admission to a good modern university.

A combination of several anomalies in his development makes his emergence as a writer-scientist completely surprising. For instance, without formal training in sciences, he ultimately excelled in several of them. Without experience in invertebrate anatomy, he did definitive work on barnacles, based upon morphology of 10,000 specimens. Further, without formal preparation in them he affected profoundly the content of most other disciplines, leading to what has been called "the Darwinian Revolution." Although he never held a salaried position nor a post of influence, he generated a major intellectual controversy and remained in its vortex without publicly debating on it or defending its tenets. His surrogates carried on without him. And, despite detailed and tedious experiments (he wrote in 1863, "I counted 9,000 seeds, one by one . . ." he worked alone. Remarkable too, are the twenty-some volumes coming from a semi-invalid who called writing "a wretched chore." And, strangely, it was wealth and his chronic illness, in combination, that granted him the necessary independence and isolation he needed. Despite his continental correspondence and the need to read foreign journals, he mastered no foreign language. Surprisingly too, his many experiments demanded only simple "instruments," such as a household yardstick and a room thermometer.

Two examples illustrate his simple methodology: 1) In his study of earthworm activities he measured off small square plots of soil surface, visited them at regular intervals, measured and weighed the worm casts brought up, calculated in inches and tons the cumulative effects during decades and centuries. 2) To study the effect of tactile stimulus on the stems of climbing plants, he went to them, rubbed a pencil against the growing tips and recorded the results. Simple? Pedestrian? Perhaps. Yet he lies buried in Westminster Abbey a few yards from Newton, a master of mensuration.

Unorthodox training

Neither Edinborough nor Cambridge prepared young Darwin for his life work. He was graduated in theology without honors. English universities at that time failed to offer a science during some terms due to want of student interest. Even the Royal Society, already a venerable organization, had reduced activity. And sciences were not even included in university examinations.

Darwin's penchant for natural history, however, directed him to Cambridge professors (Rev.) Adam Sedgewick, a geologist, and John Henslow, a botanist. Field trips with them presented scientific procedures and the delights of discovery. And curiosity led him to read astronomer John Herschel and naturalist Alexander von Humboldt.

Within these dimensions, then, he was a self-made scientist with an inordinate interest in local natural history. Since his youth he had been an ardent beetle collector and an excellent hunter of small game. In other private ways he rounded out his development: reading Gilbert White's *Natural History and Antiquities of Selborne*, learning taxidermy from a negro naturalist, and attending a lecture on birds by Audubon.

Fortuity and the Beagle

His major exposure to nature, however, came after his fortuitous appointment as naturalist on the royal surveying ship Beagle. He was but twenty-two years old when the ship was being readied for a world voyage of cartography, sponsored by the British Admiralty. The appointment, though, came only after two experienced scientists had rejected it and his protesting father had been assuaged by Uncle Josiah Wedgewood.

Not only was chance involved here, but it paid no salary. In fact, to cover preliminary expenses, Darwin's father advanced 500 pounds (perhaps equivalent to $15,000 in today's values). And his regular annual allowance of 400 pounds was to be uninterrupted. Nor did the assignment guarantee scientific recognition. Actually, it promised a delay of several years in Darwin's vaguely projected career in the ministry.

Awakening

During the five year, 40,000-mile expedition Darwin was jolted into some revised perceptions in basic science, and according to his diary his belief in special creation of species was first shaken by the array of organic modification and adaptation—and in resultant taxonomic confusion. Here he found thirteen species of ground finches with morphological gradations so convincing that variations of an *original* form was Darwin's inexorable deduction. And he learned at this time that a local expert could tell at sight from which of several islands a particular tortoise came. To him it was incredible that each of the islands in a group had its own special creation of bird or reptile species. Yet, that conclusion was demanded by the authority of taxonomy's Linnaeus and theology's Paley.

The voyage completed, the Beagle returned to England in 1836. Darwin married, settled in London. Later, his father bought for him a substantial home in Down, about twenty miles from London. For the remainder of his life he worked there among gardens, greenhouses, orchards, and pigeon lofts.

Most of his days were spent in carefully scheduled time segments: a brisk morning walk around his gardens; two hours on correspondence; several hours incommunicado, writing; a specific time with his wife. As he reclined, she read (novels) to him, or they played backgammon. He enjoyed snuff regularly, a cigarette occasionally.

His schedule was interrupted, however, by periods of wretchedness, sometimes requiring "the cure" in baths of an English spa. His illness, often diagnosed as psychogenic, is now occasionally believed to have been Chagas' disease, vectored by the tropical insect *Benchuca.* Upon moving to Down, he withdrew from his geology and zoology societies, in which he had been active. A few intimate scientific friends, however, would visit with him as house guests.

Early recognition

Darwin, now in his early thirties, had already received some scientific recognition from articles published while still aboard the Beagle. And his *Journal of Researches* had appeared in 1839. Now he edited a volume on vertebrates collected on the voyage. Leading biologists implicitly endorsed Darwin by writing sections of the book. Even better, von Humboldt, prime naturalist of the period, generously wrote in 1844, "Young Darwin . . . has succeeded far better than myself. . . . The English fail to read him sufficiently," he went on, "because the author is a zoologist which you imagine to be synonymous with bore."

The Beagle voyage left Darwin with stacks of notes to digest, categorize, and accession. And the disposition of specimens and collated data to authorities actually required years. Within the unwieldy project, however, he was confronted by problems in taxonomy. For instance, handbooks on barnacles had proven particularly troublesome. Darwin's own standards were at sharp variance with the accepted classification of these atypical crustaceans. He was thereby drawn into a weary eight-year study of the group which led to his four-volume monograph on Cirripedia. But that made him an astute taxonomist, and it immersed him in evolution-oriented classification. Listen to him grousing on a near dilemma: "After describing a set of [Cirriped] forms as distinct species, tearing up my MS., and making them one species, tearing that up and making them separate, and then making them one again. . . . I . . . cursed species, and asked what sin I had committed to be so punished."

Only a few of his closest friends, such as Joseph Hooker and Charles Lyell, knew of his mounting belief in mutability of species. A crescendo of confirmations continued with him: His own experiments with domestic pigeons and cultivated plants, his notes on adaptation from his Beagle file, and correspondence elicited from his local and foreign breeders. More and more, he noted that man decrees the perpetuation of

some characteristics and the elimination of others in domestic organisms—and that man is, therefore, an instrument of evolution.

The evolutionist

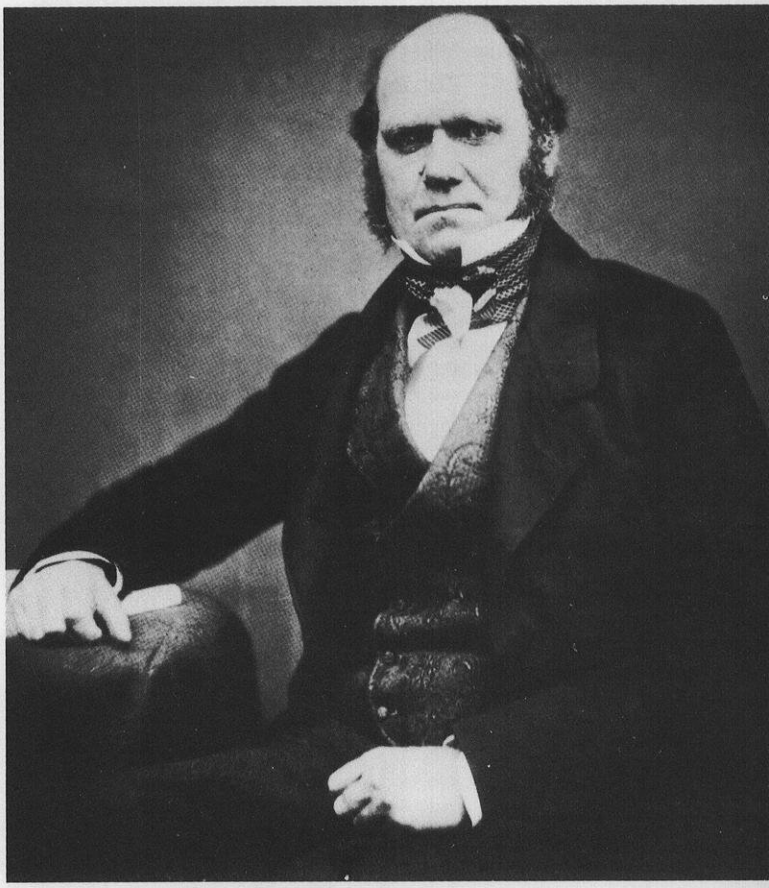
As a student, Darwin had readily accepted Paley's literal interpretation of biblical creation. Paley's emphasis was always upon cause and purpose, never change. But he had read Lamarck and grandfather Erasmus Darwin's treatise, Zoonomia, on evolution, both of which underlined the organic progression. And into the cauldron of his cogitation had gone Lyell's thesis: there is continuous organic and inorganic change, as set forth in his *Principles of Geology*. He had read that multi-volume work aboard the Beagle as each volume became available. In 1838 he had read Malthus's essay on population. Its basic proposition was that species produce more offspring than can be supported within their allotted niche in the economy of nature. In Darwin's mind, it followed, there must be unending natural attrition and, implicitly, the reward was *survival.* And survival went to those best modified to meet the rigors of a changing environment.

These two theses (Lyell's and Malthus's), although old and borrowed, were combined and elaborated by Darwin into an incipient treatise to explain the dynamics of organic evolution. The formulation was done furtively, perhaps because of its imminent confrontation with fundamentalistic creation and, no doubt, because he wanted to cherish and develop it without the pressures of competition.

Gestation was gradual: "As early as July, 1837," he wrote later, "I opened [my] first notebook on Transmutation of Species." And he soon settled on the mechanical site of evolutionary activities, for he noted that sexual reproduction gives rise to variations. By the end of 1837 the Theory was fixed in his mind. Now, as he was forced to invoke genetics, he dredged up the ancient pangenesis theory. He admitted that it was a "provisional theory"—that all sexually reproduced bodies send bits (gemmules), bearing essences of self-descriptive information into their gametes.

In September of 1838, his diary records a startling note on Malthus's thesis, that a *geometric*, rather than an arithmetic, increase occurs in reproduction. Malthus, therefore, taught him that "pressure" is caused by reproduction. And Darwin wrote in his notes, with measured cadence, that "there is a force like 100,000 wedges trying to force every kind of structure into the gaps in the economy of nature." He was well settled now on "selection" as nature's role in the procedure. The definitive stroke came to him only after he had combined the pressure of *surplus* with the restraining forces of a *limited* environment and the *choice* exercised by nature to resolve the stresses at hand. It was not only a neat and simple thought-compound; it was more: his myriad examples of support made it a giant polymer with which to pummel opposition. He was familiar with the writings of many naturalists troubled by the species problem. But Darwin's declarations smelled not only of library buckram; there was redolence of compost and pigeon droppings too, for he continued to probe and pry into many phenomena of nature—even seemingly dissociated phenomena that aroused his curiosity. For instance, he tested for possible methods of long-distance seed dispersal: some seeds, he learned, are viable even after 137 days in sea water. He found on another occasion that embedded seeds, retrieved from a mud ball on a migrant bird's foot, produced 82 seedlings. Such findings became classified notes, grist for cogitation. He was occasionally active, too, among pigeon fanciers, joining their clubs, noting their divergent varieties. On his own, he compared skeletons of wild and tame rabbits, contrasted wings of wild ducks and domestic counterparts, and he compared in detail donkeys and horses.

Darwin at forty-five. Courtesy British Museum.



Writing the Origin

In 1852 Darwin sketched his theory in a few pages of pregnant notes. Two years later he expanded his thesis to 231 pages. After another decade, he began in earnest to write a large, documented tome on the subject. He savored filling that yawning void—species confusion. In 1856 he wrote Hooker of his gnawing obsession (condensed):

> I have been comparing definitions of species. When naturalists speak of "species," with some, resemblance is everything; with some, resemblance is nothing; with some, descent is the key; with some,

sterility the unfailing test; with others it is not worth a farthing. It all comes, I believe from trying to define the undefinable.

Now, after two decades of assembling information and four years of organizing and writing his gigantic premise, his jealously guarded thesis was half completed. All was proceeding well enough for this meticulous worker. All variables were controlled. He was on schedule.

Darwin and Wallace

Suddenly his serenity was jolted. An accelerated pace was demanded now by incredible circumstances. In 1858 Alfred Russel Wallace, a young English surveyor-turned-naturalist, wrote to Darwin for approval of an enclosed sketched-out theory. While ill and confined, Wallace had churned from his thoughts a theory to account for progressive modification of species. In a matter of hours he had formulated his thesis which, in essence, was identical with Darwin's long-secret theory.

Magnanimously, Darwin proposed to Lyell and Hooker that Wallace should announce and take full credit for natural selection. They, however, persuaded him to collaborate with Wallace in a brief presentation before the Linnaean Society. Darwin had written, "I would rather burn my whole book than that he [Wallace] . . . should think that I have behaved in a paltry spirit. . . ."

The two-author paper was read July 1, 1858. Strangely, it generated neither acclaim nor opposition.

Publication of the Origin

Now he resolved to publish as soon as possible a dressed-down version, an abstract. The "brief" book had more than 500 pages and appeared in December 1859. Although choked with difficult data, it was sold out on the date of publication.

Now it met wide opposition—from science, church, and even politics. The outburst of Disraeli is typical: ". . . the question before society," he orated, "is this—is man an ape or an angel? My lord, I am on the side of the angels." Philosopher Herbert Spencer contributed the useful phrases "struggle for existence" and "survival of the fittest."

Personal glimpses

His illegible handwriting appeared even worse as he wrote manuscripts sometimes on bits of scrap paper. To his friends he was generous in praising their publications. Favorable reviews of his works brought this fifty-year-old recluse to jump with joy, according to his letters. His few friends, especially his compatriots Henslow, Hooker, and Wallace, were steadfast. And later, T. H. Huxley became his chief protagonist. Lyell became aloof and could not quite make public endorsement of Darwin. This grieved sensitive Darwin.

Emma, his beautiful and devoted wife, dutifully administered to him in his perennial illnesses. Together they bore many anxieties over their unfortunate children: deaths of an infant daughter, two-year-old Charles (retarded), and teenage Annie, their favorite; the mental breakdown of adolescent Henrietta; and the unending cares of three semi-invalid sons. As a cruel afterthought, Darwin could well have had bitter ruminations on the inheritance factor in his children, products of his consanguineous marriage. Because he later wrote on heterosis in plants, he obviously knew about ill effects of inbreeding and benefits of outcrossing.

Mrs. Darwin moderated her husband's rebellion against religion and prevented, posthumously, publication of some acerbic passages in his *Letters*. Despite lyrical and theistic ecstasy in the last paragraph of later editions of *Origin*, Darwin had been a longtime agnostic. He seems to have regretted that passage. It had been urged upon him by friends.

Darwin was widely honored in his declining years. At his funeral, his body was borne to his crypt by prominent world figures, including the American James Russell Lowell. But long after his death polarization continued into camps of foes and supporters of his ideas.

About a dozen other books by Darwin not mentioned here would, by themselves, have merited world acclaim. Interestingly, many of them resulted from the spillover data not used in his hurry-up publication of the *Origin*. His wide reputation made many of them best sellers.

Epilogue

Although an assiduous bibliographer, Darwin missed the one most important and pertinent publication of his time. Hybridization was extremely important, he felt. So, he found and read the voluminous works on the subject by such men as von Gärtner (800 pages) based on 10,000 experiments; Prosper Lucas (1562 pages); Karl von Nägeli (800 pages)—and others. But none of them got to the heart of the problem. It was the overlooked work of Gregor Mendel (a few dozen pages) wherein quantitative units (later called genes) explained hybrids.

Ironically, Mendel read Darwin's works, but there was no reciprocity, and they did not communicate. Nägeli, the German botanist, could well have been the intellectual bridge, for he corresponded with both men, but he did not understand Mendel's clear, crisp experiments. Or did he ignore them? Mutation as a concept was to be featured by Hugo De Vries's work with the cytologically atypical plant *Oenothera*. It therefore actually delayed the *real* explanation of mutations. All of this came long after Darwin's time.

It follows that Darwin's thousands of work-hours and millions of data did indeed celebrate *Survival of the Fittest*, yet they never could quite account for the *arrival of the fittest.*

Lester P. Coonen is emeritus professor and chairman of the biology department of the University of Detroit. He has a B.A. and M.A. from St. Norbert College and Ph.D. from the University of Wisconsin (1938). He now lives in Fort Atkinson.

The Magic of Self-Esteem

By Barbara J. Bache-Wiig

"What in the world can you teach a bunch of schizophrenics?"

I have found some answers now after five years of successful experimentation with a class created as a part of a federal project. The class was outpatients termed mentally ill, people already participating in the Waukesha County Unified Services' Day Treatment Program. These people suffer from personality disorders, depressions, and types of schizophrenia. They live in halfway houses, with their families, or, rarely, on their own. Their ages range from eighteen to fifty, and their educational levels vary. They come for the two-hour class—originally called Home Living Skills-Communication—with Bill Wagner, a psychiatric nurse and counselor who works in the Day Treatment Program, to Waukesha County Technical Institute where I teach. During the five years of this special class, Bill has brought various people from his program in order to discover who could benefit most from such a class. He has refined his criteria and as new people enter his program, some join our class. Each semester, then, I have some new and some old students.

The attention span of group members is usually short and their language skills spotty. As a speech pathologist and remedial reading therapist, I focus our work on basic language skills. I create opportunities, within the capabilities of the group members, to write, read, listen, and speak. I rely on Bill to back me up in whatever assignment I make to the group; the group members rely on him as the "normal" model whose responses they can emulate. He is at once my helper—supplementing my instructions—and a class participant learning with the other students. Bill, who was once a monk, blends a sense of humor and faith in living with his love for people. He senses just how to be firm, matter-of-fact, and accepting of his clients, seeing always the person, not just the symptoms. Bill and I want the class to be different from but congruent with the Day Treatment Program's occupational, physical, group, individual, and medicinal therapy.

At the outset I wanted to be a magician, to wave a magic wand and turn a disturbed person into a capable, confident human being able to use language easily to reach other people. I wanted to come to class with a top hat full of marvelous tricks which would amaze but, more important, change the members of my group. I wanted to pull speech exercises, games, useful and entertaining tasks out of my magic hat and produce permanent results. I wanted to help students learn to use speech and language in order to be in touch with themselves, with people near them, and with our complicated world.

My major device, my top hat, is my "sanity chart." The chart contains the magic ingredients we all need for maintaining our sanity in a stress-filled society. My magician's scarves, coins, and cards are the speech, language, and communication exercises I use to increase the students' skill and ease in using words to clarify their thinking and to reach out to other people.

Sanity Chart

There's no easy or perfect way to be

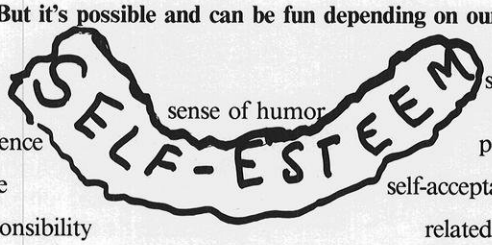
mother—father parent—child teacher—student

mentally ill—mentally well

patient—doctor employer—employee

wife—husband male—female

But it's possible and can be fun depending on our



flexibility sense of ethics

sense of humor

persistence purpose

hope self-acceptance

responsibility relatedness

Which comes from

KNOWLEDGE
(a motivation to learn)

ACHIEVEMENT
(a sense of mastery)

A HEALTHY BODY
(and mind)

HEALTHY HUMAN INTERACTION
(conflict as well as intimacy)

RISK
adventure
challenge
change

My sanity chart clarifies crucial concepts for my students to emphasize the importance of self-esteem, the sources of self-esteem, and the maintenance of it. Just as water keeps plants growing, so self-esteem keeps people growing. For whatever reasons my students have been termed mentally ill, their growth has been stunted, their self-esteem withered. I want them to understand that a central task for all of us is to maintain our self-esteem.

The sanity chart begins with a truism: *There's no easy or perfect way to be mother-father, parent-child, teacher-student, mentally ill-mentally well, female-male, employer-employee, doctor-patient.* The chart continues, *But it's possible and can be fun depending on our self-esteem.* The words "self-esteem" are enclosed in an irregular oval line. As I draw the chart on the board, I ask why I have put the squiggly line around the words "self-esteem." Someone usually says "Because you can't draw very well," as a few others volunteer "Nobody feels swift about themselves all the time." Of course, both answers are correct, but the second shows the student understanding and interpreting the point I make first—that nobody has a steady hold on self-esteem. Everyone needs to work at attaining or regaining self-confidence, self-respect, and self-reliance, qualities which I include as I continue to fill out the chart. I point out that self-esteem comes from five sources: a healthy body and mind, knowledge, risk-change-challenge, achievement, and healthy human interaction.

I explain that our purpose is to improve communication skills and to build self-esteem through writing, reading, listening, and speaking. Doing so will increase knowledge, clarify thinking, add to sense of achievement, offer the fear and fun of challenge, and enable them to practice being comfortable with other people. Our activities become, then, like a time-release cold capsule—a broad treatment within a simple, palatable coating, a treatment useful for a wide variety of people.

Thinking back to the first group I offered the sanity chart, I see the potpourri of people. Some seemed noticeably mentally ill and some seemed ready to rejoin the mentally ill. Melvin, I believe, looked the most unusual. He was between thirty and forty, a brunette with a slender, agile body. He wore a black, double-breasted, slightly wrinkled suit and a white shirt without a tie; he had an aura that seemed to announce, "Leave me alone, I'm special." He had shaved his head about two inches behind his hairline and had penciled a moustache about his full lips. He wore rimless glasses and looked as if he might be playing the part of a once-rich-now-seedy uncle in a high school play. In contrast, Marcie looked like a standard shirt-and-jeans high school student. (She was twenty-four.) Marcie had long, straight brown hair. She wore tennis shoes and had a relaxed walk.

The only clue that she belonged in the group was her sullen pout. Between these extremes were the dozen or so other people. As I looked at them, I noticed avoidance of eye contact, a two days' growth of beard, carelessly combined or wrinkled clothing, a slight scent of mildew, diddling movements of hands, and an insistence on a particular seat or sheeplike shifting into any empty chair.

Realizing that just being in the class was a risk for such students, I wanted to begin my relationship with each group in a comfortable way that would offer a challenge and a change to achieve within a secure atmosphere. Believing what Robert Frost once said "I'm most free when I'm easy in the harness," I organized the two-hour classes into four time slots: work period, relaxation, break, work period. Within the "harness" of predictable schedule, the people could gradually relax because they learned what to expect. For challenge and achievement during the first forty-five minute period, we worked with words in a serious way. For example, one week I might ask the class to "write about five things that you enjoy doing. Write in complete sentences. Use details to make vivid the things you do that make you happy." The next week I might ask just the opposite—to write about five things they don't enjoy, that make them unhappy. What might sound like a rather routine assignment was a challenge to their knowledge of language usage, their ability to attend to a task, and their ability and willingness to recall and describe both happy and unhappy events.

Reading aloud was another challenge during the first work period. In order to discuss sentence structure and content, I asked students to read their own or someone else's material out loud to the group. Either way the students knew that they were taking a risk. Because they had to perform, to be the center of attention, to be looked at and perhaps evaluated, what they said and how they looked took on a new significance. In addition, by hearing and evaluating what each had written, the students increased their knowledge of grammar and of figurative language and also gained a sense of achievement.

A person whose attention wandered, however, could look forward at least to our ten minutes of relaxation exercises at the end of that work period. After we had practiced some simple exercises such as head rolls, shoulder rolls, drawing breath in—holding it—releasing breath slowly, plus contrasting sitting tall/tense with sitting tall/relaxed, students took turns being responsible for leading our relaxation period. The opportunity to risk leading and to achieve the satisfaction of being followed often blended with a group sense of well-being.

After a short break for a snack, we had a second work period during our fourth time slot. We again used words but in a lighter way. I might ask the students to read and explain a newspaper article, listen carefully to a guest speaker, work crossword puzzles, or play Spill and Spell. Another favorite activity was to role-play or dramatize word meanings with instructions like

> With a partner pretend you are in a group of five people. One of you is a *reticent* person. One of you is a *garrulous* person.

The word games provided a change of pace, a comfortable challenge, and spelling practice. The dramatization gave license to a lovely lunacy as well as increasing understanding of word meanings, ability to work with a partner, and willingness to laugh at themselves and each other. I concluded every class by asking each person for a brief statement of something he or she had learned that morning. Many referred to the concepts involved in the sanity chart. "I was scared at first, acting out those words, so that'd be risk. Then I leaned what 'reticient' means—that's like me—and that'd be knowledge. Besides, Harry and me had fun doin' it, and that'd be the human interaction one, right?"

One morning Harry, our class clown who could scarcely sit still or keep his mouth shut for more than two minutes, concluded when I called on him, "I accomplished something. I was glad I could be serious." He had played the part of the school principal in a role-playing exercise:

> You are at your tenth anniversary high school class reunion. One of you is the school principal; one of you had been a debater in high school; one of you had been a loner and now has a business of your own; one of you who had been in the honor society, broke a leg two years ago and limps; and one had almost flunked out of high school.

Harry had shed his clowning and become serious and dignified as he asked the others about themselves. Dick, who had chosen the part of the former debater, had let go of his submissive manner and extolled the fun of an imaginary fishing trip. He concluded, "I look forward to these meetings. After skits like today, I'm getting less nervous."

"Nervous" was a word many of the people used to describe how they felt about our word group, and Bill, their hospital counselor, was no exception. Alyce, a woman who articulated precisely each word she spoke and who pursed her lips often as if saying, "Well, I certainly don't approve of that," concluded one day, "*I* was relaxed, but I noticed that *Bill* was nervous. *He* was jingling his change." Spontaneously modeling a relaxed, confident attitude in response to what seemed meant as an attack, Bill agreed, saying, "I feel good at the end of our time, but in the beginning I *am* nervous. I begin to wonder about the risk and the challenge in doing what Barbara is asking of all of you."

Whatever activity we undertook had a kind of magical effect because my students saw the relationship between what they were actually attempting and succeeding in doing and the vital concepts of the sanity chart. For example, as abstract as

the words "knowledge—motivation to learn" are, these words became concrete one morning when I asked the group to write, then read aloud five sentences about how they felt and what they saw during a recent severe snowstorm. The exercise generated a lesson in spelling, grammar, and figurative language. At the end of our session I asked for conclusions. What they said proved to them and to me that knowledge—learning something—creates a sense of mastery, a sense of achievement so important for self-esteem.

> I liked learning about using sentences to make pictures.
> I liked the meanings of "angry" and "mad."
> I learned something about grammar and that checking our writing is important.
> It's nice to know that we can get help with spelling and stuff.
> I learned that there is such a word as "anger" and you can use it as a verb if you want.
> Even without breakfast, I learned to write (in words) what I see.

Always precise, Alyce wrapped up the class: "Our goal should be to be neat so that our group can have good, clean language."

Of course, no class moves perfectly from lesson to lesson, and I too learned to take risks, to meet challenges, and how to turn accusing criticism into that healthy human interaction the sanity chart stresses. In a later class, a conclusion from Marcie hit me like a cold wet snowball: "This is all a bunch of baby stuff." We had been playing a game of Spill and Spell, half of the group competing against the other half to see which side could come up with the most words created from the thirteen letters which turned up when the cubes were thrown. The game, though simple, was a useful tool. It provided the tension of competition, the demand for attention and thought, and the reality of spelling review all contained in a bearable three-minute time limit. I felt, however, that in part Marcie was right. Some of the games and word activities were "baby stuff," appropriate for younger students. But I also thought that if sullen, pouting Marcie weren't such a "baby," she might not be here. I asked her to explain what she meant and what we could do about making a change if the group agreed with her.

"Well, this dumb game is baby stuff. Who needs to practice spelling that way? Or when we have a guest speaker like that handwriting woman, you make us write a thank-you note. And you have those simple newspapers for us to find articles in. Why don't we have something important like a discussion about what God means to us? You're always wanting us to talk and listen to each other, so how about that?" Her pout was gone, her voice was full of energy, her eyes challenged me and the group. Bill took the opportunity to remind the group about his counseling discussions at the hospital concerning the transactional analysis concepts of Parent-Adult-Child behaviors and games. But Bill was not reprimanding Marcie, for he and I realized the opportunity she was presenting us.

Marcie's confrontation meant that she was strong enough to challenge "the teacher," and that she had positive ideas and realistic complaints. She had put her thoughts and feelings into words and discovered that she was effective, because the group agreed to have a discussion about God at our next class.

The following week I asked Marcie to lead the discussion of the meaning of God. She was direct and poised, welcoming the change. When one member said, "I think anything that grows is God," Marcie asked the group to respond. Someone added, "Every person is God, or God-like." Another said, "You know, God is everything in creation." She asked one of the more withdrawn participants what he thought. He said, "Maybe if I died my spirit would go before a businessman." Thrown off momentarily, she was silent, then, turning to the whole group, Marcie asked, "Well, do you really believe in God or not." The replies she drew out were mixed.

> I don't believe in the power of God, I mean like miracles and all, but I think about God and the devil.
> If somebody is afraid, that proves there is a God and that's schizophrenia.
> We don't believe in God the way we were taught. I think in nature you can see God.

Drawing the discussion to a close, Marcie summarized, "It sounds as if we all believe in God, but in a lot of different ways. Does anybody want to say one more thing?" With a smile and a sigh, Laurie concluded, "Sometimes God means something fantastic like you are really happy, but when you're depressed, God is on vacation." Complaining about "baby stuff" and handling the discussion about God became turning points for Marcie. She came to class only a few more times. She stopped pouting. She encouraged others to speak up. She took every opportunity to participate. She told the group about her part-time job. Bill acknowledged to me and the group how well she was doing at the hospital in the program. During the three semesters Marcie participated in the class, she became ready to live on her own. She had become stronger by participating in the Day Treatment Program. She had put my sanity chart into action. In many ways she had increased her knowledge, clarified her thinking, and risked asserting herself. She had dared to care about me, about Bill, and about some of the group members. By leaving the program strong enough to hold a job as a department store sales person and to live independently, Marcie helped to answer the question, "What in the world can you teach a bunch of schizophrenics?"

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The Constitution and Race

By Herbert Hill

This essay is an abbreviated version of a paper given at the conference on the Bicentennial of The Constitution at the Drake University Law School, Des Moines, Iowa, March 12, 1987.

A serious observance of the Bicentennial of the Constitution must acknowledge the historical context in which that document came into being. Under that Constitution a system of slavery based on race existed for many generations, a system that legally defined black people as property and declared them to be less than human. Under its authority an extensive web of racist statutes and judicial decisions emerged over a long period. The Naturalization Law of 1790 explicitly limited citizenship to "white persons," the Fugitive Slave Acts of 1793 and 1850, and the Dred Scott Decision of 1857 are but a few of the legal monuments grounded on the assumption that this was meant to be a white man's country and that all others had no rights in the law.

With the ratification of the 13th, 14th, and 15th amendments in 1865, 1868, and 1870 respectively and the adoption of the Civil Rights Acts of 1866, 1870, and 1875, a profoundly different set of values was asserted. This new body of law affirmed that justice and equal treatment were not for white persons exclusively and that black people as citizens were entitled to "the equal protection of the laws."

The civil rights amendments and the three related acts required the reconstruction of American society so that it could be free of slavery, free of a racism that dehumanized both masters and slaves and corrupted the basic institutions of the society.

The struggle to create a just and compassionate society free of racist

oppression has taken many different forms since the Reconstruction Period and still continues today. During the late 1950s and early 1960s, as a result of direct confrontation with segregation and discrimination, together with the emergence of a new body of constitutional law on race, a hope was born that the legacy of centuries of slavery and racism would finally come to an end. But that hope was not yet to be realized. The high moral indignation of the 1960s was evidently but a passing spasm which was quickly forgotten. As we celebrate the Bicentennial of the Constitution, we also participate in a memorial service for the Second American Reconstruction.

This sharp turning away from the goals of justice and equality is manifested in the shrill and paranoid attacks against affirmative action. The effort to eliminate the present effects of past discrimination, to correct the wrongs of many generations was barely underway when it came under powerful attack. And now, even the modest gains made by racial minorities through affirmative action are being erased. Judging by the vast outcry, we might assume that affirmative action to eliminate racist and sexist patterns has become as widespread and destructive as discrimination itself. And once again, the defenders of the racial status quo have succeeded in confusing the remedy with the original evil. The term "reverse discrimination," for example, has become another code word for resisting the elimination of prevailing patterns of discrimination.

The historic dissent of John Marshall Harlan in the 1883 decision of the Supreme Court in the Civil Rights Cases defines the constitutional principle requiring the government to remove all the "badges and incidents" of slavery. Although initially rejected, Harlan's position was vindicated in later Supreme Court decisions, such as *Brown* v. *Board of Education* in 1954 and *Jones* v. *Mayer* in 1968, among others.

I believe that the "badges" include every manifestation of racial discrimination, not only against black people, but also against other people of color who were engulfed by the heritage of racism that developed out of slavery. In this respect, I believe that an interpretation of the law consistent with the meaning of the 13th and 14th amendments to the Constitution holds that affirmative action programs carry the contemporary legal obligation to eradicate the consequences of slavery and racism. In order to do that, it is necessary to confront the present effects of past discrimination, and the most effective means of achieving that goal is expressed in the approach of affirmative action. Justice Blackmun in his opinion in *Bakke* wrote, ". . . in order to get beyond racism, we must first take account of race. There is no other way."

Analysis of the record demonstrates that current opposition to affirmative action is based on perceived group interest rather than on

abstract philosophical differences about "quotas," "reverse discrimination" and the other catch phrases used in public debate. Once the pious rhetoric equating affirmative action with "reverse discrimination" is stripped away, it is evident that the opposition to affirmative action is in fact the effort to perpetuate the privileged position of white males in American society.

In his dissent in *Bakke*, Justice Thurgood Marshall wrote

> The experience of Negroes in America has been different in kind, not just in degree, from that of other ethnic groups. It is not merely the history of slavery alone but also that a whole people were marked as inferior by the law. And that mark has endured. The dream of America as the great melting pot has not been realized for the Negro; because of his skin color he never even made it into the pot.

The elimination of traditional patterns of discrimination required by the Civil Rights Act of 1964 adversely affected the expectations of whites, since it compelled competition with black workers and other minority group members where none previously existed. White worker expectations had become the norm and any alteration of the norm was considered "reverse discrimination." When racial practices that have historically placed blacks at a disadvantage are removed to eliminate the present effects of past discrimination, whites believe that preferential treatment is given to blacks. It is, in fact **the removal of the preferential treatment traditionally enjoyed by white workers at the expense of blacks as a class that is at issue in the affirmative action controversy.**

Excerpts from two federal court decisions involving craft unions, one in Louisiana and the other in New York, reveal how the traditional preferential system for whites was maintained.

In *Vogler* v. *Asbestos Workers, Local 53*, in New Orleans, the Court of Appeals for the Fifth Circuit stated:

> In pursuing its exclusionary and nepotistic policies, Local 53 engaged in a pattern and practice of discrimination on the basis of race and national origin both in membership and referrals. It was found to be Local 53's practice to refer white persons of limited experience and white journeymen of other trade unions as mechanic asbestos workers. It was also found to be its practice to refuse to consider Negroes or Mexican-Americans for membership and to refuse to refer Negroes for employment or to accept Negroes for referral for employment. This policy and various acts of discrimination, both prior to and after the effective date of the Civil Rights Act of 1964, were admitted at trial and on this appeal. (407 F.2d 1047, 1FEP577 5th Cir. 1969)

In *United States* v. *Lathers, Local 46*, in New York City, the district court found that

> There is a deep-rooted and pervasive practice in this union of handing out jobs on the basis of union membership, kinship, friendship and, generally, "pull." The specific tactics, practices, devices and arrangements just enumerated have amounted in practical fact to varying modes of implementing this central pattern of unlawful criteria. The hirings at the site, the by-passing of the lists, the use of the hiring hall, when it was used at all, as a formality rather than as a place for legitimate and nondiscriminatory distribution of work all reflected the basic evil of preferring Local 46 members, relatives, friends or friends of friends in job referrals. And since the membership of this Local has for so long been almost exclusively white, the result could have been forecast: the jobs, and especially the more desirable jobs, have gone disproportionately to whites rather than blacks. (328 F.Supp. 429, 3FEP457 S.D.N.Y.1971, *affirmed*, 471 F.2d 408, 5FEP318 2nd Cir., *cert.denied*, 412 U.S. 939, 1973).

Commenting on the union's practices in maintaining an all-white membership and restricting jobs, the court added a sharply worded statement:

> Because courts may know what all the world knows, practices of nepotism and favoritism like those disclosed here could, and probably should be condemned as inevitably discriminatory . . . But there is no need in this case even for so modest a generalization. The whole story is here, in vivid and repetitive detail. Giving life and point to an impressive statistical demonstration, the Government has shown in case after case the preference of whites over Blacks on grounds of nepotism or acquaintanceship. The officers of the local did not merely acquiesce in this state of affairs; many, if not all, of them have been active participants in the pattern of favoritism and its inevitable concomitant, racial discrimination. (Ibid).

Predictably this labor union, which for more than half a century had systematically excluded blacks and Hispanics, responded to the court ordered affirmative action remedy by denouncing "reverse discrimination." But the U. S. Court of Appeals for the Second Circuit rejected the union's contention and sustained the order of the lower courts.

In many different occupations, including jobs in the public sector such as in police and fire departments, white workers were able to begin their climb on the seniority ladder precisely because nonwhites were systematically excluded from the competition for jobs. Various union seniority systems were established at a time when racial minorities were barred from employment and union membership. Obviously blacks as a group, not just as individuals, constituted a class of victims who could not develop seniority status. A seniority system launched under these conditions inevitably becomes the institutionalized mechanism whereby whites as a group are granted racial

privilege.

The decisive fact that emerges from the history of the racial practices of most labor organizations is that whether as a result of total exclusion by craft unions or segregated job structures under industrial union contracts in others, black workers were removed from competition for jobs reserved exclusively for whites. Furthermore all the data shows that the patterns of racial job segregation became more rigid until attacked by black workers in litigation under Title VII of the Civil Rights Act of 1964. Although the AFL-CIO initially supported the adoption of Title VII, it failed to implement the statute, and many affiliates repeatedly resisted compliance with the law.

In reviewing the attacks upon affirmative action, we should note the disingenuous argument of those who state that they are not against affirmative action but only against quotas. Affirmative action without numbers, whether in the form of quotas, goals, or timetables, is meaningless; there must be some benchmark, some tangible measure of change. Statistical evidence to measure performance is essential. Not to use numbers is to revert to the symbolic gesture or tokenism.

White ethnic groups and labor unions frequently argue that affirmative action programs will penalize innocent whites who are not responsible for past discriminatory practices. This argument turns on the notion of individual rights and sounds very moral and high-minded. But it ignores social reality. It ignores the fact that white workers benefited from the systematic exclusion of blacks in many trades and industries. As has been repeatedly demonstrated in lawsuits, nonwhites and women have been denied jobs, training, and advancement not as individuals but as a class, no matter what their personal merit and qualification. Wherever discriminatory employment patterns exist, hiring and promotion without affirmative action perpetuate the old injustice.

Before the emergence of affirmative action remedies, the legal prohibitions against job discrimination were for the most part declarations of abstract morality that rarely resulted in any change. Pronouncements of public policy such as state and municipal fair employment practice laws were mainly symbolic, and the patterns of job discrimination remained intact. Because affirmative action programs go beyond individual relief to attack long-established patterns of discrimination and, if vigorously enforced by government agencies over a sustained period can become a major instrument for social change, they have come under powerful and repeated attack.

As long as Title VII litigation was concerned largely with procedural and conceptual issues, only limited attention was given to the consequences of remedies. However, once affirmative action was widely applied and the focus of litigation shifted to the adoption of affirmative action plans, entrenched interests were threatened. And as the gains of the 1960s are eroded, the nation becomes even more mean-spirited and self-deceiving.

Racism in the history of the United States has not been an aberration. It has been systematized and structured into the functioning of the society's most important institutions. In the present as in the past, it is widely accepted as a basis for promoting the interests of whites. For many generations the assumptions of white supremacy were codified in the law, imposed by custom, and often enforced by violence. While the forms have changed, the legacy of white supremacy is expressed in the continuing patterns of racial discrimination, and for the vast majority of black and other nonwhite people, race and racism remain the decisive factors in their lives.

The nineteenth-century European migrations to the United States took place during the long age of blatant white supremacy, legal and extralegal, formal and informal, and as the patterns of segregation and discrimination emerged north and south, the doors of opportunity were opened to white immigrants but closed to blacks and other nonwhites. European immigrants and their descendants explain their success as the result of their devotion to the work ethic, and ignore a variety of other factors such as the systematic exclusion of non-Caucasians from competition for employment. As white immigrants moved up in the social order, black and other nonwhite workers could fill only the least desirable places in a marginal secondary labor market, the only places open to them.

The romanticized and often pietistic histories of the struggles of white immigrants and their labor unions repeatedly ignore the racial aspects of that history, and neglect the fact that white immigrants were labor competitors with blacks, that they used labor organizations to exclude nonwhite workers from the primary labor force in many industries, and that they had the advantage of being white in a social order of racial subordination.

The current conflict over affirmative action is not simply an argument about abstract rights or ethnic bigotry. In the final analysis it is an argument between those who insist upon implementing a long-postponed break with the traditions of American racism and those groups which insist upon maintaining the valuable privileges and benefits they now enjoy as a consequence of that dismal history.

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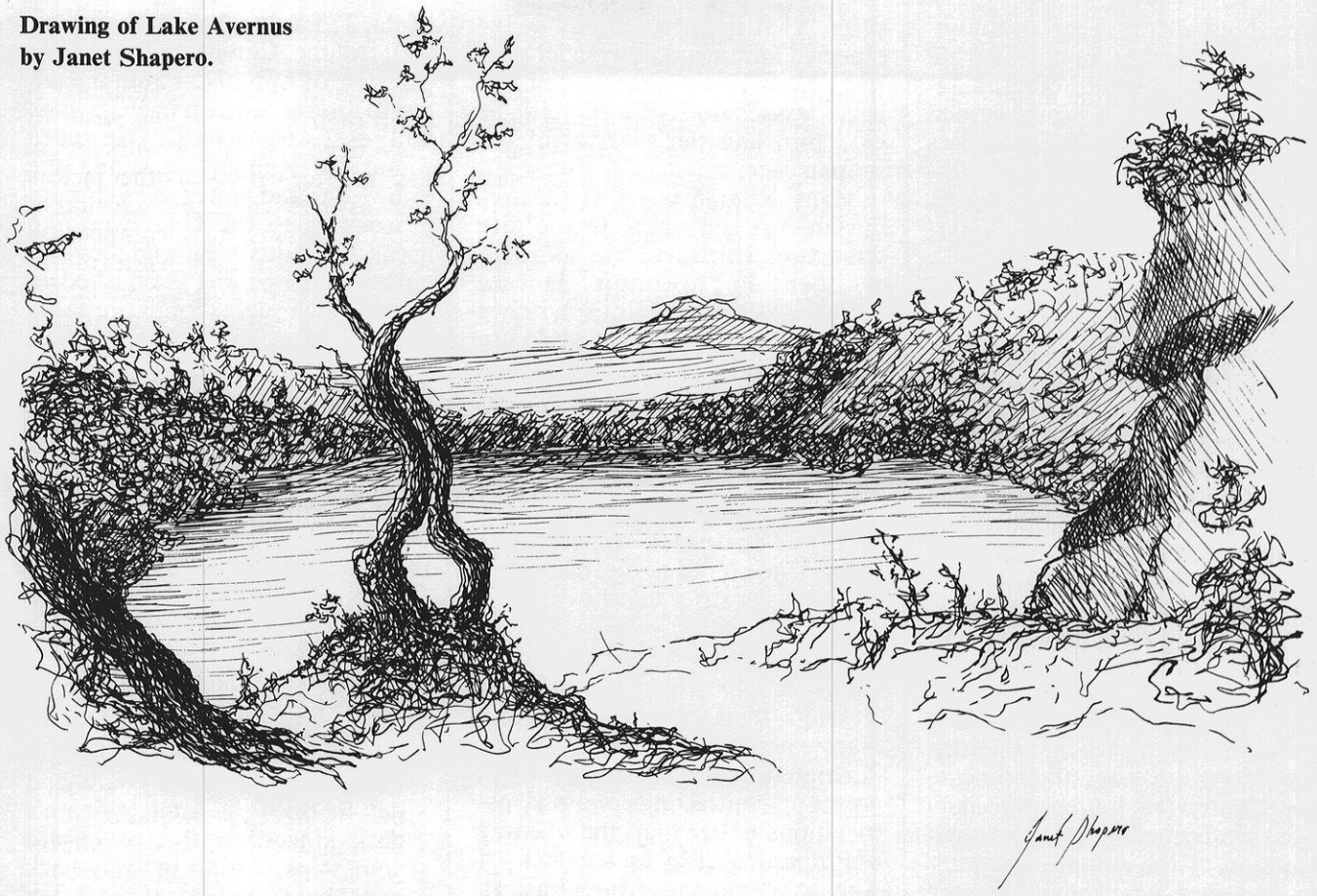

Drawing of Lake Avernus
by Janet Shapero.

Avernus: A Classical Place in the Western Literary Landscape

By Fannie LeMoine and Christopher Kleinhenz

Place is so important a concept to human beings that words denoting place are used in countless literal and metaphorical ways. In Latin the word *locus* has as a first meaning a place regarded as having extent, a locality: a part of the body, a point in space, a position, or the right moment. Its special intellectual and rhetorical connotations have proven important in the development of Western literary theory. The Greek word *topos* and the Latin word *locus* are regularly used in English and, indeed, in all the other languages of Western Europe as technical terms useful in describing categories of speech and thought.

Still, the word *locus* first attaches to the idea of a physical place. In this article we would like to trace the development of one specific place from a geographical location into a literary *topos*. We plan to examine a name and description attached to a small sulphurous lake in southern Italy, outside Naples. Through its use by so many authors, this lake has become an awesome site within our imagination. Its name conjures up images far more powerful than the physical surroundings would suggest, for Avernus has become almost synonymous with the mouth of Hell.

The Lake of Avernus probably acquired its close association with the underworld because of the sulphurous odors which arise from it. The volcanic activity of the region, the frequency of earthquakes, and the dark and gloomy grove which surrounded the lake in the classical period all contributed to the image of Avernus as a gateway to a dreaded infernal landscape. Many ancient authors derived the name "Avernus" from the Greek *Aornos* that is "without birds" because they claimed the pestilential fumes rising from the lake prevented birds from crossing it.

Lucretius in the sixth and last book of *De rerum natura* includes an explanation of the name and a lengthy description of the phenomena associated with "Avernian" places. He intends to disprove the common belief that apparently miraculous phenomena arise from divine intervention rather than from natural causes. At many points in his Epicurean poem Lucretius argues against religion, superstitious fear of the gods, or senseless con-

cern about death. Fear of subsequent punishment in an afterlife and the equally futile hope of reward are both seen as misguided and misinformed human responses which can be changed by a true understanding of the nature of things.

Lucretius' exposition reveals what must have been a widespread belief in the 1st century B.C.: that Avernian places are linked to death. It also shows the significant efforts made by one classical author to disengage the place from any preternatural associations. His work stands in sharp contrast to Vergil's transformation of the site. While Lucretius was virtually unknown in the medieval period, Vergil's treatment of Avernus was widely known and highly influential. Therefore, by looking at the Lucretian text, we can get a glimpse of a road not taken.

The description of Avernus and Avernian places which Lucretius provides emphasizes their hostile effects upon the living, especially birds. He begins with a poetic explanation of the common etymology and then describes, using the vivid metaphor of a ship under sail, how birds, forgetting to row with their wings' oars, slacken their sails and fall, with gentle neck outstretched, headlong to earth or water (VI.738-748).

After listing other places which are shunned by birds and four-footed beasts, Lucretius develops his argument against the belief that there is a gate of Orcus in these regions and that the gods of the dead lead souls below to the shores of Acheron. Instead, he argues that the earth contains some substances helpful to life and others which cause disease and quicken death. In short, for Lucretius natural causes explain the deaths associated with these Avernian places.

In the sixth book of *De rerum natura* some of the most memorable lines are devoted to the dead and dying, a characteristic trait of Lucretius' poetry. The text may indeed convince us modern readers of the truth of his argument; yet, it still serves to underline the strong connection between death and the place. That impression may be intensified for the modern reader who has been schooled in a strong imagistic association between the flight of a bird and the survival of the human race.

Many Roman poets of the Augustan Age contribute to the dire context in which Avernus comes to be seen. For example, Horace (Epode v.26) mentions witches drawing water from the lake to use in their accursed rites. The connection with necromancy and with chthonic rites appears in a number of ancient sources including Vergil. Dido, at the end of Book IV of the *Aeneid*, has water supposedly from Avernus sprinkled on the pyre where she intends to die, but which she leads her sister to believe is part of a magic rite.

The presence of death never seems to be far from the shores of Avernus. Instances from Ovid and many later poets could be used to illustrate the connection, but none points up contrasting emotional associations better than the opening of Propertius' elegy on the death of Augustus' nephew Marcellus. In III.18, Propertius sets the shadowed water of Avernus against the playful pools of Baia, the resort where Marcellus died in 23 B.C. He then transforms the usual picture of charming delight associated with that resort into one in which dark Avernus and its Stygian waters lurk beneath the smiling image.

All these references illustrate the associative context of the site which Vergil chose for Aeneas' descent to the Underworld. Avernus is linked to physical death and spiritual darkness and despair. Hated and feared, it is an ideal place to test a hero. Because of Vergil's treatment and the enormous influence Vergil has upon the development of the later tradition, Avernus also becomes the site of life's most dangerous passage. Silent and dark, it is filled with fear, images of phantoms with broken bonds and deceptive points of reference.

Vergil places this descent at the center of his epic, in the sixth book of the *Aeneid*. At the beginning of this book he describes the landing of the Trojans in Italy and Aeneas' visit to the Cumaean Sibyl. The priestess of Apollo has both the talent to foresee future dangers, which will beset Aeneas in his attempt to found the Roman state, and the knowledge and power to aid him in descending to the Underworld to speak with his dead father, Anchises. The opening is couched in terms which suggest both prophecy and initiation. The strong connection between the Sibyl and the deities of the Underworld is apparent in the first mention of Avernus (VI.118), where Aeneas concludes his request for her aid to descend to the shades below with words which link the grove of Hecate with the Sibyl, as well as with Orpheus, Castor and Pollux, Hercules, and Theseus, famous travelers to the nether regions.

To Aeneas' request, the Sibyl makes a famous reply:

> "Trojan son of Anchises, the way to Avernus is easy;/ Night and day lie open the gates of death's dark kingdom:/ But to retrace your steps, to find the way back to daylight—/ That is the task, the hard thing." Translation by C. Day Lewis, *The Aeneid of Virgil.* Anchor, Doubleday, 1953. pp. 133-4.

The Sibyl directs Aeneas to pluck the golden bough as an offering for Proserpina and to bury his Trojan comrade Misenus in order to remove the pollution caused by his unburied body. Even rather straightforward words in the passages describing these acts conjure up close associations with the dead. For example, when speaking of the golden bough as an offering, Vergil uses the Latin word *munus*, a word especially associated with an offering to the dead, a sign which stands as a memorial or a token of a relationship. For this reason gladiatorial games were called *Munera*, and gifts which were passed between parent and child also frequently bore this name.

After completing these commands of the Sibyl, Aeneas sacrifices to the deities of the Underworld at the mouth of a cave

protected by the black lake and the shadows of the grove. This famous description forms the principle *locus classicus* in the Avernian tradition:

> "A deep, deep cave there was, its mouth enormously gaping,/ Shingly, protected by the dark lake and the forest gloom:/ Above it, no winged creatures could ever wing their way/ With impunity, so lethal was the miasma which/ Went fuming up from its black throat to the vault of heaven:/ Wherefore the Greeks called it Avernus, the Birdless Place" (p. 137)

Vergil's description of Avernus exerted a powerful influence on subsequent authors. The dreaded lake was so often linked with the hated and the feared that it becomes a proverbial allusion such as that found in the *Metamorphoses* of Apuleius (2,11), where the narrator indicates that he would be as willing to cast his eyes on a certain person's face as to look upon Lake Avernus. In later medieval Latin authors the term is regularly used for the lower world, the place of punishment, the place of the dead, the kingdom of evil. The famous 12th-century commentator on the *Aeneid*, Bernard Silvestris, in his note on line 118 of Book VI reveals the close identification he draws between Avernus and joyless entrapment in temporal goods. For him the name is almost synonymous with darkness, deception, and spiritual disorientation.

> Virgil calls temporal goods groves (*lucos*) since they have three qualities similar to those of a grove. Just as groves are dark because of the lack of sun, so too temporal goods are dark because of the lack of reason. And just as woods are impassable places because of the multitude and variety of paths, so too are temporal goods impassable because of the various paths which seem to lead to the highest good but do not. And *Avernus* means "woods without spring" (*nemus sine vere*), as if without delight; and thus the groves lack true delight. (*Commentary on The First Six Books of Virgil's "Aeneid"*, tr. by Earl G. Schreiber and Thomas E. Maresca. Lincoln: University of Nebraska Press, 1979, p. 53)

In the medieval period many tales circulated concerning the torments of Hell and the joys of Paradise, and the "veracity" of these accounts was authorized by individuals who either claimed to have traveled to these places or to have seen them in ecstatic visions. One common feature of these depictions of Hell is a fiery lake or river in which souls receive punishment for their earthly sins. In many of these accounts Hell itself is called Avernus, as is the sulphurous lake of torments. These popular accounts in the Middle Ages furnished much material on which later authors based their description.

It is perhaps surprising that Dante—the one author whom most readers associate immediately and directly with Hell—never explicitly mentions Avernus in any of his many works. Yet Dante's silence in this regard does not imply either ignorance or reluctance. For Dante and his contemporaries, the term Avernus was so obvious a designation for the entrance to Hell that other more poetic or metaphoric words or phrases were used, which nevertheless drew their force and characteristics from Avernus and the manner of its depiction.

In the midst of a dense forest the foul-smelling, bird-repelling waters of Avernus marked the place of the descent to the Underworld, and as such Avernus was inextricably linked to a host of characters and infernal places—the Sibyl, Hecate, the shades of the damned, the rivers Acheron and Styx, the region of black Tartarus, and so on. The association of all these names with the lower regions is so complete that the mention of one is sufficient to conjure up the others. Since Dante shapes his Hell on the Vergilian model, we find some of the same classical figures and topographical features. In addition to appealing to the visual, auditory, and tactile senses, Dante evokes a strong memory of smell; Dante's Hell reeks, much as foul-smelling Avernus. The stench of Hell is described in more than one place, but appears particularly overwhelming before the descent to Lower Hell (canto 11).

Dante begins the *Divine Comedy* by describing a strange and mysterious landscape which is charged with moral and allegorical meanings: "Midway in the journey of our life I found myself in a dark wood, for the straight way was lost." Tr.by Charles S. Singleton. *The Divine Comedy. Inferno.* Princeton: Princeton University Press, 1970.

In the first canto of the *Inferno* Dante the Pilgrim, the traveler beginning his long and arduous journey through the three realms of the afterlife, finds himself lost and afraid in a dark wood; he tries to ascend a lofty hill bathed in the hope-inspiring rays of the sun, but is repulsed by the successive assaults of three wild beasts and returns to wander in the forest. There, the shade of Vergil appears, offering to help him escape wood and beasts, and together they embark upon the divinely ordained journey.

The landscape in the first canto has an otherworldly quality and a moral dimension. Strange and unfamiliar, this terrain is also readily identifiable as a projection of the troubled psyche and disordered mind of the protagonist—the wood represents the error and darkness of sin and moral confusion, the radiant hill suggests the hope of escaping the evil of the world through the guidance and illuminating presence of God (the sun), and the three beasts embody those sinful tendencies which prevent humanity from achieving its goals. At the point in the narrative where he first sees the sunny hillside Dante takes hope and notes that "then the fear was somewhat quieted that had continued in the lake of my heart through the night I had passed so piteously" (vv. 19-21).

As the scene progresses, Dante transforms the image of the "lake of [his] heart" into a body of water into which he is metaphorically

plunged and through which he must swim to shore: "And as he who with laboring breath has escaped from the deep to the shore turns to look back on the dangerous waters, so my mind which was still fleeing turned back to gaze upon the pass that never left anyone alive" (vv. 22-27). Dante combines the guiding metaphor of the dense forest with these correlative passages all involving water to evoke the multifaceted image of Avernus. The foreboding lake of Hell became, for Dante, the internalized Hell, which is then externalized in two distinct manifestations: 1) as the metaphorical waters of sin—in the phrase of Hugh of St. Victor: the *concupiscentiae fluctus*, the "waters of cupidity"—in which Dante the swimmer struggles to gain the shore, and 2) as the real dark wood, where on both the literal and the allegorical levels the "sun is silent" (v. 60). For Dante, as for Vergil, Avernus is the place of descent, the liminal area between the world of contingency and permanence, the passageway connecting time and eternity, and it is precisely here amid these vestiges of classical antiquity which have been imbued with Christian meaning that the Pilgrim's journey toward knowledge, purification, and salvation begins.

One feature of the symmetry of the *Divine Comedy* is especially important for our topic: Dante's terrestrial journey begins in the dark wood of sin and concludes in the divine forest, which forms an integral part of the paradisiacal garden atop the purgatorial mountain. We pass, then, from Avernus to Eden, from the *locus classicus* of evil and foreboding to the classical (and biblical) *locus amoenus* wherein all manner of honest terrestrial delight is found. Analogous to this diametrical opposition between the two forests is the contrast between the bodies of water found in *Inferno* and in *Purgatory*. In Dante's conception Acheron forms the encircling boundary of Hell, while the marsh of the Styx, Phlegethon (the boiling river of blood), and the frozen lake of Cocytus serve not only as topographical confines but also, and even more importantly, as places of torment—for the punishment, respectively, of the souls guilty of anger, of violence against others, and of treachery. The rock-hard ice of Cocytus that holds the traitors fast in its cruel grasp is very much akin to the hardened heart of those very sinners who betrayed the most sacred bonds of love and trust uniting the individual with others. What a difference between these turgid, sluggish, and infernal waters and the clear, flowing streams in Purgatory (Lethe and Eunoè), which purify not punish, cleanse not chastise, and redeem not condemn.

Dante's vividly realistic presentation of the afterlife and its punishments and rewards had a profound effect both on subsequent authors and on the visual arts. Nardo di Cione's decoration of the Strozzi Chapel in the church of Santa Maria Novella with scenes of Hell and Paradise owes its very existence to Dante's vision, as do Taddeo di Bartolo's frescoes (1393) depicting the punishments of the damned in the Collegiata in San Gimignano and Michelangelo's well-known Last Judgment in the Sistine Chapel.

Boccaccio was perhaps the author most influenced by Dante; he was also the first public lecturer on the *Divine Comedy*, presenting a series of readings and commentaries to the Florentines in 1373-74. Boccaccio reviews the varied opinions among the classical authors on the actual location of Hell and alludes to its other names (Avernus and Tartarus), etymologizing the former as meaning "sine" and "vernus," i.e., a place without happiness. His derivation, similar to that of Bernard Silvestris, suggests that this etymology was widespread in the medieval period. In his geographical encyclopedia Boccaccio dismisses the notion that Avernus has any connection with the Underworld as superstitious nonsense. Like Lucretius, he notes that the reason for Avernus' association with death and pestilence lies in the volcanic activity of the area and the large amounts of sulphur present.

The association of Avernus with the infernal regions and, more generally, with any foul-smelling, pestilential area continues to be a commonplace in Western literature. In sonnet 306 of the *Canzoniere*, Petrarch describes through contrast the ascent of Laura to heaven along the "celestial road," which is far removed from the "Avernal and Stygian lakes." Jonathan Swift in his satirical panegyric on the Legion Club uses the classical allusion to Avernus to parody the Legion Club and the stench of its members. In *Prophecy of Dante*, Lord Byron assumes the persona of Dante speaking from exile in Ravenna and comments on the miseries of Italy and the need for a savior who will free it from its present state. Addressing Italy, he says "[see] the sweet sun replenishing thy morn,/ Thy moral morn, too long with clouds defaced/ And noxious vapours from Avernus risen,/ Such as all they must breathe who are debased/ By servitude, and have the mind in prison." (III, 57-61) In his poem "La trompette du jugement" Victor Hugo uses Avernus as one in a series of names intended to evoke the apocalyptic spectre of the infernal regions and the end of time: (vv. 143-46) ("Edges of the abyss, hideous caves, caverns that we call infernos, pits, gehennas, avernuses, mouths of darkness that say nothing, emptiness. . . ."). Significantly, this is the last poem in the collection *La légende des siècles*, and counterbalances the first poem ("Le sacre de la femme") on the subject of creation, the beginning of time, and the paradisiacal garden.

Other literary allusions are more historical in that they evoke Avernus as the true location of the infernal regions. For example, in the *Faerie Queene*, Spenser has the witch Duessa and Night convey the wounded pagan to the underworld for treatment by Aesculapius: "Thence turning backe in silence soft they stole,/ and brought the heavie corse with easie pace/ to yawning gulfe of deepe Avernus hole./ By that same hole an entrance darke and bace / with smoake and sulphure hiding all the place,/

descends to hell: there creature never past,/ that backe returned without heavenly grace." (Book I, Canto V, 31:3) Twice in *Tamburlaine*, Marlowe employs Avernus to designate the source of evil, as in Bajazeth's invective against Tamburlaine: "Ye furies that can mask invisible,/ Dive to the bottom of Avernus' pool/ And in your hands bring hellish poison up/ And squeeze it in the cup of Tamburlaine!" (act 4, scene 4, vv. 17-20). The 17th-century Italian poet Giambattista Marino uses Avernus eleven times in his *Adone*, and on several occasions we find the rhyme "Averno / Inferno" which underlines the virtual identity of these words and the places they designate. At the conclusion of *The Purloined Letter*, Edgar Allen Poe cites a slightly modified form of Vergil's phrase from the *Aeneid*—"facilis descensus Averni (the path down to Hell is an easy one)"—to refer to the eventual fall from power of the character called D , for whom no pity or sympathy will be shown. Similar use is made of this topos by Giacomo Leopardi, Gabriele D'Annunzio, and Ezra Pound, among many others.

At times, authors will use the term Avernus to designate a topographical feature of their own world in order to endow the place with added meaning. Such is the case in Ben Jonson's mock heroic poem "On the famous voyage," which describes the rowing expedition of two men on the Fleet Ditch (the mouth of which is near Blackfriars Bridge on the Thames). By calling the Bridewell dock at the outlet of Fleet Ditch "Avernus," Jonson not only makes this allusion conform to the other classical references in the poem, but also deliberately evokes the London prison located in the immediate vicinity, Avernus being, of course, the "prison" of damned souls. Similarly, in his long narrative poem *Clarel*, Herman Melville describes as a descent to Avernus the downward journey of two characters who move from the purgatorial heights of the monastery Mar Saba to the infernal wilderness of Kedron (III, 25: 39-45).

One of the most striking modern uses of Avernus and all its long associations appears in a popular science fiction novel by Gene Wolfe. The avern, a treacherously deadly plant whose stem and white flower flourish upon the edges of a lake in which the dead are buried and from which the dead arise, dominates the plot, the setting, and the major theme of the central portion of *The Shadow of the Torturer*, the first volume of a tetralogy published in 1980. Set in earth's far distant future, the narrative unfolds under a waning sun. The society of the planet bears the signs of the rise and fall of many civilizations: alien cultures, extraordinary historical achievements, the flotsam and jetsam of the ages are all heaped together in an indiscriminate necropolis.

The hero of this narrative, Severian, like Aeneas, sets out on a journey without a guide and with no clear goal. One of his first encounters with the twins Agia and Agilus leads to a nearly fatal duel on the Sanguinary Fields in which the dueling weapons are averns, which Severian describes as follows:

> When I had first heard of the flower, I had imagined averns would be grown on benches, in rows like those in the conservatory of the Citadel. Later, when Agia had told me more about the Botanic Gardens, I conceived of a place like the necropolis where I had frolicked as a boy, with trees and crumbling tombs, and walkways paved with bones.
>
> The reality was very different—a dark lake in an infinite fen. Our feet sank in sedge, and a cold wind whistled past with nothing, as it seemed, to stop it before it reached the sea. Rushes grew beside the track on which we walked, and once or twice a water bird passed overhead, black against a misted sky. (p. 165)

In this setting Severian encounters a boatmen named Hildegrin, who ferries people across the lake; there he also takes the hand of Dorcas, a pale woman who, we later understand, has been resurrected from the dead.

The following interchange between Dorcas, Hildegrin, and Severian conveys some of the atmosphere of literary precedent and startling new use which characterizes the appearance of Avernus in this modern text.

> Dorcas surprised us all by saying, "I'm not mad. It's just . . . I feel as if I've just been wakened."
>
> Hildegrin made her sit in the stern with me nonetheless. "Now this," he said as he pushed us off, "this is something you're not likely to forget if you've never done it before. Crossin' the Lake of Birds here in the middle of the Garden of Everlastin' Sleep." His oars dipping into the water made a dull and somehow melancholy sound.
>
> I asked why it was called the Lake of Birds.
>
> "Because so many's found dead in the water, is what some say. But it might only be that that's because there's so many here. There's a great deal said against Death. I mean by the people that has to die, drawin' her picture like a crone with a sack, and all that. But she's a good friend to birds, Death is. Wherever there's dead men and quiet, you'll find a good many birds, that's been my experience." (p. 176)

Gene Wolfe goes on to develop his story of the avern with its white flower and deadly leaves. The lake of the dead and the treachery of the living permeate this part of the narrative and indicate how pervasive are the associations between this spot in Southern Italy and the necessity of dying. As Gene Wolfe has his Charon say, "There's a great deal said against Death. I mean by the people that has to die . . ." And frequently what is said against death is set within the context of an Avernian place. Its association with passage, trial, and testing and the atmosphere of fear, disorientation, and desolation it conveys also serves to mark this geographical place as an emblem for fearful transition and difficult passage from one place in life to another.

Photographs by Christopher Kleinhenz

Rome. In the background rises the Capitoline Hill with the remains of the Tabularium on which now stands the Palazzo Senatorio with its distinguishing tower. The view is from the Roman Forum.

Washington, D.C. United States Capitol.

Postscript

The power of places to evoke meanings and emotions is certainly not restricted to *loci classici.* We would like to conclude with two examples—one ancient and one modern—which demonstrate the enduring power of places and the way in which humans transform those places into cultural artifacts and creative instruments.

The ancient example is that of the capitol. The Latin word *capitolium* is the name for the great temple of Jupiter built on the summit of the Saturnian or Tarpeian hill by the Tarquins. By extension the name came to designate the entire religious center and citadel of the city on that elevation. The name is derived from the word *caput* or head. Varro gives a somewhat fanciful account of the etymology, which links the name to the discovery of a man's head during the laying of the foundations for the temple. The story continued to circulate among other Latin authors as part of the lore associated with the hill and its symbolic value for the city.

Although the platform of the original 6th-century B.C. temple dedicated to the Capitoline triad of Jupiter, Juno, and Minerva is still in place, that temple and many other subsequent edifices have disappeared. Yet, for the Romans the Capitolium was not just a symbol of the city but a symbol of eternity. Roman authors expressed their own hopes for immortal fame by comparing their verses to those monuments of stone, as Horace does in the final poem of the third book of the *Odes* (3.30). Horace sees the monument of his verses lasting as long as the Pontiff climbs the Capitol with the silent Vestal. In a ironic twist of human history capitols abound everywhere, yet the priest and the religious observances that Horace had in mind only exist as historical curiosities of interest to specialists in ancient religion or ancient Roman law.

Modern manifestations of the Roman Capitoline have connections which are immediately visible to the eye, such as Roman columns and architectural frontality. The more significant associations are perhaps less visible. Capitols are still the center of the governmental life of the nation or state and suggest the ability to endure, a virtue which the builders hoped to achieve. The recreation of the place is a way of reaffirming the primacy of certain governmental ideals.

The modern example of the power of place is that afforded by Watergate, the complex of luxury apartments and offices situated along the Potomac in Washington, D.C. Before June 17, 1972, the name Watergate was not known by many people outside of the nation's capital, but with the aborted burglary attempt of the office of the Democratic National Committee, located in the Watergate office complex, and the ensuing scandal which led to the resignation of Richard Nixon, Watergate gained great notoriety. Indeed, so infamous did it become that the name "Watergate" has been used countless times to refer to any manner of scandal, and adaptations of this name crop up with alarming regularity: the FBI's inquiry into suspected political corruption (operation Abscam) in 1980 was termed "Congress-gate" and the still continuing arms-for-hostages Iran-Contra scandal has been called "Iran-gate." The associations with the building have contributed to the creation of a new suffix which stands for political duplicity, which, once uncovered, is difficult to transcend.

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Fetal Alcohol Syndrome: A Preventable Birth Defect

By Hania W. Ris

Historical overview

The teratogenic effects of alcohol on the fetus have been suspected for centuries. This injunction appears in the Bible in the Book of Judges (13:7): "Behold, thou shalt conceive, and bear a son, and now drink no wine or strong drink. . . ." Plato (427?-347 B.C.) advocated abstinence for couples planning to have children: "It is quite hard to tell just what night or day the child will be conceived, children should not be made in bodies saturated with drunkenness" (*Laws* VI 775c). Not until the Gin Epidemic in England (1720-1750) did the adverse effects of fetal exposure to alcohol on a large scale become evident. The epidemic resulted from the lifted restriction on distillation and consequent availability of cheap gin that flooded the country. A sharp drop in birth rate and increase in mortality of children under five years of age ensued.

Throughout the 19th century there were reports of higher incidence of stillbirths, mental retardation, epilepsy, and infant mortality in the offspring of alcoholic mothers. The first scientific study was published in 1899 by William Sullivan, a physician to a Liverpool prison. He observed 120 alcoholic women and their 600 offspring and found the rate of stillbirths and infant mortality was two-and-a-half times greater than in their nondrinking female relatives. Several alcoholic women, who previously gave birth to severely affected offspring, produced normal children under enforced abstinence in prison.

In the early 1900s epidemiologic research studies were conducted. In 1910 physician Taav Laitenen observed in the Finnish population that consumption of alcohol during pregnancy had adverse effects on the birth weight of the offspring. He found that infants of heavy drinkers had the lowest birth weight compared to those of moderate and light drinkers whose weight was also compromised but not to the same degree; it was strictly dose related. He also observed that even at age eight months their weight did not catch up with offspring of abstainers.

Glossary of Terms

Congenital: Existing at birth, may be either hereditary or due to some influence during gestation.
Dysmorphic: Varying from the normal range of physical development.
Dysplasia: Abnormal tissue development.
Gestation: Pregnancy.
Maxilla: The upper jaw.
Microcephaly: Abnormal smallness of the head.
Mutation: A change in the character of a gene that is perpetuated in subsequent division of the cell in which it occurs.
Palpebral fissure: The space between the eye lids extending between the medial and lateral junction of the eyelids.
Philtrum: The groove in the midline of the upper lip.
Teratogen: A drug or other agent that causes abnormal development in the embryo or fetus.

The temperance movement in the U.S., which advocated complete abstinence, used this medical finding to promote their moral goals. When Prohibition went into effect in the U.S. in 1920, studies on the effect of alcohol on the fetus virtually ceased. With the repeal of Prohibition in 1930 the topic was revived, but the pre-Prohibition literature was ridiculed because of its moralistic language. There was a tendency to ascribe the abnormalities of offspring of alcoholic mothers to poor nutrition and poor home environment, and valuable observations of the past were discarded. In the forties the interest in the relationship of alcohol to pregnancy virtually ceased.

In the late 1960s a French team headed by P. Lemoine studied 127 children from 69 French families with chronic alcoholism. A number of children had marked similarities in facial characteristics, prenatal and postnatal growth retardation, a variety of congenital anomalies, and neurological deficiencies. He ascribed the cause of fetal injury to maternal alcohol consumption and published his findings in a French medical journal in 1968. Although an abstract was published in English by the National Foundation March of Dimes (835) in October 1968, the report was completely overlooked until 1973 when Jones, Smith, Ulleland, and Streissguth from the University of Washington School of Medicine in Seattle, independently recognized a specific pattern of malformations and coined the term "fetal alcohol syndrome" (FAS).

The publication of Jones and coworkers stimulated basic research on the mechanism by which alcohol affects the fetus and elicited case reports from around the world including most ethnic groups. More than a thousand studies have now been published. This is not an uncommon phenomenon in the history of science—a revival of an old idea which has been forgotten or has gone out of fashion.

Measuring alcohol consumption

Alcohol is the most commonly used neuro-behavioral drug in our society. It is consumed in large quantities throughout the world, especially in Europe. Portugal has the highest rate of consumption (1,613 drinks/year for each adult), followed by France (1,510), Italy (1,203), and Switzerland (998). The United States ranks 15th with 691 drinks per year for each adult in the population.

Alcohol consumption is measured in drinks: beer, wine, or whiskey. While each beverage varies in alcohol concentration, the less concentrated beverages are usually consumed in larger volume and therefore all can be standardized to approximately 0.5 oz (15 ml) of absolute alcohol per drink. Many people think that beer and wine consumption is not a problem because of their relatively low alcohol content. Yet many alcoholics drink only beer or wine.

Currently in the United States women comprise half of the alcohol-dependent population; yet they are only 19 percent of those seeking help. The reasons for it are manifold. The women who is alcoholic is frequently socially and physically isolated, being less likely to work outside the home. She has low self-esteem, feels guilty, and denies to herself and to others that she has a drinking problem. She may come from any socioeconomic background, like her male counterpart.

Drinking among teenagers in the U.S. is an important public health concern. Nearly one third of teenagers between 14 and 17—an estimated 4.6 million young people—have alcohol-related problems. One million teenagers in the U.S. become pregnant annually. Some young women continue to drink heavily throughout their reproductive years. Education of these young people should be of primary concern to health professionals.

Estimates of the proportion of women who drink heavily during pregnancy range from 2 to 13 percent, depending on the population sample studied, the definition of heavy drinking, and the experience of the interviewer. Indeed, in one study conducted by R. J. Sokol and S. I. Miller at Case Western Reserve University when specially trained interviewers screened all pregnant women using a standardized questionnaire for identification of alcohol misuse, the incidence rate rose from 1.7 percent to at least 8 to 10 percent. Various U.S. studies have shown that from 38 to 66 percent of women report reduction of their alcohol consumption during pregnancy when informed about its deleterious effect on the fetus, but those are most likely occasional or moderate drinkers. The heavily drinking woman presents many psychosocial problems and will require intensive counseling.

Alcohol passes freely across the placental barrier. Concentrations of alcohol and its metabolites may reach higher levels in the fetus than in the mother due to immaturity of the fetal liver. Only when maternal blood alcohol concentration falls will the fetal alcohol

be transferred back into the maternal circulation. Male and female fetuses are equally at risk from gestational alcohol exposure.

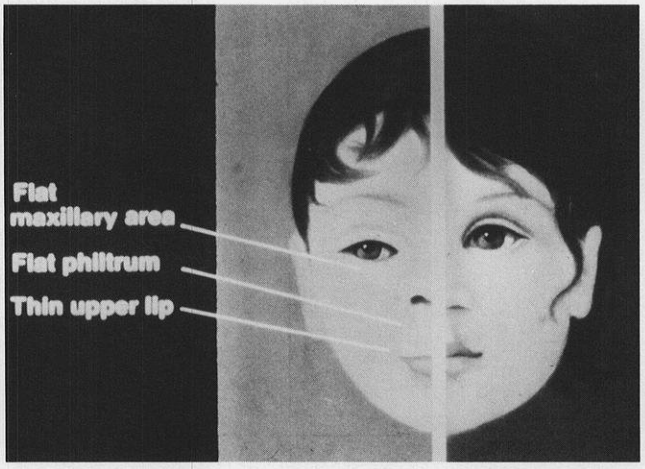
Principal features and incidence

The U.S. Fetal Alcohol Study Group of the Research Society on Alcoholism developed minimal criteria for diagnosis of FAS and recommended that the FAS diagnosis be made only when the patient has signs in each of the three categories: (1) *Prenatal and/or postnatal growth retardation* (weight, length, and/or head circumference below the tenth percentile when corrected for gestational age); (2) *Central nervous system involvement* (signs of neurologic abnormality, developmental delay, or intellectual impairment); (3) *Characteristic facial dysmorphology* with at least two of these three signs—(a) microcephaly (head circumference below the third percentile), (b) micro-ophthalmia and/or short palpebral fissures, (c) poorly developed philtrum, thin upper lip, or flattening of the maxillary area.

Clinical experience and epidemiologic findings suggest a wide range of effects of alcohol on the developing embryo and fetus with FAS at the far end of the spectrum. Compared to the general population, individuals with fetal alcohol syndrome have a higher frequency of malformations not unique to FAS. Associated abnormalities have been observed in ocular, skeletal, cutaneous, cardiac, renal, hepatic, and immune systems.

Every reported case of fetal alcohol syndrome has been born to a chronic alcoholic mother who drank heavily throughout pregnancy. The occurrence of FAS may be related not only to the dose and timing of maternal drinking but also to the chronicity of maternal alcoholism and to the genetic background of the individual fetus and the woman. The time of greatest susceptibility to birth defects from teratogens occurs from the third through ninth week following fertilization of the ovum, when organ systems are established through growth and differentiation. The brain, however, remains sensitive to alcohol throughout the pregnancy and the first eighteen months of life, the time of its rapid growth. Heavily drinking women should not breastfeed their infants as consumed alcohol passes into breast milk. Rates for the occurrence of FAS in offspring of alcohol-dependent women range from 33-40 percent (retrospective and case studies) to 2.5-10 percent (prospective studies).

Fig. 1. Contrast of the typical features of a child with FAS with those of a normal child. (Artist Peter Shvartsman. Reprinted with permission of Canadian Medical Association Journal.)



When anomalies occur in association with heavy gestational alcohol consumption but in the absence of the full-blown FAS, the term possible fetal alcohol effects (FAE) has been used. *All* fetal alcohol effects are not unique, and *all* can be due to factors other than alcohol. The alcohol-related anomaly most commonly observed has been low birth weight without catch-up growth, unlike that of premature infants who eventually attain a normal weight and height. The incidence rate of FAE is difficult to determine since the symptoms are not unique. However, it is likely that FAE occurs more frequently than FAS and represents a more widespread health problem. One researcher has estimated the incidence of FAE at 36,000 cases per year in the United States, or about 1 case per 1000 live births, while others estimate it to be 3 to 5 cases per 1000 live births. The incidence rates of FAS for the population as a whole are difficult to determine but have been estimated at 1 per 1500-2000 to 1 to 2 per 1000 live births.

A thorough individual case history is required to differentiate effects of alcohol from those due to other causes. Misdiagnosis of FAS or FAE can burden parents of abnormal children with unnecessary guilt that consumption of small amounts of alcoholic beverages caused anomalies which were due to other factors.

Gestational alcohol consumption and birth weight

A comprehensive, well-controlled, large-sample prospective study was sponsored by the National Institute of Child Health and Human Development and conducted in the years 1974-1977. At that time the general public was less familiar with the risks of alcohol consumption during pregnancy and, therefore, more likely to provide accurate, unbiased information. The population available for analysis was comprised of 31,604 women who were asked on their initial prenatal visit to complete a questionnaire on alcohol use in the first trimester of pregnancy, in addition to other questions including smoking. Table 1 indicates the breakdown of alcohol consumption and its relation to birth weight below the 10th percentile.

Levels of Alcohol Consumption and Birthweight

Alcohol Drinks per Day	Number	Birthweight below 10th percentile
Nondrinkers	16,533	5.8%
Less than 1 drink/day	13,887	6.9%
1–2 drinks/day	743	11.6%
3–5 drinks/day	113	16.8%
6 or more drinks/day	37	17.7%
Unspecified amount	190	
Total Number of Drinkers	14,970	

The test for trend was highly significant ($p < .0001$)

After Mills, J.L. et al. "Maternal Alcohol Consumption and Birth Weight." *JAMA 252* (1984):1875-79.

Alcohol consumption was responsible for a reduction in birth weight ranging from 14 g. in the lightest drinkers to 165 g. in those drinking three to five drinks each day. Consuming at least one to two drinks daily was associated with a substantially increased risk of producing a growth-retarded infant. The risk in occasional drinkers was only slightly higher than the risk in nondrinkers while the risk for heavy drinkers was approximately twice as great. Although an occasional drink in this study had only a trivial effect on birth weight, the authors do not recommend telling pregnant women that less than one drink each day is safe, especially in view of the unresolved question of malformations and abortion risks. Common sense would dictate that abstinence is safer. Recent studies have shown that large doses of alcohol impair umbilical blood flow; this may further contribute to low birthweight babies.

Furthermore, there are other variables; the pattern of drinking may vary daily and the alcohol absorption and metabolism varies considerably in individuals. Genetic factors may play a role. Therefore, in spite of similar gestational alcohol consumption patterns, fetuses might still be exposed to different risks.

Central nervous system dysfunction

The newborn infants are irritable, tremulous, have a poor suck reflex, and apparent hyperactivity. They also demonstrate sleep disturbances which may have a detrimental effect on maternal-infant interaction and bonding. Mothers who reduced their heavy drinking before the third trimester increased the duration of quiet sleep of their infants.

Of the known causes of mental retardation, FAS is the third most common in the western world and one that is fully preventable. In one study of 126 FAS patients 85 percent scored more than 2 standard deviations below the mean. The average reported IQ of children with FAS is around 68 (mild retardation). Sometimes their IQs are much lower, but the range of IQ scores is wide. Generally, the more phenotypically affected individuals have lower IQ scores; **but even those who have near normal IQ levels have significant learning disabilities, poor attention span, and hyperactivity.** The question was raised whether the poor intellectual performance is due to the prenatal teratogenicity of alcohol or life in a disrupted family environment. Studies indicate that children of alcoholic mothers raised by relatives or in foster homes also present signs of mental retardation. IQ studies of the same children over time show no improvement in spite of remedial services. However, a better home environment may improve their social and emotional behavior.

Disproportionate impairment of speech and language function without abnormalities of hearing have been reported in children with FAS with and without mental retardation. Furthermore, neuropathological changes have been demonstrated in the brains of children exposed to alcohol in utero. In autopsies of sixteen children with FAS the brains exhibited a variety of malformations stemming from early errors in migration of embryonic brain cells to their proper positions, both neural and nonneural. Later gestational exposure to alcohol presumably produced destructive lesions of the cerebral white substance in a third of the patients. Only seven of the sixteen children exhibited a full spectrum of FAS.

In animal studies conducted at the University of Washington School of Medicine and Regional Primate Center pregnant pigtail macaques (*Macaca nemestrina*) were given high doses of alcohol at weekly intervals. All of the offspring showed brain changes similar to human infants afflicted with FAS, but only some had dysmorphic features.

Other risks

Spontaneous abortions in the first and especially during the second trimester, another risk factor of gestational alcohol consumption, were found to be dose related. In a prospective study involving over 32,000 women (reported in *Lancet 1980* 2:173-76), with a consumption of over two drinks per day the risk factor increased 3.5 fold during the second trimester.

A French prospective study found a significant relationship between gestational drinking and stillbirths. The unadjusted stillbirth rates of 9.9 per 1000 live births for light drinkers was increased to 25.5 per 1000 for heavy drinkers. Women who drank heavily and smoked had a stillbirth rate of 50.5 per 1000 live births.

In addition to the preventable human tragedy the expense for the care of victims of fetal alcohol effects is staggering. For instance studies indicate the State of Wisconsin spends about 45 million dollars annually for medical care, special education, and institutionalization of individuals affected by FAS or FAE.

Mechanism of teratogenicity

Recent evidence indicates that it is not the blood alcohol concentration responsible for the teratogenic effect of ethanol but the disturbed elimination of acetaldehyde. Ethanol is first oxidized to acetaldehyde, catalyzed by the enzyme alcohol dehydrogenase (ADH) which derives mainly from the liver. Subsequently, acetaldehyde is oxidized to acetate by the enzyme aldehyde dehydrogenase (ALDH). The final breakdown produces carbon dioxide and water. In nonalcoholics the blood acetaldehyde level after one drink was shown experimentally not to be cytotoxic, mutagenic, or teratogenic. However, if blood acetaldehyde exceeds the normal range, it will have adverse effects on the fetus. Several studies have shown that some alcoholics have defective aldehyde dehydrogenase (ALDH) activity, due to damaging effect of alcohol to the liver, resulting in high blood levels of acetaldehyde.

P. V. Veghelyi, (*Lancet 1983* 2: 53-54) gave the ethanol equivalent of one drink to eight mothers of FAS children and four chronically addicted mothers who had normal children and who drank heavily for several years before and throughout pregnancy. The levels of alcohol and acetaldehyde were measured half-hourly. The results were striking. While blood alcohol levels were comparable, the acetaldehyde values showed great differences, being excessively high in the mothers with FAS offspring while comparable to non-alcoholic women in the addicted women who had normal children.

Veghelyi postulates that the underlying cause of FAS is deficient ALDH activity due to alcohol damage to the liver. Others however suggest that the ALDH deficiency may be genetically determined (see *Lancet 1982* 2: 1057-58). Indeed, a study by the Institute of Human Genetics, University of Hamburg, West Germany, found an inherited deficiency of ALDH isoenzyme in a significant number of the Chinese and Japanese population tested (*Enzyme 37*: 29-44).

Although Veghelyi believes that abstinence is preferable, he suggests that a more practical approach would be to screen women with an alcohol problem, both pregnant women and women who want to become pregnant, for blood acetaldehyde after a single drink. A value of acetaldehyde above the normal range would identify the woman as being at risk of having a FAS offspring. He goes as far as to advocate that these women should not have children or, if pregnant, should have an abortion.

Conclusions

1. Heavy abuse of alcohol during pregnancy may produce an identifiable pattern of physical and mental abnormalities collectively known as the fetal alcohol syndrome (FAS).
2. The major characteristics of FAS are (a) prenatal and postnatal growth deficiency affecting weight, height, and head circumference; (b) central nervous dysfunction leading to mental retardation; (c) unusual facial features which make the individual readily identifiable; and (d) increased incidence of major and minor birth defects.
3. The risk for FAS and FAE corresponds to the amount of maternal alcohol use and possibly to maternal ability to metabolize acetaldehyde.
4. Not all children born to women who drink heavily, even throughout pregnancy, are born with FAS.
5. Many infants exposed to alcohol during pregnancy may be born with adverse effects other than FAS.
6. Alcohol consumption during pregnancy is associated with increased risk of miscarriage and stillbirth.
7. No safe level of alcohol consumption has been determined; therefore abstinence during pregnancy is the safest course.
8. Many questions are still unanswered.

Prevention strategies

An educational public campaign was started at the national, state, and community levels in the late seventies. Indeed, Wisconsin was the first of many states to initiate such activities in 1978. Wisconsin is also the first, and so far the only state, to enact a law which requires county clerks to distribute an educational pamphlet on FAS to applicants for a marriage license. Because of opposition of the alcohol industry it took four years and three legislative sessions for the proposed bill to become law.[1] It is of interest to note that between 1974 and 1984 Wisconsin has had the second highest consumption of beer per capita in the U.S. In 1983 the Wisconsin FAS work group was founded; its most important achievement has been the development of a FAS high school curriculum. This curriculum is distributed by the Department of Public Instruction to all school districts and is being used by teachers in biology, health, and child development classes. Currently a FAS curriculum targeted at middle school pupils is in preparation.

In 1981 the U.S. Surgeon General and in 1982 the American Medical Association endorsed alcohol abstinence during pregnancy as the safest course.

Passing laws and public education is not enough; it is important to identify the moderate as well as the heavy drinker at risk prior to and during pregnancy. Counseling is essential because a decrease in alcohol consumption at any time during gestation has been shown to improve the outcome of the offspring.

[1]1985 Wisconsin Act 19. An Act to amend 765,12(1) and to create 46.03(34) of the statutes.

Hania W. Ris, M.D. is clinical professor of pediatrics at UW Medical School. In 1977 she was appointed to the Wisconsin State Joint Panel for the Prevention of Fetal Alcohol Syndrome. She was instrumental in the passage of the Wisconsin law requiring distribution of a pamphlet on FAS with applications for a marriage license.

The Iron Brigade's Lucius Fairchild. Courtesy State Historical Society of Wisconsin.

The Wisconsin Militia

By Peter Muto

The Eagle Brigade, July 1863. Courtesy State Historical Society of Wisconsin.

This article attempts to show how Wisconsin has contributed, through its militia, to "provide for the common defense" and to "insure domestic tranquility."

The concept of the militia was brought over from Great Britain. The Massachusetts Bay Colony had a formally organized militia as early as 1636. This made the American militia 150 years old when our Constitution was signed.

The militia is considered in the Constitution in Article I, which created Congress, Section 8, which specifies the powers of Congress, and in two clauses: the fifteenth, which reads, "to provide for calling for the militia to execute the laws of the union, to suppress insurrections, and to repel invasions" and the sixteenth which reads, "to provide for organizing, arming, and disciplining the militia, and for governing such part of them as may be employed in the service of the United States, reserving to the States respectively, the appointment of the officers, and the authority of training the militia according to the discipline prescribed by Congress."

Congress passed a Militia Act in 1792 which defined the militia as all male citizens between the ages of 18 and 45. The state governments were assigned the responsibilities of organizing, equipping, and training the militia. Each enrolled member of the militia was required to furnish his own firearm. In 1791 Governor St. Clair of the Northwest Territory called out 300 regular army troops and 1100 militia soldiers to pacify the Miami Tribe; the 1400 soldiers suffered 900 casualties on the Wabash River.

For 111 years the militias of the various states were dissimilar in organization, equipment, and training, largely because Congress had been reluctant to provide funds during peace to assure a uniformly developed militia in time of war.

The "Dick Bill" of 1903 gave the name National Guard to that part of the militia which was organized by the states in accordance with the Act of 1792. The unorganized militia would be subject to call to service thereafter only by a conscription act. The national guard had to be equipped, payed, trained, and organized similarly to the regular army. A 1916 act defined the Army of the United States as the collective term for its three components: regular army, army reserves, and the national guard.

Wisconsin National Guard had a naval militia with units at Ashland and Bayfield until World War I. The naval militia was reorganized in 1927 with units in Milwaukee and Madison. Naval militias no longer exist in any state.

The airplane was introduced in the New York National Guard in 1911. When the U.S. Air Force was created, the Wisconsin National Guard acquired a second branch. The two branches are called the Wisconsin Army National Guard and the Wisconsin Air National Guard. As a part of the executive branch of state government, the governor commands the national guard through a military officer, the adjutant general.

The Wisconsin National Guard has served in diverse capacities to "insure domestic tranquility." A Wisconsin governor has called out units to assist in the capture of a murderer; to quell riots evolving from strikes; to protect UW-Madison campus during Vietnam War protests; to fight fires, in cities and in forests; to assist with cleanup after tornadoes; to relieve and rescue flood victims; to defend a prisoner

from lynching; to guard a prison when its guards were on strike; to liberate a monastery which Native American were occupying to express a grievance; to direct traffic on principal highways; to transport hay by air to animals stranded by a snow storm.

History

A company of infantry was mustered in the federal service from a militia unit called the Crawford County Volunteers in 1846. The term "muster" implied that the individual soldiers were discharged from the state militia and enlisted in the army. This has not been necessary since 1933.

At the beginning of the Civil War, Wisconsin had 52 militia companies with about 2000 men. These were enough to complete the first two regiments called forth by President Lincoln. The Second Wisconsin Infantry Regiment (2nd WI) became a major component of one of the Union's outstanding units, "The Iron Brigade of the West." (This unit was composed of 2nd WI, 6th WI, 7th WI, and 19th IN.) The 2nd WI left the state with 1048 men, but suffered the most casualties of any regiment on the Union side. After the battles of Gainesville and Antietam, it had 60 men left. Thereafter it served as a battalion (roughly one third of a regiment) in 6th WI. It was replaced by a Michigan regiment, 24th MI. The original brigade commander, Rufus King, was promoted to division commander. He was eventually succeeded by Lysander Cutler of Milwaukee and in turn, by John Gibbon, both of whom were promoted to command divisions. The Iron Brigade was present through the surrender at Appomattox Court House.

The succeeding regiments were composed of volunteers who enlisted in the various counties and cities of the state. The most famous was the 8th WI, which contained the "Eau Claire Eagles" with Old Abe as mascot. This Eagle Regiment became a component of the Eagle Brigade which was a shaggy, motley outfit with units from Minnesota, Iowa, Illinois, and Missouri. The Eagles were noted for their hiking endurance; once they marched 114 miles in 72 hours.

During the Spanish-American War the president called for four regiments of infantry and one battery of light artillery. These soldiers were mustered as volunteers with the Wisconsin National Guard contributing about one half of their membership. Two of these regiments were sent to Puerto Rico where their brigade had an unopposed landing at Ponce. They fought in skirmishes at Caomo just before hostilities ended.

The Wisconsin National Guard was honored in 1914 when the Army Chief of Staff announced to the entire army that this command could be studied as a model of excellence for the army.

President Wilson called the entire national guard for service on the Mexican Border in response to a raid by 1500 Mexican bandits into the town of Columbus, New Mexico, where twenty American citizens were killed. The Wisconsin National Guard contributed an infantry brigade, an artillery battery, a cavalry troop, and a field hospital. The president was able to gather 98,000 national guardsmen plus 41,000 regulars eventually for this campaign. Six days after the raid an American expedition left Columbus and penetrated 200 miles into Mexico. Meanwhile, small battles were fought at Galen Springs, Laredo, and West Brownsville in Texas. By January 1917, the Mexican government was convinced, by show of force, to take severe action to restrain bandits from border raids. These same units were called for service in World War I.

At the beginning of World War I, army regulations terminated official ties between the former members of the national guard and their states. Units were given new national numbers such as the 127th Infantry and the 128th Infantry and the 120th Artillery and 121st Artillery. The 32nd (Red Arrow) Division was created from these units and others from Michigan on July 18, 1917 at Camp MacArthur, near Waco, Texas.

The 32nd Division served in France suffering 2,660 dead and earning the name *les soldats terribles.* It was one of three divisions selected by General Pershing to occupy Germany after the war was over.

The army was reorganizing its divisions when the U.S. National Guard was called forth in October 1940. This reorganization separated some Wisconsin National Guard units from the 32nd Division. Among these was a tank company from Janesville, which fought in 1941 and 1942 in the Philippines and went through the Bataan Death March. Only thirty-five members of the Janesville company survived their experience as prisoners of war. Also separated were an artillery unit which fought in Italy from 1943 through 1945 and a tank destroyer unit which helped recapture the Philippines during 1944 and 1945.

During World War II the 32nd Division had the most days in combat of any division in the entire U.S. Army. After this war, Wisconsin received the complete 32nd Division.

Today the national guard exists in all fifty states, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands. Where citizens live under this Constitution, the militia is organized "to provide for the common defense." There are over 500,000 members, training with an inventory of equipment that would cost $30,000,000 with an annual budget of about $5,000,000,000. About 30 percent of the conventional fighting power comes from about 2 percent of the military budget.

Those individuals who serve in the militia today—along with the members of our regular services who serve far beyond our horizons—can be said to "secure the blessings of liberty to ourselves and our posterity."

Peter Muto teaches chemistry at UW-River Falls. He served in the Wisconsin National Guard between 1947 and 1977.

Frank Lloyd Wright in Japan

By Ron McCrea

As he approached forty, Frank Lloyd Wright felt his life had reached an impasse. "I was losing my grip on my work and even my interest in it . . . it seemed to leave me up against a dead wall," he recalled in his autobiography. His answer was to make a complete break with the past. He left his wife Catherine and his six children in Oak Park, Illinois and sailed for Europe with Mamah Borthwick Cheney, a client's wife. Thus began a fascinating odyssey in Wright's life, an odyssey marked at each end by a great calamity.

The first calamity—the tragic mass murder and fire which claimed the lives of Mrs. Cheney, her two children, and four others at Taliesin, near Spring Green on August 15, 1914—nearly destroyed Wright personally and professionally. The second calamity—the great Kanto earthquake of September 1, 1923, which leveled Tokyo but could not topple Wright's Imperial Hotel—redeemed his reputation and brought him worldwide fame.

This eventful transitional period in the life of one of America's greatest architects and one of Wisconsin's most celebrated citizens is the subject of "Taliesin to Tokyo," a two-year study I have undertaken with the encouragement and sponsorship of the Wisconsin Academy. I will seek to bring to light new perspectives and paint the fullest picture yet available of Wright's life, times, and struggles in Japan.

Wright first visited Japan in 1906 in search of Edo-period prints and again in 1913, with Mrs. Cheney, after receiving the commission to build the Imperial Hotel. But his longest stays were between 1915 and 1922 when the hotel was under construction with the architect on site.

Wright's departure from Wisconsin for Japan was both an escape and a search for consolation, personal renewal, and the refreshment of his vision. It came in the aftermath of the scorching tragedy in which Wright had lost virtually all that he loved. A pall of scandal and suspicion taxed his spirit and drove off clients. In exotic Tokyo, Wright could leave all that behind and build something new.

It was also a time of transition for the nations of America and Japan. The United States was leaving its innocence and isolationism behind in the aftermath of the Great War. Japan was abandoning its inward-looking feudal traditions, experimenting with democracy and gravitating toward industrialization and the ways of the West. It was an opportune moment for both Wright and Japan, and one ambition of my study will be to try to identify the ways in which Japanese culture influenced the modern architecture of the United States and the United States helped shape a modern Tokyo through the medium of Frank Lloyd Wright.

Said Wright: "When I built the Imperial Hotel in Tokyo, I tried to make a coherent link between what the Japanese then were—on their knees—and what they now wanted to be—on their feet. Every civilization that had gone to Japan had looted their culture. Because it was the only such genuine culture, coming from their own ground as it did, I was determined as an American to take off my hat to that extraordinary culture."

Such words of praise were rare for Wright, who was better known for his diatribes against "false" and "dishonest" architecture and his hymns to his own genius. But Japanese design sensibilities impressed him deeply from the moment he first caught sight of an antique woodblock print.

A passion for prints

"Ever since I discovered the print, Japan has appealed to me as the most romantic, artistic country on earth," he confessed. "Japanese art, I found, really did have organic character, was nearer to the earth and a more indigenous product of native conditions of life and work, therefore more nearly 'modern' as I saw it, than any European civilization alive or dead."

Wright was candid about his debt to the 18th- an 19th- century masters of color woodblock printmaking, or *Ukiyo-e.* "If Japanese prints were to be deducted from my education, I don't know what direction the whole might have taken," he said at age sixty-five. "The gospel of elimination preached by the prints came home to me in architecture as it came home to the French painters who developed '*Cubisme*' and '*Futurisme.*' Intrinsically, it lies at the bottom of all this so-called '*modernisme.*' Strangely unnoticed, uncredited."

Some observers have suggested that Wright's brief essay, "The Japanese Print: An Interpretation," published in 1912, contains more direct insight into the philosophical sources of his architecture than the many volumes of architectural discussion he published later. Consider this passage, for example, on the force of geometrical forms, for which Wright's architecture became so well known:

> There resides always a certain "spell power" in any geometric form which seems more or less of a mystery, and is, as we say, the soul of the thing. . . . A Japanese artist's power of geometrical analysis seems little short of miraculous. An essential geometry he sees in everything, only, perhaps, to let it vanish in mystery for the beholder of his finished work. But even so, escaping as it does at first the critical eye,

its influence is the more felt. By this grasp of geometric form and sense of its symbol-value he has the secret of getting to the hidden core of reality.

Still, for all the value Wright placed on prints for their philosophy and instruction, his main point was to own them. Wright's drive to seek out and acquire prints for his collection became "my constant recreation while in Tokyo." Some called it an obsession. "The adventures and excursions would take place at night or sometimes call for a journey by day to distant places, in search of them. Endless the fascination of this quest," he recalled.

He collected prints not only for himself but for wealthy Bostonians Edward and Virginia Fairlie Spaulding. By his own recollection, Wright spent $125,000 of their 1915 dollars on "about a million dollars' worth of prints," many of which he was allowed by his sponsors to keep as payment. John Lloyd Wright, the architect's son who assisted his father in Tokyo until he was fired for trying to collect his salary, recalled long lines of art dealers queuing up outside the senior Wright's office at the Imperial Hotel.

Wright's collection of Japanese prints served him well in later lean years, when he often had to bail himself out of financial difficulties by selling some of the art. But the interesting question remains whether Wright's acquisitive passion hurt him in Japan. Did his art collecting eclipse architecture as his main focus of activity? Did it contribute to the delays and cost overruns which caused him so much grief with the hotel's board of directors? Did the aggressiveness of his collecting itself become a sensitive point for the Japanese? Did Wright "loot their culture"?

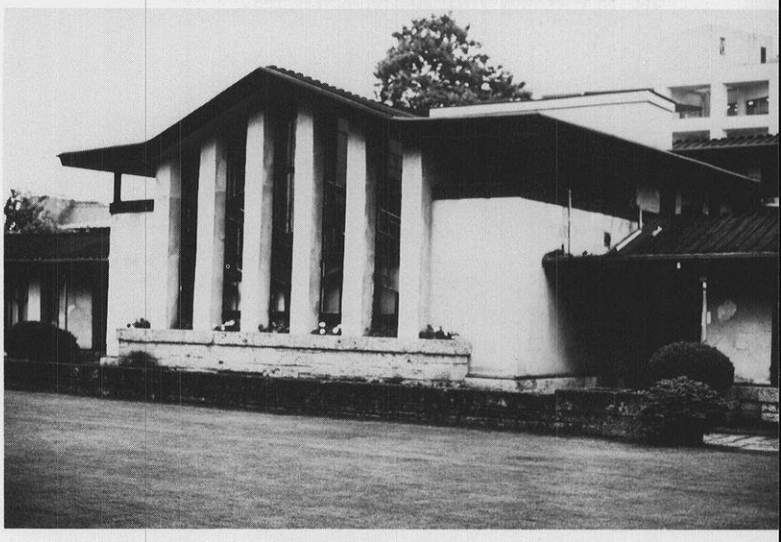
Since little research has ventured beyond Wright's own account of his Japanese experiences and since no one has seemed to care much about Japanese perspectives, Japanese-language sources, or the accounts of Western contemporaries who were in a position to observe Wright in Tokyo, answering these questions should not only be an enlightening exercise but challenging detective work.

An architectural legacy

The Imperial Hotel, despite its resistance to the 1923 quake could not withstand the pressure for more intensive real estate development and was razed in 1967 to make way for a high-rise hotel. Of the other building commissions Wright accepted while in Japan, three remain standing: the Jiyu Gakuen Girls' School (1921), also known as the School of the Free Spirit, in Tokyo; the Aisaku Haysahi residence (1917) in Tokyo; and the Tazaemon Yamamura residence (1918) in Ashiya.

None of these building appeared to be particularly Japanese in inspiration. The Imperial Hotel itself was decidedly un-Japanese, a heavy, shadowy, and often fussy structure with motifs more Mexican than Asian. Although it pleased tourists, experts generally did not regard the hotel as the finest or boldest example of Wright's work.

The geometric decorative designs which announced Frank Lloyd Wright's Prairie Style are still visible in a window and gate at the Jiyu Gakuen School. The school is the only Wright building still standing in Tokyo.



Frank Lloyd Wright designed the Jiyu Gakuen School, or "School of the Free Spirit," while he was supervising the construction of the Imperial Hotel in Tokyo. Completed in 1921, the school is still in use as a progressive academy for girls.

Although Wright did not build "Japanese" houses in Japan, he studied and admired many classical examples of the domestic architecture of that country. Wright rejected any notion that his later work was in any way derivative, but he admitted that his work was philosophically Oriental.

"Taliesin to Tokyo" will attempt to identify the many ways, both philosophical and practical, in which Japanese architecture and design principles found their way onto the American landscape through the creative synthesis of Frank Lloyd Wright.

The saga of the Imperial

Collecting prints may have been Wright's preoccupation in Japan, but building a new hotel for the imperial household was his chief assignment.He contended he was given the commission for the hotel only after an imperial search party had scoured the world for the one architect who could sympathize with Japanese sensibilities and regard for nature. That story will be interesting to verify.

Nevertheless, Wright's project was a success and soon became a legend. As the hotel's official history notes today

> Because the Frank Lloyd Wright building stood virtually intact when so much of Japan's capital city was devastated and burned (in 1923), a legend was born, and for millions of Japanese and foreigners alike the "Imperial" became, along with the cherry blossom and Fuji-San, one of the national symbols of Japan—a hotel that belonged to history.

The earthquake dramatically vindicated Wright and his experimental "floating" foundation for the hotel. But it was only the final drama in a story studded with intrigue, trial, and difficulty. In his autobiography, Wright tells that story well—how he faced the challenge of building a 20th-century structure using a work force wedded to ancient methods of construction; how labor difficulties, run-ins with the underworld, and bad weather delayed the project; how doubts about his design and anxieties about rising costs strained his relations with the hotel's backers and the imperial household; and how the survival of the half-built hotel in the 1923 earthquake calmed his critics but also prompted his departure.

The architect is also candid about his personal trials. Wright had brought his new lover, sculptor Miriam Noel, to Japan together with his son John and Paul Mueller, a Chicago engineer who had helped him build earlier projects. Wright recounts that Noel became increasingly manic-depressive during their stay in Japan and caused him both embarrassment and turmoil during what was already a trying time.

Wright's own account is so colorful, candid, and complete that few biographers have attempted to challenge or look beyond it in chronicling this chapter of his career. In "Taliesin to Tokyo" I will attempt to add missing dimensions.

The unanswered questions

How did the Japanese view Wright? How did the Tokyo press treat him? What did Japanese architects and professional academics say? What was the political position of Baron Okura, Wright's chief sponsor among the hotel's directors, and did the hotel for Westerners and its foreign architect ever become a point of political controversy in the debate over Japan's direction? How did the American community in Tokyo receive Wright? Did missionaries object to his living unmarried with Miriam Noel? Why wasn't Wright's plan for a new American embassy accepted? Was there diplomatic traffic between Tokyo and Washington about him?

Who was included in Wright's social circle? He mentions several Russian and Polish emigrés. Who were they, and did they shape his attitude toward the Soviet Union in the wake of the recent Bolshevik Revolution? Did he have contact with the other eminent Westerners who visited Tokyo while he was there, people such as Sergei Prokofiev, Anna Pavlova, Albert Einstein, and Margaret Sanger?

On a more personal note: Who, really, was Miriam Noel? What, really, did John Lloyd Wright make of her and his father, and what were his experiences in Japan? (His book, *My Father Who Is On Earth*, is very sketchy.) Did Anna Lloyd Wright, the architect's mother, leave correspondence or recollections of her visit to Tokyo during her son's last year there?

What do we know of his professional associates in Japan and their perspectives? Did Paul Mueller, who labored so valiantly to build the hotel, or Antonin Raymond, who stayed on in Japan after Wright left, leave any testimony of their contact with the American genius.?

Raku Endo, the son of Arato Endo, Wright's principal Japanese assistant, told me in 1984 that on leaving Japan Wright asked his father to pledge never to write about their experiences together. Was this an example of Wright's efforts to retain literary control of his legend?

To the degree that was ever his intent, he has largely succeeded. There is little written of the Tokyo years beyond Wright's own account. That is why "Taliesin to Tokyo" holds such excitement as a project of cross-cultural research and investigative journalism. There are mysteries to be probed, new chapters to be written, and the first complete story told of Wright confronting history, artistic challenge, and his own personal demons in a land far away.

Ron McCrea is a veteran journalist who has worked for the *Washington Post*, the *Washington Star*, and the *Boston Globe*. He served as communications director for Wisconsin Governor Anthony S. Earl. He has a master's degree in international relations and development economics from Tufts university. His mother grew up in Japan and held her high school graduation party at the recently completed Imperial Hotel in 1925.

Galleria

Carol Emmons

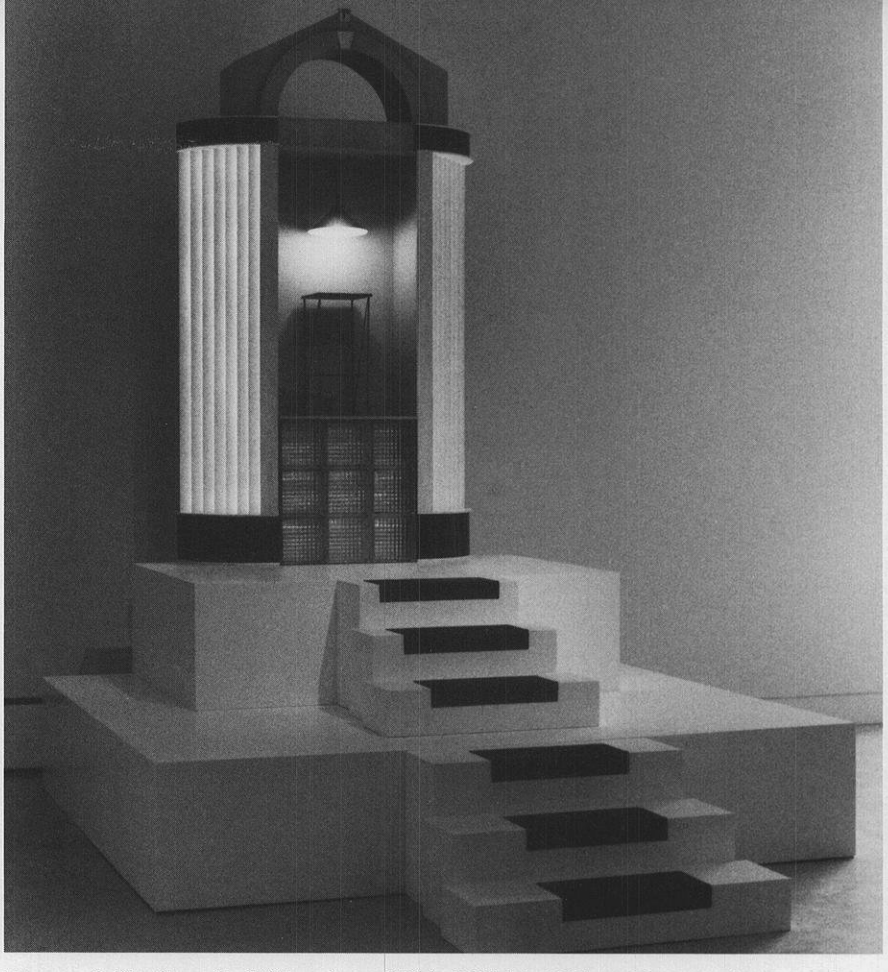
By Mark J. Spencer

Artist Carol Emmons has been strongly influenced by conceptual art. Ideas have always dominated her work, and the idea that has interested her recently is memory.

Started in 1984, her *Mneme Series* is named after the Greek word for memory. The memory series is a concrete way for her to deal with the abstract idea of memory. Memory images in art have not yet become as much of a cliché as dream imagery.

While each work in the series deals with memory, the scope and substance of each piece are very different. The allusion to memory may be quite straight forward as with *Mneme II: The Library* or other times more subtle and illusive.

Mneme I: Kenilworth, Milwaukee from 1984 is a situation specific piece as opposed to many of her earlier pieces that were site specific. The situation in this work refers to years spent in her graduate studio in the Kenilworth building on North Prospect in Milwaukee. Carol's work often incorporates existing objects as relics for memory, and she is meticulous in selecting the correct object to evoke an image. In the *Kenilworth, Milwaukee* piece the relic is a broken floor tile from her studio floor which she had saved for years, planning to incorporate it into an appropriate work. In *Kenilworth, Milwaukee* the viewer must ascend six steps constructed in forced perspective in order to see the shards of floor tile laid out on a delicate table. Ten feet tall, *Kenilworth, Milwaukee* is surpassed in size only by her most recent in the series *Mneme X: Timeline* which was made in 1986 for a reunion exhibition at her undergraduate alma mater, the University of Wisconsin-Stevens Point.



Mneme I: Kenilworth, Milwaukee, 1984; 126″ × 129″ × 90″ mixed media with neon.

Another specific memory piece in the series is *Mneme V: Illinois Avenue, 1955* from 1985. This work is mixed-media of a handmade amoeba-shaped coffee table with family photographs pressed under the glass and illuminated by neon light from around the edges of the table. A 1950s lamp rests above the table on a small shelf. *Illinois Avenue, 1955* is based on her only memory of the first house in which she lived: blond 1950s furniture.

Although several pieces in the *Mneme* series deal directly with her personal memories she does not see these works as autobiographical. In fact she prefers that her work not reveal much more about her than the small bits of information that she lets out. She believes that the examples she chooses from her memory can be seen as universal.

Two recent sculptures which sum up the idea of the personal experience as a universal are *Mneme VIII: Florida Vacation* and *Mneme IX: New York Vacation*, both from 1986. In both Carol uses the universal souvenir as a centerpiece: a scrapbook. She displays the open scrapbook on the lecternlike base and then covers the scrapbook with Plexiglas, making the object appear sacrosanct. The memories themselves are guarded and protected as Carol prevents the viewer from learning more about her than she intends. Along with the scrapbook Carol includes a small souvenir of the vacations. *Florida Vacation* contains a kitschy napkin holder from Florida, and *New York Vacation* holds a somewhat more tasteful miniature bronze Statue of Liberty. Both of these works are illuminated with small neon lights.

Many of Carol's sculptures incorporate small objects such as the napkin holder and statue. *New York Vacation* was nearly complete before she tracked down the perfect souvenir. The idea, the object, and the total sculpture are intimately related.

Mneme III: On the Spot is another situation specific work. Developed for an alumni exhibition, the work contains eight unedited essays from professors Carol stud-

ied with. She asked each to write a particular memory of her as a student. These responses were framed, identified, and then enshrined in a lighted case. For those who know Carol and the art professors *On the Spot* becomes a humorous specific memory piece. For others the work becomes a universal vision about the student-teacher relationship remembered later.

Alumni or reunion exhibitions gave Carol the perfect opportunities to explore the memory theme. Only one piece in the series thus far was not created for an immediate exhibition: *Mneme VII: Frank's Fish* from 1985. This was created in response to her friend and mentor Frank Lutz and his rather odd collection of dead goldfish. The goldfish could summon up ideas of the audience's lost pets. *Frank's Fish* may hold for Carol memories of classroom assignments to develop art around a specific object. The piece then works one way for the artist and another for the viewer. In developing her work on these two levels Carol purposely depersonalizes her individual memories to make the object more universal.

Mneme VI: Friends of the Family from 1985 is a more general work on memory. It centers on memories of early television programs. The main element of the twenty-foot long work is a 1950s television set on a pedestal. The original picture tube has been replaced with wavy neon tubes, making it a cultural totem of the many hours that generation spent in front of the television set. On each side of the television are three shelves which contain framed still photographs from late fifties'/early sixties' television programs such as "I Love Lucy," "Leave it to Beaver," and "The Lone Ranger." To trigger further our memories of these programs Carol incorporated an audio tape with fragments from each. This tape plays continuously throughout the exhibition—perhaps an allusion to the constant drone of the television in many American homes today.

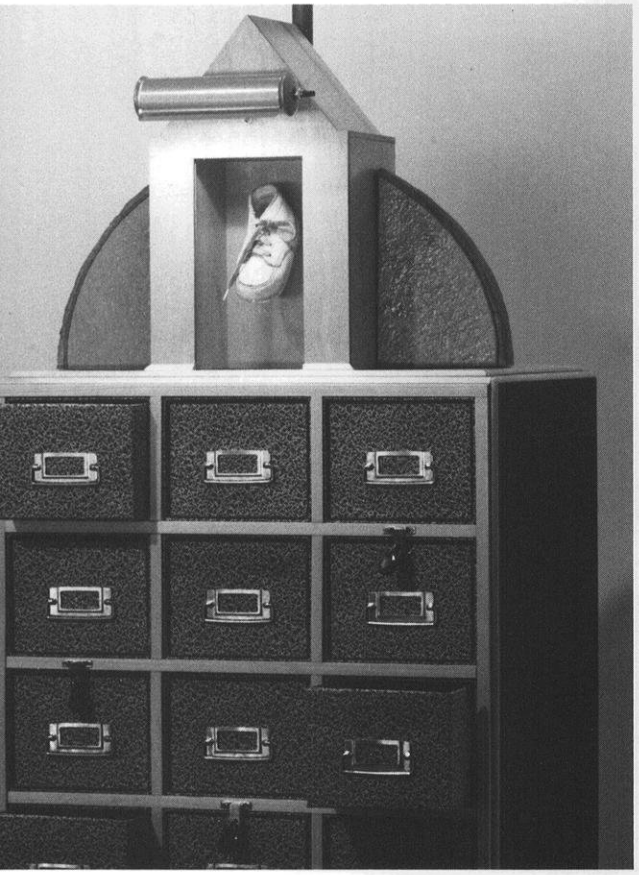
Carol's most ambitious work in the *Mneme* series is *Mneme II: The Library*. The centerpiece of the mixed-media sculpture is a set of file drawers, similar to those found in libraries, set on an antique baby carriage. On top of the drawers is a shrine with a baby's shoe. All of this rides on a twenty-four foot long set of tracks lighted with violet neon tubes from below. Inside the drawers thousands of typed cards contain snippets of memories. Carol interviewed friends and family and then chose random memories:

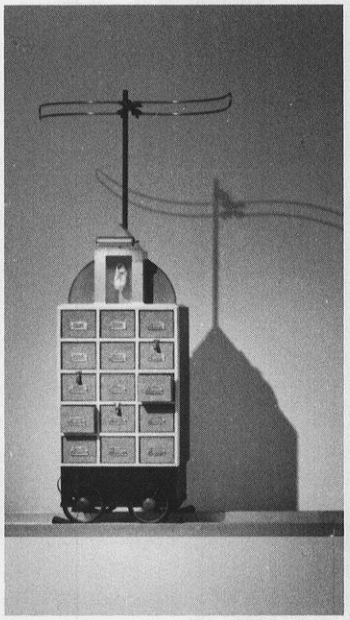
> If someone didn't get married, someone would die. We never had to organize family reunions.
> The lumber company floated away in the flood of 1913.
> It was hot and Mother slept. I let the dog lick the sweat from between my toes.
> My mother was forever wetting the edge of handkerchief and rubbing it in my face.
> Being invited to the Rainbow Girls' slumber party at the Masonic Temple was everyone's dream.

These numerous cards of memories are like a library's card catalogue: they give us some idea about the person/book but cannot reveal the whole contents. So too does Carol Emmons offer only a glimpse of her life in her work.

For a recent one-person show in Oregon Carol created a memory sculpture so subtle that it remained untitled and unsigned. She built a postcard rack which held limited edition photographic postcards of earlier work in the *Mneme* series too large to travel. Much like the scrapbook in *Florida Vacation*, the postcards were souvenirs of the exhibition.

Carol Emmons will have an exhibit of her work at the Wisconsin Academy Gallery in August 1987.





Mneme II: The Library, 1984; 99″ × 288″ × 48″ mixed media with neon.

Mark J. Spencer is assistant director for collections and public programs at the Patrick & Beatrice Haggerty Museum of Art, Marquette University, Milwaukee. He is serving a term on the Wisconsin Academy Gallery committee and will curate Carol Emmons' show in August.

BOOK MARKS/WISCONSIN

THE AMERICAN CONSERVATION MOVEMENT: JOHN MUIR AND HIS LEGACY by Stephen Fox. Madison: The University of Wisconsin Press, 1985. 436 pp. $14.95.

By Gretchen H. Schoff

"Wherever grit and skill and invincible granite determination and principle are required," John Muir wrote of Scotsmen, "the world cannot do without them." In writing of his countrymen, Muir described those dominant features of his own personality that made him a central figure of the American conservation movement. Stephen Fox's book weaves together new biographical information on Muir with a chronological history and analysis of the conservation movement from 1890 to 1975. First published by Little, Brown in 1981, the Fox book is now available in a handsome, illustrated paperback published by University of Wisconsin Press.

Fox offers fresh insights on Muir by drawing upon the recently opened Muir papers and manuscripts made available for scholarly research. What emerges is a "fleshing out" of the Muir we thought we knew well from the Vernon Carstensen (UW Press) edition of *Story of My Boyhood and Youth* and from Muir's own "Wilderness" essays. Independence of mind, theory tested against experience of bone and muscle—these were to be Muir's salient features.

Awestruck after his first meeting with Emerson ("The most serene, majestic, sequoia-like soul I ever met"), Muir returns to Yosemite and reads Emerson's essays for the first time. The margins begin immediately to fill with probing, impertinent questions

Emerson: "The squirrel hoards nuts, and the bee gathers honey without knowing what they do."

Muir: How do we know this.

Emerson: "It never troubles the sun that some of his rays fall under and around ungrateful space, and only a small part on the reflecting planet."

Muir: How do we know that space is ungrateful.

For Muir, Emerson was an admirable human being, but as an interpreter of Nature and wildness, The Sage of Concord was a disappointment.

Fox's research adds another dimension to our understanding of Muir, his role as Victorian paterfamilias. Muir's long months of solitude and wilderness trekking had an emotional price. "In all God's mountain mansions, I feel no human sympathy, and I hunger," he wrote in his 1872 journal. Five months later, another entry, "To live without human love is impossible. Quench love, and what is left of a man's life but the folding of a few jointed bones and square inches of flesh."

These ambiguous journal entries quite probably allude to a protracted but troubled relationship with a young married woman, Elvira Hutchings. Muir lived for a time in a cottage near the Hutchings home in Yosemite Valley, and the surviving, though sporadic, correspondence and journal entries show that what may have begun as a love affair ended because Muir chose to end it.

When Muir finally decided to marry, he chose Louie Strentzel, daughter of a prosperous orchard man. (The introduction came by way of Jeanne Carr, the University of Wisconsin faculty wife who figures so prominently as Muir's early mentor.) The choice of Louie could not have been better. By Victorian measures, she was dangerously near permanent spinsterhood at 33; Muir was 42 and searching for stability. "I was married last April and now have a fixed camp where I can store burs and grass," he wrote to Asa Gray. Gray replied, "You have mentioned the name of one party, John Muir, but you say not a word about this other. Now, who is she?" Fox sees the marriage as principally "a place to store specimens." Gradually Muir made adjustments, but the domestic mantle never settled comfortably, and by 1888 he told Hall Young "I'm degenerating into a machine for making money."

The outdoorsman was now more than ready for the liaison that lay in wait for him with Robert Underwood Johnson. As editor of *Century* magazine, Johnson revived Muir's interest in using a prestigious magazine as a vehicle for working toward preservation of his Edenic Yosemite. Johnson's magazine provided the forum, and he introduced Muir into the right

political and literary circles. Together, writer, editor, and *Century* launched the campaign for Yosemite National Park.

The American Conservation Movement (1890-1975) has the fullest treatment in Fox's book, and his arrangement of the material shows him at his most skillful. He admits that environmental morality plays are usually peopled with defenders and "the enemy," starkly aligned as "black hats and white hats." Fox focuses instead on the struggles among the white hats themselves, and what an array of characters that turns out to be. The anecdotal material and the fine photographs are especially revealing here. Muir manages to catalyze "even the soulless Southern Pacific RR Co." in pushing the Yosemite bill through Congress. He courts, but never completely converts Gifford Pinchot. He hauls Teddy Roosevelt through a grueling packing trip in Yosemite and the two, both born monologists, develop affinities and respect for one another.

Fox's conceptual framework is a history described through "clashes between amateurs and professionals." The figures are monumental, William Temple Hornaday, George Bird Grinnell, Theodore Roosevelt, Gifford Pinchot, John Burroughs, Will H. Dilg, Aldo Leopold.

From the days of Muir and his beloved Sierra Club straight through the New Deal and up to Rachel Carson, Paul Erlich, and William O. Douglas, Fox reads the history of American conservation as an interplay between professionals and radical amateurs. "Professionals keep the movement organized. Amateurs keep it honest. The ghosts of Muir and Pinchot still wrestle for control—in a fractious but symbiotic embrace."

The briefest, but in some ways, the most provocative segment of Fox's book is the last: "Conservation in American History." Fox suggests that conservation amateurs share a number of characteristics: early childhood isolation from human contact, early love of some aspect of the natural world, some "riveting instant of immediate conversion" in which the conservation impulse is born. Many amateurs have been experienced hikers or birders, and quite often, they are "repentant hunters." Fox is also the first to pay significant attention to the work of women in the conservation movement, though the record of their work is largely buried. Women have staffed magazines, organized mass movements, led demonstrations, exerted influence in their homes and on their husbands. A case in point: Claire Dedrich, a housewife trying to stop a road in San Mateo, California, was admonished by an angry engineer, "Get back in your kitchen, lady, and let me build my road!"

Fox also notes that the conservation movement has been strongest among those who have a little extra time and money, though he does not press the claim so far as those who charge that conservation has been the plaything of the leisure class. His analysis suggests that conservation is more deeply radical than Marxism, that it dissents from both capitalism and communism, and will in the long run define progress in a way hitherto unknown in the West. "The meaning of conservation," in social and cultural terms, has yet to be puzzled out, but whoever takes on the job should read Stephen Fox first.

Gretchen H. Schoff, professor of literature and writing at the University of Wisconsin, is chairman of instructional programs at the Institute for Environmental Studies.

THE ZOOGEOGRAPHY OF NORTH AMERICAN FRESHWATER FISHES edited by Charles H. Hocutt and E. O. Wiley. New York: John Wiley & Sons, 1986. 866 pp. $89.95.

By Philip A. Cochran

Zoogeography is a formidable compilation of regional and topical reviews by a veritable who's who of North American ichthyogeographers, surely a definitive standard of national significance for years to come. But given its continentwide coverage and its steep price, my primary purpose here is to describe what this volume has to offer specifically to the Wisconsin biologist.

Glaciation has played a major role in the zoogeography of fishes in Wisconsin. After mile-thick sheets of icelike great erasers wiped the slate clean over much of Wisconsin and the Midwest, fishes from peripheral refuges moved in to repopulate the region. How and when they did so and from where they came can be pieced together from data presented in *Zoogeography.* Most of Wisconsin's fishes dispersed from lower reaches of the Mississippi River, but some invaded from the Atlantic drainage and some apparently evolved within the Great Lakes system.

Wisconsin's fishes are not confined to a single chapter of *Zoogeography.* Rather, at least eight of nineteen chapters are potentially of local interest. These include an introductory review of historical geology and the history of North American ichthyology, followed by an analysis of fish species abundance on a geographic grid using distributional data compiled in the earlier *Atlas of North American Freshwater Fishes.* (Because of my personal interest in the distribution of lampreys, I was especially intrigued by an unexpected analysis of range overlaps within the genus *Ichthyomyzon.* My recent discovery of *I. gagei* in the St. Croix drainage necessitates a reanalysis of this case.) Other chapters are devoted to the Great Lakes, the Hudson Bay drainage (populated by many species that dispersed through midwestern waterways), the Mississippi River drainage (with relatively little attention to the Upper Mississippi), fish fossils (mostly from the western U.S.), and exotic species. The latter chapter includes only those species brought into North America from completely outside its boundaries. Just as valuable, but much more difficult to complete, would have been an analysis of artificial range expansions of native species within the continent.

Each of the chapters which deals with a major drainage system includes a summary of pertinent geological history and an extensive table detailing individual species occurrences in major subdrainages. These tables should not be accepted as the final word on geographical distribution, however. For example, the slimy sculpin (*Cottus cognatus*) in the Mississippi drainage is not restricted to southwestern Wisconsin in and near the Driftless Area, as stated on p. 317, but occurs in such distant localities as Trout Lake (Chippewa River drainage) in Vilas County and Mosquito Brook (St. Croix drainage) in Sawyer County (p. 312). The northern brook lamprey (*Ichthyomyzon fossor*) has been reported from the Fox River drainage in Waukesha County (p. 308), the "southern" brook lamprey (*I. gagei*) occurs in the St. Croix drainage, the ninespine stickleback (*Pungitius pungitius*) has been collected in Trout Lake and should not necessarily be considered as introduced where it occurs elsewhere in the Mississippi drainage (p. 311), and the threespine stickleback (*Gasterosteus aculeatus*) recently was reported from Lake Huron and has also invaded Lake Michigan (p. 112). Not all of this information would have been available to the authors at the time their individual drainage summaries were prepared. The point is that even for areas as well studied as the upper Midwest, we have much to learn about species distributions, and, to quote J. C. Underhill from p. 133, "presence is more easily and convincingly proven than absence." The Great Lakes chapter includes a particularly detailed glacial history and reference to aquatic taxa other than fishes, but, from a Wisconsin perspective, recent colonization of the Lake Michigan drainage by fishes moving from the Wisconsin to the Fox River drainage via the canal near Portage is inadequately addressed.

As a review of the literature, this volume is generally outstanding but, with respect to Wisconsin, sadly lacking. The bibliography has been compiled with all the thoroughness I have come to expect from such authors as D. E. McAllister; it extends for no less than ninety pages! Even one of this reviewer's most obscure titles has finally seen the light of day. By unfortunate timing, however, *Zoogeography* was initiated before the appearance of George Becker's *Fishes of Wisconsin* in 1983 or Don Fago's series of DNR Technical Bulletins, beginning in 1982, on the distribution and relative abundance of fishes in Wisconsin. Neither appears in the bibliography of *Zoogeography*, although Becker is cited on p. 288. The omission of such pertinent references might simply be ascribed to the inevitable delays of the publication process, yet there are references in the bibliography to publications as recent as 1985, including at least one that refers to *Fishes of Wisconsin*.

The bibliography is followed by separate species and subject indexes, useful features not always included in edited compilations such as this. The subject index includes major tributaries and other place names. After stumbling across the previously mentioned analysis of *Ichthyomyzon* distributions in Chapter 2, I rechecked the species index to determine why my first quick scan had failed to reveal its presence. The analysis is not listed under *Ichthyomyzon gagei* or any of the other Wisconsin species involved, but it is listed under *Ichthyomyzon* and *I. bdellium*. Despite this small failing, both indexes have proven invaluable.

Typographical, grammatical, and other errors seem more plentiful than I'd expect in a high-priced book so long in the making. Some chapters, peppered with typos, seem to have been especially rushed. McAllister et al. (1978), cited on p. 94 is not among the references; "Vladykov, V. and V. D. Kott" on p. 808 should read "Vladykov, V. D. and E. Kott." The word "artifact" on p. 97 is used to describe the consequence of a natural process, and "Wisconsin State University" (p. 324) is no longer an appropriate appellation.

What does this volume offer to the Wisconsin biologist? Not enough, I'm afraid, for me to endorse individual purchase by any but the most ardent ichthyologist. Enough, however, that *Zoogeography* belongs in every college, agency, and major public library. All ichthyologists and fisheries personnel should have ready access to pick and choose among its various chapters. Specialists on other aquatic taxa and glacial geologists may also find it a source of insight or inspiration.

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POLITICAL PARTIES IN THE AMERICAN MOLD by Leon D. Epstein. Madison: The University of Wisconsin Press, 1986. 440 pp. $27.50

By Cornelius P. Cotter

What is happening to the American political parties? What major themes and findings emerge from the recent scholarship on the parties? These questions receive the attention of University of Wisconsin Hilldale Professor of Political Science Leon D. Epstein in his latest book. The subject of party change merits caution. Recent trends toward bureaucratization, computerized fund raising, and enhanced patterns of relationship with candidates and state party affiliates might invite exuberant forecasts of changing party roles that underestimate some of the enduring constraints which operate upon the parties. Thus it is well to keep in mind that the American mold that shapes the parties includes a federal system with a daunting number of governmental jurisdictions and elective offices which are appropriate foci for party effort. It also includes the institution of separated legislative, executive, and judicial authority, mandated by the U.S. and state constitutions. And, Epstein points out, the literature re-

porting party change and interpreting its significance is produced by scholars who tend to be entangled with their subject matter, belonging, perhaps, to the Committee on Party Renewal (p. 38) or subscribing to the doctrine of "responsible party government" best expressed in an official report of a committee of the American Political Science Association in 1950 (pp. 33-36).

The 1970s were a turbulent decade for the two parties. The Democrats initiated far-reaching "reforms" which enlarged opportunities for participation in party affairs, centralized important aspects of national-state party relations which formerly had been diffuse, and introduced important changes in the presidential nominating process. The Republicans, whose party reforms were timid by these standards, developed a model of national party service to state and local parties and to candidates, creating a standard to which the Democrats would aspire. Party and campaign legislation at the national level contributed further change to the presidential selection process by introducing "matching-funds" subsidy for candidates in nominating campaigns and making full public funding of the general election campaigns available at the option of the candidates. The legislation also subsidized the party nominating conventions and established contribution and "coordinated" expenditure limits to guide party spending on candidates. During this decade the number of PACs (political action committees) grew exponentially, from a hundred or so to over 2,000 by 1979 (and 4,000 by 1986), thus greatly complicating the organizational environment of electoral politics. This surge of PACs was spurred by provisions of the Federal Election Campaign Acts. Finally, the decade was thought to record further weakening of levels of popular support for the parties, and it constituted a kind of vigil for party realignment—thought long overdue by some observers—or for the demise of the two parties as electorally relevant institutions.

Within this setting the judicious and, at times, even cautious approach which Professor Epstein brings to his assessment of the state of the parties and to his review of the literature is a virtue. Another virtue is that Epstein's abundant scholarship on Wisconsin, American, Canadian, British, and Western European political parties enables him to enrich his analysis with comparative allusions which frequently imbue familiar material or ideas with fresh significance.

The organization of the book reflects both the institutional environment shaping the parties and scholarly convention, which ordains a triadic division of the field into party in the electorate, party organization, and party in government. Thus, although the book's emphasis is the national parties, it is necessary to recognize the federal division of jurisdictions with chapters on state and local party structure and on regulation of parties at the state level. Separation of powers is served by the discrete chapters on legislative and executive parties. And scholarly convention is met by some of these and the chapters on national party organizations and on party identifiers. Chapters on public funding and on private funding of campaigns cover essential topics that cross categories. In his final chapter, "An Unbreakable Mold?," Epstein confirms judgment anticipated in much of his preceding analysis, that the parties neither are on the verge of collapse nor of transformation toward an idealized version of the parliamentary model after which the "responsible party" scheme is patterned. Yet, within limits constrained by tradition, by separation of powers, and by decentralized governmental jurisdictions and patterns of regulation, the parties seem to be assured of a continuing role in the changing pattern of American electoral politics.

One of the most salient features of that changing pattern of electoral politics is the transition from "party-centered" to "candidate-centered" campaigns. Presidential and, indeed, most election campaigns in the United States are becoming increasingly candidate controlled. Cause for this development frequently is assigned to the emergence of new campaign technologies, freeing the candidates from dependence upon the parties for funds, public attention, and other essentials of campaigning. Drawing upon his comparative perspective, Professor Epstein points out that "the experience of parties elsewhere supports the observation that the new technology itself does not produce candidate-centered politics" (p. 269). The new campaign technologies are central to European election campaigns, where the parties continue to be the focus of campaigning and voting. Thus we must look elsewhere for the sources of this development. And, although the new federal legislation since 1971 has important candidate-centered features, these ratify and did not initiate the move (p. 319). Further illustration of the usefulness of the comparative approach is provided in the context of public regulation of parties. The American parties are the most regulated in the world. It is conventional to associate the development of this pattern with adoption by the states of the publicly printed Australian ballot, and the consequent need to legislate conditions for party access to the ballot. But Australia itself and Great Britain adopted the secret ballot without intensifying the regulation of parties beyond the level imposed on other private associations (p. 156). They did so, in part, by not placing party designations on the ballot, thus dispensing with the need to define the conditions for party access. Epstein then develops (Ch. 6) an alternative explanation of regulation of parties in the American states grounded on analogy to public utility regulation.

Turning to the theme of party decline, a careful examination of some of the leading "causes" of such decline brings the author to a verdict of not proven. PACs are popularly regarded as predators upon parties. The PACs take in and contribute (primarily to congressional campaigns) large amounts of money, presumably in competition with the parties. "The nearly simultaneous growth of party and PAC contri-

butions in the last decade should itself raise doubts about projected replacement of parties by PACs" (p. 292). Examination of contributions to PACs and of PAC contributions to House candidates averaged about $500 and to Senate candidates about $1,000 in 1981-82 (pp. 291-92). In 1981-82 and in 1983-84 the political parties outspent the PACs in federal campaigns (p. 290). Decline of subjective support for the parties among the electorate is frequently cited as evidence of the withering of party. Epstein's analysis of the party identification literature leads him to suggest that the magnitude of decline of support for the parties over the long run has been modest considering the "rapid social and economic change," and he takes note that the parties continue to provide cues to voter decisions and to dichotomize the vote (p. 271). With suitable caution as to the significance of the findings, he takes cognizance of studies indicating that national and state party organizations have been growing stronger in recent decades—patterns of change that may challenge widely held perceptions of erosion of the parties.

In this study, Professor Epstein has provided a field guide to American parties for graduate students and professionals who can benefit from a current and authoritative survey. He has mapped contemporary knowledge of the parties in such a manner as to expose gaps in the literature and anomalies in the cumulating findings of researchers, thereby at least implicitly suggesting emphases for future research. And he has provided the interested general reader with an urbane and insightful commentary on contemporary American parties, explaining how they have changed over time, and why they promise to be of continuing significance, while retaining the characteristics which differentiate them from most other political parties in the world.

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WALLACE STEVENS: A MYTHOLOGY OF SELF by Milton J. Bates. Berkeley: University of California Press, 1985. 302 pp. $24.95.

By Jack Stark

American literature intrigues readers partly because many of its creators have alluring personalities. They seem to be leftover Dickens characters who, incongruously, can write. Among the more alluring is Wallace Stevens, the burly insurance company lawyer who explored the furthest reaches of unabridged dictionaries to find words to create unearthly poetry. In *Wallace Stevens: A Mythology of Self* Milton J. Bates, an English professor at Marquette University, discusses Stevens, his poetry, and their interrelations.

Before starting a writer's biography it is logical to determine one's purpose. The possibilities include some traditional purposes of biographies. One of the oldest is to teach ethics, and if the subject has sufficient stature and the analysis is penetrating enough that kind of biography can be a guide to conduct for centuries, as Plutarch's were. Another traditional purpose is to illuminate history by chronicling the life of someone who made it or was present when it was made. Another purpose is psychological: explaining insights about one person that are generally valid. It is worthwhile to study a few authors ethically, historically, or psychologically: e.g., doing a biography of F. Scott Fitzgerald that is a cautionary tale about the difficulties success brings, a biography of Zola tracing his effect on, and reaction to, his era, and a psychological study of Mailer. However, those traditional forms are difficult to adapt for biographies of writers, who are interesting primarily because they wrote.

For that reason different purposes need to be sought. One, clarification of the creative process, is difficult to fulfill because of that process's evanescence. It is difficult to write about and very difficult to write about at any length in regard to one writer. Much more commonly, biographers present authors' lives in order to increase understanding of their works. A biographer ought to shuttle tactfully back and forth from life to work, refusing both to think of the works as disguised autobiographies and to trace the life as though the works were peripheral. Justin Kaplan, in his biography of Twain, Richard Ellmann, in his biography of Joyce, and others have succeeded at that. A biography that fulfills this purpose is valuable.

Mr. Bates had these latter two options, as well as the three available to all biographers and any others he could find or invent. It is unfair for a reviewer to claim that an author should have chosen a different purpose. However, many books that try to fulfill several purposes are flawed. Because of the intricate interrelations between a writer's life and work, it is especially important for a biographer of a literary figure to hew to only one approach to his or her material. Only then can the biographer move nimbly from life to works and back. To put it more generally, Nietzsche thought that the most frequent cause of mental error was forgetting one's purpose. Any biographer of Stevens has unusual difficulty being single-minded because Stevens was a private person who left behind only a small amount of the material that biographers usually employ, and that scarcity of material makes it difficult to write a full-scale biography designed to fulfill only one purpose. Mr. Bates's impressive knowledge of Stevens and related subjects, which makes this an interesting book, exacerbates the problem: it is difficult to move in a straight line if at every point in the journey one thinks of several attractive side trips. Whatever the reason for it, his multiplicity of purposes prevents this book from being first-rate.

Some of this book's best contributions result when Bates analyzes the relations between Stevens's life and works. For example, he brilliantly shows that the "supreme fictions" of Stevens's major poetry have a basis in his early replacement of a clear, steady view of his

wife, who was undistinguished except for her good looks, with a fictional version of her. Bates also points out the personae and mocking tone both in Stevens's letters to her and in his earliest mature poetry. On the other hand, perhaps due to a lack of available information, Bates does not satisfactorily explain the effects of Stevens's relation to his imposing father. An analysis of the lessons Stevens learned from him about being both a lawyer and a poet would have been interesting. In fact, Bates casts little light on the relation between Stevens's vocation and his avocation. He cites the role of fictions in the law, but that role is peripheral, and legal fictions are very different from Stevens's idea of the "supreme fiction." A more fruitful line of inquiry is the relation between typical lawyerly modes of thought, such as dialectics, and Stevens's poems.

Bates also tries to identify intellectual influences. A biographer fulfills this purpose best by definitely connecting the influence and the writer. A writer's oral or written comments on the influence or possession of the influence's work, especially a marked-up copy, establish such a connection. Bates reports that during 1901, soon after Stevens started practicing law in New York, he bought a set of Plato that he thought of "as a sort of buoy." The crucial juncture in his life, his statement of those books' importance to him, and the potency of the influence call for an assessment of Plato's effect on him, which is not forthcoming. I wonder, for example, whether Stevens reacted to the following passage in the *Thaetetus*:

> Those who have been trained in philosophy and liberal pursuits are as unlike those who from their youth upward have been knocking about in the courts and such places as a freeman is in breeding unlike a slave.

Bates opens another possible line of inquiry by reporting that there exists a copy of I. A. Richards's *Coleridge on Imagination* that Stevens marked up while preparing a lecture. This is potentially rich ore, but it is quickly turned over, not mined. On the other hand, Bates connects Stevens and an apparently improbable influence, Nietzsche, by showing that Stevens acquired several of Nietzsche's works and then convincingly and at length traces that influence.

Explaining influences of ideas that are merely in the air is less convincing and less useful than tracing influences that can be connected to a writer. Bates notes that Richard Harding Davis's dashing personal style and knack of being in the right place at the right time changed the prevailing conception of journalism, but Bates is not even sure that the beginning of Stevens's newspaper work and Davis's coverage of the Rough Riders happened during the same summer and does not show that Stevens knew about Davis. Even if that connection could be made, its relevance to Stevens's poetry is unlikely. As to more intellectual ideas, Bates occasionally interrupts his narrative to explain such movements as Decadence, Dandyism, and Impressionism. These passages remind one about the intellectual history of Stevens's era but cast little light on his poetry. Again, Bates's erudition appears not to be controlled by a purpose.

Bates identifies his most interesting purpose in his subtitle: *A Mythology of Self.* Near the end of the book he summarizes his point:

> In the early poetry, Stevens had cultivated a variety of outlandish poses. . . . Together with the hero of his middle period, they enabled him to extend his limited experience. . . . In the late poetry, he turns from the exotic to the homely.

That is, in Stevens's poetry one hears several voices, each with a distinctive style of speaking and thinking and distinctive interests. This approach is dangerous because it tempts a biographer to identify the voices of Stevens's poems with Stevens. If the poems were examined solely to clarify the voices in them and those voices discretely related to Stevens's personal life—these are hard tasks—a subtle book would probably result. Bates, however, tries this approach only fitfully.

In some sections of this book Bates turns away from Stevens's life and toward his poetry, either to explicate a poem or to trace a theme in several poems. Then he faces the difficulty of adding something new to the vast amount of Stevens criticism. One of these explications, for example, is of "Sunday Morning," which is probably one of the great poems of this century and certainly one of the more frequently analyzed. These interludes are not long enough to increase substantially a reader's understanding of Stevens's work, but they are long enough to interrupt the narrative. These problems could have been avoided if the explications were more carefully tied to Stevens's life so that they would not be digressions. That connection, in turn, requires a careful choice of, and resolute adherence to, one purpose.

Immersion in his subject not only made digressions more tempting to Bates but also lured him into acquiring some of his subject's attributes. Partly because Stevens's poetry is exotic, criticism of it is recondite. Many of his critics are like priests developing the theology of a hermetic religion and writing for, at most, each other. Similarly, parts of Bates's book are nearly impenetrable: e.g., ". . . in the relationship between the Stevenses, as in algebra, there were gremlins but no villains." Also, Stevens's verbal pyrotechnics appear to have induced many experts on him to develop a style that is too lush for prose, such as:

> Stevens senses, in his lucid integrity, both the fatality and the freedom of his position. Though passive in the embrace of that which arranged the rendezvous, he actively collaborates in the making of his dwelling. Aesthetic and mythology are for a moment congruent.

In short, Bates is too often diverted by Wallace Stevens's siren songs. He would have done better by tying himself to the mast, as

Odysseus did, so that he could have stayed on course. Nevertheless, the trip was worth being on, and it helpfully demonstrated the seductiveness of Stevens's songs, so that readers will be encouraged to return to them.

Jack Stark, lawyer, writer, and occasional contributor to the Review, *has a doctorate in English literature.*

CARL VON MARR: AMERICAN-GERMAN PAINTER by Thomas Lidtke. West Bend, Wisconsin: West Bend Gallery of Fine Arts, 1986. 116 pp. $34.95 (hardbound); $19.95 (softbound). Available from West Bend Gallery of Fine Arts, 300 South Sixth Avenue, West Bend, WI 53095. Add $2.00 for shipping and handling.

By Peter C. Merrill

Carl von Marr was born in Milwaukee, Wisconsin, in 1858, the son of German immigrant parents. His father was a well-known local engraver. As a boy in Milwaukee, Carl von Marr received instruction from Henry Vianden, a German-born artist who had been trained in Munich. Vianden recognized the boy's unusual talent and persuaded his parents to send him to Germany for study.

Marr left Milwaukee in 1875 and embarked upon a course of study at Weimar, Berlin, and Munich. He achieved notable success in Munich, where he remained until his death in 1936. He was elevated to the nobility in 1909 and was for many years director of the Royal Academy of Art in Munich. He frequently returned to Milwaukee to visit relatives and friends, particularly after 1923, when he retired from the directorship of the Royal Academy. A number of his paintings were acquired by people in Milwaukee, and in 1961 relatives of the artist established the West Bend Gallery of Fine Arts to house a permanent collection of the artist's work. The collection has been growing ever since. Although it consists mainly of portraits and studies of interiors, it also includes such works as "The Flagellants," a celebrated historical tableau, and the allegorical "Mystery of Life."

Thomas D. Lidtke, the director of the West Bend Gallery of Fine Arts, has edited this fully illustrated catalogue, which presents fifty of the artist's works, most of them illustrated by full-page color plates. Most of the illustrations are of paintings in the gallery's own collection, although the catalogue also includes some works which are in the possession of other museums or of private collectors. Also included in the book are photographs of the artist, a well-researched biographical preface, a chronology of the artist's life, a bibliography, and full information on each of the works illustrated. It is hoped that this splendidly produced volume will be widely circulated and help to draw attention to this neglected American master.

Peter C. Merrill, associate professor of languages and linguistics at Florida Atlantic University, is writing a book on German-American artists in Milwaukee.

MOTHER LESS CHILD by Jacquelyn Mitchard. New York: W. W. Norton Company, 1985. 379 pp. $15.95.

By Shirley Ann Chosy

This autobiographical, reportorial account of a couple and their struggle to have a child opens with an ambulance conveying the author-narrator to a hospital following the rupture of her Fallopian tube due to an ectopic pregnancy. There is a flashback to becoming pregnant and the remainder of the book deals with the discovery of infertility and the adoption of a child. The detailed descriptions of both physical and emotional responses to events and the presentation of facts may be attributed to the fact that the author was and is a reporter, first for the *Capital Times* in Madison, and presently for *The Milwaukee Journal.*

Much of the story is in dialogue form dealing with the interrelationships of the couple, their coworkers, friends, and family. This is an extended family including the husband of the author, his exwife, and seven-year-old daughter, and the author's grandmother who becomes a resident in the couple's household and serves as surrogate mother to the author whose mother had died earlier. Family, generation, and regeneration are important issues here. There is urgency in the tone of the narrative as the couple begins to feel time may be running out for them to become parents.

The urgency increases as they undergo a battery of tests to determine fertility. While testing, waiting, hoping, and praying govern their lives, all around them, the fecundity of the rest of the human race becomes manifest. Friends, sisters, cousins, all seem to be having babies at once. This adds irony to the frustrating circumstances in which the couple finds itself.

The marriage becomes strained almost to the breaking point when the author becomes increasingly obsessed with her relentless search for a way out of her childlessness. The negative outcome of the tests profoundly affects the wife who feels ultimately responsible for the barren relationship. The stepdaughter, an important character in the book, does not completely fill the void left by the loss of the unborn child. "The presence of the hoped-for child in the household becomes as real a presence to the infertile couple as anyone who actually lives there, the missing member of the family." (p. 94) Further blame internalized by the author results from the memory of an abortion which she had had during a previous marriage. The husband vacillates between understanding of his wife's emotional state and impatience with the futility of her search for an answer.

The relationship of husband and wife becomes stronger as a result of the difficulties experienced, but the tension created by the complicated relationships of father, daughter,

exwife, stepdaughter, and stepmother persists. Near the end of the story, the love genuinely expressed between the author and her husband's child seems possible only after the adoption of a baby.

The adoption process turns from dream-come-true to bureaucratic nightmare when the infant obtained through a physician-and-wife private adoption team, shows signs of Downs' Syndrome. The scenes during which their worst fears are realized provoke tears. After much soul searching, the couple decides to exchange the Downs' child for a "healthy" baby through an arrangement with the physician and his wife.

The reporter's use of chronology and slow progression through the months of one year mimic the long, drawn-out process of determining infertility and going through with an adoption, the tediousness of doctors appointments punctuated by self-indulgences such as overeating and self-pity.

In the end, despite modern technology, sterile couples still exist. Nature rules and all the investigation, pain, suffering, time, and expense cannot cause an infertile couple to have a baby in the way we call "normal." However, there are babies born who need loving parents to care for them. That is the blessing which the author and her husband discovered; there was a baby who needed them as much as they needed him. As Mitchard states, "Parenthood isn't what it's cracked up to be. It's more." (p. 371.)

This is a story of self-discovery, of catharsis, and of growing up. The relationship of the author and her husband evolved from an immature, sexually oriented relationship to a mutually satisfying, family-centered marriage. This story reveals the exploration of options and the hope and satisfaction they can provide.

When a friend suggested that she write a book about her experiences, the author was doubtful of her ability to do so. In the afterword, Mitchard writes that the reason for the book in part was so that others would realize that their reactions were normal. She quotes, ' "Suffering is good for the soul. But only if you do it right.' " By doing it right, she has provided her first book with redeeming value, and with the publication of *Mother Less Child*, she has proved that she can indeed write a book.

Shirley Ann Chosy graduated from UW-Madison in 1979 with an honors degree in English literature. She is a registered nurse and has worked for the past five years at a hospital in Madison where microsurgery is performed for infertile women.

FREDERICK JACKSON TURNER: WISCONSIN'S HISTORIAN OF THE FRONTIER edited by Martin Ridge. Madison: The State Historical Society of Wisconsin, 1986. Illus. vii & 72 pp. $6.95 softcover.

By Paul Woehrmann

Turner is a group of five essays on or by the frontier historian (1861-1932), who grew up in Portage, received his bachelor's and master's (history) at the University of Wisconsin, his Ph.D. in history at Johns Hopkins, returned to UW to teach, and then went on to Harvard and finally to the Huntington Library. After a preface and introduction by Ridge, sometime editor of the *Journal of American History* and a Turner successor at Huntington, Ray Allen Billington the Turner biographer and collaborator with Ridge on a popular frontier textbook, takes up "Young Fred Turner." Two essays by Turner follow, the famous "The Significance of the Frontier in American History," and the lesser known "The Significance of History." The volume concludes with a brief bibliographical note by James Danky of the society library.

As many readers know, Turner became an influential historian through the scholarly frontier essay read at the 1893 Chicago World's Fair. The paper emphasized the then novel doctrine of the American line of settlement as opposed to the traditional European (and by extension eastern) background as the molder of American history: "The existence of an area of free land, its continuous recession, and the advance of American settlement explain American development." Turner went on dramatically: "The wilderness masters the colonist . . . finds him a European . . . strips off the garments of civilization, and arrays him in the hunting shirt. . . . Before long he has gone to . . . plowing with a sharp stick, he shouts the war cry and takes the scalp in orthodox fashion." Eventually the wilderness is tamed, but the American emerges from it independent, pragmatic, and democratic for his experience. The editor supplies a little guidance to Turner's critics, who blame Turner among other things for hiding weak ideas in theatrical language. Suffice it to say here that disciples have carried Turner's frontier thesis to places and times the master would have questioned. Billington sees connections between Turner's ideas and his upbringing in small-town Wisconsin, which was emerging from the frontier. Perhaps equally important was that his schoolteacher mother and newspaper editor father sent him to the university. In the more hortatory "Significance of History," Turner declares history necessary to the decision-making process in a major democracy set in a shrinking world. He wants the public schools and libraries to lead "an intellectual regeneration of the state." Unfortunately here Turner becomes a name dropper of European events and people that he and his latter-day editors need to explain but do not.

In summary Turner is Turner, and his commentators make reasonable remarks but leave some questions: e.g. Why did Wisconsin's historian leave for Harvard? Save Danky's remarks and some historical society Turner photos, Ridge alone offers original material, new interpretations rather than facts, which perhaps strain a bit to demonstrate Turner's current worth. Given the repetition and availability of the rest, this raises the question of need of the volume.

But we love new packages, and this one can give the inquirer an inexpensive introduction to an important part of this country's history whose flowering is perhaps best shown in the massive Billington-Ridge text bibliography.

Paul Woehrmann works with local, state, and Great Lakes history at the Milwaukee Public Library.

GREAT RIVER: AN ENVIRONMENTAL HISTORY OF THE UPPER MISSISSIPPI, 1890-1950 by Philip V. Scarpino. Columbia: The University of Missouri Press, 1985. 219 pp. $24.00.

By Philip A. Cochran

On a hot summer day in 1976, near Fountain City, Wisconsin, I watched some rich kids knock out the lower unit of their parents' high-powered boat. The wing dam they hit at full throttle, a submerged barrier of boulders and rocks, was one of many constructed along the Upper Mississippi River by the Army Corps of Engineers around the turn of the century. They were an effort to focus the river's current at the center of its channel and thereby deepen it for commercial navigation, a function superseded in the 1930s by the locks and dams that impound today's navigational pools. The wing dams now provide useful habitat for gamefish and other aquatic life and a surprise for unwary boaters who have not learned to recognize their location by reading the water's surface. History in action.

Wing dams and locks were constructed during the period examined by Scarpino in *Great River*, but do not expect to find a detailed treatment of these topics within its pages. Rather than providing comprehensive and even coverage of a wide range of environmental issues or a compendium of fisheries data, commercial shipping statistics, or other minutiae, Scarpino has focused on the changing and conflicting attitudes of people towards the river. Three major questions are posed: "How did various groups try to understand and explain their developing relationship with the river? Why did they attempt to alter or control the river? How did they respond to the often unanticipated consequences of man-induced environmental change?"

Scarpino's consideration of these questions begins at a point when humans were first changing the river in a large way to fit their needs, rather than simply accommodating to its vagaries. It ends at a point when human interactions with the river had diversified to include the multiple uses implicit in my opening paragraph, a point at which the notion of stewardship had largely, if not completely, replaced progress as the meaning of the word "conservation."

After a brief introduction that includes a review of the Upper Mississippi's early history, two chapters are devoted to the Keokuk hydroelectric dam and its unanticipated consequences. Although long promoted as a boon to the local economy and a spur to new development and progress, the privately funded dam that took 1500-2000 men three years to build never lived up to its advance hype and incurred high social and environmental costs. Sadly, an early promotion by the power companies was for the use of new supplies of electricity to drain riverine wetlands.

The mussel fishery and pearl button industry of 1890-1930 serve as a classic example of Garrett Hardin's tragedy of the commons. Scarpino's chapter on this topic could be required reading for any fisheries, wildlife, or other natural resource management class. But as interesting as are the details of the rise and fall of an industry that employed 20,000 at its peak, it is the concomitant change in the attitude of the U.S. Bureau of Fisheries that is of greater significance to Scarpino's larger picture. Originally committed to supporting the fishery by boosting populations of mussels through artificial propagation and stocking, the bureau in the end was forced to recognize of the futility of this approach in the face of human-caused habitat degradation. Thus, the abuse of another commons resource, the river itself, spurred the bureau to a new concern for understanding the biological workings of the river and human impact on its productivity.

With the next chapter, Scarpino's narrative takes a side channel seemingly headed for distant backwaters. The early history of the Isaac Walton League was centered in Chicago, where its energetic founder, Will Dilg, was an advertising executive. The reason for Scarpino's digression becomes apparent when he addresses the first major accomplishment of the Isaac Walton League and the fulfillment of Dilg's personal dream, the creation of the Upper Mississippi River Wildlife and Fish Refuge in 1924. The eventual preservation of over 195,000 acres of land along approximately 300 river miles reflected a widespread change of attitude toward the river to encompass a concern for the future of its natural attributes.

Great River's final chapter is concerned with the pollution of the Upper Mississippi River by sewage, garbage, and other wastes during the early decades of the twentieth century. Scarpino provides evidence of the surprising severity of the problem and discusses the push for federal pollution legislation and sewage treatment plants (especially in the Twin Cities). Both the Isaac Walton League and the U.S. Bureau of Fisheries figured prominently in these efforts. Interestingly, construction of dams, which certainly had impacts on the riverine ecosystem, catalyzed the initiation of pollution abatement programs by impounding fouled waters close to the populations centers responsible and making it much more difficult to ignore the problem.

A brief conclusion summarizes Scarpino's findings and makes it clear that he has successfully achieved his stated objectives. However, the few final paragraphs that mention developments more recent than the mid-1930s do not seem to justify the rounding up of his title to the year 1950.

As an ecologist, I take my customary dose of "history" prefixed with the label "natural." Nevertheless, I found *Great River* both enjoyable and thought-provoking. Scarpino anticipates many questions that biologists would pose, and his writing style makes it easy to imagine both events and the context in which they occurred. More important, *Great River* can provide for the ecologist, environmentalist, or concerned citizen a much-needed historical perspective and perhaps new resolve. The final two chapters in particular are a reminder that environmental activism was not born on Earth Day. In these days of public hearings, remedial action plans, and publicity campaigns, it is easy to forget that the Isaac Walton League was pioneering similar methods in the 1920s. It is easy to forget that past battles for environmental improvements have been won, or regrettably, that some improvements were subsequently lost. And it is tempting to believe promises that a particular technological development necessarily holds the key to local economic salvation, to forget about unanticipated costs and consequences. It is easy to forget about wing dams.

Phil Cochran, assistant professor of biology at St. Norbert College in De Pere, specializes in aquatic biology and the ecology of fishes, amphibians, and reptiles.

New Books To Note

William L. Andrews, *To Tell A Free Story: The First Century of Afro-American Autobiography, 1760)1865*. Urbana: University of Illinois Press, 1986. 353 pp.

Frances Hamerstrom, *Harrier: Hawk of the Marshes*. Washington, DC: Smithsonian Institution Press, 1986. 171 pp.

Jared Verner, Michael L. Morrison, C. John Ralph, eds. *Wildlife 2000: Modeling Habitat Relationships of Terrestrial Vertebrates*. Madison: The University of Wisconsin Press, 1986. 470 pp.

Sunday, In Hatley

It's an easy trip
through fields relaxed in tall corn
to get to the house
where your parents are waiting.

Like smokey ghosts
the two spruce in front
have grown beyond reach
and softly touch
while your mother is squeezing
her own lemonade,
and your father comes clean
from a bath. They both
nod with pride toward the garden
that ripples in green—
with blades and strong stems,
with curls of new cabbage
and roots brought to fruit.

We are well fed, then go
for a walk with your mother.
She is hiding her fear
that what grows in her husband
is more than an ache
after eating. He takes a nap
while we visit landmarks
and you seem to be loved
by the neighbors who greet us.

The school
where cartilage and bone
learned the shape of your life
is next to the church.
You look in the windows
to see what has changed
then move on
to a field of named stones.

At the space
where your family will rest
we stand on your grave
and in childhood's disguise
you clown for my camera.
It's a hard ledge to cross
between beginning and end
but I watch you all day
keep your balance.

The warm rain going home
stretches the season
and hold back, for a moment,
summer's walk on dry feet
from your life.

Joan Rohr Myers

Joan Rohr Myers lives in Eau Claire.

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