

Anthony van der Schaaf

By DAVID ROBERTS

THE GLOBE AND MAIL, TORONTO

FIRST light and it was minus 30C. with an Arctic gale biting like snakes when Marge and Harvey Grenier found their prize Angus bull with his precious bits frozen. "The sad thing is, if he freezes them, he's hamburger," Mrs. Grenier said from her ranch near Redvers, Sask., explaining how she came to realize that the Prairie wind chill had rendered a once-valuable stud bull useless.

"I was so upset. It's got to hurt. I thought I have to do something.

"And that's where I got the idea." The "idea" was Oyster Ovens, a scrotum-shaped bag of polar fleece with a Velcro fastener designed to cover a bull's testicles and shield them from the merciless howl of the prairie winter. Indeed, many a cattle rancher has roamed the bone-numbing prairie range to make a gruesome discovery: animals' ears, tails and even testicles can freeze.

A prize bull can be worth \$50,000 to \$100,000, but if its semen production is impaired by frost, it's useless.

The name for Mrs. Grenier's invention derives from a local delicacy called prairie oysters — fried bull's testicles — which are eaten in fine restaurants and on cattle ranches everywhere at branding time. They taste a little like veal.

Mrs. Grenier said she came up with the design after the commercial success of her first invention, Marge's Muffs, earmuffs made from the polar fleece that fit over a cow's ears with a halter strap under its chin.

"It never occurred to me there might be a market for them," she said.

"I was just looking after my own babies. But people said 'Why don't you sell them?' I said: 'Sell them?' She has sold 9,000 pairs of the earmuffs in the past year — across nine provinces and 28 states. Demand has been so steady that half a dozen of her neighbors in Redvers are employed sewing the muffs.

"They look a bit like Mickey Mouse ears," she said. "But they work. We put them on when it gets to minus 20. And we leave them on for three or four days. Because if those ears freeze, the tips can break right off. You can lose 30 cents a

Warming the cockles of bulls' parts

Designed to protect a rancher's investment from prairie winters, thermal underwear may be too hot an item, vets are warning

pound on cattle with short ears." And after she displayed the Oyster Ovens at Regina's annual Agribition Fair, the hotline for orders began to ring like crazy.

"It's not as if those bulls don't need them," she said. "You can see the demand out there." Environment Canada agrees.

It notes that when it is really cold, about minus 30, exposed flesh freezes in no time, and a prairie wind drives the chill factor much, much lower. No wonder cattle clump together facing into the wind when it's cold.

A front panel on the Oyster Ovens keeps the Velcro from rubbing the bull's skin. In contrast to the muffs, which also retail for \$12.95 plus tax, Mrs. Grenier found that a one-size-fits-all Oyster Oven does not work. "The bulls really do vary in size," she said, adding she was prepared to gear up customized Oven production when she received word from veterinarians at the University of Saskatchewan that the device may be too helpful.

"Right now, the Oyster Ovens are on hold," she said, adding that there is concern the ovens might be too hot. She said more study needs to be conducted on the efficacy of the Oyster Ovens, and this has put a bit of a crimp in her entrepreneurial plans.

"It's a touchy area," she said. "You don't want to raise that temperature too much." Dr. Al Barth, a large-animal veterinarian at the University of Saskatchewan, said some experts are concerned that Oyster Ovens may warm the bulls' scrotums too much, which may impede sperm production as much as freezing does.

"Bulls' testicles are very sensitive to temperature change," he said.

"You could very easily get them too warm. You only have to get them one degree higher than the normal range (of 34.5C) to end up with a problem. On the other hand, scrotal frostbite is fairly common." Frost-nipped testicles obviously create economic stress if a prize bull must be taken out of production, Dr. Barth added.

"But very, very few animals have any long-lasting damage from the cold." He suggested cattle producers ensure their animals are sheltered from the cutting prairie breezes.

So while the Oyster Ovens are waiting to go into mass production, possibly with a new fabric, Mrs. Grenier has turned her attention to a new invention, one that presents its own design challenges: tail warmers.

"The calves often lose part of their tails. If Mama steps on it, it snaps. But it's kind of hard to find just the right design. I'm still working on it." ♦

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EDITOR'S NOTES

ENDANGERED SPECIES is the loose theme of this edition of *ColdType*:

We've got stories about farmyard animals threatened either by the icy hand of God or by scientists who behave as if they're god-like.

There are thrilling yarns about a helicopter pilot battling for his life in a South African township and a group of rafters who decided to dice with death in a drunken escapade on a raging river in the United States.

We have eye-popping vignettes of modern society: young, restless and not-quite-perfectly-formed youngsters seeking their fleeting moment of fame outside the TV studios in the freezing depth of a Toronto winter, and a no-holds-barred, expletives-oh-so-sensitively-deleted account of a Christmas Eve soccer match in Scotland.

Then there's a whimsical tale from Winnipeg suggesting that airlines should arm their stewardesses with guns, handcuffs and wrestlers(!) in case they are confronted by drunken passengers.

To that mix, add a judge who seems unfailingly able to put both feet into his mouth at the same time, an interview with John Lee Hooker, the boogie bluesman who just keeps rolling from success to success, and a portfolio of humor from the world's greatest editorial cartoonist working in St John's, Newfoundland.

And, finally, to cap what has been described by one of our more sensitive proofreaders as "an earthy issue," we have a marvellous account of a big day out for pensioners in Glasgow: a trip on one of the city's last surviving sludge boats.

Enjoy!

TONY SUTTON

METRO TIMES, DETROIT

Disorder in court

Few of us think much about judges, unless we are lawyers or frequently convicted felons. Matter of fact, until recently, my entire personal judicial hall of fame consisted of Judge Wapner, chief justice of TV's *People's Court*, Judge Roy Bean, and the Colorado judge who in 1883 sentenced famed cannibal Alfred E. Packer to hang, saying something like, "Damn you, there wuz only six Demmycrats in this county and you et five!"

Lately, however, I have added two more judges to my list. The one who impressed me the most is Oakland County Circuit Court's Jessica Cooper, who for three weeks endured two screaming maniac attorneys, Geoffrey Fieger and John Skrzynski, in a courtroom that also contained two carbon monoxide tanks, two masks, and one Dr. Jack Kevorkian. Any lesser mortal would have ordered the defendant to hook both of them up in an effort to relieve her own intolerable pain and suffering, permanently.

But nothing from the many trials of Dr. Death seems nearly as odd to me as the saga of one District Judge Joel Gehrke, a Wayne State law grad now waving his gavel in Montcalm County, an area somewhere east of Grand Rapids and west of God. Gehrke (rhymes with jerky) is a Bible-believing Christian who likes to spout Scripture from the bench and has a most unusual way of keeping order in the court. For example: "... you indicated the defendant was a walking argument for corporal punishment and needed to have his butt kicked ... you also made remarks implying that you would like to privately whip his butt in order to deter him from future violations of the law but candidly recognized that you could not do so."

That is one of many, many complaints the Michigan Judicial Tenure Commission is investigating against Gehrke, who won an upset victory in 1990 and has been causing people to faint ever since up in the pastoral world he presides over. Montcalm County wasn't used to a judge helpfully explaining — from the bench — that a Korean woman ought to have said "f*** you" and not "f*** me" to her abusive husband.

Nor do you get many judges who tell a defendant a specific act "makes my butt pucker," or call them "knotheads" or "pussies." Nor have many other judges sentenced defendants to memorize biblical passages or summed up a stalking case by saying "I think he's guilty, because if I saw tits like that I'd go after them, too."

But Gehrke didn't really make prime time until January, when he decided to punish a man convicted of domestic violence by slapping him on the wrist. That sent the nation's media into orbit, with feminists howling and dittoheads praising our boy.

I was ready, not only to remove the fool from office, but also to have his cerebral cortex dissected by the legendary Soviet Brain Institute, until I learned to my shock that his attorney and champion was none other than Robert Sedler, Wayne State University professor of constitutional law, noted legal scholar and defender of civil rights.

"Joel has been, by any reasonable measure, a very good judge," said Sedler. "What happened was he fell afoul of the old boy network that ran things up in Montcalm, and they are determined to get him." I investigated, and learned, to my surprise, that Gehrke has quadrupled the county's average penalty for domestic violence.

"He really does live his religion," said Sedler, a not-very-devout Jew. "That might seem strange to you or me, but he

does, honestly, and the Bible says it is wrong to abuse your spouse." Well, what about the slap on the wrist? I asked the judge myself.

"She framed him. The whole thing was staged," he said. Hard to believe? Well, newspaper interviews with the mostly female jurors who felt they had to convict the alleged batterer indicated, however, that they thought so, too.

Okay, but what about calling defendants names? What about the Bible-spouting and vulgar language and all of that? "I sometimes use language not in keeping with my Christian beliefs. That's wrong. I don't deny it," the judge said.

"Wrong, but not judicial misconduct," his unlikely champion said. "The respondent has on occasion employed a folksy style of

communication that is in no way inconsistent with the inherent dignity of the court. These charges should all be dismissed," the professor said, and he will take on the system to see that they are.

Well ... maybe. I confess I don't have any problem with a rural judge calling someone who hits his wife a jerk. Gehrke once showed great compassion to a poor clothesite caught driving in costume, lending him his own clothes so he would not have to appear before the court in a dress.

Yet the guy scares me, as when he said, in the slap-on-the-wrist case, that "we've lost the moral authority to prosecute the real crime," meaning the wife's adultery, and spoke with nostalgia about the good old days when adulterers were stoned to death.

Nor do I think a judge — any judge — should approach female court employees and ask, "Is this just a banana in my pocket or am I happy to see you?" Someday, if Gehrke grows up and stops confusing the Bible with the Constitution, we may want to hear from him again. I bow to the superior wisdom of Bob Sedler; if he doesn't think there are grounds to remove this man from office, so be it. But if the voters up there can't find a more mature judge, well, they should encourage immigration. ♦



Brian Gable

THE GLOBE AND MAIL, TORONTO

Every Friday, this sidewalk is swarming with teenagers who don't have steely pecs, gridded abs and pencil thighs ... They watch, transfixed, as the cameras circle, the miniskirts whirl, the boys in dark glasses flex, their faces locked in total concentration

Through a glass, enviously



Angelika Rohrer

By RUSSELL SMITH

It's 10 on a Friday night, -7 Celsius, minus 24 with the windchill, and I'm standing with a crowd of teenagers on Toronto's Queen Street West, staring through a plate-glass window. We stamp our feet and hunch our shoulders and obey the steady drone of commands from the enormous bouncers, pacing the sidewalk with their walkie-talkies. "Stand behind the line, keep tight to the wall — hey! Where you going?" Through the windows, in the warmth of a television studio, are beautiful young people dancing. They wear spandex and thigh-highs, silver lamé and fluorescent faux fur — the latest of outrageous club fashions, in short, wearable only by those with flat tummies and pert breasts.

This is *Electric Circus*, a show broadcast live across the country on MuchMusic. Like the old *American Bandstand*, it shows nothing but these specimens of physique and fashionability dancing to recorded music.

Sometimes there's a guest DJ; sometimes the show's frosty host, Monika Deol, chats with participants ("So! What are you up to tonight? All right!").

Most of the dancers have been scouted in nightclubs. Some are models. Many work as go-gos in clubs, professional live decor. Around me, in the cold, are baggy team jackets and acne.

Every Friday, this sidewalk is swarming with teenagers who don't have steely pecs, gridded abs and pencil thighs, kids who probably don't have much chance of making it onto the show through the regular auditions.

They watch, transfixed, as the cameras circle, the miniskirts whirl, the boys in dark glasses flex, their faces locked in total concentration.

Suddenly, everyone begins to whoop and wave: The red light on the outdoor camera has flashed on, the camera pans the crowd. Passing cars packed with testosterone shriek "E.C.! E.C.!" For a second, we are all on TV, nationwide

I ask a girl in a bomber jacket if it isn't more comfortable to watch this in her living room. She explains, "Sometimes Monika comes out, and she lets people in. We might get on TV. You go to school the next day, and you say, 'I was on E.C., suckers, what did you do? Sit at home with your popcorn and your converter in your underwear?'"

Suddenly, everyone begins to whoop and wave: The red light on the outdoor camera has flashed on, the camera pans the crowd. Passing cars packed with testosterone shriek, "E.C.! E.C.!" For a second, we are all on TV, nationwide. "Look," says the Etobicoke girl, "there we are, on the monitor — there's my head, the back of my head. I'll tape that tomorrow." Someone else says, "I can't feel my feet." Two girls have flounced up to the window in shiny PVC miniskirts, their lips neatly outlined, their jackets open to display tight T-shirts.

If they don't dance as energetically as they can out here, they are going to have hypothermia in half an hour. The

bouncers converge. "Other side of the line, please." "But we're dancing," the girls plead. "We want to get on."

The bouncers look them up and down with practiced eyes and nod. "OKAY. Stand here."

Andrea, the older one at 21, knows what she's doing. "If you're really hyper and dress up," she tells me, "you can get on. I know you don't get paid, but it's networking. Eventually, I'd like to work at MuchMusic, as a DJ."

The red light flashes on again, the crowd cheers and the big glass doors open: Monika is coming out! The carloads of frat boys in the street scream, "Monika!" A short, skinny 16-year-old next to me calls, softly and hopelessly, "Monika!" His voice breaks; the bigger boys behind him guffaw.

Monika is a good 10 feet and 20 people away; she can't hear him. "We always have some very talented people out here," she is saying into her mike. The two flashy girls happen to have been positioned right next to her. "I'm 18," answers one, "I go to school. I'm a part-time dancer, and I'm a single mom."

"Would you like to come inside?" asks Monika.

"Very much." The bouncers pull open the big doors. The crowd applauds.

Andrea and Carrie disappear with Monika into the warmth and the lights and the glittering chosen dancers. The brutal Darwinian contest of physical attributes has been won; the winners pass into the realm of the beautiful.

On the street, we turn up our collars and cheer, our faces — who could resist this metaphor? — pressed to the glass. ♦

Russell Smith's first novel, How Insensitive, was nominated for the 1994 Trillium Book Award, given to the best book by an Ontario writer. It was also short-listed for Canada's Governor-General's Award.

ASSOCIATED PRESS, NEW YORK

Talking Turkey

How America's national symbol was turned by breeders and consumers into a Frankensteinian fowl

By MARK FRITZ

Turkey No. 146-I, a snow-white bird with a breast as big as a basketball, has plummeted to the bottom of his particular pecking order. He is a big bird, perhaps 30 pounds. But he's too big for his spindly legs, which have collapsed. No. 146-I no longer can support the weight of his white meat.

Since every flock needs one bird to pick on, the other turkeys have shredded No. 146-I's back and plucked feathers from his wings. The bird squats in sawdust in a dimly lit room, head bent to the floor, while the other turkeys murmur musically around him.

Turkey No. 146-I will not make it to Thanksgiving, the time of year when millions of Americans form a brief but intense relationship with a turkey. They stuff it, cook it, baste it, carve it, eat too much of it, save it for sandwiches or just stick it in the refrigerator until the bird goes bad.

But they don't really know it.

Few people know, for instance, that 90 percent of the turkeys sold worldwide are the offspring of a few thousand pedigree superbirds raised on zealously guarded farms owned by the three multinational corporations that control the world market.

They probably don't know that turkeys have been bred to have breasts so swollen with white meat that they are too clumsy to mate and often can't stand on their own two drumsticks. Almost every turkey sold is the product of artificial insemination, a technique that requires, to put it delicately, a certain human touch.

They probably aren't aware that some scientists consider the turkey the most vivid example of a potentially serious problem: the lack of genetic variety in the food we eat and the potential that a single germ could wipe out an entire food source.

Most people who peer into the mists of the frozen food section probably don't realize that turkeys have been bred to have white feathers so the birds will look appetizing after they've been plucked. Or that Butterball birds are picked because they look good in a Butterball bag.

The turkeys of yore — the golden bird shot through with violet and green and beheaded by everyone from the Pilgrims

to the parents of baby-boomers are now novelties kept genetically alive by poultry fanciers who award each other ribbons for breeding turkeys that look, well, like turkeys.

In Wooster, Ohio, on a research farm where scientists try to fix the flaws that occur when humans reinvent a creature to fit their culture, all of this stuff is just common knowledge.

Turkey No. 146-I is one of 1,000 birds that live at Ohio State University's Agricultural Research and Development Center, a 2,000-acre campus in central Ohio where the dazzling varieties of trees, plants and animals are arranged in an eerie sort of orderliness. Even the lawns exist to be studied and somehow improved.

At the Turkey Research Unit, a key project is breeding some leg strength back into today's top-heavy breeders, which are twice as big as they were 35 years ago.

Since the 1980s, leg strength has been a serious problem because the industry has focused on getting more breast for its buck — Americans prefer white meat 2-1 over dark meat.

"The industry is too short-sighted," says Dr. Karl Nestor, the resident poultry geneticist.

Nestor, a gaunt, weathered West Virginian who eats a lot of poultry — white meat, please — to combat high cholesterol, has seen turkey evolve from a quaint American icon to medicine ball-sized meat machine.

He has preserved pedigreed lines of turkeys that replicate everything from the relatively svelte birds of 1957 to the round mounds of repast that pass for turkeys today.

Almost every turkey sold is the product of artificial insemination, a technique that requires, to put it delicately, a certain human touch

But what has scientists here salivating are the newest additions: 50 bullet-shaped vials of blood, red as rubies and just as precious. The plasma comes from 11 so-called "foundation lines" of turkeys owned by the major breeders, the three kings of avian art.

This is blood from the maximum birds, the 7,000 to 10,000 breeders who beget all the turkeys that wind up as ersatz bacon, bologna and, of course, Thanksgiving dinner.

"I was really surprised they gave it to me," Nestor, 57, says with a grin as wide as a roasted wing.

Now Nestor hopes to answer a question increasingly asked of the food industry: How much genetic diversity is left inside these inbred, overfed flocks of Frankensteinian fowl?

Though the microbiology lab here will need six months to finish DNA fingerprinting tests, Nestor said early results show a disturbing similarity between genes that contribute to disease resistance. Some scientists argue that a lack of genetic variation in turkeys, farm plants and other products makes them more susceptible to getting wiped out by one well-placed viral knockout punch.

In 1970, 15 percent of the U.S. corn crop was destroyed when a blight swept the grain belt. In the mid-19th century, the Irish potato crop crashed, causing a famine that killed a million people. The reasons were the same: dominant plant varieties were too genetically alike and vulnerable to the same enemy.

Already, some critics say the turkey isn't hardy enough.

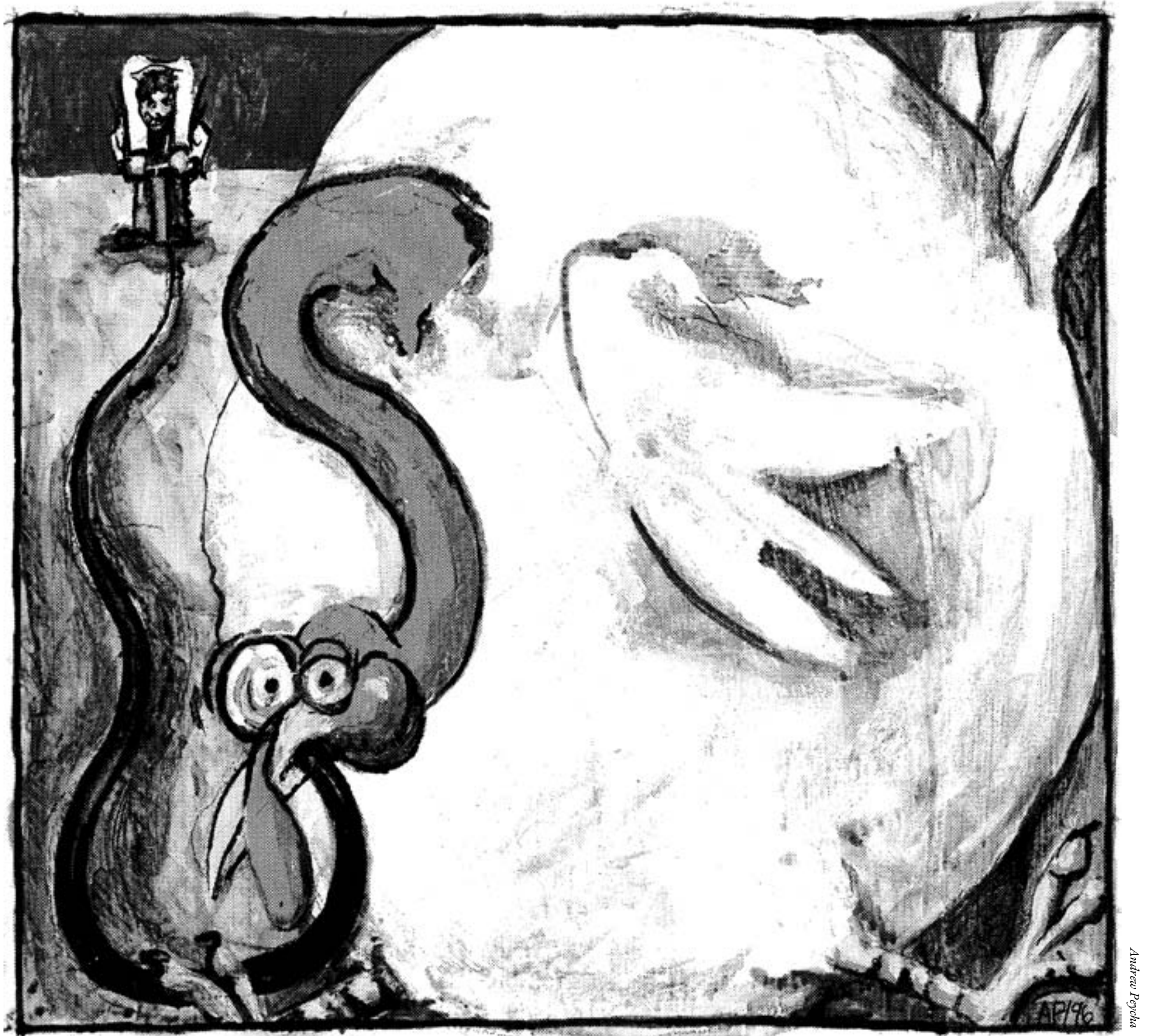
They also say it doesn't taste as good as it once did.

The birds themselves are so delicate they must live in environmentally controlled buildings. Last summer's heat-wave wiped out 2 million nationwide.

Dr. Roy Crawford, a retired poultry geneticist from Canada who wrote a book about turkey genetics, said a mutant strain of virus or a mistake made in breeding could devastate the population.

"The turkey breeders do not seem concerned, but in theoretical terms, there is a danger," he said.

The industry insists there is still a lot of genetic diversity left. "Dr. Crawford is by far one of the leading geneticists, but his concern I heard when I came into the business 22 years ago," said Dr. Paul Marini, research director for the world's



Andrew Pychla

No. 2 breeder, Nicholas Turkey Breeding Farms of Sonoma, Calif.

"If we aren't watching ourselves, yes, we could get into trouble. But in general, there is a lot of diversity."

Dr. Clifford Nixety, geneticist for the industry leader, British United Turkey, said his firm keeps backup stocks of traditional colored breeds.

"It is possible that in developing these modern turkeys, we've lost some of these genes, possibly taste or meat quality, or disease resistance," he said.

How did three companies get to design today's turkey? Pure natural selection by consumers, who in the past 50 years wound up getting precisely the bird they wanted.

Like corn, turkey is one of the few foods native to the Americas, though some genes did spend time abroad. The

earliest Spanish explorers took wild turkeys back to Europe, where the birds were domesticated. The colonialists brought them back and mated them with their wild cousins.

From these crossbreeds sprang the textbook bronze turkey and such colorful barnyard breeds as the Narragansett, Bourbon Red and Royal Palm.

During the post-World War II boom years, competition to feed growing families intensified. Breeders vied to make bigger, more fertile and faster growing breeder turkeys that could be raised more cheaply, and which could spawn offspring that would reach edible size ever more quickly.

By the mid 1950s, turkeys were getting so big the male increasingly couldn't mount the female to mate, says Dr. Francine Bradley, a poultry geneticist and reproductive physiologist at the University of California-Davis.

"In the process of mating they literally tore up her back," she said. The industry's first rather goofy response was to build little saddles to strap on the females so the males could

climb aboard. The technique was, needless to say, of limited effectiveness.

Finally, two California poultry professors introduced the coldest cut of all to the birds' social lives: turkey artificial insemination. This involved flipping the tom turkey over and stroking it from its neck to its genitals until it ejaculated, then depositing the semen in the female.

"They went up and down the valley collecting semen," Bradley said. "That literally saved the turkey industry."

And opened up an interesting summer job. "A lot of graduate students got through college doing that," she said.

In 1957, poultry breeder George Nicholas marketed the first white turkey. Given the choice, shoppers preferred a turkey that lacked what the industry calls black pin feathers, the dots of pigment on a plucked bird. By the early 1960s, Bradley said, white turkeys ruled.

The next leap forward came in the 1980s, when concerns over cholesterol created a demand for processed-turkey prod-

ucts that looked and tasted like other things.

Over time, three breeders most adept at creating the turkey to fit the times — and raising it most efficiently — came to dominate 90-98 percent of the global market.

“There’s nothing sinister about it. They’re survivors of what started out as a very competitive business,” said Bill Heffernan, a University of Missouri rural sociologist.

“Chickens are almost in the same boat. And more than 25 percent of the hogs come from basically six or seven breeding firms,” Heffernan said. Meanwhile, less commercially efficient birds that range freely outdoors and eat and mate on natural cycles are dwindling.

“All the other genetic stock is being lost,” Heffernan said. Heffernan said the world is too dependent on a type of production system so narrow that the food must be configured to fit the factories.

An example: Why do turkeys have to hit 28.5 pounds before they’re cut up for processed turkey foods? Because the machinery is designed to cut up a 28.5 pound bird.

People at the Big Three breeders freely admit it: They are paranoid. Paranoid about germs, about the competition, about the media.

Martin Shea, head of British United Turkey America, cut off an interview when Associated Press refused his request for story approval. And neither British United nor Nicholas would let AP visit their operations. Hybrid Turkey executives did not return phone calls.

Though the companies have changed hands during the past few decades as the big multinationals rose to power, this is their current status:

◆ No. 1 British United Turkeys is owned by Merck & Co., the New Jersey-based pharmaceutical company.

◆ Nicholas, once owned by the Rockefeller family, is owned by London-based Booker PLC, a global food giant.

◆ Hybrid Turkeys was owned by British Petroleum until last year, when BP sold it to British Coal and Barings PLC, the British bank that collapsed when a rogue investor lost \$1 billion. Managers of the joint venture bought out their operations from British Coal and the Dutch bank that took over Barings.

The secrets of their success lie in the foundation lines, precisely pedigreed turkeys that each hold various pieces of the genetic puzzles that are mixed to make the firms’ commercial birds.

To create their turkeys, each breeder keeps a separate line of bird that grows fast and produces lots of meat. It keeps another line that produces eggs early and often.

The two lines are crossed, and the breeders also mix in one or two other pure lines to hide their particular genetic makeup so a competitor can’t duplicate the bird, Nestor said.

You could buy two commercial offspring of these pure lines and try to mate them, but mating birds that already are the products of precise crossbreeding will result in wide swings in quality.

These precious foundation-line birds are protected like mob informants the day before testimony. There is a legitimate business interest in guarding against avian diseases.

“We are so paranoid,” Nicholas researcher Marini said, “everyone we hire has to sign a form saying they don’t live near poultry; they don’t own poultry. Do you have a parrot, do you have a canary?”

“If you lie and we find out, we fire you.”

An outbreak of avian influenza in 1983-84 led to the destruction of 17 million birds in Maryland, Pennsylvania and New Jersey. The eradication effort cost \$65 million and sent egg and poultry prices shooting up.

“No visitors at all. People can carry an organism in their nostrils,” says British United Turkey geneticist Clifford Nixety. Bradley says a shower is mandatory when she visits that Nicholas operation in Sonoma.

“Your vehicle, before you get on a ranch, the undercarriage



Andrew Poyohu

*Why do turkeys have to hit
28.5 pounds before they’re cut up
for processed turkey foods?
Because the machinery is designed
to cut up a 28.5 pound bird*

is steamed, washed, sanitized,” says Bradley.

“You step into a building. You strip. You go into a shower, you get coveralls, boots. The whole thing.”

The breeding industry, like a track star trying to break a record by a split second, tries to squeeze a bit more of everything out of a turkey each year. One more egg, an extra ounce of meat.

“It adds up,” said Nicholas geneticist Marini. “It doesn’t look like much in a given year, but if you ask our customers if they want a bird produced 10 years ago, they’d say they couldn’t compete.”

Since 1966, the average breeder hen has ballooned from about 15 pounds to more than 24; the male from nearly 21 pounds to almost 35. Their offspring, the turkeys sold in supermarket, generally weigh between 10-20 pounds.

One of the reasons Dad doesn’t bring home the big 25-pounder any more is because, in this era of fractured families, Dad has ditched Mom, and the kids are spinning horror stories on Oprah.

“Families are smaller, more far-flung,” Marini said. “Now, you don’t need as big a turkey as you did in the ’40s and

’50s.”

The top-selling Thanksgiving Day bird is the ubiquitous Butterball, a product of the hydra-headed food conglomerate ConAgra, the owner of such brands as Orville Redenbacher and Peter Pan.

The company likes the Nicholas turkey because “the ConAgra people think it looks great in a bag,” Marini said.

Though the supermarket bird has to meet a narrow weight range, the sky is the limit for breeder turkeys. The bigger the breeder, the faster its offspring will reach a commercial weight.

Before animal rights activists complained, the Big Three used to have contests to see who had the heaviest bird. Nixety said his company, British United Turkey, won the last bout with an 86 pounder.

On the fertility front, Nestor said some birds he raised are pumping out 140 eggs in 180 days, twice the volume from 1957.

How much longer records can fall is open to debate. The industry, not surprisingly, says the end is not in sight.

“When I broke into the industry in 1972, people said there’s a limit,” Marini said. “But here I am, 22 years later, and we’re still making the same progress we made in the 1950s.”

Despite efforts to convince it otherwise, a turkey still sometimes thinks it’s a turkey. In every flock there are a few that want to stop laying eggs and start hatching them.

Turkey breeders have not been able to entirely rid the bird of this economically inefficient maternal instinct — what the turkey people call “broodiness.”

Some breeders will equip nests with ejector seats to push the bird out when it becomes more concerned with hatching eggs than laying them, said John Proudman, a research physiologist for the USDA in Beltsville, Md.

Proudman is trying to get rid of broodiness and thinks it may be caused by a specific gene. Karl Nestor was a graduate student at Ohio State when he started the Turkey Research Unit three decades ago. He said there were at least 20 similar programs at other universities then; now there are two.

“What’s going to happen to these when I retire?” he said, gesturing to the turkeys housed in the neat rows of white cinder-block buildings on his corner of the campus.

Nestor once wanted to test the marketability of an old-fashioned bronze turkey he developed. He sent the birds to a processor, but a federal inspector held up the shipment. He thought there was something wrong with them.

Nestor and an assistant enter a room in a long, low building. A white cloud of 250 male turkeys stirs up swirls of sawdust from the floor as they beat a flapping retreat from the opening door.

The birds gobble in unison, then fall back into a lilting, fluttering warble that is not unpleasant to hear. Then they burst into another fervent chorus of urgent gobbles. They cycle goes on and on, the sounds rolling like waves.

“It’s a warning call from the wild,” Nestor says of the birds, which never go outdoors.

Only one turkey still lingers near the door. His legs now confoundingly useless, the bird sits on his belly and twitches his stumpy wings. Research assistant John Anderson scoops up the turkey and sets him outside the door. It lowers its head to the cement floor.

Turkey No. 146-I, bred with too much flesh and too little bone, will have to be destroyed. “They went too far,” Anderson says later, almost apologetically. “The white meat is where the money is. But the skeleton didn’t keep up.”

“People are really out of touch with where their food is coming from.” ◆

Mark Fritz won a Pulitzer Prize for his reporting from Rwanda.

There's something about flying that shrinks the brain of the average cretin



Richard Van Nostra

WINNIPEG FREE PRESS

Let stewardesses pack a pistol or a wrestler

By LINDOR REYNOLDS

I used to think being a stewardess would be the ultimate job. You'd get to travel all over the world, meet interesting people — and, gosh, maybe even marry a pilot. Then I turned 11 and got over it. Now I think flight attendants should be armed. There's something about flying that shrinks the brain of the average cretin. Maybe it's the cabin pressure. Their ears pop, causing their brains to explode in a fine mist all over their Walkmans, causing their IQs to plummet to room temperature, causing them to want to drink excessive amounts of beer.

This is just a theory.

Hijinks in the air bother me. I'm a nervous flyer. I worry that I'm going to miss my flight. I worry that a wing is going to fall off the plane. I worry that twin infants with ear infections will be seated on my left.

I worry that Gerard Finneran will be on my right. Finneran is the New York investment banker who stands accused of some boyish misbehavior on a United Airlines flight.

To sum up: Finneran was travelling from Buenos Aires to New York; he had a few snorts; he decided to start pouring his own; he poured them on his head; he threatened the flight attendant when she said this was a bad idea; and, reviewing the airline food personally, he dropped his drawers on the food-service cart, according to court papers.

This is, I'm sure you will agree, a clear-cut argument for arming flight attendants.

They could give their little speech on how oxygen masks will dangle from the compartment above our heads in the unlikely event our lungs will still be attached to our bodies when we crash.

*Where do they store
the wrestlers when
there's no brawl
under way? Is that why
the overhead compartment
is always full?*

They could get firm about the seat belts so the parts of us that remain intact upon impact will remain seated and not try to push toward the emergency exits ("Please remain seated until the plane has come to a complete stop in the ocean").

They could tell smokers they will be hunted down like dogs if they even think about lighting up.

And they could say: "If Mr. Gerard Finneran is aboard, go ahead. Make my day."

Not that a flight attendant would ever shoot a passenger. Don't be ridiculous. That might put a hole in an important plane part (say, the wall) and create a vacuum, which would result in many passengers being sucked out into space, possibly still holding their hard little airline pillowettes and clutching their expensive scratchy airline baskets, resulting in a major financial loss to the company and a major increase in fares.

To say nothing of the environmental damage caused by all those lasagna dinners floating around the atmosphere.

Nope, they would just use the guns to threaten Mr. Finneran. And perhaps pistol-whip him if he expressed any kind of opinion about his meal.

Not that Mr. Finneran is unique. In fact, my research shows you can consider yourself lucky if someone doesn't try to review your dinner before it arrives at your seat, if you catch my drift.

Such as the group of Irish and British tourists who (there's a theme here) got drunk on an international flight and caused such a stir that a group of U.S. Olympic wrestlers restrained them and handcuffed them to their seats.

Which raises three questions. First, do wrestlers always travel with handcuffs?

Second, where do they store the wrestlers when there's no brawl under way? Is that why the overhead compartment is always full?

Third, while the brouhaha was going on, was some whiny passenger ringing his call bell and saying: "Miss? Miss? Could I get a little more coffee here? Today?"

Then there was the moron flying from Toronto to Munich who became so unruly he had to be tied to his seat, a pillowcase over his head so he couldn't continue spitting on people.

Presumably, there were no handcuff-toting Olympic wrestlers on that flight.

The next time you fly, be careful. There may be a drunken bozo on your flight. A drunken bozo who, in an ideal world, would meet a well-trained professional flight attendant who would lean over, smile sweetly and whisper: "Coffee, tea or Igor, the star of the wrestling team?" ♦

SCOTLAND ON SUNDAY, EDINBURGH

The Boogie Bluesman

*John Lee Hooker is the great-granddaddy of the blues with countless offspring.
But he's got no plans to quit just yet*

By ROS DAVIDSON

John Lee Hooker sits in his front room in the early summer heat. His words are few and his movements so spare he hardly appears to breathe. It seems little is wasted in this slow smoldering ember of a man. Fragile-looking yet timeless, the great-grandfather of blues is sitting on a sofa facing a large television, three electronic remotes on the coffee table. He is older than B. B. King and, simply, one of the last direct links to the music traditions of southern rural blacks that led to the phenomenon of rock'n'roll.

"Excuse me ... but I feel so good ... I just have to close my eyes," he says, exhaling softly and drawing out each word. His expression is as content as that of a Zen master, his voice a low inner rumble. One of the greatest remaining original artists of his genre and the king of "boogie," John Lee seems at one, both off- and on-stage, with the primordial emotion of his music. John Lee is the blues.

Now 75 years old, Hooker considers himself retired. But he says he neither will nor could stop playing and composing. His records are also as hot nowadays as his hometown in the Mississippi Delta, a cotton-growing area that spawned other greats such as the late Muddy Waters.

"Blues is strong, strong, strong," he says, mirroring his lyrics and raising his hands as if in sermon. "So strong. So powerful ... it's the world's No. 1 music." Somehow that does not seem a stretch, so visceral and gritty are his demeanor and creativity. Boom, boom, he's talkin' the blues.

Hooker is constantly offered, and turning down, chances to play in Europe, where the popularity of his no-frills music is greater than in his home country. "Oh yeah, they want me over there," he says matter-of-factly, his Deep South accent heavy and voice so low, his words are often hard to discern.

Especially in the U.K., he is well-known for influencing the Rolling Stones (he was a guest on a special broadcast of the *Steel Wheels* tour) and other mega-groups. And his current album, *Chill Out*, has sold more than 50,000 copies in

Britain, and made the charts throughout most of the Continent.

"Wherever I go, it's like Jesus coming, like the president," continues Hooker, who grew up singing gospel in a local church in the still-segregated South, the fourth of 11 children of a share cropper and Baptist preacher.

He looks small and old, on the plain couch near the front door, but in his stillness one senses the dangerous edge of his music.

Outside the modest ranch-style home, in a small dry town on a hillside south of San Francisco (one of five houses that he owns), are several of his seven cars. The white and gold stretch limo is under a tarpaulin because of the sun, but visible are others with license plates "Dr Hook" and "Chill out."

His personality seems as idiosyncratic as his music. Hooker is dressed as formally this afternoon, watching TV, as when performing. His suit and tie are almost black and his shirt red. The only hint that his appearance is more Cotton Club than Sunday church is his navy-blue socks, decorated with musical notes.

Beside him on the sofa is his trademark hat, one of three lying around the room. Hooker picks it up, scrunching it and pointing out its cream-colored quality and Italian label: "But they're better when they get a little more dirty."

At the far end of the room, a ceiling fan turns but seems to make little difference. "I do like it hot," he sighs. Indeed he has almost recreated a micro-climate from the South, or like a hothouse that protects a fragile plant.

Although Hooker holds court in the sitting room today, he is known to receive certain guests in his bedroom. One music journalist recalls arriving to find him in bed, the covers pulled up to his eyes and the humidifier going full blast.

It was about 90 degrees Fahrenheit; Hooker said he was not feeling well. It was only later, when Hooker pulled down

the sheets, that it was apparent that the blues guru was wearing a three-piece silk suit and tie.

One of his assistants (he has 15 scattered among his houses) brings soft drinks from the kitchen. The cordless phone rings and Hooker answers: "Who this? Charlotte who?"

After 45 years in the business and more than six decades playing guitar, he has a hard time keeping track. No one knows how many songs he has written or how often he has recorded. Manager Mike Kappus has more than 125 Hooker albums himself, but the recordings may actually number more than 150. (Hooker's people are now trying to collect old royalties.)

"You can never retire from the blues. You're born with it in you," he says, his eyes closing as he smiles. "It's something that makes you feel good. When you aren't feeling too good about life, you sing the blues and you feel happy about your woman ... but not everyone can sing the blues."

The walls of the smallish room are lined with silver and gold discs and a photo of Hooker and Bonnie Raitt after winning a Grammy for *I'm in the Mood* from *The Healer*, an album that sold more than 1.5 million copies and prompted a resurgence in his career when released in 1989.

Hooker was more recently lead vocalist of a group that included Miles Davis and Taj Mahal for the soundtrack of the Dennis Hopper film, *The Hot Spot*. He recently taped a special TV show in Los Angeles at the House of Blues with Ry Cooder, Taj Mahal and John Hammond, among others.

The title track on *Chill Out* is shared with Carlos Santana, a long-time admirer. And those inspired by the dark driving wind of his music include not just the Stones, but also The Who, Led Zeppelin, Van Morrison and the Doors.

Hooker was born in 1920 in Clarksdale, Mississippi, a small steamy-hot place that is now known for its blues museum. At age 12, he began picking up the local guitar style from his stepfather, an amateur player.

Two years later, he joined the army, he says, to meet girls. Discharged after authorities discovered his age, he drifted through Memphis and Cincinnati, where he made a name as



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a gospel singer.

In 1943 Hooker moved to Detroit, working as a caretaker in a Chrysler factory by day and playing blues at night. By 1948, he had been discovered by Modern Records and made *Boogie Chillen*. Three years later, *I'm in the Mood* sold a million copies.

Hooker has now lived in California for 15 years, always near San Francisco. He is of course a great-grandfather (a daughter Zakiya is also a musician and has just signed with Virgin) and currently has a girlfriend in Phoenix, although he says the relationship is not that serious.

His music may have influenced fewer people than B.B. King's only because it is harder to mimic. Hooker plays with a powerful drive and a one-chord style so distinctive it has become known as "boogie." And his arrangements are not set — as are King's — and his songs are his own.

In fact, he has probably composed more blues songs than any other single person. It's said that, if he wanted to, he could write enough for a new album in one afternoon.

Yet when Hooker performs, he is so still and centered on stage — he does keep time with his feet, often alternating one then the other — that he makes the antics of other musicians seem superfluous.

When asked about his stage demeanor, he protests with a flirtatious smile: "Oh, I'm a boogie man!" He rises for the first time and does a little dance before sinking back into the sofa.

"Why," he says, his eyes lighting up, "blues was here when the world was born. When Adam and Eve left the Garden of Eden, they got heartaches, and that was called blues." Indeed this is as constant a theme as in songs like *Whiskey & Wimmen*.

Hooker describes cruising in his limo to watch women ("nothing heavy"). When a female visitor arrived and his male Alsatian greeted her warmly, he had said with not-very-subtle interest: "Boogie, you like women do you?" And later he wondered if the visitor would like to ride in his limo: "Hell, why don't we go out sometime! You can ask more questions, and I can entertain you ..."

But it is his music that defines Hooker most starkly. "I just play. I don't know any other way to play," he says. "It's special. It's a different style, different beat, different sound." He pauses then says in a tone that needs no answer: "Have you heard anyone else who sounds like me?" ■

Ros Davidson is a freelance writer, based in San Francisco, California.

Jeff Wasserman / Rui ramalho

BOOK EXTRACT

When ignorance is bliss

*Dicing with death on the New River
after breakfast from a brewery*

By BARRY TUSCANO

This story has been told countless times and it still makes a great party tale. But I do have a little bit of a problem relaying it. The big challenge lies in telling it without looking stupid. Knowing what I now know, or even what the most basic whitewater novice knows today, it's incredible that "it" happened. But you gotta understand that "this" was way back in the old days.

I began my whitewater career in 1971 on the Youghiogheny River. Riding the rapids in a little raft was an instant hit with me. Riding them outside the raft was even better. My friends and I never attempted to learn anything about moving water. We thought the only way to approach a rapid was full speed ahead, right down the middle.

Our raft trips involved more swimming than paddling, and we didn't have the foggiest notion what a hole or an eddy was. If the raft flipped, that was fun, and it made the day more

memorable. You have to remember that there was no one else on the river to learn from, not that anyone could have taught us anything.

In 1973 I was introduced to the Pittsburgh Explorers Club. This was, in those days, a social organization that regularly scheduled outdoor activities such as rock climbing, parachuting and whitewater rafting.

The activities offered an excuse for going to exotic locations to drink. The activities were always strenuous, but the parties afterward were real killers.

Explorers Club members were undertaking some monumental expeditions and always had great stories to tell. In reality, most were in way over their heads. I

fitted right in with their rafting program. They ran trips to the New and Gauley rivers.

That first run on the Gauley still lives in club lore. Some of us had shown up late and had to take our little Sears raft. The older members had all secured spots in the club's big rafts. The club has a slide of us upside down and airborne at Pillow Rock that is still shown at Christmas parties. We swam every rapid on the Gauley that day.

For the next couple of years we made trips to the New River two or three times per summer. We owned two Sears specials — \$99 on sale — horse collar life jackets and wooden canoe paddles. We camped at Fayette Station, where our night-time activities became legendary.

Once, our party was bigger than we could fit into the rafts, so we got a truck inner tube and took turns riding the rapids in the tube. Pretty soon we were fighting over who got to ride in the tube.

The New was perfect for tubing — deep, with few rocks. We rode inside the tube with our feet hanging down and our arms over the sides. It was amazing how the tube caught the deepest current and skirted the holes.

Not that we knew what a hole was. We'd learned that there were rapids called the Keeneys and Greyhound. These were places where we could count on having fun, usually outside the raft. Occasionally, we would encounter a commercial raft trip — the industry was in its infancy then — and the guide would get a real concerned look and ask us if we knew what was coming up.

What a sight: Two little yellow rafts with four people in each, straddling the tubes, riding the raft like bronco busters. We had lost so many paddles that we began tying ropes from the handles to the raft. Sometimes my dog rode in the front of the raft. The inner tube would tag along behind. Those guides had every reason to be concerned. But, there's no doubt in my mind that we had more fun than their customers.

It was about this time, probably around the campfire and the keg, that I came up with my theory of whitewater relativity that can be summed up as: it's only water.

To illustrate the finer points of this theory, I regularly invited my friends with the worst hangovers to join me for a sunrise swim through Fayette Station Rapid (a big-wave class IV). This morning ritual not only broadened our insights into the dynamics of rivers, it also cleared the cobwebs associated with the excesses of the night before. I've



since revised this theory, but what is so amazing to me now is that we got so far into the sport without knowing anything at all about the technical aspects of it — and survived.

Well, it's time to get to the good part of this story — the part that makes me look stupid. If you thought I already covered that, you're wrong.

It was the first weekend in October 1976. I know this because it was a month before my wedding. I was 25. I was madly in love. I was irrational. Must have been the hormones.

We were at Summersville Dam.

My bride-to-be and I were having a tough time with my theory of whitewater relativity. It was only water, but it was six inches deep and it was inside my tent. We spent the early morning hours cramped in our VW Bug in wet sleeping bags. It was raining as hard as I've ever seen it rain and the water was everywhere. Shortly after daybreak, I downed a couple of cold beers and went looking for the other explorers. I found them at the base of the dam, hypnotized by the sight of the water blowing out of the dam. It had rained four inches overnight, and the lake was overflowing. The water was lapping at the railing above the put-in. I can't imagine what thoughts were going through the minds of the others who had come to take on the mighty Gauley. Something akin to respectful awe.

I can't imagine now what I was thinking.

"Where's the rafts? Come on, let's get going."

I was greeted with blank stares and stern admonitions. Not a single person was even contemplating getting on the river. I had never considered that we wouldn't.

So what's wrong with this picture? Later that day I formulated a new rule to live by: "Never make a life-and-death decision on a morning that your breakfast came from a brewery."

This has served me well over the years. And, no, I didn't put on the Gauley by myself at 15,000 cubic feet per second.

You think I'm stupid, or what? Instead, I talked some of the Explorers into driving down to look at the New.

At the Fayette Station bridge, 20 miles south, it was still raining. Our group stood and stared at the New River. The campsite

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above Fayette Station Rapid was under water. Fayette Station Rapid was gone. The water was rushing by at 50 mph, about 10 feet below the bridge deck. The painted gauge on the bridge pier was underwater.

There was some discussion by the explorers as to what it would be like to put on the New at this level. I'm looking at where the takeout rapid, Fayette Station, used to be and arguing that it will all be washed out. Several of the more experienced explorers kept mentioning "Big Holes." I think I quoted the Theory of Whitewater Relativity.

Final result: four of us decide to take a Sears special and an inner tube and give it a whirl. Where, you ask, did I find three other crazies to risk this with me?

#1. That's Kitty, my wife. She loves me and has no choice.

#2. That's Joady, my sister. She trusts me and has a touch of my love of adventure.

#3. That's Ron, Joady's husband. He loves Joady and has no choice.

Now we're rolling. Load the gear and head up the road to Fayetteville. Remember these are pre-bridge days. Halfway up the Gorge Road we're turned back by a mud slide. I have since made this a rule to live by: "When shuttle roads are washed out, the river gods are trying to give you one last warning."

The detour was 30 miles back through Gauley Bridge to Fayetteville. We stopped at a gas station to blow up the raft, then proceeded to Cunard, the put-in.

We donned our heavy two-piece hooded diving suits and primitive life jackets. Ever safety conscious, we also wore cheap plastic helmets. Our paddles were dutifully lashed to the raft. Kitty and I were using homemade paddles that I had crafted in wood shop.

I had used a wood canoe paddle for a pattern, lengthened the shaft and enlarged the blade. For strength I used solid red oak. They were heavy, but unbreakable. Each paddle had a hole drilled in the grip and we knotted a piece of parachute cord long enough for freedom of movement. No one ever considered that the cord was long enough to strangle someone.

I don't remember any talk about what to expect once we were on the river although we did discuss the possibility that the power lines below Railroad Rapid might be in the water. We hoisted that raft and began the long descent to the gorge. Our trusty inner tube was in the raft, and the raft was on our heads.

If anyone had any reservations about the river, surely we would have turned back when we got to the part of the hill where a huge mudslide had obliterated the road. We were knee-deep in very unstable mud and rock there and could easily have triggered another major avalanche. But I guess the gods were saving us for the river.

The water was so high that the put-in was on the lower road. The river here looked like the ocean. It was so wide, with huge, smooth waves rushing by. For 50 yards along each bank there were trees spouting up through the current. I realized that whatever happened, it was going to be fast.

I have since paddled many high water runs. I was on the Lower Yough the day of the '85 flood. I paddled the Grand Canyon, the Cheat at 10 feet, the Tygart at 13 feet, the Ottawa in the spring. But this was the fastest sustained current I can ever remember seeing. In the time it takes to describe this debacle, we were at the takeout. Maybe 15 minutes.

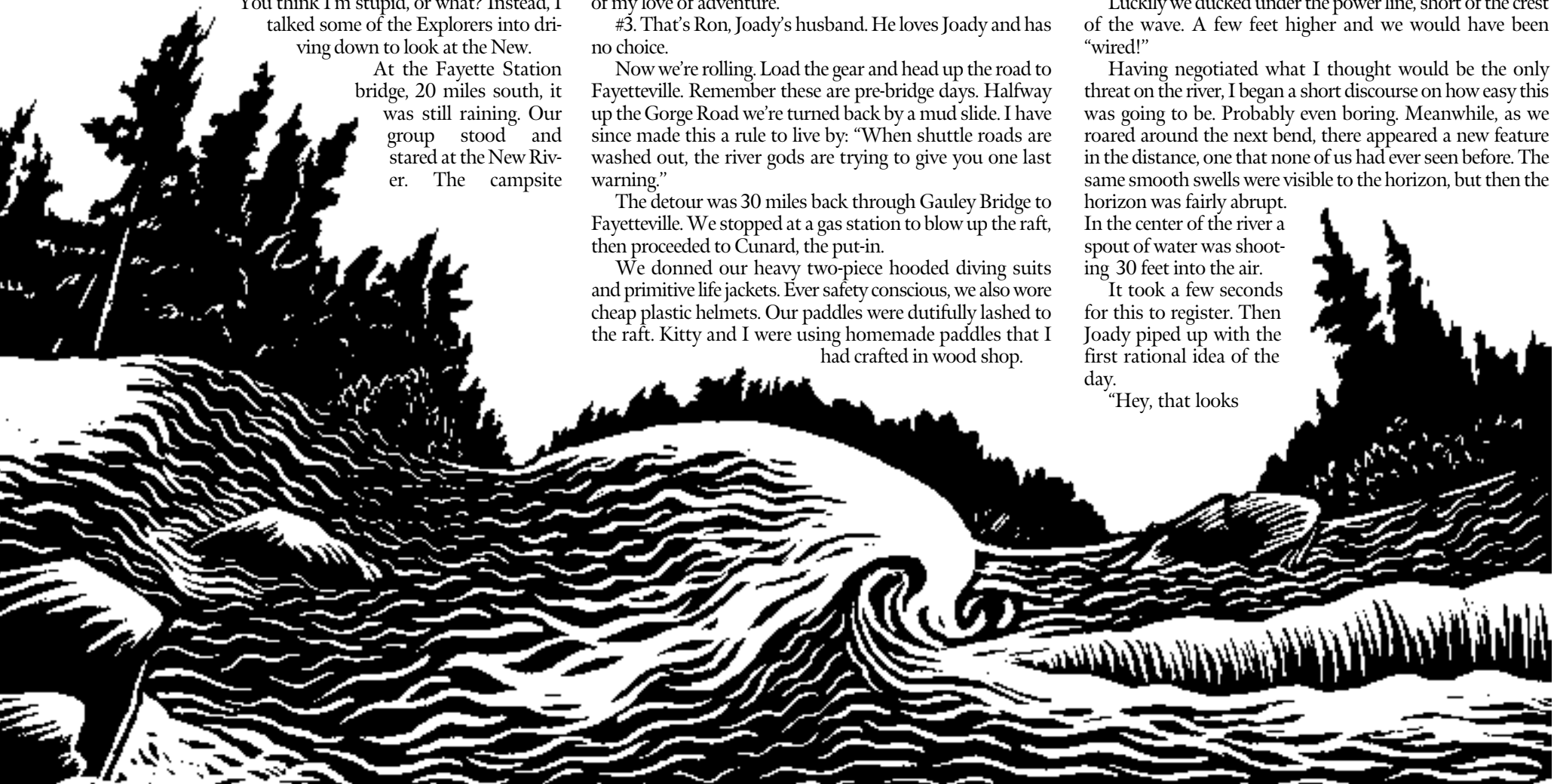
We jumped on the raft, straddled the tubes, got a good knee grip and paddled like hell to get out through the trees. Once into the current, everything was smooth sailing. The swells were 15 feet high and a quarter of a mile long. No need to paddle; we were traveling too fast already. Down past the railroad bridge in three swells — about two minutes.

Luckily we ducked under the power line, short of the crest of the wave. A few feet higher and we would have been "wired!"

Having negotiated what I thought would be the only threat on the river, I began a short discourse on how easy this was going to be. Probably even boring. Meanwhile, as we roared around the next bend, there appeared a new feature in the distance, one that none of us had ever seen before. The same smooth swells were visible to the horizon, but then the horizon was fairly abrupt. In the center of the river a spout of water was shooting 30 feet into the air.

It took a few seconds for this to register. Then Joady piped up with the first rational idea of the day.

"Hey, that looks



Rui Ramalheiro

Joady and Ron never got in another raft and try not to think about whitewater. They got their fill of river running all in one big helping. Shortly after our debacle they found the Lord and dedicated their lives to Jesus

pretty big. Maybe we better try to get over to the side."

My reaction was less rational. "Just paddle hard. It's only water."

At any rate, we could never have gotten over in the seconds that were left before we crested the lip of that huge caldron of exploding white froth. That instant will be forever etched in four memories, perhaps more in mine, since I was the one responsible for the folly. Looking down 30 or 40 feet into the bottom of the hydraulic, which stretched from treeline to treeline, there was no doubt in anyone's mind that we were about to die.

I remember thinking, "Now I know what a hole is."

That raft never even slowed down on impact. I think we rode it all the way to the bottom of the river. Then, I was being tumbled and cartwheeled through a chaotic mass of foaming and wrenching water.

The force was indescribable.

Any resistance was out of the question. This river was going to do what it would to me, and all I could do was submit. I tried to curl into a ball, but centrifugal force kept my limbs played.

Suddenly, I was clobbered by a huge flume of water and was carried with it. I tucked into a ball again, and the noise faded. The water became black and I was sure that I was on the verge of eternity. I closed my eyes and waited. I was being swept away with such force, and I felt like a tiny insect. Finally, my lungs forced me to attempt something. I opened my eyes and for the first time could see light in one direction.

"That must be up."

I broke into a strong breaststroke and seconds later surfaced. Simultaneously, I began sucking in air and surveying the surface for other survivors. The first thing I saw was the raft. It was floating upright about 10 feet downstream. A couple of strokes brought me to it and I flopped over the side in seconds.

Upstream and off to the right, I spotted the inner tube, and I almost collapsed with relief when I realized that Ron and Kitty were clinging to it. I thought I could see Joady's yellow helmet and orange life vest farther downriver, toward the right shore.

My first job was to get to Kitty and Ron and haul them back into the raft. I grabbed my paddle rope and pulled in a splintered oak shaft. Another rope had nothing at all. All of the paddles were either broken or gone. Suddenly, being in the raft seemed less than secure. I began hand paddling towards the tube, making very little progress.

Kitty and Ron were about 20 feet away from me when I came to the second hole. This time I recognized what was coming from the signs — another abrupt horizon line, with a spout of water shooting high into the air.

I glanced toward the tube for a second, and then, terrified, I threw myself spread-eagle across the raft and grabbed the oar locks with both hands. I don't know what I thought the raft was going to do, but I was determined not to relinquish those oar locks. From this position in the raft I wasn't really able to see much, but after my experience in the first hole,



Rui Ramalheiro

I hadn't realized it, but I was the only one to hit the second hole. You might say I got what I deserved

that suited me fine. I closed my eyes.

I never did let go of those oar locks. But at some point, not far into my second hole ride, the raft was torn free. The oar locks were my only connection to reality, and I held them like my life depended on it.

I finally surfaced, spitting up water and sucking in air. Miraculously the tube was right beside me, and I latched on to it. A short distance away I could see the deflated remnants of the raft floating downstream. I had no desire to retrieve it.

Feelings of security are by all means relative. Floating a 70,000 cfs river with two other half-drowned people on an inner tube suddenly felt great. I started yelling for everyone to stroke for shore. We were exhausted and scared. One more hole would certainly kill us. Letting go of the tube and swimming would have been easier, but none of us were about to relinquish that tube. We made very slow progress to the right shore, but, thankfully, the river had no more terrible surprises for us.

As we crawled up the bank, my first reaction was to collapse. But I was so worried about Joady that I scrambled up to the railroad tracks and started running, scanning the river and calling. I did this for almost a mile and was despairing of ever seeing my sister again when I rounded a bend and spotted her casually strolling down the tracks.

I couldn't believe it. We had all survived. I should have been overjoyed, but I was overcome with exhaustion. I collapsed right there and began retching. Joady had to help me walk back to Kitty and Ron. She explained that she had surfaced from the hole near the right shore, grabbed a tree, then made it to shore.

I hadn't realized it, but I was the only one to hit the second hole. You might say I got what I deserved. Kitty and Ron neatly skirted it, close enough to see my terrified face as I plunged in.

We landed less than a half mile from Fayette Station. It had taken us 15 minutes to get there, most of it spend swimming or hanging on to the inner tube. I have since paddled the New at 15 feet and had a close look at each of these holes as I drifted by. At 15 feet those features look very impressive, but there is no comparison to the way they look that fateful day from the brink — at more than 30 feet — with more than twice the flow.

So, you ask, what effect did this amazing experience have on us? Well, for a time I had a hard time finding folks to take rafting. Everybody knew that some, or all of us, should have died that day.

Did whitewater lose its charm? Well, figure this out: I got a kayak the next summer, which opened up a new chapter in my notorious career of aquatic misadventures. Kitty did indeed marry me the next month and has also mastered the kayak. We now have a 15-year-old son who has mastered the Upper Yough.

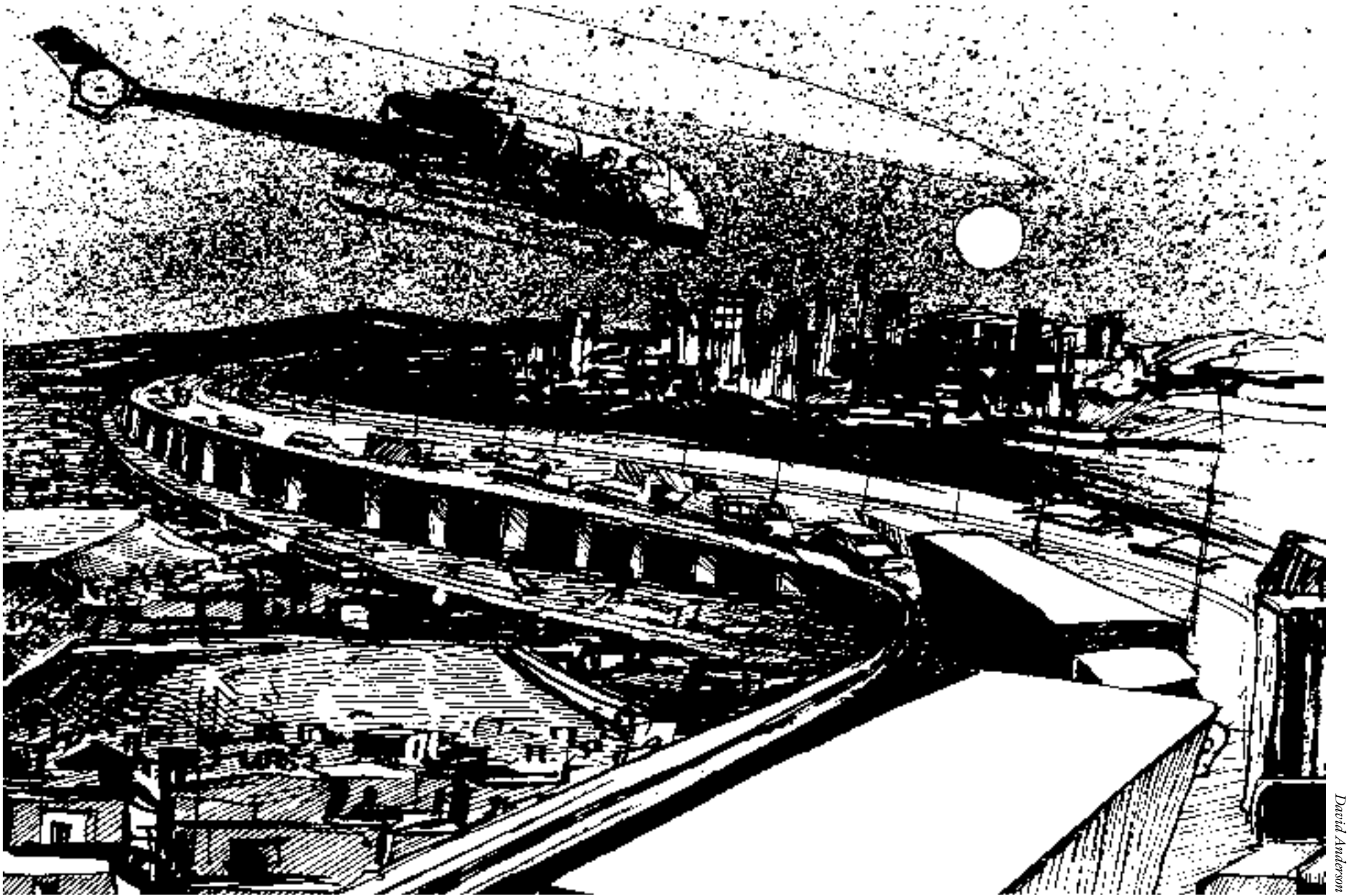
Joady and Ron never got in another raft and try not to think about whitewater. They got their fill of river running all in one big helping. Shortly after our debacle, they found the Lord and dedicated their lives to Jesus.

I would argue that stupid is someone who doesn't learn from his experiences. So, just because someone or something hammers you over the head doesn't mean you shouldn't consider it educational. I do have a very thick skull, but I can learn. I may be crazy, but I'm not stupid.

These days I have a deeply ingrained respect for rivers. Over the years I've been taught many a valuable lesson by these powerful teachers, but that first one remains the most memorable of all. ♦

Barry Tuscano, of Bolivar, Pa., still battles the river together with his wife, Kitty, and son, Ambrose. He and Kitty took third place in the U.S. national downriver open canoe race last year.

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David Anderson

FLEETWATCH, JOHANNESBURG

Bloodhound in the sky

Caught in the middle of a screaming mob, he knew he was going to die

By KERRY SWIFT

It's 6:30a.m. on April 5, 1994, and South Africa is waking to the prospect of a general election that will either usher in a new democratic future or plunge the country into a debilitating civil war.

Like most of South Africa, John Vinagre and his wife Antonietta are concerned about the outcome. They are discussing the upcoming election as they drive to work and take the turnoff into the Rand Airport outside Germiston. They park their grey Nissan Patrol in the covered car park outside the hangars belonging to Capital Air, where John is managing director and Antonietta his assistant.

As John opens the security gate to Capital Air's reception area, the phone is already ringing. Antonietta glances at her watch. It is 6:45a.m. The call, from Bokomo Bakeries' head-

quarters in Clayville, northeast of Johannesburg, is to report that one of the company's eight-ton Hinons has been hijacked in the Tembisa area. Bokomo, one of his clients, wants John to mount an immediate search for the hijacked vehicle.

Just a normal day at Capital Air, muses John wryly, as he prepares for another aerial pursuit in the crisp Highveld dawn ...

Aged 49 and with 18,000 flying hours to his name, John Vinagre is one of South Africa's most experienced chopper pilots. But this nuggety Portuguese immigrant, who fled his native Mozambique in 1975 when Frelimo nationalized the family business in Lourenco Marques, taking 14 helicopters along with it, is no ordinary flyboy. He also has a fair share of diesel mixed with avgas coursing through

those veins. Indeed, John has come a long way with the road transport industry, so much so that he has made it his professional home.

We meet in the early morning in his offices attached to Capital Air hangars at Rand Airport. It's 7:30a.m. and Vinagre has just flown in. He's a bit stiff and remote at first. Like most operational pilots, he's a man of few words. Perhaps it's also because this is the first interview he has ever done with the media.

The reticence is not so much a question of modesty, it's just that he's in a line of work that shuns publicity. Media exposure could mean retaliation from the crime syndicates proliferating in Gauteng, and John Vinagre is nothing if not a careful man.

It was Vinagre, flying for Lombard's Transport, who developed the highly successful aerial deterrence against fuel

In the back of his mind is a nagging concern that, contrary to normal procedures in all anti-hijacked flights, this time he has no weapons on board

theft back in the early '80s.

Subsequently, as operational managing director of Capital Air flying choppers out of Rand Airport, he has become South Africa's ace aerial anti-hijacker — the top-gun bloodhound in the sky for numerous fleet operators who regularly fall victim to highwaymen feeding like leeches off the nation's truckers.

It is a mark of the man that his experience of the crime wave washing over South Africa's trucking lanes has made him more determined than ever to make a difference. "We either beat this thing back, or it will destroy us," he says.

Like Henry V facing overwhelming odds on the green fields of France, this is one enormously determined guy. Indeed, John Vinagre has turned his job into a one-man crusade against hijacking, and he wields his aerial sword with the resolve of a latter-day St. George confronting the dragon. Having lost his business in Mozambique to a rapacious state, he is not about to sit back and watch other people lose theirs to theft of a different nature.

... John Vinagre's mind is already in overdrive. Mentally he lists his options and decides to mount the aerial pursuit from Bokomo's Clayville premises, which lie on the northeast fringe of Tembisa, the black township complex where John reckons the hijacked truck has been taken.

He sprints out to the Bell Jet Ranger, registration ZS HWU, straps himself into the chopper and starts the rotors.

In the back of his mind is a nagging concern that, contrary to normal procedures in all anti-hijack flights, this time he has no weapons on board. Putting the thought aside, he completes a rapid pre-flight check and radios the tower.

"Rand Tower, this is Hotel, Whisky, Uniform. Hijack response."

"Clear for takeoff Hotel, Whisky, Uniform," comes the immediate reply — air traffic control at Rand has long got used to the urgent scramble calls from Capital Air.

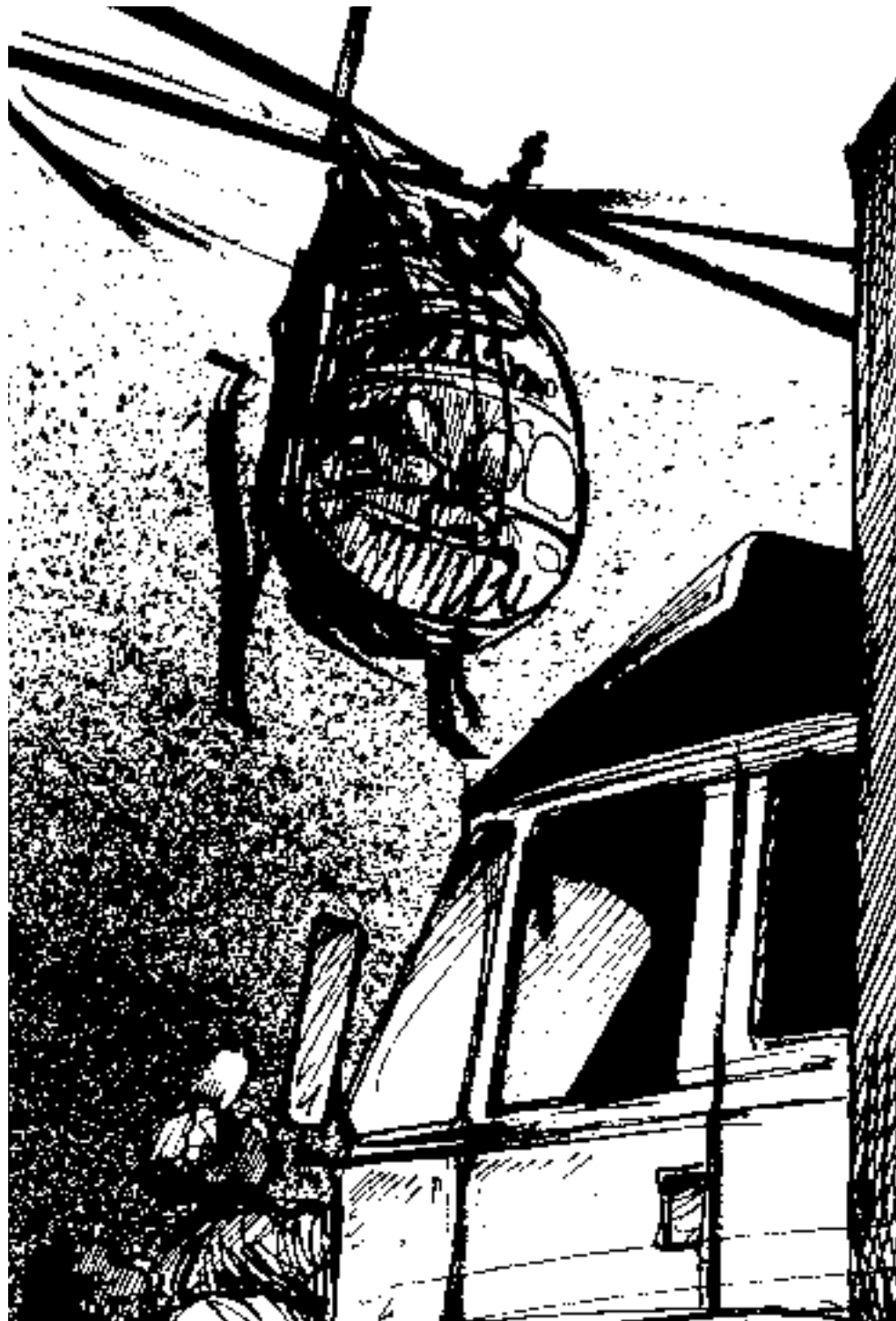
"Call in on Jan Smuts once you're airborne," says the voice, adding sardonically, "and happy hunting!"

John eases the Jet Ranger gently off the helipad, drops the nose towards the adjoining road and heads out over Germiston Lake at speed. He notices blurred images of early morning rowers through the mist rising off the lake below and watches a flock of wild ducks dash for the safety of a reed bed as the chopper cuts through the clear Highveld air.

There'll always be a hunter, and the hunted will always be running. Climbing to 1,000ft, this aerial predator resets the radio frequency and calls in Jan Smuts Airport.

The story of Capital Air's success goes back to 1979 when John Vinagre persuaded a number of fleet operators in the Wadeville area around Germiston to pool resources and underwrite aerial surveillance flights along the main freight arteries leading from Johannesburg to the coast.

At that time, operators plying those routes were experi-



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encing a rash of fuel theft from their trucks and suspected their drivers were siphoning fuel off the rigs and selling it along the road. Vinagre was commissioned to check it out.

In reality, the drivers were responsible for the fuel losses, but not in the way fleet operators suspected. Drivers were stopping along the road to pick up prostitutes parading their ample buttock décolletage in stretch pants for passing truckers. Bimbos on board, truckers would drive to the nearby township and sow their wild oats.

Most of the highway hookers, however, were in league with petty thieves, and while they and their driver Johns were flailing about in flagrante delicto, indulging their baser instincts behind closed doors in the townships, their trucks were being deflowered in a different way. As the old saying goes, nothing for nothing in this life.

"They were mainly after diesel, but occasionally they stole from the load as well," says Vinagre. "In most cases, however,

the drivers continued on their way without knowing they had been robbed."

To combat these losses, he came up with the simple idea of aerial monitoring of drivers along the main trucking routes. As he puts it: "The idea was to check on trucks at random by landing the choppers on the side of the road and flagging down drivers as they went past.

"These on-the-road checks meant we could inspect trucks for fuel and load tampering at will. Drivers were never sure when we would drop from the sky and check out their rigs. At first I took the transport managers along so the drivers knew it was kosher, but after a while I did it alone.

"The drivers soon got to know me, and the mere sight of me or the chopper was sufficient to keep the trucks rolling and the drivers' pants on. Shortly after these patrols started, the pilferage stopped because the drivers knew someone was watching them. It was so effective as a deterrent that we were able to stop the patrols altogether."

... At 7:05a.m., ZS HWU lands at Bokomo headquarters in Clayville and collects three company men, who join John Vinagre in the hunt for the hijacked Hino. Frederick Miles is Bokomo's financial manager, Otto Weinreibe is from vehicle support, and Kobus Carstens is the company's transport manager.

With the rotors still turning, Otto and Kobus climb into the back seats and strap in while Fred climbs into the co-pilot's seat. Five minutes later, ZS HWU is airborne. Banking steeply to starboard over Midrand, which spreads like an industrial rash across the Highveld, the chopper heads south for Tembisa township, its electronic receiver scanning for audio signals from a hidden transmitter on board the hijacked Hino.

John Vinagre contacts Jan Smuts tower, requesting clearance for an aerial search of the Tembisa area and Gwen, the traffic controller on duty at Smuts that morning, instructs him to stay below

6,300ft and clear of Zero3 left, the international airfield's main runway.

The chopper is on a flight path that will take it directly over Tembisa at 1,000ft at a ground speed of 120km/h.

The four men can communicate with each other, but besides John's greeting and a few desultory remarks, there is no time for small talk. Otto Weinreibe repeats the Hino's registration number over the intercom and the four men settle into silence as the chopper starts its sweep over Tembisa.

The smoke from thousands of wood and coal fires in Tembisa and the neighboring Ivory Park squatter camp still lingers like fine mist over the township as ZS HWU begins its search.

They fly an east-west grid across the township without success. As in normal procedure, a half hour into the search, John radios his wife back at Capital Air on their private frequency giving his location and reporting no sightings.

Switching back to the Jan Smuts frequency, he alters course

Despite being in shock and badly beaten, Fred Miles drags himself into the passenger seat while John clambers into the back before the mob is fully aware of what is happening

to begin north-south sweeps across the township.

On the third try they spot the missing Hino parked among the houses below. The cab has been tilted, and about 12 people are milling around the truck. Other figures climb from the cab as John takes his aircraft into a tight turn above the vehicle.

From virtual silence, the cockpit is suddenly awash with noise. Everyone is talking at once with Otto shouting as he sees a couple of kids stoning his truck and breaking the windows.

"They're running," says a voice over the intercom as the hijackers take off and sprint towards the nearby houses. "The bastards are splitting up, watch where the f**kers go." Now it's all expletives and adrenaline as the chopper circles the truck a second time and the occupants feel the rush of the hunt.

That's when John Vinagre hears the gunshots. They resonate ominously through the static of this headset — abnormal sounds in the enveloping, yet familiar clamor of the chase. Instinct tells him the chopper's under fire, but his mind rejects it. There's no fear.

He's measuring the whole thing in his head.

Then he feels a very distinct power loss. Practiced hands instinctively throw the aircraft into a steep dive away from the scene as he tries to evade further ground fire.

"I don't believe it ... they're shooting at us," he shouts into the headset, it's like an afterthought because he knows the chopper's going down. That's when the first twinges of fear claw at his chest.

Time bends and distorts. Seconds became minutes as he nurses the crippled ship on. He becomes aware of the growing pressure of someone's feet pushing against the back of his seat ... he levels the chopper out, but the engine fails.

Five kilometers to the northwest in the Jan Smuts tower, the air traffic controller named Gwen watches ZS HWU disappear off her radar screen ...

Around 1986, the pattern of heavy vehicle crime changed and for the first time trucks began to go missing. "Initially they were only after the tires, batteries and fuel, and invariably we would find the vehicle with its load intact simply by flying over the townships. In most cases, the rigs were abandoned. At that time only about 10 percent of stolen trucks had their loads tampered with. It was still very unsophisticated crime," says Vinagre.

But it didn't stay that way for long. Around 1989 the pattern changed once more. "It was as if someone had flicked a switch. One moment we were finding stolen trucks abandoned in the townships as usual, the next they were nowhere to be found. We spent hours in the air without seeing any trace of them. Something had changed radically in the pattern of truck thefts, and the criminals were winning once again."

Once more it was John Vinagre who dreamed up a suitable response. It occurred to him that the Department of Nature Conservation had been successfully using a game tracking system developed by Professor Gerard van Urk at Potchefstroom University.

The system was operated by attaching electronic transmitting devices to the animals, which could then be tracked from the air.

"The system had been operated since 1975, but it only had a range of 5 kilometers, which was clearly insufficient for our purposes. So I approached Professor van Urk for help. Not only was he incredibly enthusiastic, but over the next few months, he developed a number of systems, which we put to the test. In all, we put in 30 hours of aerial trials before settling for the system we now use," says Vinagre.

That system, registered under the name Helitrace, consists of a small electronic transmitter attached to the truck



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that emits an audio signal. Each transmitter makes use of a different frequency, which can be tracked from the air over a radius of 80kilometers in the built-up Gauteng area and 120kilometers in open areas.

This allows the helicopter search ship a reasonable degree of latitude to lock onto a hijacked vehicle and to follow at a suitable distance.

Once the vehicle is located from the air, the pursuit chopper calls in the SAPS Hijack Reaction Unit, whose task it is to recover the vehicle and make arrests on the ground. Alternately, a private reaction company is called in to try to recover the vehicle.

... I can get it down, thinks Vinagre as he auto-rotates the crippled chopper towards an open patch of ground nestled between the tightly concentrated matchbox houses of Tembisa. He doesn't really have much choice — live powerlines to the north and west block his escape.

There's just enough space to put it down if I can get there on time ... His thoughts are interrupted by a woman and child who set off across the open patch, oblivious to the approach of the crippled chopper.

Aborting his descent, he drags the chopper off its crash path and tries to lift it over the fast-approaching toy homes below. There's not enough speed or altitude, and the chopper whistles into the ground between two houses, one of the rotor blades snapping as the aircraft comes to rest on its nose against one of the houses, its tail rotors torn off by the impact as it hits the wall.

Dust mushrooms upward, a red-brown cloak engulfing the aircraft. With it comes a sickening fear. Fire ... all he can think of is being engulfed in a blanket of orange flame as the rich and intoxicating smell of avgas fills the cockpit.

Fred Miles is already going into shock as John helps him get clear of the crippled aircraft. The two passengers in the back are already clear and watching from the nearby road. Fred falls to his knees dragging John down with him. A woman is

screaming at them: "Look what you've done to my house," but there's a far more menacing sound — gunshots!

Glancing up, John sees Otto and Kobus running towards some nearby houses pursued by a mob. Seeing John and Fred on the ground, however, the mob veers back towards the crash site ... They are shouting, and there is murder in their eyes ...

John Vinagre has had considerable success with his aerial bloodhound business, which now has 1,100 transmitters installed in various fleets, but he points out that there is still a great deal of reluctance among fleet operators to invest in preventative hijack measures. "We're losing the battle against hijacking by default and, of course, the hijackers are becoming sophisticated," he says. "What's needed is a concerted effort on all fronts. But, in the short term, I believe that answer to hijacking lies in turning back the clock and recreating the system we ran for Lombard's Transport. The solution lies in restarting regular aerial patrols along the main trucking routes. That is the only effective deterrent.

"The road transport industry should get together to subsidize day and night aerial patrols of the nation's highways. These spot checks would have the same deterrent effect on hijackings that they had against theft in the early eighties because most hijacking are unquestionably still the result of driver collusion. "Drivers should know there are eyes in the skies watching them."

... The mob reaches the two unarmed and defenseless men before either has a chance to think of escape. John Vinagre is still bending over his supine colleague when they are attacked. He is stabbed in the back and dragged to one side as the mob begins to beat and kick Fred Miles, now lying in a fetal position on the ground. They take his watch and scream: "Where are your guns, where is your money?" They kick him senseless as John tries to protect himself from the mindless wrath of the mob.

Otto and Kobus have reached the houses and run between them until they find a woman at an open door. They beg her for protection, and she immediately takes control, taking them in and ushering the two terrified men into her bedroom. They climb under her bed and await their fate — breathless and fearful. Their lives are now entirely in the hands of a black stranger as groups of enraged youths scatter through the houses baying for the blood of the two white men ...

Just as John Vinagre is about to give up hope, a white Cresida backs out of a nearby householder's garage and drives slowly toward the mob, which parts as it approaches. There are two men in the car — the driver and a passenger in the back, who opens his door and shouts for the two white men to climb in. Despite being in shock and badly beaten, Fred Miles drags himself into the passenger seat while John clambers into the back before the mob is fully aware of what is happening. The car immediately races away ...

All four of the men shot down in ZS HWU over Tembisa that morning escaped with their lives. But for the courageous intervention of three black strangers, they would not have made it, that much is abundantly clear. As for the hijackers, it took Rudie van Olst of the East Rand Murder and Robbery Squad eight months to track them down, but for John Vinagre the hunt goes on ...

This is an abridged version of an article that earned Swift two top writing awards in South Africa, the Siemens Business Writer of the Year Award and the Transnet Award for transport journalism.

GRANTA, LONDON

The Sludge Boat

Once the River Clyde was teeming with steamboats carrying day trippers and holidaymakers from Glasgow to the outlying islands. Now the waters are comparatively calm, but five days a week pensioners pack sandwiches and bingo cards for a free trip downstream. Below the party lurks a less endearing cargo, thousands of tons of sewage which is to be dumped at the mouth of the river. Andrew O'Hagan boarded this flagship of the effluent society

The Clyde used to be one of the noisiest rivers. Thirty or 40 years ago you could hear the strike of metal against metal, the riveter's bedlam, down most of the narrow channel from Glasgow, at several other shipbuilding towns on the estuary. There was a sound of horns on the water, and of engines turning. Chains unfurled and cargoes were lifted; there was chatter on the piers. But it is very quiet now. Seagulls murmur overhead and nip at the banks. You can hear almost nothing. The water might lap a little or ripple when pushed by the wind. But mostly it sits still.

This quietness is broken, five days a week, by the passage of the two ships which carry one of the Clyde's last cargoes: human effluent, sewage, sludge.

Glaswegians call these ships the sludge boats. Every morning, they sail west down the river to turn, eventually, south into the estuary's mouth, the Firth, where they will drop their load into the sea. By this stage of the voyage, their elderly passengers may be dancing on the deck, or, if the weather is wet or windy, playing bingo in the lounge. Underneath them, a few thousand tons of human sewage (perhaps some of their own, transported from their homes) will be slopping in the holds. There was a time when passengers and cargo set sail from the Clyde to New York, Montreal, Buenos Aires, Calcutta and Bombay in liners equipped to carry awk-

ward things like railway locomotives and difficult people like tea planters. And now, almost alone upon the river, this: tons of shit accompanied by an average complement of 70 old-age pensioners enjoying a grand day out, and traveling free.

This morning it was the ladies — and several gentlemen — of the Holy Redeemers Senior Citizens' Club of Clydebank who were taking a trip down the river. I'd watched them ambling on to the boat from the wharf at Shieldhall sewage works, each of them with a plastic bag filled with sandwiches and sweets. Now I could hear the party arranging itself on the deck above me as I stood down below to watch the sludge being loaded into the ship's eight tanks. It came from the wharf through an enormous red pipe, then into a funnel and then from the funnel into a hopper, which channeled the sludge evenly through the ship's basement. It took about an hour and 30 minutes to load up. As the ship filled — with wakeful passengers and tired sludge — a little fountain of perfume sprinkled silently over the hopper's top.

We were on board the Garroch Head, a handsome ship named after the point near the dumping ground 40 miles downstream and built on the Clyde, as was her sister ship, the Dalmarnock (named after a sewage works). The Garroch Head can carry three and a half thousand tons of sludge; the Dalmarnock three thousand tons. They are not particularly old ships — both were launched in the 1970s — but neither



seems likely to survive the century. After 1998, the process of dumping at sea will be outlawed by a directive from the European Union on grounds of ecology and public health. And yet this quiet disposal, this burial of a city's intimate wastes in 90 fathoms halfway between the islands of Bute and Arran, once seemed such a neat and clean solution.

Until the 1890s, Glasgow's untreated sewage went straight into the river's upper reaches, where it bubbled under the surface and crept ashore as black mud. Civic concern arose with the stench; the population was still growing in a city made by the first industrial revolution and popularly described as "the workshop of the world." In 1889, the city's engineer, Alexander Frew, read a paper on the sewage



Anthony Ventura

question to the Glasgow Philosophical Society and then addressed increasingly heated questions about what was to be done. He opposed dumping at sea and suggested instead that the sewage be spread along the banks of the Clyde, where it would come to form fine agricultural land. The city rejected this scheme, though a feeling persisted that something useful (and profitable) might be done with Glasgow's swelling effluent; in London at that time, the Native Guano Company of Kingston-upon-Thames appeared to be setting a trend with this sort of thing. Glasgow's own brand, Globe Fertilizer, was popular for a short while. But here, science was ahead of the game — or behind it — with new artificial fertilizers that were more powerful and cheaper than the processed human stuff.

How did other cities arrange their disposal? A delegation went from Glasgow to Paris to find out and there discovered

a great tunnel on either side of the river Seine. Sewage poured out of pipes into these tunnels, which then poured into the Seine some miles from the city. The Seine, however, was clean when compared with the Clyde because (as the delegation noted) the current carried the effluent away from the city to less fortunate towns further downstream and then to the sea. The Clyde, on the other hand, was tidal; sewage went with the ebb and came back up with the flood — a mess that, like an unwanted stray dog, could not be shooed away.

There was also another reason for the Seine's relative purity, which perversely had to do with Glasgow's greater progress in sanitation. Paris had 600,000 closets, or lavatories, but only a third of them were waterclosets; the rest were dry, their waste carried away by night-soil carts to fields and dumps. Glasgow, thanks to its climate and municipal reservoirs and pipes, had most of its lavatories flushed by water.

It had wet sewage rather than dry and much more of it to get rid of.

In 1898, nine years after the Paris trip, another delegation traveled south, this time to London, where they were shown the system of sewers, sewage works and, lastly, sewage ships which carried the capital's waste to its destination far out in the Thames estuary. They were impressed, and by 1910 Glasgow had a similar system in place — the second-largest (after London) in the world, with three great sewage works sending their products down the Clyde in ships.

The passengers came later, just after the First World War, when a benevolent but cost-conscious Glasgow city council (then called the Glasgow Corporation) decided that convalescing servicemen would benefit from a day out on the Clyde. Cruising on pleasure steamers up and down the estuary and across to its islands was then Glasgow's great sum-

A group of pensioners stood in a row looking out, covering their mouths and noses with white hankies. All the worst odor of a modern city, until now stored and battened down, was released in this time-stopping, comical stench

mer pastime; the sludge boats offered the city council the prospect of killing two birds with one stone. Their voyages were already paid for out of the rates. The servicemen could travel free. It was seen as an expression of socialist goodwill — allied with the enlightened Victorian municipalism that had given Glasgow its lavish water supply and so many public parks. The vessels were rebuilt to carry passengers, fitted out with more lifeboats and saloons, equipped with deck quoits. By and by, their traffic in convalescing servicemen died away, to be replaced, thanks to the charitable offices of Glasgow Corporation, by old people who couldn't afford cruises on the regular steamships but who may have been encouraged by the doctor to take the air.

And so it was, in the summer of 1995, that I came to be traveling with the Clydebank Holy Redeemers on top of 3,500 tons of sludge.

Everything — or everything visible to the passenger — on the Garroch Head was scrupulously clean. The wooden table and chairs in the lounge shone with polish; the urinals gleamed; the deck was as free of dirt as any deck could be. The haphazard filth and toxic stews of Glasgow were kept well out of sight. There was a sense among the crew that it was this opposition of cleanliness to filth that carried them and their ship forward on each voyage.

We sailed past the grass and rubble where the shipyards used to be — Connells and Blythswood to starboard, Simons and Lobnitz to port — and I talked to a woman who was leaning on the ship's rail and enjoyed the breeze. She was called Mary Kay McRory, she was 80, and she had a big green cardigan pulled across her chest. Her eyes ran, but she laughed a lot as she spoke. She said the first time she had sailed on the Clyde was in 1921, when she had traveled as a six-year-old with her family on the steamer that took cattle and people from Derry in Ireland to Glasgow and very seldom took the same ones back again. Mary Kay's father was escaping some bother in Donegal; he heard of work in Glasgow, came over and was employed right away as a lamp-lighter. Then he summoned his wife and the six children. "We came away from Donegal with biscuits," Mary Kay said. "Everybody would throw biscuits over the wall to you. They were good biscuits. The food over there was good."

She had worked as a waitress, when the city was still full of tearooms and then on the Glasgow trams for 25 years. I asked her if Glasgow had changed much, and she got me by the arm. "Ye can say what ye like," she said, "but there's no poverty now, none." She talked a lot about sanitation, about toilets and baths, in the way many old Glaswegians do. Those who remember lavatories shared with neighbors and trips to the public bathhouse tend to talk more about these matters than people like me who grew up thinking it was nothing special to have porcelain bits at the top of the stairs stamped ARMITAGE SHANKS.

Plastic bags were being rustled in the lounge. Out of them came the day's supplies: sandwiches of beef, chicken breast, shiny squares of gammon, salmon paste and cheese spreads. And then the treats to follow: Paris buns, Blue Riband biscuits, Tunnock's Teacakes, Bourbon creams. Some of the women dropped sweeteners into their tea and stirred melodically for a long time after. Others placed ginger snaps at the



edge of their saucers or unwrapped tight wads of shortbread, ready for distribution. Neat stacks of white bread and sweet acres of treats stretched on the table, in front of every passenger. All the mouths were going — shredding meat and sloshing tea — like washing machines on a full load. This was not lunch for the Holy Redeemers; merely elevenses.

Sludge, in the particular sense of our sludge boat's cargo, comes about like this: The sewage pumped into Glasgow's three sewage works is twice screened. The first screening takes out large objects — lumps of wood, rags, metal — that somehow find their way into the sewers. The second screening extracts smaller, abrasive materials such as glass and sand. Then comes the first separation process, designed to make the organic component of the sewage sink to the bottom of the tank (Just as sediment will settle in a bottle of wine). They call this the stage of primary settlement. The heavy stuff at the bottom is called raw sludge; the clearer liquid above is settled sewage.

The raw sludge is not ready to dispose of; it needs further modification and is subject to biochemical breakdown. Some of it goes through a process called digestion. Bacteria are allowed into the holding chambers, where they feed energetically on the proteins and carbohydrates, diminishing the organic matter until the sludge is fit to be spread on farmland or made ready for dumping at sea. Then, at the works near the wharf at Shieldhall, the sludge is "settled" one last time, to increase the content of sinkable solids in the watery mix. The stuff in the hold has passed through many systems — biological and mechanical — and it will have no final rest from the biological, even at the bottom of the sea. It degrades there to feed marine life (the fishing near the dumping ground is said to be fairly good) and continue its journey

through the ecosystem.

There has, however, been an awful lot of it dumped, and all in the same place. In the first year of the sludge boats, 213,867 tons were carried down the Clyde. In 1995, the figure was 1.8 million tons. The total for this century is 82.6 million tons. The seabed at the dump's center is said to be damaged, its organisms contaminated. The EU has delivered its verdict. Glasgow needs a new venue for the sludge, and old ideas are being re-examined. Fertilizer, for example. Sludge is rich in nitrates (four percent), phosphate (three percent) and potassium (one percent), and full of nutrients — it could do a good job on the land, and farmers seem willing to try it for free. It is also well suited to grass-growing and is already being spread on derelict industrial sites to prepare them for reclamation. A new product range — sludge cakes, sludge pellets — will be tried on the waste ground that was once the Ravenscraig steelworks, the largest and last of Scotland's steel plants, where the soil has been poisoned by decades of metal wastes. Sludge used there could make a meadow grow.

We passed Greenock, which used to make ships and sugar, and then veered left into the Firth proper. The Garroch Head was going at a fair pelt now, and most of the passengers had their eyes down, playing a restive round or two of bingo. Some were nibbling still at the corners of buns and sandwiches. From the saloon port-hole the water looked silver, as if some giant shoal of mackerel swam just beneath the surface. The islands of Great and Little Cumbrae stood out, like two large boulders only recently dropped into the sea.

We passed them. Up on the bridge, they were slowing the vessel down, ready to discharge their load. We had reached the dumping ground, and as soon as the position was right, a crewman on the bridge flicked a switch, and I heard a little rumble. The valves were opening. I thought I could feel the cargo starting to be pulled by gravity from its tanks.

I went down from the bridge to the deck nearest the water and saw the first of the billowing columns. Fierce puffs, great Turner clouds of wayward brown matter, rose up and spread in an instant over the surface. The waters of the Firth were all at once rusty and thick, and the boat was an island in a sea of sludge. This was all in the first few minutes.

We moved off, leaning to port, aiming to complete a full circle as the sludge descended. A group of pensioners stood in a row looking out, covering their mouths and noses with white hankies. All the worst odor of a modern city, until now stored and battened down, was released in this time-stopping, comical stench. I looked up at the coast and wondered for a second where it had all begun, because this was an ending, and the sense of an ending was as palpable and strong as the brew in the sea before us.

The ship turned about and headed home. Its emptying had taken 10 minutes. Back in the saloon, the pensioners were dancing to a song called *Campbelltown Lock, I Wish Ye Were Whiskey*. My tea sat just where I'd left it, and I was happy to notice it was still quite warm. ♦

Andrew O'Hagan's first book, The Missing, was published last year by Picador.

SCOTLAND ON SUNDAY, EDINBURGH

Peace on earth and goodwill to all men!

So, soccer's a game for girls, is it? Read this report of a Christmas Eve game in Scotland's notorious Ayrshire Junior League and think again

By GRAHAM SPIERS

In the bleeding canon of these Ayrshire Junior derbies, it's hard to work out whether this was a brute of a collision or a mere feud. Cumnock beat Auchinleck at the football, and some of the kicking and elbowing as well, thanks to a two-goal hero, Big Dunky Sinclair, whose balding pate and beer barrel-thick thighs suggest he came out of the womb just to grace this very occasion.

It was a game not inclined to the pre-Christmas lore of peace, played out amid frosted rays of sunshine that skewered their way through the council house chimney-tops and down on to a park of constant cursing and bellowing passions. Six players were booked, one sent off, and the invective here ran thicker than sweat in a knocking-shop.

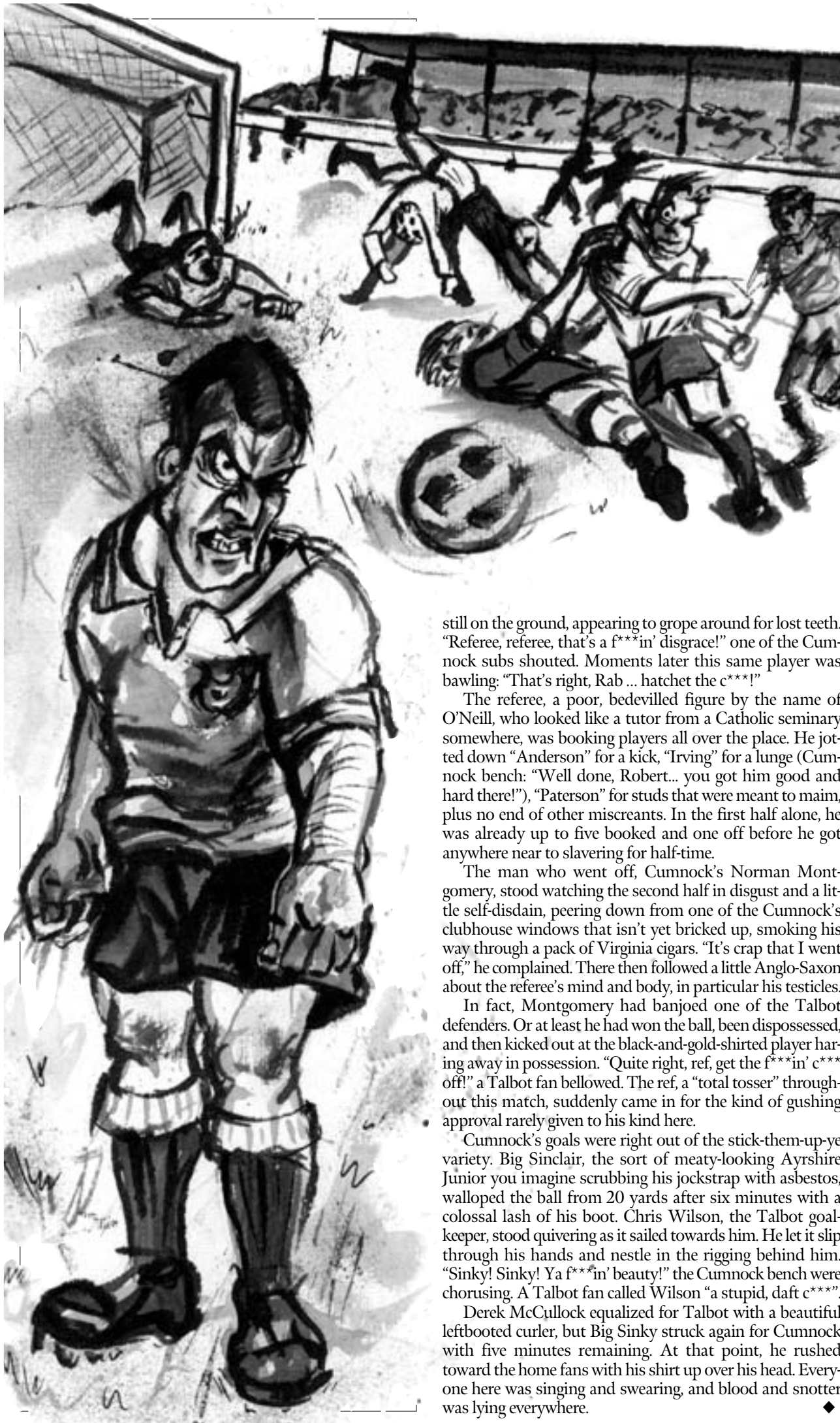
The level of swearing around this game would have mortified even [comedian] Bernard Manning. Not on any patch of mud and slime, in any part of the world, can such concentrated, venomous cursing have been heard as in Cumnock yesterday.

The referee was always either a "bastard" or a "wanker". The opposition players were always "turds" or "shitebags". The two sets of fans, Cumnock's up one side, Talbot's down the other, called each other "pricks" or "tossers," or sometimes even "wank-heads." One fan, a 17-stone neanderthal with grey sideboards like monkey's hide, shouted out: "Stick these f*** in' Talbot shitebags up yer erses!" The imagery here was as startling as it was vivid.

There is no press box as such at Townhead Park. We watched this fetid action right down at trackside, where the lather and blood of the players almost comes spilling about your ankles. At one point Cumnock's Sinclair went crunching in on Chris Ellis, until his studs were shuddering and embedding themselves right in on Ellis's crotch.

"Ooow, ma ba's, ma f***in' ba's!" Ellis whined as he writhed about in the grass. "Ah, ye f***in' erse!" someone shouted from the Cumnock bench. "There's f***-all wrong wi'ye!"

Talbot's Ken Paterson then stood on Paul Courtney's head. It was an ugly tangle between the two, which left Paterson sprinting off, the crowd going berserk, and Courtney,



Rui Ramalheiro

still on the ground, appearing to grope around for lost teeth. "Referee, referee, that's a f***in' disgrace!" one of the Cumnock subs shouted. Moments later this same player was bawling: "That's right, Rab ... hatchet the c***!"

The referee, a poor, bedevilled figure by the name of O'Neill, who looked like a tutor from a Catholic seminary somewhere, was booking players all over the place. He jotted down "Anderson" for a kick, "Irving" for a lunge (Cumnock bench: "Well done, Robert... you got him good and hard there!"), "Paterson" for studs that were meant to maim, plus no end of other miscreants. In the first half alone, he was already up to five booked and one off before he got anywhere near to slavering for half-time.

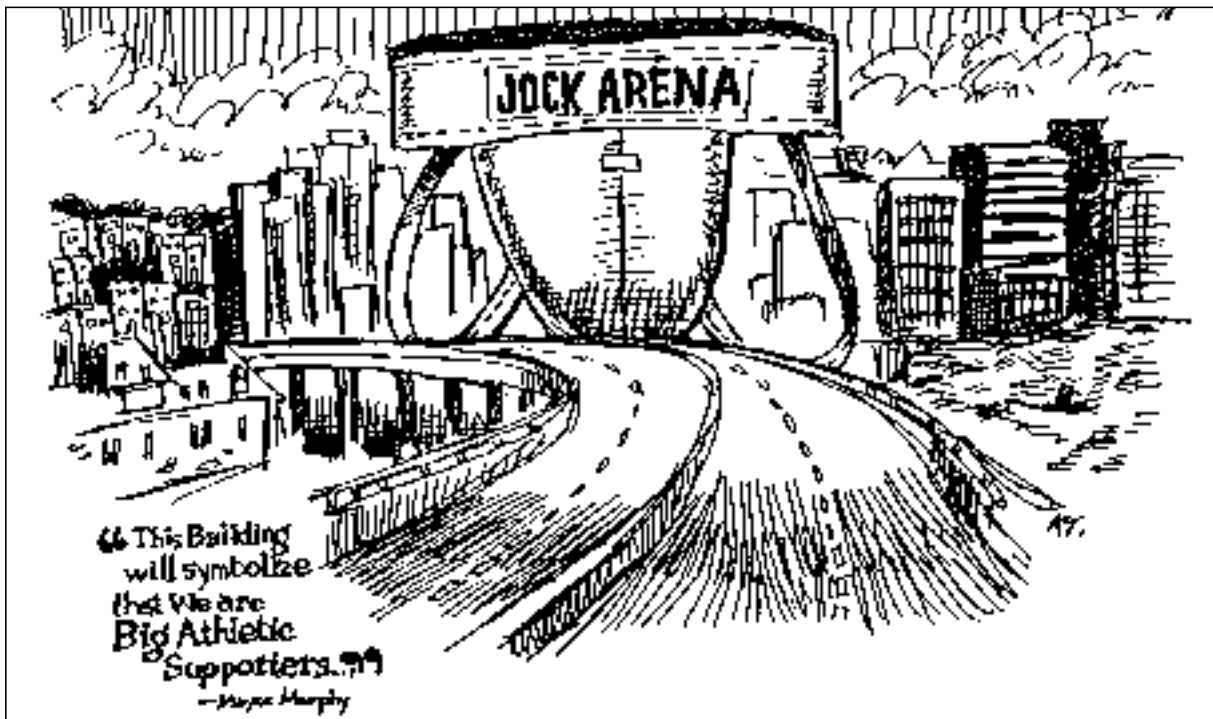
The man who went off, Cumnock's Norman Montgomery, stood watching the second half in disgust and a little self-disdain, peering down from one of the Cumnock's clubhouse windows that isn't yet bricked up, smoking his way through a pack of Virginia cigars. "It's crap that I went off," he complained. There then followed a little Anglo-Saxon about the referee's mind and body, in particular his testicles.

In fact, Montgomery had banjoed one of the Talbot defenders. Or at least he had won the ball, been dispossessed, and then kicked out at the black-and-gold-shirted player haring away in possession. "Quite right, ref, get the f***in' c*** off!" a Talbot fan bellowed. The ref, a "total tosser" throughout this match, suddenly came in for the kind of gushing approval rarely given to his kind here.

Cumnock's goals were right out of the stick-them-up-ye variety. Big Sinclair, the sort of meaty-looking Ayrshire Junior you imagine scrubbing his jockstrap with asbestos, walloped the ball from 20 yards after six minutes with a colossal lash of his boot. Chris Wilson, the Talbot goalkeeper, stood quivering as it sailed towards him. He let it slip through his hands and nestle in the rigging behind him. "Sinky! Sinky! Ya f***in' beauty!" the Cumnock bench were chorusing. A Talbot fan called Wilson "a stupid, daft c***".

Derek McCulloch equalized for Talbot with a beautiful leftbooted curler, but Big Sinky struck again for Cumnock with five minutes remaining. At that point, he rushed toward the home fans with his shirt up over his head. Everyone here was singing and swearing, and blood and snotter was lying everywhere. ♦

Kevin Tobin: Fun in Newfoundland



For nearly a decade, Newfoundlanders have been amused, bemused or confused by the editorial cartoons of the St. John's *Evening Telegram* cartoonist Kevin Tobin. He has poked fun at everyone and everything with political and social implications on the island and takes tremendous pleasure in the fact that his newest target is Premier Brian Tobin.

Kevin has denied rumors that he is the evil twin of the Premier, despite sharing the same last name, a strong resemblance and both having been raised in Stephenville.

“No, b'y, we're not twins, I'm a lot younger and a lot taller. Plus my father says we can't be related. Dad is a Progressive Conservative and Brian is Liberal, I think.”

Kevin has published four books of editorial cartoons, the latest of which is *The Gang's True Confessions*, available from Jespersion Publishing, 39 St. James Lane, St. John's, Nfd A1E 3H3.

It costs \$12 plus applicable taxes.

