New York

The Organ Grinder

The living need the dead like never before, and Michael Mastromarino had a Dickensian scheme for supplying the parts.

By Randall Patterson



(Photo: Michael Lewis)

The last days of Alistair Cooke were painful and difficult --"what we all go through, really," says his daughter, Susan Kittredge-but Cooke carried on with typical English fortitude. In his final public broadcast --"Letter From America," No. 2,869he made his deathbed sound positively cozy: "Propped up there against my usual three pillows and reluctantly having just finished a favourite bed

book ... I was feeling chipper enough to glance across at two bedside piles and hope for a perfect lullaby before drifting into sleep."

When he died, in March 2004, he left his daughter 150 pounds or so of ancient flesh and bone. Kittredge, a Congregationalist minister in Vermont, was not unfamiliar with such things. She had prayed over many of them and had counseled parishioners never to cherish a corpse but to view it only as the empty vessel, a rather worthless item. Disposal, she explains, "is not something I'm inclined to spend a lot of money on, so I grabbed the phone book and started going through the Yellow Pages, looking for the best price on a direct cremation."

She found a place in Harlem that advertised "the highest quality services at the lowest rates"—cremations for only \$595. Kittredge remembers that "it was the middle of the night" when they came. Alistair Cooke was taken down from his Fifth Avenue aerie to a dim, decidedly gothic parlor at 115th Street. "They were just going to come and collect him and return the ashes in due course," Kittredge recalls. But instead, there was a man waiting for Alistair Cooke, with a knife. He cared nothing for Cooke's mind or manners. He had actually come for the body—that pale, wizened, cancer-ridden cadaver of a 95-year-old Englishman, stretched out now beneath the light in the embalming room.

It has never been safe to be dead. As Annie Cheney writes in *Body Brokers: Inside America's Underground Trade in Human Remains,* "the cadaver trade has a long history in the U.S." It began here in the late eighteenth century, when surgeons studying anatomy "enlisted the help of 'resurrectionists' or 'ghouls,' as body snatchers were known—a class of cagey, often desperate men."

Grave robbery went out of fashion about 100 years ago, as states began providing anatomists with a legal supply of corpses (typically those of paupers) and people began leaving their bodies to science. Now, however, the dead are in demand like never before. It has been discovered that not only are human beings essentially the same machine inside but that we carry interchangeable parts, and the dead may be stripped of their parts much like old cars. Hearts and livers and kidneys receive the most attention because they save lives, but the same technology that has allowed for their transfer has also enabled the far more common transplant of tissue. Nearly every part of a corpse can now be put to use. For spinal fusions and the repair of fractures, bone is in greatest demand, but veins may be used for bypass in heart surgery. The membrane around the heart can reupholster the brain after neurosurgery, and the membrane around the muscles of the thigh can sling up sagging bladders to control incontinence. Tendons and ligaments can return mobility. Corneas can restore clear vision. Cartilage can help in facial remodeling. Dead skin can replace burned skin. And collagen can fill wrinkles, plump lips, revive youthful appearance.

The American Association of Tissue Banks calls it "a medical revolution," but here is the sad part: "Many people who need transplants cannot get them because there simply are not enough to go around"—a mere 25,000 donors a year to supply more than a million tissue transplants. "The need to increase the number of transplants," says the AATB, "is the responsibility of us all."

The problem lies in persuading the living to give up their dead. Tissue may be harvested only shortly after death, explains Bob Rigney, head of the AATB, so "there's a very small window in which we can act, and that is the very worst possible time for everyone involved." Even if the deceased has signified consent on his driver's license, many states, including New York, also require permission from the family—harvesters must face them, at the height of their grief, and ask for certain choice pieces of the loved one's body. The case for organs is generally more compelling than the need for collagen and the like; families often answer no, which keeps supplies low and prices high.

Yes, prices: The sale of the dead is technically illegal, but the National Organ Transplant Act of 1984 authorizes tissue banks to recover "reasonable costs" for transport and processing—leaving it to the banks to determine what's reasonable. Although all organ banks are nonprofit charities, and organ donation, with its higher stakes, is generally well regulated, tissue donation is another business entirely governed by the Food and Drug Administration, which allows many banks to operate openly for profit. And the money to be made in human tissue—up to \$100,000 a corpse depending on its use, according to Cheney—lures forth desperate men who don't always abide by the rules.

Earlier this year, the Brooklyn district attorney arrested four men and charged them with swiping, in a frenzy, more than a thousand corpses—including that of "the well-respected host of *Masterpiece Theatre*, Alistair Cooke"—and dismembering them

and parceling them out, with little regard for medical precautions, and possibly infecting with untold diseases the multitudes who received the stolen parts. "It's the most outrageous thing I've seen," said the D.A., Charles Hynes.

The accused came out in shackles like characters from Dickens. Three of them hung their heads low when passing the cameras, but the fourth, Michael Mastromarino, was a tall, somber figure in a black overcoat who stared directly into the lens, smacking gum. "He knows he's not Dr. Frankenstein," said his lawyer, Mario Gallucci. After the men had pleaded not guilty to every macabre charge against them, Gallucci explained that his client's work had endangered no one and had been only a benefit to public health.

"I don't think the Brooklyn D.A.'s office understands what the industry is," Gallucci concluded. And whether that was true or not, the case forced us to look at a world we know little of, brought to the surface everything we'd prefer to keep buried.

The man accused of body stealing lives as other people do, across the bridge in Fort Lee, New Jersey. Mastromarino's brick house is grand for suburbia, though with the letter *M* writ large upon the welcome mat and the Lincoln and the Escalade crowded into the oval driveway, not perhaps as grand as he would like. A beware of dog sign adorns the window; when I knock, a middle-aged woman appears behind the glass. "I am not opening that door," she announces, with arms crossed. Gallucci says that Mastromarino, out on bail, is in there somewhere, "trying to enjoy his family while he has this extra time" away from the office.

Mastromarino was once a prosperous maxillofacial surgeon, with offices in New Jersey and midtown Manhattan. Before making headlines as an abominable ghoul, he was chiefly known as co-author of *Smile: How Dental Implants Can Transform Your Life*. The book begins by explaining that as our life spans increase our parts wear out and that we're lucky to be living in a " 'new age' of implantology": "Just as orthopedists replace hips, knees, shoulders, etc.—dentists replace teeth with implants." Mastromarino's principal contribution was the chapter on bone-grafting, which the book says is "a whole new ball game." Grafting used to be difficult and painful, but according to *Smile*, "breakthroughs in tissue engineering have come to the rescue," and today, "we can literally put bone wherever we need it."

Co-author Michael Wiland wouldn't say Mastromarino was the best in the country at this work, "but he was a very competent young doctor. You know, until he wasn't."

The fall started with a backache and a little Demerol. The doctor was not careful, and by May 2000, according to a malpractice lawsuit later settled out of court, people had begun noticing that he "didn't look like himself." He "looked tired," his accountant testified. A dental assistant noticed he was not as "proficient" as she was used to seeing him. "He appeared just somewhat lost and like he was not feeling well, profusely sweating."

Before long, the "entire building knew" of Mastromarino's drug use, said one witness. In surgery, the assistant noticed him asleep, standing over a patient. She

tapped his hand, and he finished the job. Another day, he collapsed coming out of the bathroom "with his scrub pants down around his ankles." In yet another incident, he was found in the bathroom "with a hypodermic needle and blood on the floor," having left a patient under general anesthesia on the operating-room table.

His assistant was unable to help him when in late June 2000, according to the lawsuit, he damaged Ana Ortiz's seventh cranial nerve, leaving her with a permanent "left-facial droop." Ten days later, Mastromarino was arrested in Fort Lee for "possession of Demerol and a hypodermic needle and being under the influence of a controlled dangerous substance."

This is where the story of a bottom-feeder really begins: at the bottom. Mastromarino had a wife, two sons, a fine house—things worth pulling his life together for. He hired Gallucci to get the drug charges dropped, and he managed to extract himself from the influence of controlled substances. He had surrendered his license to practice dentistry, though, and so he began looking about for a way to survive.

Among his contacts was one of the largest tissue banks in the country, a company that trades on nasdaq under the name RTIX and that manufactures, from a factory in Alachua, Florida, all sorts of useful spare parts, including the "BioSet Demineralized Bone Matrix (DBM)," the "patented MD-Series threaded bone dowels," "Osteofil/Regenafil injectable bone paste," as well as a number of "cortical bone pins" and "interference screws."

Regeneration Technologies, Incorporated, is the full and hopeful name: When a part of you dies, you simply grow another part. As an oral surgeon, Mastromarino had used RTI's products and knew its need for raw materials. Rather quickly, he conceived the notion of working his career in implantology from the opposite direction.

"He contacted RTI and told them that as a surgeon, he could do a better job," says Gallucci. RTI executives no longer wish to discuss Mastromarino, but according to Gallucci, their response was "Let's see." Mastromarino was soon going on trial harvests and returning with "more tissue and better tissue." The transition from living patients to dead was not difficult for him. And RTI seemed to like what he brought in. "They couldn't get enough of it!" says Gallucci.

In 2002, the same year he was sanctioned for practicing dentistry with a suspended license, Mastromarino got his tissue-harvesting license from the New York State Department of Health and began working for RTI. And when he announced that he wanted to work out of funeral homes, "they thought that was an outstanding idea," says Gallucci, and even helped Mastromarino set up a "business model."

First, the doctor began recruiting undertakers, offering \$1,000 a corpse. Then as the work began piling up, Mastromarino sent out word through the medical community that he needed another harvester. In 2003, when Lee Cruceta, a nurse at Beth Israel,

spoke to his boss about his need to make more money, the operating-room director knew exactly where to send him.

C ruceta sits slumped in his lawyer's office, wearing a dark polo shirt and gray slacks, with a beeper at his waist. His face is the vision of gloom, all upturned eyebrows and downturned mouth, but he lights up as he begins recalling his career—the "amazing things" he has seen, sights that "you might think are kind of gruesome" but that to him are "just, uh, very interesting stuff to see." He speaks of it as old sailors speak of the ocean: what people look like in pieces, what they look like inside. He smiles as he says, "I know what *you* look like inside."

As a nurse, he had developed the desire to touch, which had led to an interest in orthopedics. ("Power tools—that's what's interesting about orthopedics. Sort of like carpentry for humans.") At last, he began working as an official AATB-certified tissue-bank specialist, and though he had never worked in funeral homes before, his wife had just lost her job, they had four children to support, and Mastromarino's offer looked like a good opportunity.

They worked mostly in—"I don't know how to say this … poor areas": Harlem, the Bronx, Newark, Philadelphia. Cruceta understood that for allowing the harvest of their loved ones, families were supposed to receive "some sort of financial benefit" an upgraded casket, a discounted cremation—but whether they ever did, he doesn't know. Most of the work in the beginning was at Joe Nicelli's place in Bensonhurst, an imposing gray, windowless box called the Daniel George & Son Funeral Home. The workers would fetch the corpse; Mastromarino would call Cruceta to say that "we have a case, that he died yesterday of cardiac arrest, and you know, the body would be on the table waiting."

The table was on the first floor and rose hydraulically with corpse and harvester to the second, where, as the police said, there was "a secret room" ... "a virtual operating room, complete with the large and very bright overhead lighting associated with hospital surgery." This was the moment Cruceta had come for: "Patient contact—that was always my thing." He had tried to get his wife to watch him work, but she "always thought it was a disgusting job." Only the doctor seemed to understand. "I thought he was a great guy."

They had a contract to supply RTI with "long bones," Cruceta says. If a viewing was scheduled, they took only the legs, sawing them off just below the hip and just above the foot. "We took our time to make sure we didn't nick the skin," he says. Afterward, Cruceta sprinkled powder over the large cuts, "sewed up whatever we damaged," and then between hip and foot, screwed in plastic pipe, as per standard industry practice. The police later found surgical gloves and other things sewn up in the bodies as well, but Cruceta vows he never did any such thing. They were always careful, he says, "so the families could at least have a decent funeral." That was the point of the pipes: With pants to cover where the legs should have been, the bodies looked as good as new during viewings.

Cremations were another matter, the only time they went whole hog. Cruceta got to use a power tool when harvesting spine. For that, there was no repair, but he always took care to stuff some cloth into the hole "just so when they flipped it over, all the fluids wouldn't go out into the cardboard box. Plus in Philadelphia, they didn't even use cardboard boxes. They just wanted us to leave them on the stretcher because the crematorium was only a block away. So we would pack something in there, just so rolling this body out, they wouldn't leave a trail of blood and body parts across the street."

The work was often messy like that and sometimes "kind of odorous, kind of get to you a little bit," but "it was just great work," says Cruceta. If people only knew how careful they were, how they "did everything by the book," they would understand, he says, that "it's just not right" to call him a ghoul.

The neighbors of the Daniel George saw things differently. A woman who wouldn't give her name described a sort of factory on overload—vans parking around back at all hours of the night, the workers, as they unloaded, often leaving a corpse or two on the sidewalk. "I can't tell you how many times there'd be a full body bag on the sidewalk," says another neighbor, Kathleen Donoghue, who also tells of "banging and clanging" going on in there late at night. In the morning, the anonymous neighbor would wake to find plastic garbage bags on the sidewalk, "and cats or whatever animals had gotten into it" and dragged out surgical gloves, aprons, bloodied cotton swabs. "It was just a total lack of respect for the neighborhood, for the families, for the deceased," she says.

The sloppiness was owed, perhaps, to an overwhelming workload. In time, Mastromarino hired a funeral-director acquaintance of Nicelli's, Chris Aldorasi, to help Cruceta with the harvest, and then a third member of the team to "back-left the dirty work to them and retreated to the company office, a large space on the third floor of a building along the highway in Fort Lee. By August 2003, Cruceta, too, was working full-time there, monitoring the freezers, shipping tissue, and harvesting at every chance. The only visitors, he recalls, were processors from RTI and another company, Tutogen. Mastromarino would meet with them behind a closed door and otherwise typically sat, behind a closed door, doing paperwork. He seemed to Cruceta "a very smart person, self-made." Everyone, in fact, seemed like "normal business people," and it seemed a perfectly normal business to be getting paid by the corpse. The funeral directors were tripping over themselves to get their \$1,000 fee. Cruceta was doing up to 25 harvests a month and making \$200 to \$300 a harvest, plus salary. And Mastromarino, he figures, was probably earning, per body, between \$10,000 and \$15,000. (Gallucci claims it was \$7,000 per at the most.)

The funeral homes were great storehouses of the dead, and harvesting from them was almost like finding money on the ground. The only obstacles were the industry standards. Not just any body would do. Corpses were not supposed to be too old or too diseased, and every body had to be harvested within 24 hours—15 if uncooled—

and in the most sterile conditions. Because these standards are hard to meet in funeral homes, hardly anyone used to harvest there, but over the last five years, says the AATB's Rigney, more tissue banks have started working in mortuaries.

It was to meet sterility standards at the Daniel George, says Gallucci, that Mastromarino "built with RTI and with the FDA's approval" the so-called secret room. But Cruceta says that most of his work was done in regular, non-sterile embalming rooms and that most of the funeral homes had no refrigeration. They tried to harvest within 24 hours—but how do you know? He seemed untroubled by the violation of such rules. "All these bodies, they seemed okay to me. I never saw a body that was decomposing."

What did begin to disturb Cruceta was the disregard for signs of disease. Sometimes "people were said to have died of cardiopulmonary arrest, and we'd open them up and find lesions on the bones. Obvious cancer." In those cases, he would stop, he said—just box them up and go home. But in 2004, at New York Mortuary in Harlem, "it started to happen a lot." Cruceta would arrive to find something jaundiced or malnourished, and when he called to tell the mortuary owners at their home, they would argue, without having seen the body, that it was "a good case." "I had probably about half a dozen arguments with them," Cruceta said. The worst part was that the owners would then get on the phone with Mastromarino, "tell him that I basically don't want to work"—and the boss began to believe them. The pressure to harvest debatable bodies was such that Cruceta bought a cell phone capable of taking photographs. He began appealing directly to Mastromarino, and "that kind of helped a little," he said, but the fire still had to be fed, and every corpse was a log.

In the spring of 2004, Cruceta was with Mastromarino at the AATB spring meeting in Clearwater, Florida, when Aldorasi called from the Harlem funeral home to say that Alistair Cooke was on the table. What should he do? Mastromarino's answer, according to Cruceta, was "Proceed."

If it went as most cremations did, Alistair Cooke—with his diseased heart and cancerous bones—was deboned in his arms and legs, with Aldorasi also cutting and handing to the back-table the skin from the chest and back, and maybe some heart valves and veins. The remains of the remains would have been left on the table, while choicer parts went into the freezers at headquarters. Cruceta says they had only two freezers, "so we tried to get everything out as fast as possible."

Within 48 hours, Kittredge received the "cremains" but did not learn until just before Christmas 2005 that they were rather incomplete. A detective with the Brooklyn D.A.'s office called to say there was evidence Alistair Cooke had been stolen. By any chance, was this *the* Alistair Cooke? he wanted to know. "I told him yes," Kittredge later wrote in the *Times*. "He whistled through his teeth." She hung up and "stared, slack-jawed, into space."

Mastromarino's second fall was set in motion when Nicelli sold the Daniel George, and the new owners ushered the cops into the secret room of horrors. The cops were

stunned by the hydraulic table and the trap door, by "the shocking fact that bones had been removed and replaced with crude plastic pipes." These were only the standard practices of funeral homes and tissue-banking, but they appeared so suspicious to assistant D.A. Josh Hanshaft that he kept digging until at last, sorting papers "right here at my desk," he says, he found the crime—forgery!

On top of ignoring other standards, Mastromarino's company had, it seemed, completely bypassed the hurdle of consent. In all but one of 1,077 cases, the D.A.'s office charges, they simply took without asking. Death certificates, medical-history forms, consent papers—all of it had been forged, making the dead appear willfully donated and, as Police Commissioner Ray Kelly said, "younger and healthier on paper." Thus, it was not Susan Kittredge of Vermont who gave Alistair Cooke over to the knives but a fictitious Susan Quint of the Bronx. His invigorating second death had killed him ten years younger than he was before and from a quick and merciful heart attack.

Unleashed upon the world, Cooke and the rest became, in the eyes of the D.A., public-health threat No. 1. Who knew what diseases their parts might carry or how far they might spread? Hynes stood at his press conference beside close-up photos of the exhumed and rotting dead, saying ominously, "God knows what the consequences could be."

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But the consequences were immediately clear: pure terror. Tabloids shrieking, personal-injury lawyers wailing, the stock of tissue companies falling. With more than a million tissue transplants occurring a year, and the largest number of them bone, people all over the country suddenly feared they had been installed with time bombs that at any moment might doom them. Others worried that their dearly departed had been butchered, and the general public was generally creeped out, if only from the sudden awareness of what happens to the dead behind closed doors.

Gallucci watched as the industry began "running for shelter," leaving Mastromarino out in the cold. One of Mastromarino's customers, LifeCell, claimed that its own safeguards had uncovered the scam. The FDA said that its own investigation had "revealed serious and widespread deficiencies" at Mastromarino's company, and it shut the company down. RTI realized the need to sever ties with Mastromarino and to recall tissue received from him. Even Cruceta, in his attempt to defend himself, abandoned the doctor, claiming to be just the brawn to Mastromarino's brains, an unwitting pawn in the alleged grave-robbing ring. His lawyer, Joe Tacopina, says of his client, "He's a genuinely really sweet individual" who "has been demonized because he's the guy who was cutting off the limbs."

All of this was quite hard on Mastromarino, according to Gallucci, because he was as shocked as anyone to discover the forgeries. Who could have done it? He didn't know. (Although Gallucci hints that he expects more indictments in the next few weeks.) But why, asks Gallucci, didn't the FDA, the New York State Department of Health, RTI, and the others alert the company to this problem during their annual inspections? "All of that was good, and now it's all bad?" If funeral homes are a less-than-ideal harvesting site, "then why did the FDA say you could do this in a funeral parlor?"

Gallucci's defense that others had done the forging might be more convincing if virtually all the documents had not been forged. It also doesn't help that the D.A.'s office claims to have found Mastromarino's handwriting all over them. His business was illegitimate from the start, says Hanshaft, the assistant D.A. "Whatever they say, ultimately the tissue-bank director is responsible."

But there's plenty of responsibility to go around. The temptations and hazards of harvesting from funeral homes are all rather obvious, and yet the government had allowed it there, the tissue companies had bought from there, and no one had inspected vigorously enough to catch the violations.

The FDA, the New York State Department of Health, and RTI all declined to be interviewed, but in public statements, the industry tried to allay the public's fear. The FDA said that it and the Centers for Disease Control and Prevention "believe the risks from these tissues are low." RTI held them to be practically nil.

If there was anything good in the news, says the AATB's Rigney, it was that Mastromarino's company was dealing with AATB-accredited banks, "and so the tissue was treated." Alistair Cooke's bones had been shipped to RTI, and RTI has BioCleanse, which the company claims is the only tissue-sterilization process that "eliminates viruses, bacteria, fungi and spores from tissue without compromising the structural or biomechanical properties."

Entering the "automated multi-step cleansing process," bones are vacuumed clean of all "blood, lipids and marrow." "Chemical sterilants then completely penetrate the bone ... to eliminate pathogenic organisms including HIV, hepatitis B and C ... The final step removes germicides, leaving the tissue biocompatible" and "consistently white."

Cooke and the others, emerging from that, would be nothing to fear. BioCleanse washed away the rot. It was the giant washing machine at the end of the conveyor belt that allowed people to be recycled—the dead to return to life, and the living to depend on the dead. "When implanting biologics," CEO Brian Hutchison wrote in an open letter on safety, "ultimately, the level of risk any patient faces depends on the method of processing." RTI is the only processor in operation that can claim to "eliminate the risk," he wrote. And Mastromarino was not oblivious to this. If he had worked fast and loose, it was perhaps for the same reason that RTI and the FDA

didn't notice. There was a need for tissue, and as Gallucci says, "He knows that the tissue those people have will never lead to them getting disease."

The case has yet to go to trial, but so far there have been no confirmed instances of infection from tissue harvested by Mastromarino's company. Lawsuits touting diseased plaintiffs will be difficult to prove, and, defense attorneys agreed, so will criminal charges of reckless endangerment. Mastromarino is not a killer, just a scavenger.

For as long as there has been demand for corpses, ghouls have been skulking in cemeteries. And the demand continues. Owing in part to the product recall, 2005 "was a very challenging year for RTI," Hutchison informed stockholders, but revenues for the first half of 2006 were up in the areas of spinal constructs, bone pastes, sports medicine, and general orthopedics. Slowdowns in recovery had diminished cardiovascular revenues, but "demand for these lifesaving implants remains high."

It's still too early to assess the effect of the scandal on supply, says Rigney, but the AATB is "extremely concerned." He thinks potential donors understand that "something like this has never happened before," but how he himself knows that, he can't say. In the past, he admits, inspectors have generally trusted the authenticity of consent documents, not wanting to disturb the grieving a second time to confirm. "Now that kind of verification is going to have to take place, thanks to these guys," Rigney laments.

Kittredge remains astounded that "at no point in the chain" did anyone ever make the phone call to her that would have revealed the forgeries. And she has been surprised by how disturbed the theft of her father's body has left her; she can't stop thinking about "my father with his legs cut off."

RTI tells her that Cooke's bones were not sold, but neither have they been returned, and Kittredge says she'd "like to know what they did with them."

Her only good fortune is that her father had a book posthumously published this past spring. It's nice to hear his voice again, remember him when he was whole and vital. Had he known what he was in for, "he would have been appalled," Kittredge says. "It would have given him the shivers. He would have been just horrified. At the same time, he would have appreciated the Dickensian nature of it."