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Feature Writing
The Pursuit of Excellence

Edward Jay Friedlander John Lee

Seventh Edition

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magazine in the nation's capital, won the coveted National Magazine Award for feature writing in 1990. McCabe's beautifully written article was later turned into an HBO movie that aired for the first time in 2004. And that's another plus. Good magazine articles can lead to all kinds of lucrative spin-offs.

McCabe is a freelancer from Bethesda, Maryland, who has written frequently for *The Washingtonian.* She first heard about the legendary Thomas while working on a medical story in Washington, DC. She was interviewing Dr. Judson Randolph, chief of surgery at Children's Hospital, when the doctor suggested a story about a man who had trained many of the country's top surgeons. McCabe, busy with several projects at the time, filed the information for later consideration. Months later, while at Johns Hopkins Hospital, she asked about Thomas and discovered he had died the very day Randolph first told her about him.

McCabe almost gave up on the story, but later she discovered a copy of Vivien Thomas's autobiography and the transcript of a 1967 interview. She decided to delve deeper and try a posthumous profile. She visited hospitals, talked to top surgeons and interviewed Thomas's family and co-workers. Some of her best material came from his former students, many of whom had become famous.

The McCabe piece offers many lessons for the beginning writer. Note the lead, for example. By the ease with which she sets up interviews with such famous names in medicine as Dr. Denton Cooley, the Houston heart specialist, she assures the reader that her subject is revered and highly worthwhile. This impels the reader onward.

Here, then, is McCabe's article:

NATIONAL MAGAZINE AWARD WINNER

KATIE McCABE

LIKE SOMETHING THE LORD MADE

Say his name, and the busiest heart surgeons in the world will stop and talk for an hour. Of course they have time, they say, these men who count time in seconds, who race against the clock. This is about Vivien Thomas. For Vivien they'll make time.

Dr. Denton Cooley has just come out of surgery, and he has 47 minutes between operations. "No, you don't need an appointment," his secretary is saying. "Dr. Cooley's right here. He wants to talk to you now."

Cooley suddenly is on the line from his Texas Heart Institute in Houston. In a slow Texas drawl he says he just *loves* being bothered about Vivien. And then, in 47 minutes—just about the time it takes him to do a triple bypass—he tells you about the man who taught him that kind of speed.

No, Vivien Thomas wasn't a doctor, says Cooley. He wasn't even a college graduate. He was just so smart, and so skilled, and so much his own man, that it didn't matter.

And could he operate. Even if you'd never seen surgery before, Cooley says, you could do it because Vivien made it look so simple.

Vivien Thomas and Denton Cooley both arrived at Baltimore's Johns Hopkins Hospital in 1941—Cooley to begin work on his medical degree, Thomas to run the hospital's surgical lab under Dr. Alfred Blalock. In 1941 the only other black employees at the Johns Hopkins Hospital were janitors. People stopped and stared at Thomas, flying down corridors in his white lab coat. Visitors' eyes widened at the sight of a black man running the lab. But ultimately the fact that Thomas was black didn't matter, either. What mattered was that Alfred Blalock and Vivien Thomas could do historic things together that neither could do alone.

Together they devised an operation to save "Blue Babies"—infants born with a heart defect that sends blood past their lungs—and Cooley was there, as an intern, for the first one. He remembers the tension in the operating room that November morning in 1944 as Dr. Blalock rebuilt a little girl's tiny, twisted heart.

He remembers how that baby went from blue to pink the minute Dr. Blalock removed the clamps and her arteries began to function. And he remembers where Thomas stood—on a little step stool, looking over Dr. Blalock's right shoulder, answering questions and coaching every move.

"You see," explains Cooley, "it was Vivien who had worked it all out in the lab, in the canine heart, long before Dr. Blalock did Eileen, the first Blue Baby. There were no 'cardiac experts' then. That was the beginning."

A loudspeaker summons Cooley to surgery. He says he's on his way to do a "tet case" right now. That's tetralogy of Fallot, the congenital heart defect that causes Blue Baby Syndrome. They say that Cooley does them faster than anyone, that he can make a tetralogy operation look so simple it doesn't even look like surgery. "That's what I took from Vivien," he says, "simplicity. There wasn't a false move, not a wasted motion, when he operated."

But in the medical world of the 1940s that chose and trained men like Denton Cooley, there wasn't supposed to be a place for a black man, with or without a degree. Still, Vivien Thomas made a place for himself. He was a teacher to surgeons at a time when he could not become one. He was a cardiac pioneer 30 years before Hopkins opened its doors to the first black surgical resident.

Those are the facts that Cooley has laid out, as swiftly and efficiently as he operates. And yet history argues that the Vivien Thomas story could never have happened.

In 1930, Vivien Thomas was a nineteen-year-old carpenter's apprentice with his sights set on Tennessee State College and then medical school.

But the Depression, which had halted carpentry work in Nashville, wiped out his savings and forced him to postpone college. Through a friend who worked at Vanderbilt University, Thomas learned of an opening as a laboratory assistant for a young doctor named Alfred Blalock—who was, in his friend's words, "hell to get along with." Thomas decided to take a chance, and on February 10, 1930, he walked into Blalock's animal lab.

Out came Blalock, a Coke in one hand, cigarette in the other. A remote cousin of Jefferson Davis, Blalock was in many ways a Southern aristocrat, flashing an ebony cigarette holder and smiling through clouds of smoke. But the 30-year-old surgeon who showed Thomas into his office was even then, Thomas said, "a man who knew exactly what he wanted."

Blalock saw the same quality in Thomas, who exuded a no-nonsense attitude he had absorbed from his hard-working father. The well-spoken young man who sat on the lab stool politely responding to Blalock's questions had never been in a laboratory before. Yet he was full of questions about the experiment in progress, eager to learn not just "what" but "why" and "how." Instinctively, Blalock responded to that curiosity, describing his experiment as he showed Thomas around the lab.

Face to face on two lab stools, each told the other what he needed. Thomas needed a job, he said, until he could enter college the next fall. Blalock, well into his groundbreaking work on shock—the first phase of the body's reaction to trauma—needed "someone in the lab whom I can teach to do anything I can do, and maybe do things I can't do."

Each man got more than he bargained for. Within three days, Vivien Thomas was performing almost as if he'd been born in the lab, doing arterial punctures on the laboratory dogs and measuring and administering anesthesia. Within a month, the former carpenter was setting up experiments and performing delicate and complex operations.

Blalock could see Thomas had a talent for surgery and a keen intellect, but he was not to see the full measure of the man he'd hired until the day Thomas made his first mistake.

"Something went wrong," Thomas later wrote in his autobiography. "I no longer recall what, but I made some error. Dr. Blalock sounded off like a child throwing a temper tantrum. The profanity he used would have made the proverbial sailor proud of him. . . . I told him he could just pay me off . . . that I had not been brought up to take or use that kind of language. . . . He apologized, saying he had lost his temper, that he would watch his language, and he asked me to go back to work."

From that day on, said Thomas, "neither one of us ever hesitated to tell the other, in a straightforward, man-to-man manner, what he thought or how he felt. . . . In retrospect, I think that incident set the stage for what I consider our mutual respect throughout the years."

For 34 years they were a remarkable combination: Blalock the scientist, asking the questions; Thomas the pragmatist, figuring out the simplest way to get the answers. At their black-topped workbench and eight animal operating tables, the two set out to disprove all the old explanations about shock, amassing evidence that connected it to a decrease in blood volume and fluid loss outside the vascular bed.

In a few years, the explanations Blalock was developing would lead to massive applications of blood and plasma transfusion in the treatment of shock. Methodically, from their lab at "that school down in the backwoods"—as Blalock called Vanderbilt—he and Thomas were altering physiology.

All that was inside the laboratory. Outside loomed the Depression. In a world where "men were walking the streets looking for jobs that didn't exist," Thomas watched his own college and medical-school plans evaporate. "I was out of school for the second year," he wrote, "but I somehow felt that things might change in my favor. . . . But it didn't happen." With each passing month, Thomas's hopes dimmed, something not lost on Blalock. The two men discussed it, and Thomas finally decided that even if he someday could afford college, medical school now seemed out of reach. By 1932, Thomas had made his peace. "For the time being," he said, "I felt secure in that, at least, I had a job. Things were getting to the point that it seemed to be a matter of survival."

But the young man who read chemistry and physiology textbooks by day and monitored experiments by night was doing more than surviving. For

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$12 a week, with no overtime pay for sixteen-hour days and no prospect of advancement or recognition, another man might have survived. Thomas excelled.

Coached by Blalock's young research fellow, Dr. Joseph Beard, Thomas mastered anatomy and physiology, and he plunged into Blalock's round-the-clock research. At 5 P.M., when everyone else was leaving, Thomas and "The Professor" prepared to work on into the night—Thomas setting up the treasured Van Slyke machine used to measure blood oxygen, Blalock starting the siphon on the ten-gallon charred keg of whiskey he kept hidden in the laboratory storeroom during Prohibition. Then, as they settled down to monitor all-night shock experiments, Blalock and Thomas would relax with a whiskey-and-Coke.

Blalock and Thomas knew the social codes and traditions of the Old South. They understood the line between life inside the lab, where they could drink together in 1930, and life outside, where they could not. Neither one was to cross that line. Thomas attended Blalock's parties as a bartender, moonlighting for extra income. In 1960 when Blalock celebrated his 60th birthday at Baltimore's Southern Hotel, Thomas was not present.

Within the lab, they functioned almost as a single mind, as Thomas's deft hands turned Blalock's ideas into elegant and detailed experiments. In the verbal shorthand they developed, Thomas learned to translate Blalock's "I wonder what would happen if" into step-by-step scientific protocols. Through hundreds of experiments, Blalock wondered and Thomas found out, until in 1933 Blalock was ready to challenge the medical establishment with his first "named lecture."

Almost overnight, Blalock's shock theory became "more or less Gospel," as Thomas put it. By 1935, a handful of other scientists had begun to rethink the physiology of shock, but no one besides Blalock had attacked the problem from so many angles. No one else had compiled such a mass of data on hemorrhagic and traumatic shock. No one else had been able to explain such a complex phenomenon so simply. And no other scientist had a Vivien Thomas.

In his four years with Blalock, Thomas had assumed the role of a senior research fellow, with neither a PhD nor an MD. But as a black man doing highly technical research, he had never really fit into the system—a reality that became painfully clear when in a salary discussion with a black coworker, Thomas discovered that Vanderbilt classified him as a janitor.

He was careful but firm when he approached Blalock on the issue: "I told Dr. Blalock . . . that for the type of work I was doing, I felt I should be . . . put on the pay scale of a technician, which I was pretty sure was higher than janitor pay."

Blalock promised to investigate. After that, "nothing more was ever said about the matter," Thomas recalled. When several paydays later Thomas and his coworker received salary increases, neither knew whether he had been reclassified as a technician or just given more money because Blalock demanded it.

In the world in which Thomas had grown up, confrontation could be dangerous for a black man. Vivien's older brother, Harold, had been a school teacher in Nashville. He had sued the Nashville Board of Education, alleging salary discrimination based on race. With the help of an NAACP lawyer named Thurgood Marshall, Harold Thomas had won his suit. But he lost his job. So Vivien had learned the art of avoiding trouble. He recalled: "Had there been an organized complaint by the Negroes performing technical duties, there was a good chance that all kinds of excuses would have been offered to avoid giving us technicians' pay and that leaders of the movement or action would have been summarily fired."

Thomas had family obligations to consider, too. In December 1933, after a whirlwind courtship, he had married a young woman from Macon, Georgia, named Clara Flanders. Their first child, Olga Fay, was born the following year, and a second daughter, Theodosia, would arrive in 1938.

The satisfaction of making a public racial statement was a luxury Thomas would not have for decades, and even then he would make his point quietly. Meanwhile, he worked hard, making himself indispensable to Blalock, and in so doing he gained a powerful ally within the system. When they confronted discrimination again, they confronted it together.

The test of their partnership was not long in coming. In 1937, Blalock received an offer of a

prestigious chairmanship from Henry Ford Hospital in Detroit. As surgeon-in-chief there, he could run his own department, train his own men, expand his research.

He and Thomas were a package deal, Blalock told the powers at Henry Ford. In that case, the answer came back, there would be no deal. The hospital's policy against hiring blacks was inflexible. So was his policy on Vivien Thomas, Blalock politely replied.

The two bided their time, teaching themselves vascular surgery in experiments in which they attempted to produce pulmonary hypertension in dogs. The hypertension studies, as such, "were a flop," Thomas said. But they were one of the most productive flops in medical history.

By 1940, Blalock's research had put him head and shoulders above any young surgeon in America. When the call came to return to his alma mater, Johns Hopkins, as surgeon-in-chief, he was able to make a deal on his own terms, and it included Thomas. "I want you to go with me to Baltimore," Blalock told Thomas just before Christmas 1940. Thomas, always his own man, replied, "I will consider it."

Though Blalock would take a pay cut, the move to Hopkins offered him prestige and independence. For the 29-year-old Thomas and his family, it meant leaving the home they had built in Nashville for a strange city and an uncertain future.

In the end, it was World War II that caused Thomas to "take his chances" with Blalock. If he were drafted, it would be to his advantage to be at Hopkins, Thomas decided, because he would probably be placed with a medical unit. Always the family man, he was thinking practically. So Blalock, with everything to gain, and Thomas, with "nothing to lose," as he put it, made their move together.

When they came to Hopkins, they brought with them solutions to the problems of shock that would save many wounded soldiers in World War II. They brought expertise in vascular surgery that would change medicine. And they brought five dogs, whose rebuilt hearts held the answer to a question no one yet had asked.

When Blalock and Thomas arrived in Baltimore in 1941, the questions on most people's minds had nothing to do with cardiac surgery. How on earth was this boyish professor of surgery going to run a department, they wondered. With his simple questions and his Georgia drawl, Blalock didn't sound much like the golden boy described in his letters of reference. Besides, he had brought a *colored man* up from Vanderbilt to run his lab. A colored man who wasn't even a *doctor.*

Thomas had doubts of his own as he walked down Hopkins's dimly lit corridors, eyed the peeling green paint and bare concrete floors, and breathed in the odors of the ancient, unventilated structure that was to be his workplace: the Old Hunterian Laboratory. One look inside the instrument cabinet told him that he was in the surgical Dark Ages.

It was enough to make him want to head back to Nashville and take up his carpenter's tools again. After a day of house-hunting in Baltimore, he thought he might have to. Baltimore was more expensive than either he or Blalock had imagined. Even with a 20 percent increase over his Vanderbilt salary, Thomas found it "almost impossible to get along." Something would have to be done, he told Blalock.

Blalock had negotiated both of their salaries from Nashville, and now the deal could not be renegotiated. It seemed that they were stuck. "Perhaps you could discuss the problem with your wife," Blalock suggested. "Maybe she could get a job to help out."

Thomas bristled. His father was a builder who had supported a family of seven. He meant to do at least as well for his own family. "I intend for my wife to take care of our children," he told Blalock, "and I think I have the capability to let her do so—except I may have the wrong job."

If neither Hopkins nor Thomas would bend, Blalock would have to find another way to solve the problem. Blalock was not wealthy, but he had an ally at Hopkins, world-renowned neurosurgeon Dr. Walter Dandy, who was known for his generosity. That afternoon Blalock presented his situation to Dandy, who responded immediately with a donation to the department—earmarked for Thomas's salary.

So Thomas ordered his surgical supplies, cleaned and painted the lab, put on his white coat, and settled down to work. On his first walk from the lab to Blalock's office in the hospital across campus, the Negro man in a lab coat halted traffic. The hospital had segregated restrooms and a back entrance for black patients. Vivien Thomas surprised Johns Hopkins.

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Inside the lab, it was his skill that raised eyebrows. What he was doing was entirely new to the two other Hopkins lab technicians, who were expected just to set up experiments for the medical investigators to carry out. How long had he been doing this, they wanted to know. How and where had he learned?

Then, one morning in 1943, while Johns Hopkins and Vivien Thomas were still getting used to each other, someone asked a question that would change surgical history.

For this part of the story, we have Thomas's own voice on tape—deep, rich, and full of soft accents. In an extensive 1967 interview with medical historian Dr. Peter Olch, we meet the warm, wry Vivien Thomas who remains hidden behind the formal, scientific prose of his autobiography. He tells the Blue Baby story so matter-of-factly that you forget he's outlining the beginning of cardiac surgery.

For once, it wasn't Blalock who asked the question that started it all. It was Dr. Helen Taussig, a Hopkins cardiologist, who came to Blalock and Thomas looking for help for the cyanotic babies she was seeing. At birth these babies became weak and "blue," and sooner or later all died. Surely there had to be a way to "change the pipes around" to bring more blood to their lungs, Taussig said.

There was silence. "The Professor and I just looked at each other. We knew we had the answer in the Vanderbilt work," Thomas says, referring to the operation he and Blalock had worked out at Vanderbilt some six years earlier—the "failed" experiment in which they had divided a major artery and sewn it into the pulmonary artery that supplied the lungs. The procedure had not produced the hypertension model they had sought, but it had rerouted the arterial blood into the lungs. It might be the solution for Taussig's Blue Babies.

But "might" wasn't good enough. Thomas first would have to reproduce tetralogy of Fallot in the canine heart before the effectiveness of their "pipe-changing" could be tested.

Off he went to the Pathology Museum, with its collection of congenitally defective hearts. For days, he went over the specimens—tiny hearts so deformed they didn't even look like hearts. So complex was the four-part anomaly of Fallot's tetralogy that Thomas thought it possible to reproduce only two of the defects, at most. "Nobody had fooled around with the heart before," he says, "so we had no idea what trouble we might get into. I asked The Professor whether we couldn't find an easier problem to work on. He told me, 'Vivien, all the easy things have been done.'"

Taussig's question was asked in 1943, and for more than a year it consumed Blalock and Thomas, both by then working in the Army's shock research program. Alone in the lab, Thomas set about replicating the Blue Baby defect in dogs and answering two questions: Would the Vanderbilt procedure relieve cyanosis? Would babies survive it?

As he was working out the final details in the dog lab, a frail, cyanotic baby named Eileen Saxon lay in an oxygen tent in the infant ward at Johns Hopkins Hospital. Even at rest, the nine-pound girl's skin was deeply blue, her lips and nail beds purple. Blalock surprised Eileen's parents and his chief resident, Dr. William Longmire, with his bedside announcement: He was going to perform an operation to bring more blood to Eileen's lungs.

Overnight, the tetralogy operation moved from the lab to the operating room. Because there were no needles small enough to join the infant's arteries, Thomas chopped off needles from the lab, held them steady with a clothespin at the eye end, and honed new points with an emery block. Suture silk for human arteries didn't exist, so they made do with the silk Thomas had used in the lab—as well as the lab's clamps, forceps, and right-angle nerve hook.

So complete was the transfer from lab to operating room on the morning of November 29, 1944, that only Thomas was missing when Eileen Saxon was wheeled into surgery. "I don't think I'll go," he had said to chemistry technician Clara Belle Puryear the previous afternoon. "I might make Dr. Blalock nervous—or even worse, he might make me nervous!"

But Blalock wanted Thomas there—not watching from the gallery or standing next to the chief resident, Dr. William Longmire, or the intern, Dr. Denton Cooley, or next to Dr. Taussig at the foot of the operating table. Blalock insisted Thomas stand at his elbow, on a step stool where he could see what Blalock was doing. After all, Thomas had done the procedure dozens of times; Blalock only once, as Vivien's assistant.