

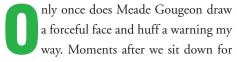
These historical profiles in CF's series to celebrate pioneers in the composites industry and the record of their accomplishments go beyond chronological documentation to explore personalities and examine the cultural and personal circumstances that nurtured these industry leaders and set the conditions for their success.

Wood, Wind, Ice, Speed:

By Andrew Rusnak

The Opportunities of

Meade Gougeon



breakfast, he makes it known, "I've surrounded myself with good people, so if I have a talent it's finding and recognizing talent."

Behind the generous provision and measured game face, I calculate Gougeon's passion for people and tough realism for success.

"Therefore, most of my success must be credited to others," he inserts with a pause, to make sure I get it.

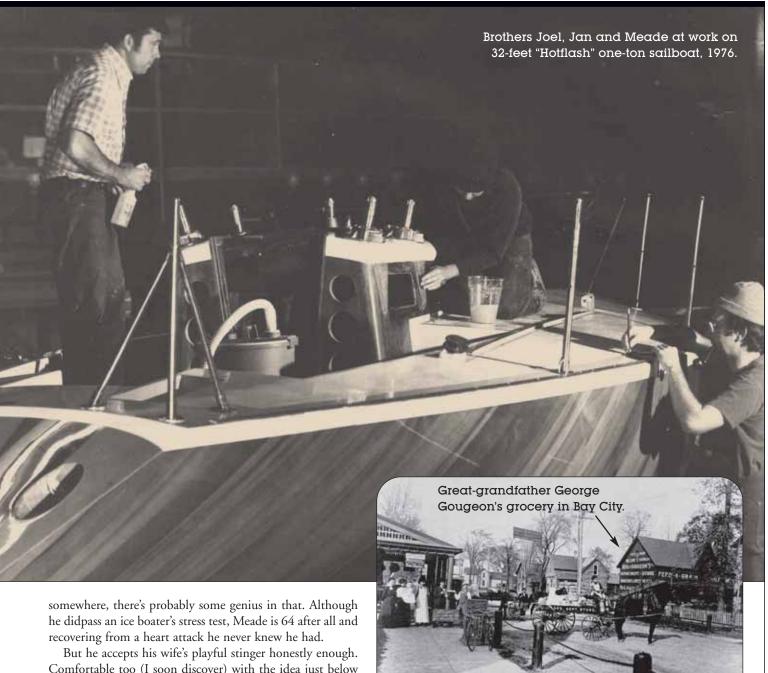
A piney reach of coastal wetland that gives up its pioneers in vintage fashion, Bay City, Michigan at 7:30 on a January morning is muffled in darkness, ice, and the wind-chilled red brick hints of life here 140 years ago. Emerson's legacy of self reliance still mixes with the daily fabric, right down to the banal expressions of a waitress or the small town way two men shake hands. But no entrepreneur is, or can be, an island.

"And my wife will tell you I'm no genius," Gougeon throws in with a chuckle and enough self-deprecating vigor to take the edge off.

I study the tired features of a man who fevers to tear across the ice at 70 mph in a boat that looks like a moon pod with a "postage stamp" of a sail and think,







Comfortable too (I soon discover) with the idea just below the surface that, through all the analytical finesse, through all the weary numbers side of the business falling to him over the years, mechanical ingenuity can punch a hole at any moment. It won't always translate into money or celebrity, but it may cause him to mark his read—anything from a salty Patrick O'Brian novel to the Frontier Metropolis: Picturing Early Detroit, 1701-1838—and hustle out to the shop to innovate the rig on a new sail canoe.

This is Hugh Horton, he's the guru of modern sailing canoes," Gougeon would introduce me later. "Hugh's also a writer and has written magazine articles on the subject."

Several days hence, in an email, Horton puts me right: Meade's legacy will eventually include the patron saint of same

boats. Because of his commissioning of Serendipity, more info about the whole genre of 50/50 sailor/paddlers has been spread in the last three years, than in the last hundred. It's not what he added in design to the boats, it's his adding credibility to the genre and to me. My updating the 1880s concept with current design and materials has been barely noticed. [But] he's responsible for the articles in mainstream sailing magazines... [and] ...when someone of his impact throughout the industry strongly advocates something, people listen. (See February '02 Sail magazine.)

For a good chunk of my day at Gougeon Brothers, I'll sort and work backward through the many compliments

Gougeon proffers others, study his disarming humility and sometimes covert but otherwise magnanimous desire to create and balance the perceptions of those who look into his world, and the good people he's posted who make it theirs as well. Their faces show he's one of them; empathetic, inventive, able to hold on vicariously to that which binds them. Hugh Horton is the guru of modern decked sailing canoes, and Meade Gougeon's humility is infectious.

hristmas Eve, 1955, a wintry white postcard at the Gougeon residence, a plump, well-lit cottage built by lumberman in the 1880s next to the Wenona Amusement Park on the shores of Saginaw Bay, paradise for any restless 17-year old who spent hours under the hood of a car.

Like many his age, Meade Gougeon had a fix on his future—auto mechanics classes in high school and,

upon graduating, elevate his part-time status from lot boy in his father's car business. It's not hard to divine the connections: the manna of gasoline in the humid air and weak-long grease smudges on the skin; adolescent hormones and the flash of a '55 Chevy Bel Air rolling down Main Street; a beloved father and the over arced neurons of the blissful son who worshipped him. It's the glamorous post-war 50s, 140 miles north of Motor City, Bill Haley rocks around the clock, Bettie Page pin-ups cover garage walls, and backyard gear head culture is headed for American icon status. The big picture suffers relative peace and prosperity, if not a little restlessness.

"My approach to life then was you needed a trade, a skill," Gougeon says. "I wanted to fix cars, and we had a great vocational high school. I had a driver's license and my own car when I was 14, a '29 Plymouth Roadster, the first zooty car Chrysler ever built. It had a Dodge truck rear end and I must've put five different engines in it."



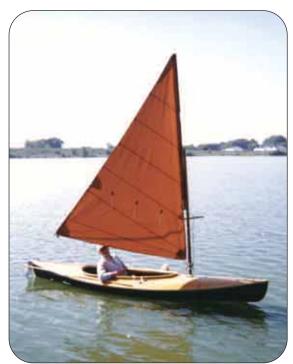
Meade and future wife Janet in the '29 Plymouth Roadster.

Meade and then girlfriend Janet, circa mid-50s, sit in a black convertible roadster, white-wall tires, chrome half-moon hubs, what the bald guy in the white T-shirt pinching the fat cigar on TV would call a "heap." Meade's shoulders are hunched in a loose button shirt as he points the roadster down a dirt road on Michigan's coastal flats. It's a time of innocence, a jazzed aura flows through the couple, his crew cut, her tied-back blond hair, both their smiles. They are happy, Meade is trying on the testosterone, his arm around Janet. The car is their place, their comfort zone, nest, place to rendezvous the future, a cheeseburger and a life. It could all fit snugly between the pages of the Saturday Evening Post. Gougeon quickly throws up a finger and points to the old framed photo when we browse through his office later that day, turns and walks over to his desk, leaves me to absorb it all—Does the boy behind the wheel of the hot rod still exist? Meade's sister Pam had set them up, Janet and Meade, his

> sister Pam who died of Ovarian cancer eight years ago. Boats, cars, boats, cars, two vacillating themes in the history of this Gougeon family narrative.

One of the great happenings in Meade's life was when his father, Meade W, arranged a sneak preview of the '49 Ford. The night before 10,000 people marched down to the local Paul K. Ritter dealership in Bay City, Meade Warren Gougeon, the service manager at the time, worked it out so his son got a peek at one of the great classics in America car history. "They brought it in under secrecy, no one knew what it looked like," he remembers, still excited. "It was a breakthrough car for Ford."

In 1946, not long after the war, which he spent in Lansing fixing alternators and genera-



First day with Serendipity in 1999. Meade was taken with Horton's sail canoes.



Latest protoype sail, #5, on Serendipity.

tors, military exempt work, Meade W purchased the summer cottage on Saginaw Bay and turned it into a year-round residence for his family. Adjustment to local factory life at Presto Light proved ropy, so he took a job as a service manager for Ritter and, after gaining sales experience with used cars, opened a used car dealership with his brother Joe known as Gougeon Brothers. By '55, oldest son Meade, born in Bay City in 1938, loved cars, loved his "very technically capable" father. "Everybody was nuts about cars back then," he recalls, testing his enthusiasm. "It's like people today being nuts about computers. Any red-blooded guy couldn't wait to get his hands on a car. I mean for a while it was cars and girls you know, in that order."

That Christmas Eve, the banks of Saginaw Bay, heavy water, suffocated by wind, searching for the comfort of rigor mortic ice. Rime, stuck in the corners of picture frame windows, grated by passing blusters. Warm and hollow on the inside, the stiff yellow light of the 50s coagulating on blameless white cottage walls, the approaching holiday, Meade home alone with his father. Brothers Jan and Joel, and sister Pamela out with mom putting the final touches on a Christmas holiday.

Even now after more than 46 years, he doesn't like to talk about it. The jolt of his father's sudden death catapulted Gougeon into manhood. Past his father's refusals and denials that evening, Meade knew something was wrong. He ran next door to Mr. Kaufman's for help. Together, they managed to get Meade's father into the Buick and rush him to the hospital. But it was too late. Meade Warren Gougeon died of a heart attack at 41.

As he sits across from me, later that day in the old boathouse, stroking Sawdust, the grateful lap cat rescued from a city dumpster, he still wears this pain on a weathered face that reminds me of an atavistic avuncular man who might demonstrate something like edible wild mushroom preparation in a "How to Survive the Northern Woods" manual written in the 1930s, frumpy fedora pulled low against the late-day sun, flannel shirt, bone-handled pocket knife. Throughout the day, names of great-great grandfathers to uncles come easily, but a father's first name, even when it's the same, I have to call back for. "Everybody liked my father," Meade says. "He had a very high trust quotient, but like many of that generation, he had a two-tothree pack a day cigarette habit. And when the war was over, when meat was no longer rationed, we had steaks almost every night."

Life got much harder for the Gougeons after that Christmas Eve.

fter lamenting the recent disappearance of bagels and lox on the Bay City, Holiday Inn breakfast menu, Meade orders two poached eggs, wheat toast, grapefruit half, coffee. We've talked for almost 20 minutes. He first sat down with the kind of subdued nervousness a competitor might engage before the start of a big race. "That's fair," he claims after asking me to give up some of my history first. Then, we talk wood and French out migration, and come back to spreading the wealth, always "we" who did this or that, never "I". He gently pushes an idea that this article should focus on the mechanics of Gougeon Brothers and not on the man who found and recognized the talent to build it. It's not enough to hide the warm, methodical, gentlemanly nature that slowly rises before me. Almost to a fault, he tows a humble line like so many composites industry pioneers who worship rivalrous, stamped-in-America, entrepreneurship. But wherein lies the root of opportunity? Outside the Self? Inside? A combination of both? A confluence of the physical—the select raw material and natural elements that have always been here, the wood, wind, ice, glue-and the mind that instincts everything together in a different way for the first time for a time ready for them to go faster than ever before?

Beginnings were 80 hour work weeks, "for a buck-and-a-half an hour."

In October of 1967, Meade returned to Bay City for the first time in ten years. For the previous 18 months, he gallivanted up and down the East Coast in a vintage, teal, six-cylinder Chevy Suburban he called home. Behind the Suburban he dragged a 25-ft. Class C racing trimaran, Omega, which he entered into regattas—1967, the first Pontiac Firebird rolled out of Detroit, "Cool Hand Luke" played in theaters, Carl Yastrzemski won a Triple Crown, and Sgt. Pepper floated brain salads through the heads of long-hairs. Gougeon caught wind, epiphany, and the counter-culture's free spirit train to Me-ville.

"I had \$5000 in the bank in '66," he said. "I told myself, 'Meade, if you're ever going to see the world, play around a little, now's the time.' I'd worked my butt off in college, and then I worked my butt off for this company [Wickes Corporation's US Graphite Division], so for the next year-and-a-half I became a sailing bum."

It wasn't all "Cheeseburgers in Paradise" however. Once he pulled into the driveway of George Patterson, a well-known designer of Class C catamarans, and told him he'd work for food. "All part-time work," Gougeon remembers, "but I wanted to learn from anyone who knew how to build strong lightweight structures, high-tech versions, that included boat builders as well as glider manufacturers for example. The fiberglass revolution was just starting, epoxies were being used too, and this experience was crucial to starting our own business."

When the trip was over and Gougeon, now 29, returned to Bay City, certain "forces started to present themselves." Alongside the romantic pull of childhood memories, he'd assimilated blue-collar codes, tested work-to-survive experiences, and revived stories of entrepreneurs from the family archives—chance ingredients that would bond fate to the years ahead. There also was the search for a "little honey," the need to plant roots and settle down. Janet and Meade picked up where they left off, got married, started a family that eventually included the birth of three children, and the adoption of seven.

About the same time, Meade landed a job with US Gypsum, and he and younger brother Jan hatched plans to start a boat business. The two had built Omega while living in Erie where Meade worked for Wickes. Jan had gone to live with his older brother and serve out his senior year in high school before starting an apprenticeship with wooden boat builder Vic Carpenter in Canada, the same Vic Carpenter who introduced the Gougeons to epoxy in 1958 when it was first used in the pattern making industry as a replacement for resorcinols to bond wood block patterns. After the two built a small fab shop in Bay City, Jan's draft number came up and he went to Vietnam to serve in a construction battalion while Meade used the shop at night to build another class C trimaran (the Victor T), and several DN ice boats.

"And then an opportunity came up with a relative, Ben Huskins who owned a big boat works established in 1922," Gougeon

remembers. "He built Rudy Choy-designed catamarans, up to 58-feet long. So I started working for him, Jan too when he came home on an early out. Ben was the youngest guy in the shop at 72, all the rest were older, master boat builders, screw and glue types. But we'd been experimenting with epoxies, using glass and modern materials."

During the day, the Gougeon brothers worked for Huskins. They wrangled with the old timers, gained valuable experience and built things the old fashioned way. At night and on weekends, totally seduced by the emerging potential of epoxy technology, they built iceboats. By the end of '69, they were ready to go full tilt into their own business. A picture of the future started to form—"Gougeon Brothers, Boat Works, Bay City Michigan, Wood Wise and Epoxy Ready." It was a tough sell, as fiberglass and polyester resin cut production times and costs, and started its run as the industry's materials of choice. Not to mention it was impossible to get a business loan because no one saw a future for wood. And the first WEST SYSTEMTM in a can that left the shop for sale cost five times more than polyester. But what they did with iceboats, wood elements bonded together with no fasteners, metal-to-wood bonds that solved major structural problems, was truly revolutionary.

Supported on the corners, a 24-inch by 24-inch test panel constructed of two composite face sheets bonded to core material—referred to as a sandwich and designed to simulate a boat hull—is placed under a load cell and on top of a bladder containing five gallons of water. Pressure is applied that causes the panel to flex, then, after it is pulled from the test fixture, it's examined for fatigue. To make hulls as light and strong as possible, the boat designer's raison d'etre. Should foam or balsa wood core be used, for example?

"This is the most fun job in the company, the place I'd want to work," Gougeon tells me after we step into the Engineering Test Lab of Gougeon Brothers and he introduces me to Chief Test Engineer, Bill Bertelsen, inventor of the hydromat panel test system. Just over a cold, Bertelsen, a medium-sized man with a studious face and a head for abstractions, runs me through the meticulous contributions Gougeon Brothers made to the history of mechanical testing. When Meade's brother Jan determined a specific weight of 0.8 pounds per foot-squared for the 32-foot catamaran he designed in 1990, Bertelson revived a shelved hydromat project to compare various sandwich compositions in a risky square-foot weight class—all for ever increasing, measured in inches of deflection, stiffness, strength, and durability. Now the hydromat is certified by the American Society for Testing and Materials.

Around the test lab, many panels are bonded with wood core, and it reminds me, at breakfast that morning, Gougeon could not tell the story of his life without telling the story of his ancestors without telling the story of Bay City and the Saginaw Valley without telling the story of wood in the Wolverine State. Wood, as in virgin, straight-grained, blue needled, white pine conifers, some expanding to sixfeet in diameter and reaching 250-feet of mystical resonance in midto late 19th century old growth forests—a tale now left to the enchantment of horse-drawn sleds, shanty boys, frozen rivers, lumber barons, the axe, mills, and cross-cut saws. At some point in his life, Gougeon was compelled to add context and traced his genealogy all the way back to France. Branches on the family tree connected social and cultural history to date-of-birth, subjects of equal fascination and significance to Gougeon's sense of place and how he lives his life. Michigan's powerful lumber industry is a story he knows well, gets

excited about telling, inflections rise not only because it stirred fortuity and provided impetus for great-great grandfather Pierre to pack up his wife Natalie and son George and move to Bay City from Ste. Scholastique, a little town outside Montreal to Bay City 134 years ago, but wood, to Meade Gougeon, is somewhat divine in its biology, its ability to be economically engineered to the whims of survival and sport, its pristine beauty, epoxy-sealed and finished off as the beautiful, feminine-lined hull of a boat.

And why not? A man with an axe, that would've been him, more Bunyan than baron, if he'd lived back then. I think he wishes he had, romantic noble savage notion popular with anthropologists, up at 4:30am, lumberjack, sub-zero temps, a breakfast of bread, potatoes, beans, pork, cut down huge trees with an axe, then again into 16-foot logs, transported by horse-drawn sled, through the woods on an ice trail, the sled stacked 20-feet high, only two horses, to the banks of a frozen river, where, in spring, with the thaw and the run-off, the timber cutter turned log driver, all for \$20 to \$26 a cold month, floats the harvest to the mouth of the river and into the booms of saw mills where logs were cut into planks. Later, small gauge rails laid deep into the forest, and big-wheeled carts, logs chained beneath the axle, allowed for year-round cutting.

"In 1890 or so, Michigan produced about five-and-a-half billion board feet," Gougeon starts his tale at breakfast. "They were cutting down trees in proportions never seen before or since. It all started in a very slow pattern, but once they established the shipping system, from the sawmills they shipped lumber to Chicago, Buffalo, Cleveland, Toledo. All these cities were built with lumber from Saginaw. On an economic scale, more money came out of here in one year than in the entire California Gold Rush."

The Chippewa, Tittabawassee, Cass, Bad, Shiawassee, and Flint rivers all converge to make up the Saginaw River that empties into Lake Huron. Between 1840 and 1860, Saginaw Valley led the state in lumbering, and Bay City came to be known as the "lumber capital of the world." But by the mid-1880s, stumps, branches, twigs, a barren empty wind, formed a desolate landscape.

"They totally dismantled an entire white pine forest in this state, they stripped it of trees," Gougeon laments with cool acceptance. I pick-up on fortitude, utility, obstinacy, strong hands and mind that don't easily give up, and I remember reading about the mill hands in Bay City, who in 1885, held out longer than their wood-cutting brothers in surrounding areas during a strike, to no real avail. Then there's tree biology, Gougeon refers to many times during the course of the day, the sublime and numinous tree, how "cedars, redwoods, evergreens have low density woods, spend all their energy growing vertically to be strong as they support the biggest beam," and "oaks, a high density wood, called a squat tree, grows more like a bush, bigger limbs, stronger tension and compression," and comparing the density and weight of wood to water — the complexity of trees, even the mythic immortality of evergreens, a patient metaphor for life, cut down and brought home in building boats that sail a long long time. "We really had to challenge the wood fiber, whether it's compression or tension, the best joint can only transfer about 25-percent of wood's capability ... so we did nothing more than bond entire structures. But more importantly, we got into epoxy resin, a very tight molecular structure, very resistant to the passage of moisture. When properly formulated and applied, we found we could stabilize wood, keep the moisture out, keep it from expanding and contracting. The tree, in its natural environment, moisture content changes from summer to winter.

It's like the moisture content in your body. Once you cut a tree down, it dries out, may undergo lots of moisture changes in a short period of time depending on the weather. And if the humidity goes up and down, that's how wood gets old, it's very hydroscopic. But wood never fails interlaminar, nature gives wood a wonderful sheer mechanism."

From NASA reference publication 1236, Structural Properties of Laminated Douglas Fir/Epoxy Composite Material, a book Gougeon helped write: "The demise of wood as a serious engineering material was both unfortunate and premature. With the help of modern technology most of the problems with wood can be solved in a practical manner."

We leave Bertelsen's area, through a door and into an environmental test area, a place where cut wood samples undergo weathering and a quiet torture to test coatings and their resistance to "moisture uptake," says resident expert Chris Maples. In one room, called "environmental huts" about the size of a moderate closet, Gougeon tells me conditions represent those of the Pacific Northwest, a cool 60 degrees Fahrenheit (F) and 80-90 percent relative humidity (RH). When he opens the next 'hot-humid hut' door, the 100 degrees F and 100 percent RH slither into the raw Michigan air like a hooded cobra on the prowl. In an adjacent chamber, the 'hot-dry hut,' conditions simulate those of the American Southwest, a dry desert of 100 degree temps and only 20 percent RH. Three by six inch plywood samples hang from the ceilings of these huts, sometimes rotated from one extreme to the other so the wood expands and contracts, like heavy breathing, as if wood has a gasp reflex, then evaluated for "Moisture Exclusion Effectiveness, or MEE," as Maples refers to the Forest product Laboratory-developed test.

A key word search on the internet reveals 21,238 sites that reference "lumber industry in Michigan." When you think about it, the history of the tree is a sad one, some species hunted almost to extinction. Where's the balance between needing homes, paper, baseball bats, medicines, rocking chairs and ice boats, and needing carbon dioxide, apples, the aesthetic majesty of old growth, coastal red woods, 2800 ton sequoias, aspen forests, and 4700 year-old bristlecone pines? In 1970, Gougeon Brothers helped revive a dying wooden boat industry with epoxy resin when most manufacturers turned to FRP. And when, in 1979, the Department of Energy, NASA, and General Electric paraded around a 200 million dollar budget for developing wind blade technology, Gougeon Brothers





Log jam on the Huron River

out engineered proponents of aluminum, steel, fiberglass, and steel reinforced concrete with wood epoxy technology, eventually supplying 4,000 blades to western wind farms before unloading the business in 1993.

Meade says he's "not in love with any material, [that] the influencing theme is epoxy resin technology." But, there's the seed, an autonomous pre-planned universe the size of a pebble so easily squashed into the hard ground by a hunting boot, by chance, instead, a myriad of variables come together and it grows into WEST SYSTEMTM, known all over the world. And Meade Gougeon? He walks erect like a tree, sits like a tree, speaks sometimes with long wavy swimmer's arms, watches quietly with tranquil knowledge over everything. There's much ado about wood, tree as knowledge, wisdom, oracle.

hen his father died, Meade became confused about his station and future. Bay City was predominantly a working man's town, head-to-hand mechanical coordination the best way to get ahead, to build or fix something useful that immediately made folk's lives better. As he closed out his last year at T.L. Handy High, Meade was approached by David Ellico, a guidance counselor at the school.

"You aren't challenging yourself enough," Ellicle told him straight out. "There's much more you can do with your life than become an auto mechanic."

At a school were maybe only ten percent of the senior student population even thought about college, Gougeon did not take any college prep classes. But he did sit for a battery of tests similar to today's SATs.

"I found I was very mechanically inclined, but also had aptitude for social sciences." And he could swim. Just the kind of kid Western Michigan University looked for. Along with three other T.L Handy grads, Meade, a self-admitted "second tier" swimmer, flutter kicked his way to a scholarship and a degree in Business Administration/Industrial Management. Aside from a great uncle who was a priest, it was the first Gougeon higher education sheepskin to hang on a Bay City wall.

Pierre Gougeon ended up having 16 children. Huge families were tradition with French Catholics, is why Meade likes to point out that the five million or so French now residing in the Michigan area, descended from the approximately 50,000 'out migrants' of the 17th century, represents one of the tightest gene pools in the world.

"Now, how do I come in?" he puts the question with pride during breakfast, after the lumber boon treatise. It was 1868 when Pierre, a blacksmith, sought new opportunity in the burgeoning Michigan lumber industry. In an Internet archive, there's a photo of a French mustachioed, lumber camp blacksmith that could be Pierre—looks like a Pierre anyway, dark whiskers dash to a waxed point under a long thin nose, legs set apart to balance a straight peen hammer in one hand and what looks like a fuller in the other, both resting on a log-supported anvil that probably goes 200 plus pounds. High arching brows frame the man's proud wide-eyed expression as it shoots past the camera. "He worked for other blacksmiths until he got his own shop," Meade says. "Typically, every camp had its own blacksmith. They made saws, axes, hammers, rails for sleds, axles for wheels, everything was made on the spot."

Pierre's first child, George, Meade's great grandfather, claimed

first true entrepreneur in the family honors, a somewhat aberrant distinction considering the barons of the lumber industry were English and Scotch Presbyterian, and not the uneducated French Catholic of the time who were looked down upon and tended to cloister amongst themselves. "Most couldn't read or write, and only a few could speak English," says Gougeon.

Early each morning, during the seasonal months when the schooners and smaller sail craft hauled their catch of pike, herring, walleye, sturgeon and white fish back to Bay City, 12- year old George Gougeon stood on the docks and waited, probably clanked the gallon pails together he carried in each hand as he searched through the mist of Saginaw Bay and Lake Huron. When they reached port, fishermen sorted the catch, what was sellable from what was not. Many undersized fish, six-, seven-, eight-inches, were discarded, these were for George, who would fill his buckets, run home, put his younger brothers and sisters to task with a cleaning knife, and then, by four in the afternoon, start knocking on doors with fresh fish to sell. By 19 he had a grocery store. He married Emma Boston of the famous Boston family of Detroit shipbuilders and the couple had 14 children of which he forbade any to speak French. "We're Americans now," he told them, including Joel Gougeon, Meade's grandfather, who fell somewhere in the middle. Meade is want to point out George lived a hundred years (1860 - 1960), in sharp contrast to his father's early death—it's clear by his daily swim routine, low-fat diet, and occupied look when he tells the stories of his ancestry, that quality of life, not to mention his ten children, is about probing that precarious balance between risk and longevity. As if George could've squeezed more out of fate, Meade ponders aloud that his great-grandfather's cause of death was some quirky vitamin deficiency.

Joel and two brothers started auto dealerships-Plymouths, Chryslers, Willys, Overlands and Reos—eventually built up a bank account worth \$200,000, only to see it decimated by 1933 and the Great Depression. "He died a broken man in '45," Gougeon woefully recounts of his grandfather, a man who at one time afforded an unheard of three pews at the neighborhood parish. "He had a lot full of brand new cars and went belly-up."

fter breakfast we walk out to Meade's '99 Honda minivan. The distant northern sun brushes heavy 45-degree streaks on everything, the quiet streets of a small town, the red DN iceboat hull strapped to the roof over the minivan, and the high degree of anticipation floating in the air. The scene is reminiscent of any 17-year old southern California surfer who lashes his board to the roof of a beat-up sedan and goes for the pier at Huntington. Meade is still that kid, but it's ice he tracks, not waves.

As Meade tells me about a book he's reading on the history of the Dutch windmill and how the Danes used wind power to automate the first saw mill in the 1600s, I notice the back of the minivan is cluttered with rigging gear. The push is on, Gougeon's competitiveness, uncommon compassion, sense of history, and business sense rush to the fore. Classical music pipes through the radio, neat and clean, as we drive through the old part of town, past turn-ofthe-century French town homes with wrap around porches, to the factory. Meade points out the corner where his great grandfather's grocery stood, now a "Brydon's Electronic." Before we reach Gougeon Brothers and "epoxy headquarters," he's talking just-intime inventory strategies and 40 to 50 ingredients for special epoxy systems. It all changed gradually, in the early-to-mid 70s, 60-70 complete iceboats a year, scores of separate parts like masts, planks, Photos courtesy of Michigan Historical Center Library and Muskegon Public Museum.



River Rafts on the Titabawassee River.



Cleared forest

hulls, and in January, iceboat production gave way to custom boat orders. "We were building these summer sailboats that were way better and way lighter than anything out there," Meade mused.

One day, Dow Chemical Salesman Carl DeBord, a part-time sailor, sauntered into Gougeon Brothers and started to poke around. Curious over the semi-clear, viscous liquid being applied to wooden components of iceboats, when he heard the resounding "epoxy" response from Meade and Jan, it jogged his memory. "I think we make that stuff," he contemplated aloud, and, after checking back at the plant, returned to Gougeon Brothers several days later to proudly proclaim, "I can help you with that."

"At that time," Meade recalls, "the tin can industry was the big driver of epoxy resins. It's still probably the biggest user, then comes circuit boards and under coatings for paints. Adhesives today are still a small part of the spectrum. What happens is a big formulator will focus on an area they understand well, and serve that industry. Our problems revolved around assembling metals, fiberglass, and wood, so started formulating epoxy resin for our own use."

Gougeon became a bench chemist, expert in hardeners and fillers, concocted and tested his own formulations for various applications, got into some early trouble for giving what was as yet unproven advice. But by 1971, market potential was promising enough to start canning and writing applications manuals for WEST SYSTEMTM customers. Brother Joel Gougeon, returned from Vietnam where he flew 124 F-4 Phantom combat missions, and threw into the pot the funds needed to give the business a healthy start. Slow and hokey at first, Meade remembers, but word travels fast in small industries and "almost overnight," at least by '73, WEST SYSTEM™ became the focal point of Gougeon Brothers. Joel dedicated most of his time there until 1975 when he left to pursue a career in state politics. The iceboat business sold that same year to Joe Norton, a Wisconsin boat builder, who worked it successfully until his retirement in 1999. Meanwhile, Meade learned windmills.

rench Canadian Clarence DeLong had gone steam boating for the first time on the Great Lakes when he was 15. Career choices on the Upper Peninsula in the early 1900s were slim—mines, lumber, or steamboats. By the time he turned 33, the now steam engineer made chief, one of the youngest ever. DeLong retired in 1956, but wielded enough influence to land his grandson Meade Gougeon a summer position as a coal passer.

"His big dream for me was to go out steam boating like he'd done," Gougeon says of his grandfather on his mother's side. "I loved the water, but what it really did was make it easier for me to study in college."

Most of the boats had been converted to stokers. Meade ended up on one of the remaining hand-fired old freighters which had to be fed three-quarter ton of coal an hour into it's eight door Scotch boiler.

"Normally, there were three sets of coal passers and they worked shifts of four on, eight off. Since they couldn't get any help, we had to go six and six, seven days a week, all summer long. Over 40 hours I made time-and-a-half, and on Sundays double time. I made \$2800 that summer, which in today's money is close to \$10,000."

But Meade saw how his grandfather worked, gone from home nine months out of every year, and although the money was good, he packed up a case, said goodbye to grandfather DeLong, and headed for college in the fall of '56 determined to wrap his callused hands around a pencil instead of a shovel. The learning experience, however, "with a complex piece of machinery I made great efforts to understand because I knew my grandfather was going to question me," proved invaluable. Cultivating his conscience, the summer of Jack Londonesque labor, steady to the marrow, threw a layer of confidence over the nagging prompt of his father's death and no high school preparation for advanced study. Although he degreed in industrial management, a timely blend of pragmatism and romance, he turned to history and the humanities for answers and guidance. Biographies are some of his favorite reads today, in between pushing up his shirtsleeves to plane and fair a mast. "I got to thinking about my statement, 'engineer to the bone,'" Hugh Horton told me, as if Gougeon had paid a penalty over the years for being too resourceful. "It's true, I think, but those bones are arranged in the skeleton



Blacksmith during the burgeoning Michigan lumber industry.



Meade and Phil Weld on first trial sail of 60' tri "Rogue Wave," biggest boat built by G.B.I., 1977.

of a boat builder. Remember, it was the search for material with which to repair fiberglass boats that led him to epoxy. He's a boat builder with strong engineering aptitude who got pushed into the office because Jan and Joel *had* to be in the shop."

Summer jobs during college were a simple fact of life for Meade. After his freshman year he worked for the Southerland Paper Co. in Kalamazoo as a paper chaser, scampering up and down pits three-tofour blocks long to keep the paper aligned when it was diverted to fix a roll. Upon graduating from Western Michigan, he went to work for Wickes Corporation as an industrial salesman, door-to-door, on-theroad, pushing around the Mid West in a Chevy sedan, peddling carbon bearings and seals, carbon electrodes, and brushes for electric motors. He enjoyed life on the road, post-war America, everyone was driving somewhere. As far west as the Rockies, south to Houston, east to the Mississippi, he encountered a diverse array of companies with manifold business philosophies. Long hours behind the wheel gave him time to compare his virtually self-employed, master-of-hisown-destiny existence to the careers of classmates he'd stayed in touch with, classmates who found themselves riding desk jockey jobs with big firms—too much bureaucracy, too much "corporate schmuck." Successful, accruing a fat bachelor's bank account, the entrepreneurial seed that'd been planted washing cars on his father's lot, running concessions at the Wenona Amusement Park, listening to stories of his great-grandfather going door-to-door selling throw-away fish, was now being watered by the Wickes experience.

But before it inevitably grew into the self-determination to start a business, Uncle Sam threatened to knock on the door, wave the American flag. Early 60s, princely President Jack Kennedy lived in a palace in the east called Camelot and, in late November of '61, young college grad Meade Gougeon joined the National Guard.

"I was going to get drafted anyway," he remembers, "so I joined the Guard and they sent me to clerk school at Ft. Leonard, Missouri. By the second week, they pulled me out to teach English to new recruits. It was never my strong subject, but I enjoyed it so much I thought about becoming a teacher. In fact, I was too successful. They pitched this Army Administration School to poor kids, and told them they'd make executives out of them. They counted on me

flunking half the class, but even during my best weeks, I only failed 20 percent. The recruiters ended up being the guilty party."

round 11 O' clock, after our tour of the shop, Meade unlocks the door to the boathouse and is surprised no one is there. Sawdust trots out of hiding, arches his back and tucks his neck against Meade's off-white dress slacks.

Flanked along the drowsy winter current of the Saginaw River, the boathouse looks and smells of history. Not big picture

history necessarily, although there is some of that, a line of dates and accomplishments. This is the site of the same historic Huskins Boat Yard. But personal history, a place where men come to work, sell their souls to swift functional hydrodynamic designs, hand tools, dust, drawings, and the freedom to flirt with wind, water, ice, all in a different circular kind of time.

Meade fills Sawdust's bowl with food and we sit at a table in a corner of the shop designated as the kitchen. Before we can resume our conversation, Sawdust is up on the table with a lusty eye for Gougeon's lap.

"Was there a competing interest back then, when you were a kid, between boats and cars?" I ask.

"Boats we started early, but there were no boats after the war. You couldn't buy one. I built my first boat when I was 10. Jan and Joel came along and we built boats until I was about 15 or 16, then it became all cars."

Sawdust forgoes my attempts to scratch-aneck-and-make-a-friend, navigates the piles of magazines that clutter the table, and crouches toward the familiar comfort of Meade's crossed legs.

"What kind of boat did you build when you were ten?"

"Oh it was just a little skiff, kind of a hydroplane, out of a four-by-eight sheet of plywood. That's all it was really. Then I got a motor, a seven-and-a-half horsepower Mercury. I only weighed a hundred pounds then, but that little skiff was the fastest thing around. It was all powerboats then, sailboats hadn't entered the picture yet, although my father had a sailboat."



Meade and Jan in Boatshop, 1987.

We chat for 20 minutes when in walks a man with long hair and a beard, 50-ish, overalls, with quizzical searching eyes.

"This is Hugh Horton," Meade says. "He's the guru ..." ready as ever to push a compliment. During the tour of the shop, he mentioned to employees several times that I was there to write a piece on the plant, trying to deflect attention from himself.

Meade and Hugh launch into a discussion on how to transport Serendipity, Horton's sailing canoe, over to a nautical heritage exhibit sponsored by the Midland Center for the Arts. Sawdust is in cat heaven. As it turns out, Horton will load Serendipity onto Meade's minivan, and Meade will drop me at the airport in Horton's brand new Dakota truck. Gougeon covers a sneaky grin. Horton pulls a blueberry muffin out of a bag and Meade calls it a fat pill.

"Hey, I brought some turkey chili," is Hugh's reply.

"Ohhh," says Meade, obviously seduced.
"And some left over roasted vegetables."

"Ohhhhhh," longer and louder. "Are you hungry?" Gougeon turns to me.

"Sure."

"Well, we have some other ingredients here," he nods toward some cabinets full of canned goods. "We could rustle up some chow. Or run off to some restaurant."

'Restaurant' has a flair of irony.

"Are you willing to risk the local cuisine?" Meade pushes with a short laugh.

I dare not disagree. My hope is we're headed somewhere good.

Hugh gets the nod and sets to work

throwing lunch together. (I learn later that it's usually Meade who dons the apron and wields the spatula.) By the time soup is up, we're joined by Jan Gougeon and Chic Burda, a retired Dow Corning Failure Analysis Engineer. We gather around the table like bunkhouse hands in an old Western. There's something about boathouse stew that feeds personal historyhand tools, dust, drawings, chunks of organic Amish sausage, chunks of time. To eat this way almost becomes the same as to sand, bond, cure, shape to the boathead it all tastes

the same, but better and better.

The small history of hours and days leads nowhere but to the big picture of moments. Before and after boathouse lunches, it was here that the 1975 Canada's Cup Regatta winner Golden Dazy was built, along with Slingshot, a George Thomas-designed 60foot proa that recorded the second fastest World Speed Trial time in 1979. A Gougeon-fabricated Olympic class Tornado catamaran won a silver medal in the '76 Olympics. Patient Lady, a C-Class catamaran won the 1977 Little America's Cup and in 1987 a formula 40 trimaran, the Adrenalin, took a close second in the Formula 40 Grand Prix circuit in Brest, France. Adagio, the first complete WEST SYSTEMTM boat, a 35-foot trimaran, was built three blocks away in 1969, the site of Meade and Jan's first shop. Wood and epoxy. Meade Gougeon had come a long way since the 14foot sunfish class and a 24-foot trimaran, the first epoxy boats he built part-time in Kansas City while starting a career with Wickes.

To watch him carefully and heartily put away Mr. and Mrs. Hugh Horton's leftovers, it's easy to claim Meade is fit, svelte. But it's hard to spot the secret cache of energy that sends him screaming across the ice at 70 mph. Jan's smaller compact frame, on the other hand, stores gusto close to the surface. He seems always ready to go. Brother on brother, both have won national DN ice boat championships; Jan eight times and Meade once in 1998 at 60 years of age. DN stands for *Detroit News*. In the mid-to-late 30s, Scottish Master Ship Builder Archie Arroll

took over the News' hobby shop (the top floor of the paper's garage), after building a model yacht for one of Publisher W.E. Scripps' children. With ice boaters Joseph Lodge and Norman Jarriat, he built the precursor to the modern DN, the Blue Streak 60, before conducting fabrication classes for area weekend adventurers searching for inexpensive, Depression-era fun and escape. The sport took off, the latest and fastest mutation of a 4,000-year history of ice boating. Today, the "front steerer" DN class is the largest in the world, with 2000 registered sailors (evenly split from both sides of the Atlantic). Dimensions are standard: 60 square feet of sail area; 12 feet in length; 21 inches of hull width; 16 foot masts; three runner planks at eight feet; a hull that must be made of wood; the entire assembled rig not to exceed 100-150 pounds. Sounds a little like kids building gocarts—part of the car-top phenomenon: surfboards, skis, canoes, kayaks, catamarans, iceboats. When I look up the posted rankings for the International DN Ice Yacht Racing Association (IDNIYRA represents 17 countries), in 1999, Mead Gougeon (US 882) is ranked first and Jan Gougeon (US 1183) is ranked fifth. In the 2001 rankings, they swap places. Jan, a four-time world champion, even won a regatta in remote Novosibirsk, Russia, an invitation-only event that required on-site modification of crude iceboats thrown together by bored, former Soviet military personnel.

Perhaps the instinct for speed flashes like lightening behind the curtain of Meade's curious, ballasted eyes. Or, maybe it's spring-loaded somewhere between his modesty, his apprehensive endorsement of personal attention, and an overwhelming desire to compete, not only against others, but against himself, against mortality. Wherever it hides, you can hear it in his words. Rather than grope for the unutterable, touchy sides of the self, Gougeon, like many of the engineering persuasion, uses words to tool cause-and-effect intrigues of the physical world. Excitement rises in direct proportion to making it lighter, stronger, easier to build (usually out of wood), which all adds up to making it faster. " ... [W]e were iceboaters who were fascinated with the capability of iceboats to tack downwind at up to five times wind speed, achieve 50 mph boat speed in 10 mph winds," he said. Then again, he understood that sometimes in life, there is no wind. What else could you expect from a man who, when he got married, traded his "highly prized Bultaco woods bike" for a washing machine?

hat same non-grin, the one that shows up behind the eyes, settles on the empty Michigan back road as Meade winds out the RPMs in Horton's new truck. We're headed for the airport and he is that boy sneaking a spin in his father's Porsche after passing his driver's test, *any red blooded guy*.

We pass a bank and the digital thermometer reads 50 degrees Fahrenheit, a bit unheard of for January in Michigan, but good ice boating weather according to Meade who can squeeze out a few extra miles-per-hour on a slick thin melt layer—also the man who stalks detail in the cosmic forest. The hard-spun look of a blacksmith, the rough-kneaded Michigan coast, "Mother Gougeon" and her brood of 10, board member for a half-dozen schools, foundations, chambers, all makes me wonder when exactly Meade placed his life, family and state history under the microscope and the nano-fiber weave of identity came into view. "After his heart attack, he assured me he was even more interested in furthering their development," says Horton of the sail canoes. Wood, wind, glue, ice, speed, open water, fate, all share space in Gougeon's blood as they race toward his heart. But despite the "boy man" when he's racing, and the "man boy" when he's running a business, despite Meade W's early death, there's an age-old paternal instinct that



Still seeking opportunities.

competes, a need for perpetuation, a desire for someone down the line to point to a photograph and say, "that's my great grandfather Meade, him and his brothers started Gougeon Brothers and raced ice boats." "If MG had his druthers throughout a good day," Horton continues by email, "I'd say he'd prioritize his time in this order: sailing, pleasant exercise, reading, family and building stuff, biz and schmooze."

As we toy with the truck on the way to the airport, the conversation falls to children. "Do you have any?" Meade asks. "No." Then he tells me they can be a burden, but counters with the story of Mia. Mia came to the Gougeons from Korea when she was five. For the first few months she hoarded food in her room, just as she'd learned at the orphanage. After six months, she presented herself and pronounced in broken English, "Me stay here. I no go back to Korea. Me stay here." It brought tears to Mr. and Mrs. Gougeon. Mia is now a junior at Michigan State pursuing a degree in Sociology with a focus in foreign adoption.

I fly back to Detroit, organize my thoughts, sort influences on Gougeon's life, and play with the shape of the story to come. The next day, while touring the auto show, I think of a question and put in a call to Meade. It's another errant, warm day in Michigan. When I learn he's ice boating, it brings to mind a comment he made about attending high school class reunions. "I'm surprised to see the success of those I didn't expect to be successful, and surprised as well at those I thought would succeed but didn't. It's not that they're not bright, it's that they lacked opportunity."

Ice, wind, speed, tall trees, Meade Gougeon, the susurrant escape that is opportunity.

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