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PROLOGUE

An Inauspicious Beginning

I am a carpenter. I build things.

I didn't set out to become a carpenter. The trade found me by chance. After leaving high school for the last time, I was offered work in Cambridge's Central Square fixing up the newly acquired townhouse of a classmate's parents. Repairs in my childhood home were done by someone called Dad, and anyone who could help was expected to.

As a child, it never occurred to me, outside of Sunday school, that anyone had an occupation called carpenter. But given a chance at the work, I took to it immediately; I was handy, unafraid of grimy labor, and took pride in the job title I hadn't earned yet.

There was a time in my career when I would lie about my work experience. At thirty, I would say that I had been a carpenter, a cabinetmaker, or whatever I was calling myself that day for more than fifteen

hoped to steal some old-timer credibility. Of course, the math didn't add up, but no one was checking IDs, and even back then, carpenters with the ten years of experience I actually had weren't so easy to come by.

There's no need to lie anymore; it really has been forty years. I still love building. I always have; that's how I've managed to keep at it for so long. Every day, I find it technically, interpersonally, and at times physically and psychologically challenging. In the past, I would lie awake nights wishing that I'd get to build a home so splendid that it rivaled the great mansions of the Gilded Age, or so space-age modern the Jetsons would be jealous. As the years came and went, those wishes and many more came true.

Most of the places I have built in the last thirty years are so opulent or sleek that they resemble the homes I've inhabited in name only. They are to shelter what the Taj Mahal is to tombstones. The cleverest of New York's design community know full well that the biggest commissions are to be had at the point where sumptuousness and singularity collide. I have had more than one client who has openly reveled in the thought that they were the only person alive who would possess the room in which they stood. The most extravagant places I've built have an unreality to them, even for me. Thinking back, I marvel that I was even allowed through the door.

I've never had a baby, but I've seen it done a few times, and I've heard it said that if women could remember the effort and pain of childbirth the species would die out; no one would ever do *that* twice by choice.

Everyone loves a good baby picture; they're cute when they're cleaned up and quiet. Likewise, everyone loves a good interior design photo spread—the perfect details, the wonderfully rich materials, the light playing off every surface just so—all cleaned

up for the camera. I can never look at pictures of fancy New York apartments in the envious oohing-and-aahing way. I know all too well that everything, in every shot, was unloaded from a truck on the street, maybe in the rain or snow, wedged into a freight elevator, and painstakingly modified onsite to fit seamlessly into a dust-choked, crooked space ten times the size of anything I have ever called home, with neighbors on all sides who are practiced at complaining loudly, even litigiously, that the noisemaking oafs next door should be silenced, or better yet, imprisoned.

Every glossy interior design magazine is a baby album to someone like me. I am proud of all those pictures, I look back at the best of them from time to time and reminisce, but the serenity these too-pretty pictures project always strikes me as absurd, given the chaos that brought them into being. Where are the grime-covered workers, the 110-degree days, the clients' screaming fits, the injuries, the career-ending errors?

For the most part, all we see of the world is its reflective surface. From my window in Long Island City, I often watch Manhattan's skyline make its passage from sharp-edged morning to glowing, blending dusk. I can see a few of the buildings I've worked in and picture the finished apartments. There is little difference between my high-rise middle-income flat and those exclusive towers. The materials that go into their making are identical: structural concrete and steel, plate glass windows in aluminum frames, metal studs with drywall finishes, wood composite doors, and whatever smatterings of hardware, fixtures, and appliances make the place usable. Lights, stoves, doorknobs, and air conditioners fulfill exactly the same functions in fancy apartments as they do in mine, the latter ten times as much.

The architectural elements of each place are likewise the same; they're just more artfully arranged in a high-end home. The real difference between my apartment and the apartments I build for a living is in their surfaces. Surface makes the show. It's all anyone sees. But the illusion is millimeters thin and can be dispelled with a scratch. The precious wood in fancy millwork these days is rarely more than a sixteenth of an inch thick. Behind that, it's either chewed-up scraps from the mill or the same pedestrian poplar that lines so many small-town streets. The most expensive handmade ceramic tiles are nothing more than a seductive glaze drizzled over refined baked dirt.

In a well-executed renovation, an enormous amount of planning and labor goes into getting every inch of those surfaces just right. I've never had a customer who cares a whit about the systems or the materials that are behind those veneers as long as they keep functioning.

People are willing to pay unthinkable sums for these places because the illusion works. Looking at a photograph of well-coiffed, superbly dressed people in lavishly composed surroundings, few of us can escape envy's grasp. Our entire social order can be measured by envy's accumulated gaze. In this country, and throughout much of the world, we are taught from birth to elevate, emulate, and fairly drool over the richest among us. People bandy about other notions of success—accomplishment, talent, intelligence, wisdom, beauty, and determination—but it is the accumulation of wealth and its trappings that trump all pretenders in the public imagination. My chosen industry, and the enormous publishing machine that drives it, devotes itself entirely to the care and feeding of this myth.

Four decades of building have been an unusual education. My colleagues and I spend almost all of our days behind the

surfaces others see. We see everything: the dusty, rubbed skeletons of century-old Park Avenue “prewars”; the dank basements with their shuffling, stooped denizens; the subcontracting crews composed entirely of men whose countries have been overrun by horror; the designers whose sole task is to run up the tab; the harassed housemaids with their hair falling out in clumps; the dressing room drawers stuffed with Adderall and more Ritalin than any precocious prepubescent boy could ever ingest. It has been a long, low education, built with a thousand such stones. Over time, these stones have circled me completely, and finally, envy can no longer enter.

It is beneath the surface that most of life is found. In every carving Michelangelo made, you can see the bones and tendons pressing through the stretching flesh. He dissected cadavers with the same meticulousness with which he cut to the psyche’s quick. His discoveries emanate from beneath his polished marbles’ surfaces. Every devoted hunter knows that hanging one’s kill for weeks and butchering it oneself makes all the difference at the barbecue. If all a person knows is the pretty pictures, the manicured lawns, and the served meals of life, they could miss a lot.

Those of us who build the homes you see in a magazine finish many a day covered in grease and dirt and blood. All the world’s advertisers and tin-pot electronic barkers can shout themselves hoarse about the glamour and satisfaction of unbounded accumulation; it can’t penetrate our dark armor. We’ve seen too far behind the veneer. A private palazzo might boost your confidence when the dinner guests swoon, but it can’t make your children love you.

I don’t think everyone needs to devote themselves to manual labor or a craft, but I firmly believe that most of life passes us by

when we avoid mucking about in dirt, or dough, or dark thoughts. Doing anything from beginning to end brings understanding that no finished product can provide. Thirty years ago, I couldn't have said such things; I didn't feel I had much to say at all. Now, at nearly sixty, there are a few things I've learned that I'd like to share.

I do feel compelled to say: This book is not for people who think they want to become fancy carpenters. This book is for people who are interested in doing anything well, hopefully something that *they* want to do, not their parents, nor their teachers, nor anyone else who wears the disapproving scowl of "authority."

I would be the last to say that mastery is an easy road. I won't even use the word "master" in regard to myself, and I get ruffled when others try. It's best to acknowledge that in any endeavor, falling short is the rule. Every serious effort is met with resistance, often from unexpected quarters. Who could have predicted that Newton's third law could include events as divergent as losing my last five hundred dollars to a subway pick-pocket or having to drive myself to the emergency room to have my wrist sewn back together after nearly severing my left hand with a chain saw?

The laws of this world are not forgiving or supportive; they are concerned with the survival of DNA, not with your fulfillment or mine. But I contend that people are capable of doing a lot more of what they want with their lives than they are led to believe.

The very person who mistook academia as my way was the first to illustrate to me how much an individual can achieve if they really want something unique from life and are willing to put in the work to get it. She is ever an inspiration to me, so I will share her story.

My mother is a physician; she *started* medical school when my three siblings and I were of primary school age. It was the late sixties in Pittsburgh. She had to keep us kids a secret at school to escape being branded as delusional.

No one would have predicted the path she chose. By 1956, she had graduated from Cornell University with a degree in botany, one of the few sciences that welcomed women, and was on her way to New York City with my father, where he was to study divinity. While he followed his lofty pursuits, she studied textiles at Teachers College, Columbia University. My brother joined them in their dormitory room in 1958, occupying the lowest drawer of their dresser, as floor space was scarce.

My father passed his exams in a subject about which no living human has any actual knowledge, and they drove across the country so that he could fill his first post as the chaplain of Oregon State Hospital, celebrated in *One Flew Over the Cuckoo's Nest* for its mistreatment of the mentally ill.

Half a year later, my older sister arrived. As life's demands accumulated, my mother informed my father that she was not prepared to spend hers as a preacher's wife.

In 1960, a preacher without a preacher's wife was like a shepherd without a collie. Who was going to do all the actual work? To my father's credit, he took the news to heart and abandoned his burgeoning career. They loaded their secondhand VW microbus and began another slow drive across the country, this time landing in Lafayette, Indiana.

My father pursued a PhD in sociology at Purdue University, a field that at the time appeared to offer a front row seat to society's rapid changes. I didn't want to miss them, so I was born. Eighteen months later, my younger sister arrived to rebalance

the brood. With my father's new PhD secured, we all packed up again and moved to Pittsburgh, where he had been offered an assistant professorship.

As was the custom of the era, my mother stayed at home, charged with making family life work while my father found his feet in teaching. Day-to-day life was frugal; I was ten years old before I wore a pair of trousers that were bought for me. By the same age, I had seen two movies in a theater, and I could count on one hand the number of times I had eaten in a restaurant. But my parents were clever; they took advantage of every educational, medical, and recreational perk the University of Pittsburgh had to offer. By arranging lodging in the just-livable second story of a tumbledown barn set beside an Adirondack lake, they even managed ten long summer vacations. This was my childhood Eden.

A dark broad room above the barn became my mother's studio. It was here that she spent her daytime hours sewing the year's *au courant* additions to her wardrobe. Each sewing season began with a trip to Mrs. Macro's in Tupper Lake. Helen Macro had no rational business doing so, but she would travel to New York each year and bring back that city's most fabulous fabrics—tulle, Ultrasuede, velvet, linen, silk—the best of them, in the bold weaves and prints that the era had proclaimed chic. In Mrs. Macro's basement, in Tupper Lake, in Franklin County, the poorest county in New York State, in plain sight, witchcraft was afoot.

There were, perhaps, five skinny aisles stretching the width of her cellar. At nine, I couldn't walk the length of one without brushing against and breathing in the bolts and swatches perched everywhere. My mother would carry off a dozen yards or so after each visit without leaving any noticeable dent in the inventory.

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Only looking back can I surmise from all this that Helen Macro's basement was the underground somatic hub of a vast hidden creative network that to this day has left barely a trace, but whose influential tentacles reach as deeply into our social fabric as my mother's generation of feminists was able to make them penetrate.

A single photograph is the only proof I have of this theory, but it is compelling. Assembled on the hillock of lawn in front of my childhood home, my siblings and I fall off stepwise to my mother's left. Her rosebushes lend the background an elegant air. She is wearing a simple, perfectly fitted, linen A-line shift dress accessorized by a medical school graduation gown. It is the same dress that the summer before she had cut, stitched, zippered, collared, and fit at the oversized table in the room we children never played in, above the creaky old barn.

That day, we had been the only family of six to attend Pitt's medical school commencement ceremony. My mother was the only mother onstage. In 1966, with four children under the age of nine, she had been admitted to the University of Pittsburgh School of Medicine, one year *before* they were successfully sued for holding female applicants to higher standards than males. She graduated at the top of her class. Throughout her school years, I can only recall a handful of evenings when we didn't sit down as a family to eat the dinner she had cooked for us.

We assembled on the lawn shortly after we got home from her ceremony.

This is a photograph of my mother's first day of freedom. It was taken by my father, though he likely still regrets it.

Fifth Avenue fathers of the bride are badgered into spending small fortunes in an attempt to purchase the ersatz version of the metamorphic majesty my mother displayed that day. Anyone who can see deeper

ety page knows full well it can't be had for hire; real pride is only for those who have earned it.

Happiest day of a girl's life, indeed.

What I do these days bears little resemblance to what I did forty years ago. Only about a quarter of my time is spent in my workshop making things. It's not for lack of opportunities; people propose things all the time that they think I would like to make for them. After gluing up a thousand or so cabinets with every imaginable style of door, becoming proficient at the relatively small number of joints that woodwork requires, and picking up enough metal, plastics, glass, and mechanical knowledge to build most things one could find in an elegant home, I am finally able to pick and choose the projects that are interesting—which usually means challenging—to me. I have had to admit that I am not really the solitary craftsman type. I miss the jumbled, sometimes aggravating chaos of the jobsite when I work alone in the shop too long.

Most days I'm out in the field unraveling the contradictory and poorly conceived instructions builders get from architects and engineers these days. Owners pay me directly for this service, which seems odd, even to me, because they have just paid their design team for the same service. A day or two with the drawings they have in hand is enough for me to provide my clients with some six-figure reasons why it might be prudent to hire me to intervene. Contractors are contractually obliged to build what is shown in the drawings. If they don't do as they are told, they can be sued out of existence. Thankfully, I am not a contractor. I am hired by nervous owners to clean up messes that haven't happened yet. My method is to assume that every

document I'm handed is riddled with errors, omissions, oversights, and insufficient information. Doing as I am told would mean building thousands of flaws into every project in which I'm involved. The thought never enters my mind.

I have never been good at rules. I am terrible at recognizing authority. Somehow, after all these years of applying myself to my trade, I have turned these central character flaws into a lucrative and entertaining business model.

Let me take you to my current jobsite—it's a fine example of how this model works.

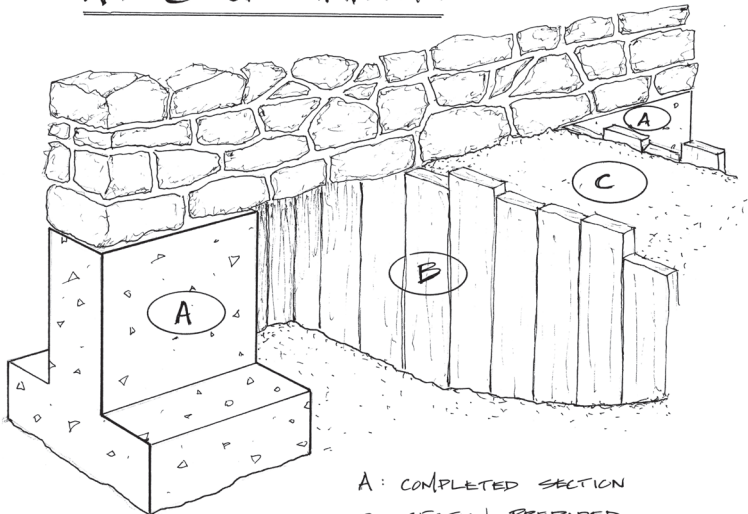
Presently, my colleagues and I find ourselves in a pair of side-by-side wooden townhouses built about 180 years ago in Brooklyn. They have low ceilings, rubble foundations, no insulation, crumbling finishes, and a fair share of asbestos, mold, and rot. The first time I walked through them, I could feel the oppressive gloom that living there would surely bring on. If I owned them, I would pray for their collapse. The Landmarks Preservation Commission finds them charming, so we are required to preserve their structures and restore the exterior finishes to the state depicted in a few photographs from the early 1900s, photos that show clear evidence of at least one layer of extensive stylistic reworkings. These houses are to historical gems what yard sale paintings are to fine art, but appreciation is in the eye of the beholder. With certain authorities, there is no circumvention. We will "save" the wretched things.

The plans indicate that we are to dig three feet deeper into the basements to make them habitable. This can't be done without extending the foundations by the same amount. Our engineers proposed that we should use a technique called "A-B-C underpinning." I've underpinned several projects over the years. It goes like this:

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- Three-foot-wide approach trenches are dug *by hand* from the inside of the basement toward and under the existing foundation. The trenches are spaced six feet apart and are dug around the entire perimeter to whatever depth the foundation is being extended downward. Wooden planks are installed on the trenches' sides to keep them from collapsing as work progresses.
- Concrete and reinforcing steel are placed beneath the existing foundation to the required depth and thickness, and allowed to cure.
- Once the concrete has reached sufficient hardness, the wooden planks are removed and the process begins again by *hand digging* the next complete series of three-foot trenches, reinforcing them with planks, and pouring new concrete beneath those sections of foundation.
- Repeat once more and you're all done!

A · B · C UNDERPINNING



A: COMPLETED SECTION

B: SECTION PREPARED

C: TRENCH AND SOIL

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A-B-C. It sounds like a child could do it. Most children these days haven't done much digging, but I can assure you that performing this process, in hot weather or cold, borders on the inhumane. Even for adults, it is painfully slow, grueling, and wildly expensive work.

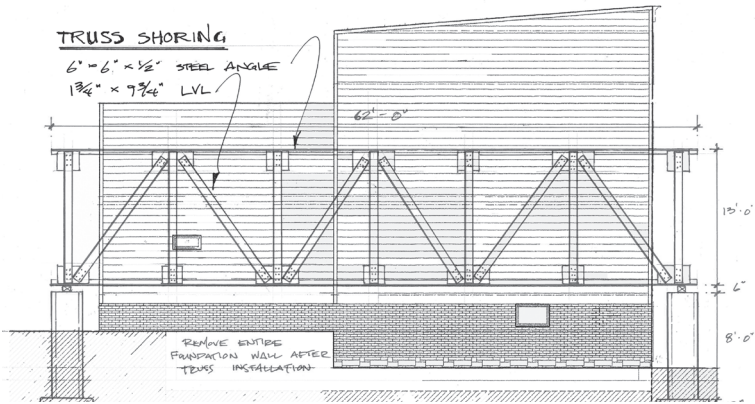
This already unpleasant plan graduated to untenable on the first day I visited the houses. Rubble foundations are exactly what they sound like, a pile of inconsistently shaped rocks tossed in a heap with a slather of mortar between them, mortar mixed in the days when underground cementitious slurries had a useful life of a few decades at best. I could grab any stone in the place and pull it out with my bare hands. It doesn't take an engineering degree to imagine what will happen when a three-foot-wide trench is dug beneath a loosely assembled pile of rocks.

We needed another plan.

I often don't have a ready solution for problems of this magnitude. Huge sums of money can be involved; egos get easily bruised; workers' safety is at risk; everyone needs assurance that the new plan is markedly better than the old one. I generally give myself a week or two to empty my head of ideas and mull.

I'm hard-pressed to explain how it happens, but over time, by carrying around a problem with me everywhere I go, not really thinking too directly on it, an answer will usually come to me. Sometimes it's a good one.

This idea came almost fully formed. I printed out a few copies of the architects' drawings of the outside walls of the house and set myself to sketching. In about an hour I had a comprehensible drawing of the longest wall of the project over which I had superimposed an enormous truss supported on each end by two piers located about four feet beyond each end of the building.



I put the drawing in a folder and brought it to the next design meeting. It took a little explaining.

“It’s a truss, like in a bridge. It’s strong enough to support the whole side of the building! The ends will sit on temporary piers. That way, we can demolish an entire wall of the existing foundation, dig with machines, and pour a proper monolithic foundation. Then, we take the whole thing apart and work our way around the house doing the same thing until we have a new solid foundation. We’ll use it on the longest walls first and cut it down to fit the shorter walls as we go. It will give us a much sturdier result and take half the time.”

Looks of incredulity spread quickly around the table. I’m used to this sort of response, so I continued, “The materials will be practically free; we can reuse the steel angles to support the perimeter walls while we replace the house’s crooked old joists with the same engineered ones we’ll use to make the truss. We’ll send the steel back for recycling and the LVLs become part of the new building, like Mike Mulligan’s steam shovel.” Nobody knew what that was. “The kind where the one where the old

steam shovel digs the foundation so fast it forgets to leave a way out. They turn it into a boiler and it lives a new life keeping the building warm. It's transformational." People who know me usually start ignoring me when I talk like this.

It took a bit more coaxing, but after a few meetings with my favorite structural engineer that resulted in a formal set of drawings complete with calculations, the architects finally came around. My engineer was tickled by the approach; most people ask him for the same old thing, over and over. He knew who Mike Mulligan was.

We are in the middle of assembling the first truss as I write this. It is enormous and impressive. It has attracted enough neighborhood attention that we are concerned that the press might start snooping around.

By we, I mean me and the other builders who are onsite every day. We are the ones who deal with the frequent visits from the Department of Buildings, the Department of Transportation, and neighbors irked that we occupy a few parking spaces (for which we pay the city's usurious fees) that they are accustomed to thinking of as theirs.

Our architect shows no such concern for maintaining a low profile. A few days ago, he posted a heroic photograph of the truss on his social media site with the caption "Nothing to see here, folks!" To drive his point home, he tagged the local neighborhood association. Somehow, he neglected to mention that the truss was a solution in which he had no authorship to a problem that he and his engineers had created. But, given the trying encounters we have had with the city and our neighbors, I'm glad my name was kept out of it. I can only guess that community relations and ethics are not required courses in Yale's architecture program.

In about a week, the truss will be more impressive; we

will knock out a fifty-two-foot length of the existing foundation from under it, and the creaky old building will hang there until that foundation wall is poured anew. Then we will do it all over again. Twenty years ago, I couldn't have come up with the idea. I think it's majestic.

This is how I make a living. Often there is a far better, more cost-effective solution—in this case: knock the building down. The Landmarks people wouldn't allow it. We even investigated having the building condemned, but that would have required that the new structure be completely redesigned to modern codes; the cost would have been staggering, not so much because of the code requirements, but because of the architectural fees.

As long as I think of my job as a complicated puzzle, the absurdity of it rarely gets me down. I never build the same thing twice, and I never know what my next job will be. I can't remember my last boring day. I'm happy to keep at it indefinitely. There are a host of things I want to build in my workshop; some could be called vanity projects, things that have been gnawing at me for a long time. But even if I reach the point where I no longer need the money, I plan to keep doing what I do. I suspect I'm like one of those aging boxers who just doesn't know when to hang up the gloves.

Recently, I called my mother to read aloud the section that describes her and ask whether anything registered as untrue. Misrepresenting anyone can be perilous; misrepresenting one's mother is unforgivable. She only asked that I change "Paris" to "New York City" in describing Mrs. Macro's buying trips, and "cashmere" to "silk," as cashmere is not a fabric per se, and even if silk isn't exactly

writing has lost a smoky wisp of Parisian romance, one that I am restoring backhandedly, masked as what people who don't like to make up their own euphemisms call "full disclosure."

When I called, I still had a few more ideas I hadn't yet conveyed in this book. I realized that what had begun as a record of my time in the trades had blossomed into an examination of the qualities demanded of people who want to turn away from the life that is expected of them and build the life they wish to live. I had been doing a lot of thinking about what that takes, and of all the people who have inspired me on my way, my mother continues to be my primary example of someone who lives life on their own terms. Industry, resolve, fearlessness, indifference to approval, self-reliance, optimism, and even cussedness combine in her to make what I believe to be Will. In all our years of conversations the topic had never come up. I know I am given to flights of fancy and sought her more measured opinion, so I asked her, "Mom, do you think it's fair to say that people who have developed Will can see the future?"

"Oh yes, absolutely, dear."

She calls me "dear."

My mother is one of the most pragmatic people I have ever met. She is the daughter of an agricultural economist and a statistician; frothy spirituality is not part of her genetic makeup. Based on her confirmation, I feel confident in saying: People who have developed Will can see the future.

The process is simpler than one might imagine. The popular belief is that developing Will is a matter of visualization. That is a gross misrepresentation promoted by people who wish there were an easier way, or are trying to sell great gobs of toothpaste. You can visualize your ideal life until the day you die; the prac-

tice won't bring anything into being. Of course, it's better not to figure this out on the last day.

I'm a firm believer in visions; well-formed ones are rarer than you might imagine. But every vision comes with a price tag. If the willingness to pay the price in tireless effort that realizing a vision requires is not passed genetically, at least the impetus for it can be passed by example. It is first among the gifts my mother gave me. The second was just enough self-respect and stubbornness to turn away completely from the prudent path she had planned for me.

Like everyone else in the world, I was born with the ability to do almost nothing. I was fortunate to be raised among people who were unafraid to hazard the improbable. Effort is its own reward, an effort made one day builds the strength to make another more easily and more effectively the next, and after a few thousand days of effort upon effort, things will have changed, completely.

I hope that in writing this, I might help someone find inspiration and perhaps meandering guidance from the travails recounted herein that are happily mine. The stories were conceived, remembered, and written one by one as bedtime stories I might read aloud to a friend. I have arranged them into chapters that are titled by the central concepts that have been meaningful to me on my way. The experiences, efforts, and people they describe make up the saw-toothed arc of development that my life has followed. To me they are parables, each containing a few simple lessons. They are presented as such in the hope that they may sound sympathetic notes in a reader or two. Each of us faces unique difficulties, gets tripped up by our shortcomings, stumbles and blunders through life's challenges. With luck and determination, it is possible to make our own way. This is the

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story of how I made mine. Inspiration and guidance are all I can offer; no one can make any effort but their own.

The future is, for the most part, as invisible to me as it is to everyone, but I have sown a few seeds of things that I mean to bring to fruition. These are the things I can see clearly: I see the completed homes of my current clients in almost every detail. I see personal projects on my workbench that I make only for the satisfaction of doing so. I see the granite-faced firehouse I just purchased with a shiny new cast-iron storefront and tasteful silver leaf sign. There are a lot of things about the future I see but won't tell; they are *my* business.

Work hard. Do what you want. Don't dare flatter a child; they may never recover.

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HOW TO BUILD IMPOSSIBLE THINGS

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