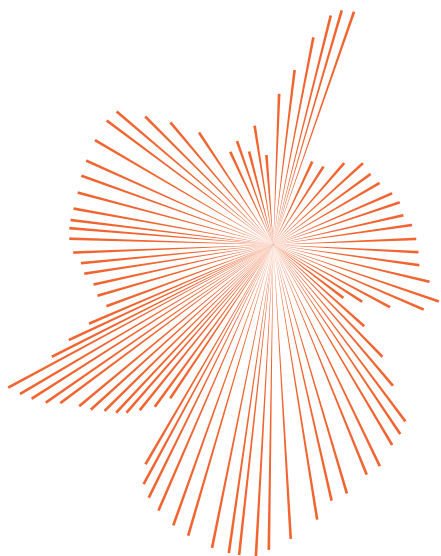


THE SHAPE OF DESIGN



THE SHAPE OF DESIGN
FRANK CHIMERO

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For all those on the road —

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LIZ DANZICO

FOREWORD

Frank Chimero and I came together over a shared commitment to jazz. But not only exchanges of music. We emulated the form. He would write a blog post. I would respond. I would improvise one of his hunches. He would iterate one of my posts. A call-and-response approach to a developing friendship.

We wrote like this alongside one another without ever meeting or speaking directly – much like many of us: we never meet the people we admire from afar. We read their stories. We watch their videos. We inspect their work. We make up the in-between parts. We improvise. Frank's stories became my stories, our stories. This book is, partly, about making things out of stories, and using them to help us live well.

Without warning one day, a mail from Frank appeared in my inbox, introducing himself:

You know what I love about jazz and improvisation? It's all process. 100%. The essence of it is the process, every time is different, and to truly partake in it, you have to visit a place to see it in progress. Every jazz club or improv comedy theater is a temple to the process of production. It's a factory, and the art is the

assembly, not the product. Jazz is more verb than noun. And in a world riddled with a feeling of inertia, I want to find a verb and hold on to it for dear life.

My conversations with Frank began to draw a line between the adjacent systems in the world and our own design process. Jazz. Tools. Art. Pizza. Announce a noun, and Frank helps trace its mutable shape to something more active. A verb! The adjacent process.

Deciphering and designing these systems is hard work. Done well, and one gets there “the long, hard, stupid way,” as Frank frames it in the pages to come, nodding to the gap between efficiency and the extra effort that compels us to make things with pride and compassion. Our process will vary, but steeling ourselves to persist is what Frank gives us the tools to do.

In that way, this book is not unlike a more ubiquitous tool and platform, the U.S. Interstate Highway System. Today, we take it for granted, mostly, but its numbering system at one point had to be designed. At a time when telephone poles lined dirt trails, Bureau of Public Roads employee Edwin W. James and committee were asked to come up with a more expandable system as roads were growing in the 1920s. They designed what we know today as the Interstate Numbering System. Prior to that, people relied on color codes for direction. Telephone poles ringed with color bands lined highways, corresponding to individual dirt trails across the country. As trails expanded, telephone poles became painted from the ground up, sometimes fifteen feet high, so trying to distinguish among colors became dangerous.

E. W. James changed that. He decided that motorists would be able to figure out where they were at any time given the intersection of any two highways. North/south highways would be numbered

with odd numbers; east/west with even numbers; and numbers would increase as you go east and north. The Interstate Numbering System was designed for expansion, anticipating the future contributions of people, cities, unexpectedness. It's a tool. It's a platform. And it's still not done nearly 100 years later.

If you wish to use this book as a tool, by all means, put it down at any time. Leave the road. You will find your way back as the intersection of two points will serve as your guide. Then wander back. This is the point of any road or system after all: to take you to a destination in a time in need. Or, consider the book as a platform and musical score: respond to a passage, to a chapter. Consider Frank's call your opportunity to respond, and each sentence your opportunity to create. That is the reason they were written.

I'm honored to say that since that original mail, there have been many Frank mails in my inbox. Later:

I see a platform and it tells me two things: first, other people's contributions are important. Second, the world is not done. Wow. If I want to believe anything, it's that.

Start improvising.

INTRODUCTION

What is the marker of good design? It moves. The story of a successful piece of design begins with the movement of its maker while it is being made, and amplifies by its publishing, moving the work out and around. It then continues in the feeling the work stirs in the audience when they see, use, or contribute to the work, and intensifies as the audience passes it on to others. Design gains value as it moves from hand to hand; context to context; need to need. If all of this movement harmonizes, the work gains a life of its own, and turns into a shared experience that enhances life and inches the world closer to its full potential.

The designer is tasked to loosely organize and arrange this movement. She is the one who works to ensure this motion is pointed in a direction that leads us toward a desirable future. Marshall McLuhan said that, “we look at the present through a rear-view mirror,” and we “march backwards into the future.” Invention becomes our lens to imagine what is possible, and design is the road we follow to reach it. But, there is a snag in McLuhan’s view, because marching is no way to go into the future. It is too methodical and restricted. The world often subverts our

best laid plans, so our road calls for a way to move that is messier, bolder, more responsive. The lightness and joy afforded by creating suggests that we instead dance.

Dancing requires music, and we each have our own song. These songs are the culmination of our individual dispositions. It is a product of our lines of inquiry about the work that we do, and a demonstration of the lens we use to see the world. The first portion of this book concerns itself with these inner movements. We each carry our own tune, and if we listen to ourselves, the song that emerges is composed of the questions that we ask while working, the methods we choose to employ in our practice, and the bias we show by favoring certain responses over others. Each song is the origin of the individual's creativity; it is a personal tune that compels us to make things, and feel obligated to do so in a way specific to ourselves.

The second part of the book looks at the milieu of design: the cultural context of the work we create, the parties involved in its making, those groups' relationships to one another, and the expected outcomes of the designer's efforts. Design has a tendency to live between things to connect them, so this is analyzed in more detail to find patterns. It looks to weigh the value of fiction, the mutability of artifacts, and the multiplicity of responses available in design. The purpose of all of these assessments is to look at the space around design to identify the moving parts, so one can begin to strategize how to make this movement sway together and respond accordingly as things change.

The last part of the book focuses on the primacy of the audience in design. It assesses methods to create more meaningful connections with them to unlock the great opportunity of this fortuitous arrangement. What can be done if we speak truly and honestly to the audience of our work? Perhaps this changes the

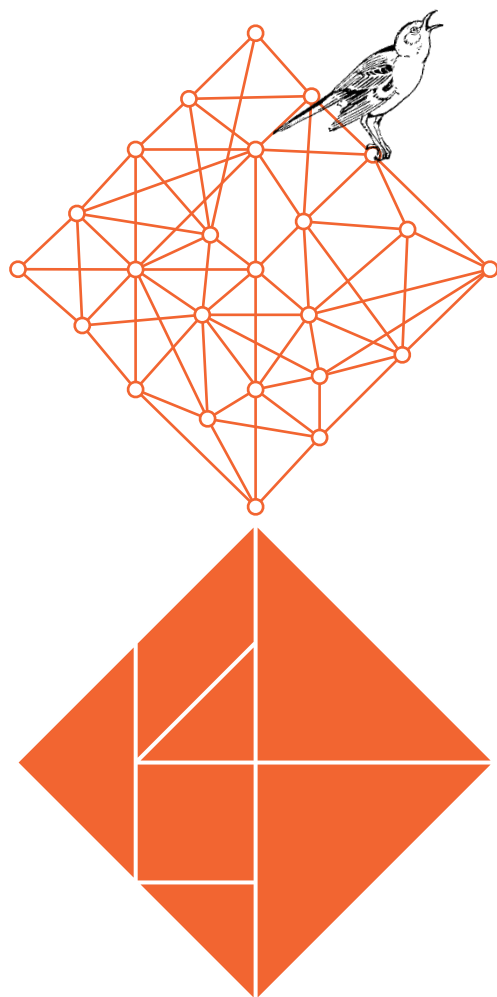
success metrics of design to more soft, meaningful qualities, like enthusiasm, engagement, and resonance. Reframing the practice as something more than commerce and problem-solving lets us focus on fundamental issues about utility. It requires us to raise simple, difficult questions about our work, such as, “Does this help us to live well?”

The Shape of Design is a map of the road where we dance rather than a blueprint of it. It strives to investigate the opportunities of exploring the terrain, and it values stepping back from the everyday concerns of designing. It attempts to impose a meaningful distance in order to find patterns in the work and assess the practice as a whole. One can observe, from this distance, two very fundamental things about design that are easy to miss in the midst of all of this movement.

First, design is imagining a future and working toward it with intelligence and cleverness. We use design to close the gap between the situation we have and the one we desire. Second, design is a practice built upon making things for other people. We are all on the road together. These two things dictate our relationship to the world and our bond to one another. They form the foundations of the design practice, so our work should revolve around these truths.

The practice, simply, is a way of thinking and moving that we use to enhance life. It is available to anyone. We listen to our song, watch how things move, imagine the arrangement, then act. We dance together backwards into the future, giving influence and taking it, forming and being formed. This is dance of eternity, and the shape of design. I hope to see you singing on the road.

PART ONE
THE SONG



CHAPTER ONE

HOW AND WHY

“Always the beautiful answer who asks a more beautiful question.”

E.E. CUMMINGS

If in the spring of 2003 a nightwalker found himself passing by North Spaulding Road, and – despite the hour – had the presence of mind to look up, he would find a light ablaze on the second floor. He would see me in profile, seated at my drafting table, kneading my face like a thick pile of dough. As I looked out the window, we would nod knowingly at one another, as if to say, “Yes, four in the morning is both too early and too late. Anyone awake must be up to no good, so let’s not ask any questions.” The nightwalker would continue down the street, weaving between the rows of parked cars and the sweetgum trees that bordered the sidewalk. I’d go back to kneading my face.

I remember one specific night where I found myself on the tail end of a long, fruitless stretch. I took to gazing out the window to search for inspiration, to rest my eyes, to devise a plan to fake my death for forty-eight hours while my deadline whooshed past. I looked at the tree before my window and heard a sound rise from the leaves. It seemed misplaced, more likely to come from the cars than one of the trees next to them.

“Weee-oooh, wooop, wwwrrrrlll. Weee-oooh, wooop!”

You don’t expect to hear the din of the city coming from the leaves of a sweetgum tree, but there it was. I scoured the leaves, and found myself trading glances with a mockingbird, each of us sizing the other up from our perches. He was plump in stature, clothed in brown and white feathers with black eyes that jumped from place to place. He had an almost indistinguishable neck to separate his head from his body, which I took as a reminder of the potential effects of my own poor posture. The leaves on the branch rustled as he leaned back to belt his chirps and chimes. Burrs fell from the tree, thwapped the ground, and rolled downhill on the sidewalk, eventually getting caught in the tiny crevasse between two blocks of cement, lining themselves up neatly like little spiked soldiers. Then, a suspenseful pause. We both held our breath. Finally, his call:

“Weee-oooh, wooop, wwwrrrrlll. Weee-oooh, wooop!”

This was not the song of a bird, but the sound of a car alarm. He mimicked the medley of sounds with skill, always pausing for just the right amount of time to be in sync with the familiar tempo of the alarms that occasionally sounded on the block. Mockingbirds, as their name would suggest, have a reputation for stealing the songs of other birds, and my feathered friend was doing so quite convincingly, despite his poor choice of source material. But the bird didn’t understand the purpose of the sounds he imitated. I remember distinctly saying to myself that a bird’s gotta sing, but not like *this*. And in that moment, a brief little glimmer of insight came to me from the bird’s song: his efforts were futile, and to a large extent, mine were too. We were blindly imitating rather than singing a song of our own.

Our mistake was the same as that of the creative person who places too much focus on How to create her work, while ignoring

Why she is creating it. Questions about How to do things improves craft and elevates form, but asking Why unearths a purpose and develops a point of view. We need to do more than hit the right note.

Imagine an artist working on a painting in his studio. You probably see him at his easel, maulstick in hand, beret on head, diligently mixing colors on his palette or gingerly applying paint to the canvas, working from dark to light to recreate what is before him. You may see him judging the light, or speaking to his model, or loading his brush with a slated green to block in the leaves in his muse's hair. This is a classical way to imagine a painter at work, and it's fittingly represented by Vermeer in *The Art of Painting* (overleaf).

But, if you have ever painted, you know that this image is not a full picture of the process. There is a second part where the artist steps back from the easel to gain a new perspective on the work. Painting is equal parts near and far: when near, the artist works to make his mark; when far, he assesses the work in order to analyze its qualities. He steps back to let the work speak to him. The second part of painting is captured in Rembrandt's *The Artist in His Studio* (overleaf).

The creative process, in essence, is an individual in dialogue with themselves and the work. The painter, when at a distance from the easel, can assess and analyze the whole of the work from this vantage. He scrutinizes and listens, chooses the next stroke to make, then approaches the canvas to do it. Then, he steps back again to see what he's done in relation to the whole. It is a dance of switching contexts, a pitter-patter pacing across the studio floor that produces a tight feedback loop between mark-making and mark-assessing. The artist, when near, is concerned with production; when far, he enters a mode of criticism where he



The Art of Painting

Johannes Vermeer, 1666



The Artist in His Studio

Rembrandt van Rijn, 1628

judges the degree of benefit (or detriment) the previous choice has had on the full arrangement.

Painting's near and far states are akin to How and Why: the artist, when close to the canvas, is asking How questions related to craft; when he steps back, he raises Why questions concerned with the whole of the work and its purpose. Near and Far may be rephrased as Craft and Analysis, which describe the kinds of questions the artist asks while in each mode. This relationship can be restated in many different ways, each addressing a necessary balance:

HOW & WHY
NEAR & FAR
MAKING & THINKING
EXECUTION & STRATEGY
CRAFT & ANALYSIS

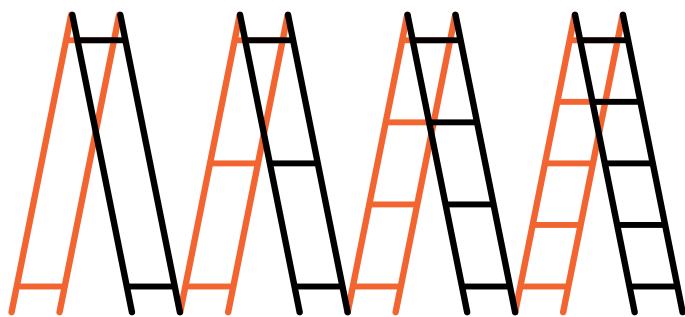
The relationship between form and purpose – How and Why – is symbiotic. But despite this link, Why is usually neglected, because How is more easily framed. It is easier to recognize failures of technique than those of strategy or purpose, and simpler to ask “How do I paint this tree?” than to answer “Why does this painting need a tree in it?” The How question is about a task, while the Why question regards the objective of the work. If an artist or designer understands the objective, he can move in the right direction, even if there are missteps along the way. But if those objectives are left unaddressed, he may find himself chasing his own tail, even if the craft of the final work is extraordinary.

How do you work? How do you choose typefaces for each project? How do you use this particular software? These questions may have valuable answers, but their application is stunted,

because each project has different objectives. Moreover, every individual is in a different situation. Many How questions, much to the frustration of novices, can't be answered fully. Ask an experienced designer about How they work and you may hear, "It's more complicated than that," or "It depends." Experience is to understand the importance of context, and to know which methods work in which contexts. These contexts are always shifting, both because requirements vary from job to job, but also because ability and tendency vary from individual to individual. We each have our own song to sing, and similarly, we each have a store of songs we can sing well.

Variation in context implies that it is just as important to discuss Why decisions are being made as to How they are executed. If we wish to learn from the experience of others, we should acknowledge that making something is more than how the brush meets the canvas or the fingers sit on the fret. A process includes all of the reasons behind the decisions that are made while the brush or fingers move. We can get closer to the wisdom of other people by having them explain their decisions – not just in How they were executed, but Why they were made. This is a higher level of research, one that follows the brush up the hand and to the mind to investigate the motivations and thought processes used so that they can be applied in our own situations.

The finished piece on its own, however, frequently acts as a seductive screen that distracts us from this higher level of investigation. The allure of the veneer hides many of the choices (good and bad) that were a part of the construction; the seams are sanded out and all the lines made smooth. We are tempted by the quality of the work to ask how to reproduce its beauty. And how can you blame us? Beauty is palpable, while intentions and objectives are largely invisible. This leads us to ask How more frequently,



as if the tangibility of these characteristics were to somehow make them superior. But asking Why unlocks a new form of beauty by making choices observable so they can be discussed and considered.

The creative process could be said to resemble a ladder, where the bottom rung is the blank page and the top rung the final piece. In between, the artist climbs the ladder by making a series of choices and executing them. Many of our conversations about creative work are made lame because they concern only the top rung of the ladder – the finished piece. We must talk about those middle rungs, understanding that each step up the ladder is equal parts Why and How. To only entertain one is to attempt to climb a ladder with one foot: it may be possible, but it is a precarious task.

Moreover, a balanced conversation about these middle rungs leads to a transfer of knowledge that can spread past the lines that divide the many creative disciplines. The musician may learn from the actor, who constantly ruminates about the finer details of drama and performance. The actor can learn from the painter about the emotive power of facial expressions. The painter from the designer, about the potential of juxtaposing images and words. And the designer from the poet, who can create warmth through

the sparseness of a carefully chosen, well-placed word. We climb our ladders together when we ask Why.

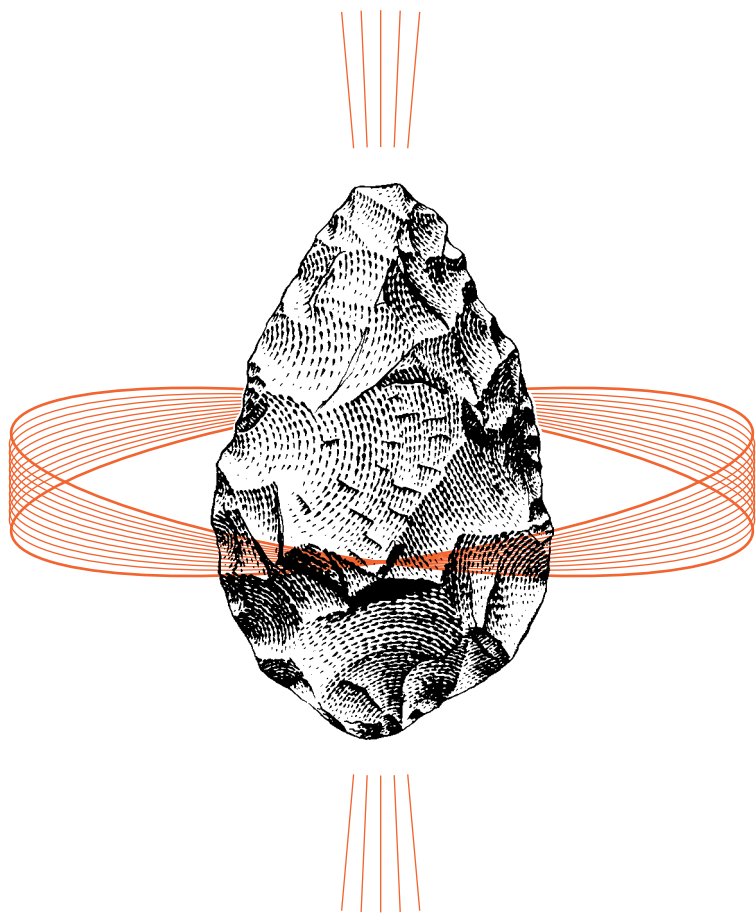
Why questions not only form the bedrock for learning and improving, but are also the foundation for inspiring ourselves and others to continue to do so. In 2009, the Public Broadcasting System aired its final episode of Reading Rainbow, a half-hour show devoted to nurturing a love for reading in kids. Each episode of Reading Rainbow highlighted one book, and the story inspired an adventure with the show's host, Levar Burton. Unfortunately, the program met its end because the show's approach opposed the contemporary standard format of children's television: teaching kids how to read, rather than Reading Rainbow's objective, which was to teach kids about *why* they should read.

Reading Rainbow had a long run, lasting twenty-three years, but its cancellation feels like a symbolic blow. Education, just like climbing the ladder, must be balanced between How and Why. We so quickly forget that people, especially children, will not willingly do what we teach them unless they are shown the joys of doing so. The things we don't do out of necessity or responsibility we do for pleasure or love; if we wish children to read, they must know why. If we wish painters to paint, poets to write, designers to design, they must know why as well. How enables, but Why motivates, and the space between the two could be described by the gap of enthusiasm between simply understanding phonics and reading a book that one identifies with and loves.

Creative people commonly lament about being "blocked," perpetually stuck and unable to produce work when necessary. Blocks spring from the imbalanced relationship of How and Why: either we have an idea, but lack the skills to execute; or we have skills, but lack a message, idea, or purpose for the work. The most despised and common examples of creative block are the latter, because the

solution to a lack of purpose is so elusive. If we are short on skill, the answer is to practice and seek outside guidance from those more able until we improve. But when we are left without something to say, we have no choice but to either go for a walk or continue suffering in front of a blank page. Often in situations like these, we seek relief in the work of others; we look for solace in creations that seem to have both high craft and resounding purpose, because they remind us that there is a way out of the cul-de-sac we have driven into by mistake. We can, by dissecting these pieces, begin to see what gives the work of others their vitality, and better understand the inner methods of what we produce ourselves. If we are attentive, with just a dash of luck, we may even discover where the soul of our own work lies by having it mirrored back to us in the work of others.

But we must be careful not to gaze too long, lest we give up too much of ourselves. Forfeiting our perspective squanders the opportunity to let the work take its own special form and wastes our chance to leave our fingerprints on it. We must remember Why we are working, because craft needs objectives, effort needs purpose, and we need an outlet for our song. If we stay on the surface and do not dig deep by asking Why, we're not truly designing. We're just imitating car alarms from sweetgum trees.



CHAPTER TWO

CRAFT AND BEAUTY

“A sunflower seed and a solar system are the same thing; they both are whole systems. I find it easier to pay attention to the complexities of the smaller than to pay attention to the complexities of the larger. That, as much as anything, is why I’m a craftsman. It’s a small discipline, but you can put an awful lot into it.”

ADAM SMITH, KNIFEMAKER

They say all things began as nothing. I should believe this, but it is difficult to conceive of nothing in the middle of a world that is so full. I close my eyes and try to picture a darkness, but even that is something. We are told that there was a big bang at the beginning of time that created the universe, but this turns creation into a spectacle. I’m skeptical of showmanship. The romantic in me wants to imagine there was no flash, no bang. Perhaps instead there was a quiet dignity to the spurring of matter from nothingness. I tell myself a story to draw back the darkness and fill the void.

In the beginning, a voice slowly approached from afar, so unhurried that it was hardly noticeable. “Better,” it whispered. But no bang, no fireworks. No grand gestures or swipes of God. The

secret closed in and contained the void, like how a hushed, familiar voice in the dark can create a pocket of warmth around it. I picture how the loose gases firmed to make the planets. The spheres spun, and the atoms collided and combined in uncountable ways over billions of years. The cocktail thickened and congealed, and after an unimaginable number of attempts, life showed up, sprawled out, then pushed on. We gained hearts and eyes, legs and hands. We crawled out of the muck, climbed into the trees, and eventually came back down.

The first boom, the recipe that produced the universe and life, was born of circumstance. The second boom, one of the mind and making, was by design.

I hold a token of the second bang in my hands. No bang, no show – most would say what I'm holding is just a rock. Walk into any proper house of curiosities and ask to see their hand axes. They will show you something similar to what I hold: a stone resembling an arrowhead with a tip that is honed and sharp. It will be close to the size of a deck of cards and fit comfortably into the hand. Hand axes are frequently cited as the first human-made objects; the oldest specimens, discovered in Ethiopia, are estimated to be about two-and-a-half million years old. We have been molding this world for a very long time.

The hand axes record the first moment that we understood that the world was malleable – that things can change and move, and we can initiate those transformations ourselves. To be human is to tinker, to envision a better condition, and decide to work toward it by shaping the world around us.

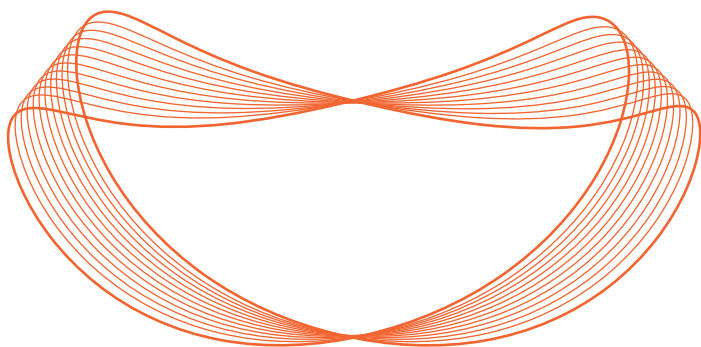
In this way, design is a field of transformations concerned with the steps we take to mold our situations. The maker of this hand axe transformed a rock into a tool which allowed him to turn a sealed nut into an open platter; it allowed him to turn beasts on

the plain into dinner. The same making instinct was at play when the Wrights flew their first airplane or when Greek architects sat down to mastermind the Parthenon. The products of our endeavors sprawl out behind us in a wake of repercussions and remain, in some cases, for millions of years.

There is often a diligence in construction to these axes, an elegant symmetry to their form. These details don't necessarily contribute to the utility of the tool, but their presence implies that we've cared about craft ever since our minds first opened up to the idea of invention. A polished axe does not chop better, just as the refined design of a lamp does not necessarily light a room more fully. Beauty is a special form of craft that goes beyond making something work better.

The Shakers have a proverb that says, "Do not make something unless it is both necessary and useful; but if it is both, do not hesitate to make it beautiful." We all believe that design's primary job is to be useful. Our minds say that so long as the design works well, the work's appearance does not necessarily matter. And yet, our hearts say otherwise. No matter how rational our thinking, we hear a voice whisper that beauty has an important role to play.

The hand axe is a prime specimen to consider beauty's role in this tangle of concerns, because the stone's waned usefulness lets us consider its aesthetic appeal on its own. Despite the axe's utilitarian origin, the experience of buying my particular hand axe was more like purchasing a piece of jewelry than something kept in the toolbox. The determinate factor was how pleasing each hand axe was to my eye. The aesthetic details I found desirable were the same to the person who made the hand axe. This overlap connects me to the past; someone long ago had an eye similar to my own, and cared enough about the tool's beauty to choose



a rock with an even finish, then mold it into a pleasing symmetry. That care remains intact inside the stone.

Craft links us to a larger tradition of makers by folding the long line that connects us across the vast expanse of time. I am in awe of the brushwork of Van Dyck even though the paintings were made four hundred years ago. My jaw drops at the attention to detail in Gutenberg's original forty-two line Bible, and can't help but be impressed by the ornamental patterns of Arabic mosques and their dizzying complexity. We all bask in the presence of beauty, because there is a magical aura to high craft. It says, "Here is all we've got. This is what humankind is capable of doing, with every ounce of care and attention wrung out into what's before you." Craft is a love letter from the work's maker, and here in my hands is that note enveloped in stone.

I'm reminded of a piece of advice I received during my third year at university. I was preparing to go to a design conference to show off my portfolio in an attempt to land a summer internship. The day before I left, I stepped into my favorite professor's office with my portfolio to give him a second look at everything. I had done most of the projects in his classes, but I thought one

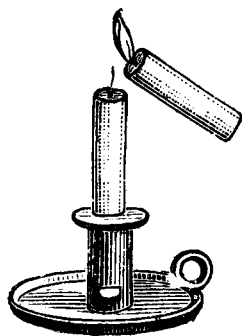
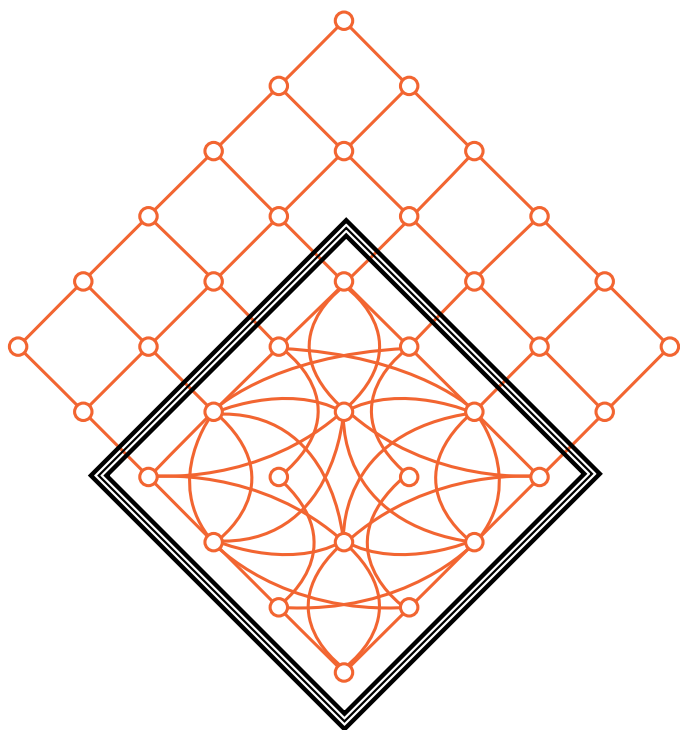
last bit of feedback might be helpful. He was on the phone, but he still waved me in, and pointed to a empty spot on his desk so he could browse my book while on his call. He flipped through the pages quickly, saying the occasional “Yes” and “Okay.” The words were most likely to the woman on the line, but I sat on the other side of his desk imagining that they were in approval of my work. Finally, he got to the last page and asked the woman on the line to hold for a moment. He held the phone to his chest, looked at me, and simply said, “Needs more love.” He pushed the portfolio back across his desk, smiled warmly, and shooed me out of his office.

I still think about this advice, and what exactly he might have meant when he said my work needed more love. At the time, I took it to mean that I should improve my craft, but I’ve come to realize that he was speaking of something more fundamental and vital. My work was flat, because it was missing the spark that comes from creating something you believe in for someone you care about. This is the source of the highest craft, because an affection for the audience produces the care necessary to make the work well.

This kind of affection has a way of making itself known by enabling those who come in contact with the work. In the seventeenth century, for example, Antonio Stradivari achieved what many consider to be the pinnacle of craft in the instruments that he made. He produced about five hundred violins in his life, and those still remaining are coveted by players around the world. It’s said that their sound is lush and transcendent, and one can imagine Stradivari hunched over the body of one of his violins, meticulously fine-tuning the details to create the most divine sound. Stradivari’s secret recipe has long been lost, but modern science has given a bit of insight into his methods through the

analysis of his instruments. Some experts believe the secret to his violins lies in their filler and varnish, which is believed to contain volcanic ash, insect wings, shrimp shells, and “tantalizing traces of organic compounds that could be bedroom residues, sweat, or pheromones of the master’s own breath.” Secret recipe, indeed: each instrument was a beautiful union, where the maker was himself a material used in the construction. There is no way to describe Stradivari’s work other than as a labor of love.

The work has enough love when enthusiasm transfers from the maker to the audience and bonds them. Both are enthusiastic about the design. I can imagine the excitement in the room when Stradivari would hand his newest violin to a skilled musician, because the violinist would unlock the instrument’s full potential by playing it. The products of design, like Stradivari’s violins, possess an aspect that can only be revealed through their use. It is why I’m always compelled to pick up my hand axe and roll it around in my hand, rather than letting it sit on the mantle. The stone is pleasing to the eye, but it was made for the hand, so it feels more appropriate to hold than display. And it’s when I hold the hand axe that I can hear the voice that whispers “better,” sense how the line that connects me to the past folds, and feel a love inside that rock. In truth, there are two sets of hands on this stone, and it’s by holding the hand axe that it begins to unfold its true magic. The stone, in spite of all these years, is still warm from the hands of the one who made it.



CHAPTER THREE

IMPROVISATION AND LIMITATIONS

“I’ll play first, and I’ll tell you about it later. Maybe.”

MILES DAVIS

When we build, we take bits of others’ work and fuse them to our own choices to see if alchemy occurs. Some of those choices are informed by best practices and accrued wisdom; others are guided by the decisions of the work cited as inspiration; while a large number are shaped by the disposition and instincts of the work’s creator. These fresh contributions and transformations are the most crucial, because they continue the give-and-take of influence by adding new, diverse material to the pool to be used by others.

Happily, these materials do not behave like physical materials when they are shared, because they do not run out. Their properties are eloquently explained by eighteenth century haiku master Yosa Buson. Translated from Japanese, he wrote:

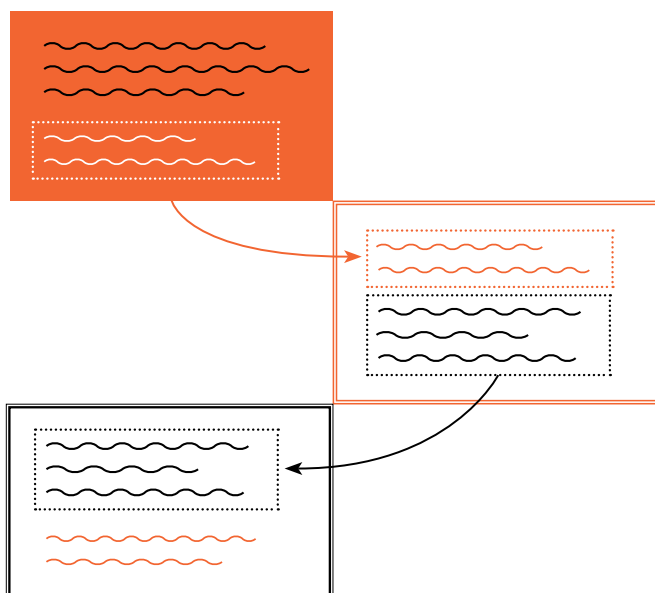
*Lighting one candle
with another candle—
spring evening.*

Buson is saying that we accept the light contained in the work of others without darkening their efforts. One candle can light another, and the light may spread without its source being diminished. We must sing in our own way, but with the contributions and influence of others, we need not sing alone.

Buson's haiku is also instructive in how to work with the contributions of others. Haikus come from an older Japanese poetic tradition called *renga*, a form of collaborative, give-and-take poetry. One poet would write the first three lines of a five-line poem, and then pass his work to another poet to write the last two. From there, the last two lines would be used as the basis to begin three new lines from a third poet, and then another two lines from a fourth. The poem went on and on, two – three – two – three, with each new contribution linking into the previous portion like a daisy-chain. *Renga* required the acceptance of old contributions as the basis for new additions, and this arrangement ensured the poem's strength and provided a structure that guided the poets during the poem's creation. The poets were able to get to work by using what was already there as a material, and then building atop previous parts with their own contributions.

Perhaps Buson's haiku and the methods of *renga* offer a way to curb the ruthlessness of the blank page. They imply that starting from zero may be elegantly side-stepped through the contributions of others. They also show that imposing some sort of structure can help us begin and gain momentum.

The first step of any process should be to define the objectives of the work with Why-based questions. The second step, however, should be to put those objectives in a drawer. Objectives guide the process toward an effective end, but they don't do much to help one get going. In fact, the weight of the objectives can crush the seeds of thought necessary to begin down an adventurous path.



The creative process, like a good story, needs to start with a great leap of lightness, and that is only attainable through a suspension of disbelief. The objectives shouldn't be ignored forever, but they should be defined ahead of time, set aside, and then deployed at the appropriate moment so that we may be audacious with our ideas.

To begin, we must build momentum and then reintroduce the objectives to steer the motion. I find the best way to gain momentum is to think of the worst possible way to tackle the project. Quality may be elusive, but stupidity is always easily accessible; absurdity is fine, maybe even desired. If the project is a business card for an optician, perhaps you imagine it is illegible. (This is in the spirit, but you can do better.) If it is a brochure for an insurance agency, imagine otters on the cover and deranged handwriting on the inside for the copy. (Further!) If it is design for an

exhibition of Ming Dynasty vases, brand it as an interactive show for kids, and put the vases on precariously balanced pedestals made of a shiny metal that asks to be touched. (Yes!)

The important realization to have from this fun – though fruitless – exercise is that every idea you have after these will be better. Your ideas must improve, because there is no conceivable way that you could come up with anything worse. We've created the momentum necessary to slingshot us toward a desirable outcome by stretching our muscles and playing in the intellectual mud. Now is the time to take the objectives out of their drawer and use them as the rudder to this momentum. We must steer our ideas, but we can be less discerning than if we were starting from scratch, because progress at this point is going in any direction. Any step is guaranteed to bring you closer to the border that marks the end of bad ideas and the start of good ones. Even wandering is productive, so that is precisely what should be done.

The way one creatively wanders is through improvisation. Now that the objectives are in front of us again, we can use them as a way to guide our ambling and riff on ideas. It sounds strange, but I suspect that while you are riffing, you'll find yourself reusing parts of the awful ideas you created earlier. The bad ideas have been documented and captured in some way, which turns them into a resource that can be mined in the process. New and better ideas will certainly come as well, but mixing the two speaks to the cumulative nature of improvising and the special sort of presence it requires. Ideas build on top of one another, and to do so well, one must be in the moment, actively poking at the current situation to use its opportunities as material for construction. Formalizing the properties of improvising is valuable, because it ensures that one can respond to the moment in artful and fitting ways before it fades.

We should look to jazz and improvisational theater – the two formalized creative pursuits that use improvisation – for guidance. Both have developed common rules that are meant to ensure a fruitful process. The first maxim of improv is “Yes and....” This rule is easy to understand, but like most cardinal virtues, it is much more difficult to execute than to grasp.

“Yes” dictates that each contribution is valid and accepted. The rules of the game, the whims of others, and indeed our own, preserve momentum and keep us from self-editing too early. Momentum is the most important aspect of starting, and rejecting and editing too soon has a tendency to stifle that movement. For instance, if you and I are improvising a scene on stage, and you say something I wasn’t expecting, I can’t pull you aside and ask you to change your line. The continuity would be broken, so I must accept what you offer, and then build on top of it. It’s the same whether we are working collaboratively in a group, or if I am simply in dialogue with the work like the painter at his easel.

The “and” part of the “Yes, and...” maxim dictates that improvising is an additive process that builds itself up with each choice like a snowball rolling downhill. The back-and-forth dialog that happens from these contributions in jazz and improvisational theater resembles the structure of *renga*. The *renga* master Bashō described the spirit of collaborative poetry as transformation: the poem achieves a newness when it changes hands, has new words added, and cumulatively builds up.

That newness only worked, in Bashō’s words, by “refraining from stepping back.” To steal from our old analogy of stepping back from the easel as a way to analyze the work, judgment is an important part of the creative process, but when improvising, self-criticism and evaluation from others must be avoided in order to

let ideas develop from their delicate state. Criticism has a crucial role in the creative process, but its rigor should match the heartiness of the ideas, which become stronger as they develop. The more real an idea becomes, the less suspension of disbelief is required, and the more criticism it should withstand. But all ideas, both good and bad, start young and fragile.

This delicacy requires acceptance, but rules need to be set before starting so the work has a more focused direction to travel. Saying no beforehand allows yes to be said unequivocally while working. These limitations are the fuel for improvisation, becoming the barriers that hold the sand in the sandbox so that we can play. The promise of a smaller scope makes us forget our fear, and the limitations become a starting point for ideas. An improvisational structure allows us to get to work, because we no longer need to know precisely where we are going – just choose a direction and trust the momentum. All we need to know are the rules of the game.

A framework for improvisation allows us to get into the process of making things more easily. Perhaps the most famous example of an imposed framework was created by jazz musician Miles Davis during the recording of his album, *Kind of Blue*. Davis, Bill Evans, Wynton Kelly, Jimmy Cobb, Paul Chambers, John Coltrane, and Cannonball Adderley packed into a CBS recording studio in New York in March of 1959 without any songs pre-written. Jazz musicians routinely tolerated this sort of ambiguity, because they made their living by winging it. But it's unlikely that any of them predicted that jazz would be reinvented that day.

The predominant style of jazz at the time, called Bebop, was frenetic and lively, but had a tendency to overstuff songs with notes. The abundance sometimes hindered the musicians' melodic expression by occupying all the space in the song. Bebop has been

described as musical gymnastics, because the style's flourishes and showmanship forced musicians to negotiate complex structures. In spite of the artistry necessary to maneuver in the Bebop style, it can become too large a load to carry. It's hard to swing if there's no room to move. Davis wanted to let the air back into the songs, to give the musicians more space to play. They were asked to improvise with simple scales and modes rather than Bebop's chord progressions.

The recording session began with Davis handing each of the seven men a small slip of paper where he had written down a description of their part. None of them had seen any of the songs before coming to the studio, but with the guidance of the slips of paper, they recorded the whole day, and booked a second day a few weeks later. After two sessions, the album was finished.

Kind of Blue is unequivocally a masterpiece, a cornerstone to jazz music created in just a few short hours by altering the structure of the performance. The musicians accepted the contributions of one another, and ventured out into a new frontier, using their intuitions as their guides. Davis amassed a stellar group of musicians, and with a loose framework of limitations to focus them but plenty of space for exploration, he knew they would wander with skill and play beyond themselves.

Davis' example is a bit misleading though, if only for its efficiency. Improvisation is a messy ordeal, wasteful in its output, and it should be accepted as such. The key is to generate many ideas, lay them out, and try to recognize their potential. Don't be concerned if you improvise and don't use most of the ideas. There's always a significant amount of waste when mining for gold. (Unless you're Miles Davis, apparently.)

Limitations and frameworks, however, need not be given to us only by someone else; they can also be a self-initiated set of

rules that open the door to improvisation. Many of the greats have used limitations to encourage their work: Vivaldi wrote four violin concertos, one for each season. Shakespeare's sonnets follow a specific rhyming scheme and are always fourteen lines. Picasso, during his Blue Period, painted only monochromatically. Limitations allow us to get to work without having to wait for a muse to show up. Instead, the process and the limitations suggest the first few steps; after that, the motion of making carries us forward.

The restrictions of a framework take many shapes. They may be conceptual and based on the content, where the limitations determine the subject matter of the work:

- *Write a song for each one of the muses.*
- *Create an illustration for each letter of the alphabet.*
- *Write a short story inspired by each of the astrological signs.*

Restrictions can also be structural and create compositional limitations:

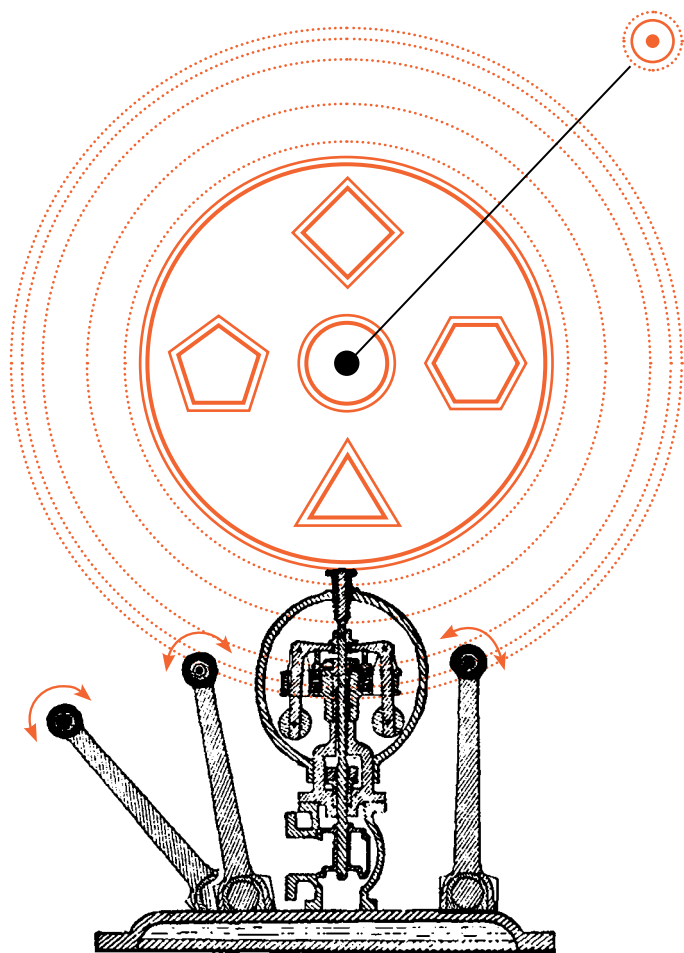
- *Paint on surfaces that are three inches wide and twenty inches tall.*
- *Write a sonnet or a haiku.*
- *Choreograph a dance contained in a six-foot square.*

Self-imposed limitations might also be related to the tone of the work, where the inflection of communication is deliberately restricted:

- *Paint monochromatically.*
- *Create a song using a mistuned guitar.*
- *Draw with your opposite hand.*

Once some restrictions are set, it's helpful to take a step back and assess how the qualities of the limitations are interrelated, because they may offer some suggestions about where to begin. For instance, a restriction in the tone of the work can provide guidance for deciding what sort of content is best, like how only painting in blue might suggest sad scenes or places bathed in cavernous light.

Limitations narrow a big process into a smaller, more understandable space to explore. It's the difference between swimming in a pool and being dropped off in the middle of the ocean with no land in sight. Those limitations also become the basis for the crucial first steps in improvisation. After those, the momentum of making accelerates as ideas are quickly generated without judgment. New ideas interact with the old, and spur off into unexpected places. Each decision is a response to the last and an opportunity to pivot in a new direction, so the process imposes a beneficial near-sightedness, an inability to see anything clearly other than the next step. But like driving a car at night, a little bit at a time is enough to finish the trip.



CHAPTER FOUR

FORM AND MAGIC

“Design is the method of putting form and content together.”

PAUL RAND

My body and mind are linked. This is hardly a ground-breaking discovery, but for the longest time, it was a bit of knowledge that never changed my behavior. If my mind needed to wander to think about a project, I'd typically sit in a chair, furrow my brow, sip my coffee, and scribble a few things into my sketchbook. That's no good, though: if the mind needs to wander, best let the body do the same. A short walk is more effective in coming up with an idea than pouring all the coffee in the world down your gullet.

If I can't get out of the studio and into the city, I've taken to letting my hand wander on a pad of paper by drawing spindly, loopy, mindless marks. I make the sorts of drawings people produce on the backs of envelopes while on hold with the gas company. There is no subject, just as a good walk has no destination; their purpose is movement. My pencil cuts across the paper like a figure skater zipping around her rink, overlapping, skipping, and

spinning. The skater ignores the mark that comes in the wake of her movement, and I do the same. This drawing isn't aesthetic, it is kinetic – more like dancing than drawing.

I've noticed that as I draw these knots on the page, the hitches in my mind begin to unravel. I love my trick in spite of its spotty rate of success, because it is the minimum amount of effort and thought I can put into working. Scribbling's efficiency is a golden ticket for someone prone to creative block; the scrawl is an easy, mindless task which looks like work, and can sometimes turn productive. The drawn knots are no consequential thing themselves, but they do seem to eventually lead to something else that is useful.

A few months ago, I found myself drawing my tangles onto tiny napkins while on a flight from the west coast to Chicago. I had a pressing project that needed attention, and I wanted to have a clear direction by the time the flight landed. So, obviously, I spent most of the flight looking out the oval window instead of working. I could see Illinois in all of its flat, tiled splendor: farm after farm, as far as the eye could see, a tight grid of wheat browns and cornstalk greens. Two plots merged to make a rectangle, four merged to make a square, and a circularly tilled plot interrupted the quilted arrangement. I couldn't see everything from up here, so I imagined the other parts. I filled in the gaps by remembering my drives to Chicago, and pretended that the plane cabin had the smell of soy and corn permeating through as my car had when I took road trips along I-55 years ago.

My pen continued gliding over the napkin. I could see through my window how the terrain fit together and how the crops were planted. My pen zipped back. I imagined the names of the streets in an imagined sleepy Illinois town with a biblical name. My mark doubled over itself. I pictured how the blocks shrunk in size as

they approached the center of town, then looped around the city square. My pen gained momentum. I thought about how there must be a Lincoln High somewhere down there, with its champion Cardinals that won the state football title this past year. My pen whipped back around and ripped the napkin, now thin from the flood of ink it had absorbed.

How nice it would be to get into a plane and fly over our work. Maybe we'd see some patterns and be able to deduce a structure that would let us improvise. We could see some fields and a few roads, and riff our way to a bunch of kids in Cardinal uniforms running through a banner at a pep rally. I spent the rest of the flight thinking about how helpful it is to have an understanding of the work's structure, and decided that the best way to see the work's larger patterns was with a vantage similar to my seat in the sky.

All design work seems to have three common traits: there is a message to the work, the tone of that message, and the format that the work takes. Successful design has all three elements working in co-dependence to achieve a whole greater than the sum of the individual parts.

The message is what is being said, the kernel of information to be communicated, or the idea trying to be expressed through the work. If the work of design is to be a tool, the message is the utility of the tool. The message speaks to the objectives of the work, and is the promise that the work makes. The value of the work is defined by the usefulness of that promise, and the work's ability to make good on it.

The tone is the domain of design, the arrangement the message takes and the inflection with which it is said. Tone expresses sentiment and endears the audience to the work. It is often mistaken for style, but the two should not be confused: style is a formal device

used on the surface to establish the tone of the work. Successful projects choose a tone that fits the message appropriately.

The format is the artifact, the thing being produced. It is often a physical form, such as a poster, brochure, pottery, painting, or sonnet, but also includes the choices that alter a work's context and placement. Increasingly, these "artifacts" are becoming less physical, and may take the form of an application, website, or even an experience.

The relationship between the three characteristics could be thought of as levers on a machine: different settings can be chosen and adjusted to yield different outcomes. Specific settings have emerged by imitating the success of others, and, through trial and error, produce well-established couplings, much like food and wine. We frequently return to these settings because of their effectiveness.

Consider the typical promotional poster for a concert. The work's message is "attend this event," and it provides relevant information, such as the performing artists, time and date, venue, and cost to attend. The tone for the design would be dictated by the sound of the music being performed, and the designer works to produce a fit between the two. Posters for metal bands should look different than those for classical performances. In this example, all possible aesthetic outcomes are unified by the format: ink on paper as a poster. The format, however, still has variables. For instance, what will be the size of the poster and where will it hang? No matter what the settings for the levers are, all choices are subservient to the objective.

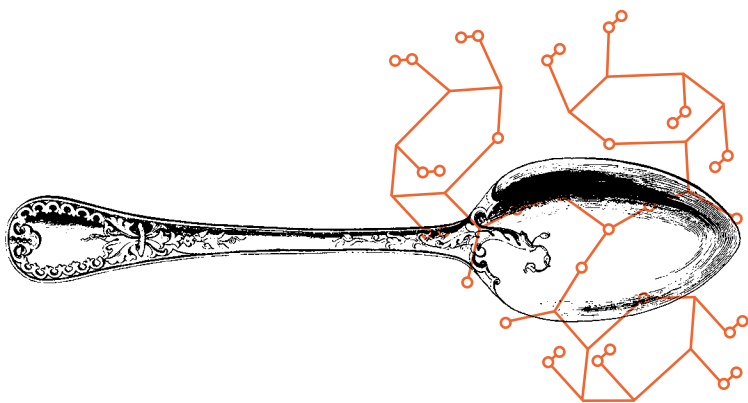
The promotional poster is a standard, tried-and-true setting for the three levers, but we must be willing to consider new opportunities and different settings for the levers. Creative breakthroughs often occur when fresh configurations are explored

in the message, tone, and format. The interplay of the three levers becomes a framework for improvisation by providing enough structure to guide exploration, but enough freedom to end up in unexpected and fresh places.

Suppose the designer realized that most of the promotion for a classical concert should occur online, because tickets were being sold through their website, and the information could spread more easily between friends on the web. She could use the potential of screens, rather than spending time on ideas limited by the restrictions of printing. A new format has different affordances and opportunities, so rather than recreating a static design that works on paper, she could produce something native to the web and build motion and sound into the solution. Perhaps the design could have videos of the musicians discussing certain parts of the symphony to be performed, working as an educational resource that connects the musicians to the audience in addition to promoting the show. Escaping paper means that the music could be closer to the message, and the tone of the promotion can directly relate to the sound of the music. A change of format opens new doors.

This example isn't intended to imply a superiority of screens to paper. Instead, it's meant to show that our assumptions can easily fall out of step with the context of our work. We ignore the new opportunities before us when we take the common settings of the levers as givens. It's wise to step back and reassess all of the assumptions being made at the start of each project in order to define the root objective of the work, reevaluate circumstances, and maximize the opportunities of the current situation.

Questioning convention can lead to new opportunities by making good on the potential of fresh configurations of the three levers. These explorations, however, should come from



a designer's experience in manipulating content and format. New configurations are judged by the designer's knowledge of the qualities, necessities, and opportunities of all three levers and an appreciation for how they are interrelated. Fortunately, skilled designers frequently have an understanding of the whole machine from their experiences, and that knowledge can lead to interesting, unprecedented outcomes that teach us how to reconsider our world in a different and novel ways.

One such laboratory that experimented in reconfiguring our expectations was nestled into the craggy coast of Catalonia. Maybe you know something of the restaurant elBulli and its former chef Ferran Adrià. Perhaps you have heard of his invention: molecular gastronomy, a kind of cooking that merges the kitchen with the chemistry lab. Molecular gastronomy has been used to serve hard-boiled eggs with the yolk on the outside and white on the inside, champagne solidified into a gelatinous cube, meringue made from rose petals, and avocado turned to puree, then put through a "spherification" process to turn it to a kind of caviar.

elBulli was the laboratory of a mad man who undermined the foundations of traditional cuisine, but Adrià's work provided an

interesting contribution to the food world. It presented a unique reassessment of the cooking process for a time when technological advances in equipment and various natural gums, extracts, and additives produced by the commercial food industry could be used in the kitchen. Adrià's desire to question everything can even be seen in how he describes his craft, rejecting the name molecular gastronomy, and instead favoring the title "deconstructivist."

The same opportunity to analyze, question, and invent is afforded to any creative individual who understands the full system in which they operate. They can use their knowledge to find new configurations for the three levers, and to introduce fresh material into the making process. In these cases, creativity doesn't just serve and respond to the world around it. Instead, it actively pushes the world forward into unimaginable directions through experimentation. Sometimes, those results can be confounding, much like the dishes served at elBulli.

Grant Achatz, an impressive chef in his own right, wrote about his time staging at the restaurant and of his first meal there:

A small bowl arrived: Ah, polenta with olive oil, I thought. See, this food isn't that out there. But as soon as the spoon entered my mouth an explosion of yellow corn flavor burst, and then all the texture associated with polenta vanished. I calmly laid my spoon down on the edge of the bowl after one bite – astonished.

What the hell is going on back there, I thought. I know cooking, but this is the stuff of magic.

Sometimes the results of graceful rethinking can be thought of as magic, because it produces something we previously thought to be impossible. It subverts the established ways of working, either

through sheer talent or brute force, and questions the standard settings of the three levers. Magicians don't just create new things, they invent new ways of doing so, and these new methods only appear from intense analysis of the assumptions about their work. The products of the process are contrarian by nature as a result, because the maker is exploring a terrain no one else has been able to realize. Laid bare in his work is an example of how craft and art grow, how they serve as an example of a new possibility.

Steven Johnson, in his book *Where Good Ideas Come From*, describes the idea of the adjacent possible as a model for explaining how ideas develop and new inventions are envisioned. The adjacent possible originated with scientist Stuart Kauffman as a label for the fundamental atomic combinations required for biological development. Evolution occurs one step at a time, and the size of each step is limited: nature must first create the cells in leaves that can capture the energy of the sun before it can produce a flower.

Johnson extends Kauffman's concept to the development of ideas themselves, saying that our collective ideas advance with the same limitations. There are prerequisites for us to reach what we desire as we pursue better circumstances and new inventions. For instance, in order to invent something like the printing press, we must first invent language and an alphabet, produce paper and ink, master metallurgy to cast letters, and construct a winemaking press. There had to be many contributions and breakthroughs before I could sit down and write this book.

Most inventions are recombinations of existing things, but where do the sparks for those combinations come from? What instigates that magic to make hybrids, to use them for unimagined purposes, and to inspire new settings for the three levers? Certain advancements seem logical and inevitable – smaller cellphones,

faster computers, more reliable medical technology – while others seem to come out of nowhere. Turning avocado into caviar, for example, is not a logical conclusion in the kitchen. That choice is an inspired one. You can always spot these brilliant inventions as instances of magic, because our reaction, much like Achatz’s first meal at elBulli, is always disbelief.

Henry Ford famously said that if he had asked his customers what they wanted, they would have said a faster horse. Of course, we know that the faster horse is a testament to the limited imagination of customers, but I’d suggest that it’s more representational of not reassessing the objectives of the work in light of new opportunities. The faster horse is a recombination of the three levers in a predictable way: the customer’s answer is staunchly loyal to the horse, the already established format of transportation. They are inside of the adjacent possible, and ask a How question: How can horses be better?

Asking a Why question leads us to a different conclusion: Why are horses important? Because they quickly and reliably get us from one place to another. A Why question defines our need and uses an objective to create a satisfactory outcome for the work. This type of question is specific enough to be observable, but flexible enough to be approached in a variety of different ways. It’s easy to think that the way to improve life is to iterate on the things that we already have, but that is a trap of limited imagination. We should be iterating on how we answer our needs, and not necessarily on the way our old solutions have taken shape. The root of our practice is located in the usefulness of the work, not the form that it takes.

The most important advancements, the “magical” innovations we produce, happen by a visionary pulling from the outside of the adjacent possible, not pushing from the inside of it. Our

magicians – our Henry Fords, our Billie Holidays, our Gutenbergs, Disneys, and Marie Curies – do not stand on the inside of what is possible and push; they imagine what is just outside of what we deem possible and pull us towards their vision of what is better. They can see through the fog of the unexplored spaces and notice a way forward.

The work of these individuals is lauded and momentous, but a similar effect is not out of our reach. The same ways of thinking and working are available for us to mold our own processes and shape our craft. There's a pattern to seizing latent opportunity to produce unprecedented outcomes, and the successes of the past suggest a method for how to continue.

It begins with the proper mindset, established by asking Why questions to define the true objectives of the work. The inquiry emphasizes the project's true purpose and sheds any false presumptions about how to do the work or what it should be. It ensures the design's relevancy by forcing one to ask about its consequence in the world. The designer can then make decisions that use the defined function as guidance. The fruits of this questioning define and emphasize the cornerstone of successful design: the work first must be useful before it can transcend utility into something visionary.

Similar questioning should also be directed towards the form of the work. An understanding of the three levers provides a structure to conceive of fresh configurations. Using the structure and affordances of content, tone, and format, one can riff on how the elements interplay and come to exceptional ends. Part of the exploration for novel design is using the materials at our disposal, especially those whose full potential have not been realized. We should look around us to see what available resources are not being fully used, like the affordances of a screen in the

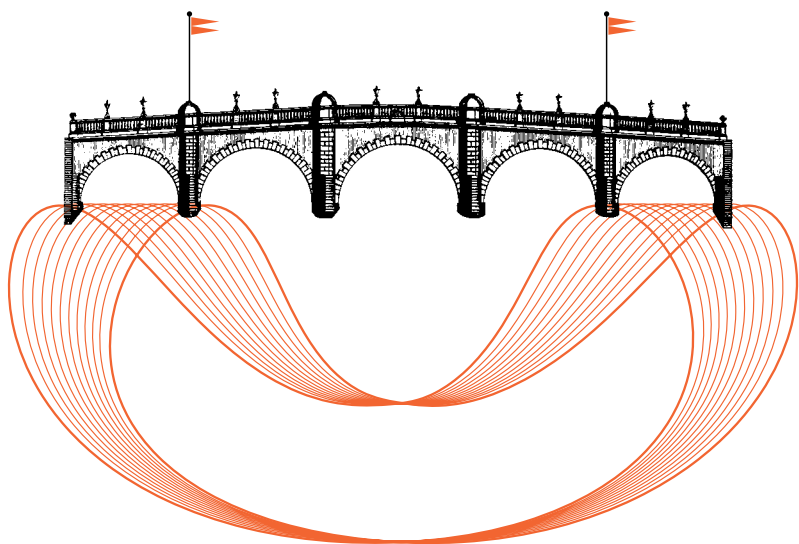
promotional materials for the concert, or the new ingredients Adrià used at elBulli. This method modifies either the content or the format, which alters the tone's qualities as it negotiates those modifications. It is a simple thought, but one way to have a creative process come to different ends is by beginning with new materials.

The true purpose of the process is to create an accurate picture of the world. The misfit creative individual is stubbornly unwilling to abide by anyone else's vision of the world without first testing those assumptions. There's a desire for an honest assessment, because we can only create what we want by understanding what is achievable. We must know the edges of the adjacent possible before we can begin to imagine making the world better.

Often, what we perceive to be possible dims in comparison to what we can actually do. This gap creates the opportunity for people like Henry Ford, Walt Disney, and all the other magicians who have expanded what we think of the world. The rest of us believe the line that defines what is possible is much closer to our feet than it actually may be. The creative misfits ask their questions to realize the line's true location, and conclude that there is enough room for a great leap forward. Our questioning, and the imagination it inspires, allows us to perform the most important magic: to make the world grow by revealing what was right before our eyes.

PART TWO

IN-BETWEEN SPACES



CHAPTER FIVE

FICTION AND BRIDGES

“No sensible decision can be made any longer without taking into account not only the world as it is, but the world as it will be....This, in turn, means that our statesmen, our businessmen, our everyman must take on a science fictional way of thinking.”

ISSAC ASIMOV

There's something about speaking, even if only to oneself, that makes the mind work. Our verbal cowpaths are paved through conversation. Speaking to ourselves is a crude tool to hack our way toward clearer thinking. But in spite of its obvious benefits, I become self-conscious when I'm caught talking to myself. I freeze. I try to find a chair to hide behind. I cover my eyes, pull my cap down, and pretend that if I can't see them, they won't see me. I'm not here. I've just disappeared. The man you saw talking to himself was only a part of your imagination.

Perhaps my embarrassment comes from a private activity made public by its discovery. Or it could be that to be caught speaking without a listener is suspicious and embarrassing. Speaking requires an audience; the speaker and listener are bonded. The Russian polymath Mikhail Bakhtin declared that the primary

position in conversation is the one listening rather than the speaker. One must have an audience to begin to speak, and perhaps this is a clue as to why we talk to ourselves: we monologue to listen.

The point of speaking, and likewise creating, is to have someone there to receive. The results of our efforts must move toward others; similarly, design must move to be effective, whether by filling needs or communicating with an audience. It should move like a provocative word: out, and then around. One set of hands makes the work, then it passes to another to use. The presence of the audience is what imbues the designer's work with its worth.

As such, it is never just the designer's hands doing the shaping. All design springs from a complex social ecosystem created by multiple parties' interests weaving together to produce the design. The players in the arrangement are familiar: the client, who commissions the work; the audience, who sees or uses it; and the designer in the middle, who produces the artifact that will join the client and audience to one another in a relationship. The needs and desires of the audience are bonded to the capabilities of the client under the auspicious hope that they complement and enable one another. In this guise, design not only becomes a way to push toward a desirable future, but also works to establish the vocabulary we use to define the terms of our engagements with one another.

The best way to describe design is that it seeks to connect things by acting as a bridge between them. The design of a book connects the author and her ideas to the reader by complementing her writing. The design of a restaurant is meant to fuse with the chef's culinary approach to create a more provocative and full

dining experience for the eater. Web design connects the user to the site's owner and offers a venue for the connection to develop and grow.

Design's ability to connect requires it to be in the middle position. The work's qualities are defined by the characteristics of what surrounds it, like how the negative space between two closely placed parallel lines creates a third line. We're that third line, frequently shifting in order to serve and respond to the elements around us. As the elements connected by design change, so, too, does the design. The field is in flux, always being neither this nor that, which makes it frustrating to try to pin down. It is, like all shape-shifters, evasive and slippery.

The qualities of design consistently change, because there is a wide variety of characteristics in what design connects. It means that design lives in the borderlands – it connects, but it does not anchor. The work must provide a path without having a specific way of its own. The design is always the middle position, but rather than acting as an obstruction, it should be the mortar that holds the arrangement together.

One way that design finds itself in the middle is by its ability to establish the tone of the work. As described earlier, design seeks to negotiate the qualities of the content with the affordances of the format to produce a cohesive whole greater than the sum of the parts. This situation largely describes many of the formal challenges faced by designers in their work. A wise design choice finds the tone that can slip between the content and format, snap into place, and bond one to another.

Design also finds itself in the middle of art and commerce. The practice's hybrid quality breeds different opportunities than either practice can alone, allowing for a special sort of

influence on culture. Design can speak the tongue of art with the force of commerce. The products of design maneuver in the streets of the city where people live, rather than the halls of a museum where they must be visitors. There needn't be the pressure of artistic credibility or commercial profitability always present, which means that the work of the designer can go further in shaping culture than a traditional piece of art, and make money in a way that has more soul and spill-over benefits than straight commerce.

Design's connective role is meant to support the movement of value from one place to another for a full exchange. It means that the products of design are not autonomous objects, but are creations that bridge in-between spaces to provide a way toward an intended outcome. The design must be transformative for it to be successful. It must take us somewhere. Airports and train stations are other examples of non-autonomous creations that exist as in-between spaces, because they have been built out of our desire to go somewhere else. Even cathedrals could be considered spaces of transit, because they seek to connect the physical world with the spiritual realm. Design is akin to these places in that their usefulness is defined by the consequences of the connections they facilitate. A train station that doesn't create a lust for exploration is flawed, just as a cathedral that doesn't inspire awe is a failure.

Design's middle position requires it to aid movement in both directions. The most useful bridges, after all, allow traffic to go both ways. If value is expected to be mutually exchanged, it means that influence on the design will come in both directions from the things the design connects. The content and the format, for instance, both mold the appropriate choices for the tone. Art and commerce each push and pull on the design,

because the work must be artful as well as profitable. From a social perspective, the client and the audience both have a say in the design decisions.

The last is perhaps the most complicated, because the designer adds a third influence to the mix. She is trying to satiate her own creative needs in the work as well. There is no guarantee, as many experienced designers can attest, that the requirements of each individual in this tangle of interest will be the same. Each comes to the design requiring something different. Those differences mean it is design's job to negotiate the problem space – to create a way for the connection to be built. The parties' values don't have to be in parity, their desires simply have to be compatible for the work to have a chance at success.

One point of complication is that these negotiations frequently happen during production, so the audience is not yet present. The designer, therefore, acts as a proxy for the audience's needs while arguing for her own creative concerns. This makes the whole arrangement precarious, because it means that the designer is being paid by the client, but is obligated to the audience, for it is the audience's presence that imbues the work with its value. It is a double-allegiance, a necessary duplicity. Design's two-faced behavior is a product of its middle position between the elements it connects. Bridging two things means a bond with both of them.

Our duplicity is no bad thing; in fact, it is necessary, simply because things must move two ways at once for a full exchange. We are molding a complex, multi-faceted setting, so our approach to improving our conditions and shaping the world should be the same way. Nothing is ever clear-cut when working in a shape-shifting practice to negotiate complicated terrain. Some trickery is necessary to get things moving once they are connected.

Untruths are what initiate change, because they describe an imagined, better world, and offer a way to attain it. Tantalizing visions of the future are the lure that gets us to bite. The only question is whether the fabrication improves our lot or buckles under us.

The future is pliable, unknown, and weighty. On the other side of today there is vagueness – a multitude of directions the world could sway. The areas of uncertainty get filled up with speculation. We've invented a suite of ways to grapple with the future throughout the course of human history, from the perceived ethereal wisdom in the entrails of ritual livestock in ancient Rome, to the calculated metrics in the odds of a boxing match in Vegas. We flirt with the future and poke at it in order to believe we exert some control over what's to come. If this means divining some imposed meaning from tea leaves, so be it.

Modern people, unlike the ancients, have a different relationship with the future, because we understand that it's something to be made rather than a destiny imposed by the gods or the whims of fortune. Future arrangements begin in our mind as images of things that don't exist. Our interpretations of tomorrow are productive fictions that we tell one another to seduce us into believing our ideas are possible. We speak beneficial untruths that act as hypotheses, forcing us to roll up our sleeves and work with cleverness and dedication to bring them to fruition. We work to change fiction into fact when we attempt to better our condition.

An alluring, productive untruth is frequently what's necessary to get things going. Consider how we behave on New Year's Eve when we make our resolutions. We weave an illusion and imagine ourselves fifteen pounds lighter, giving more time to our

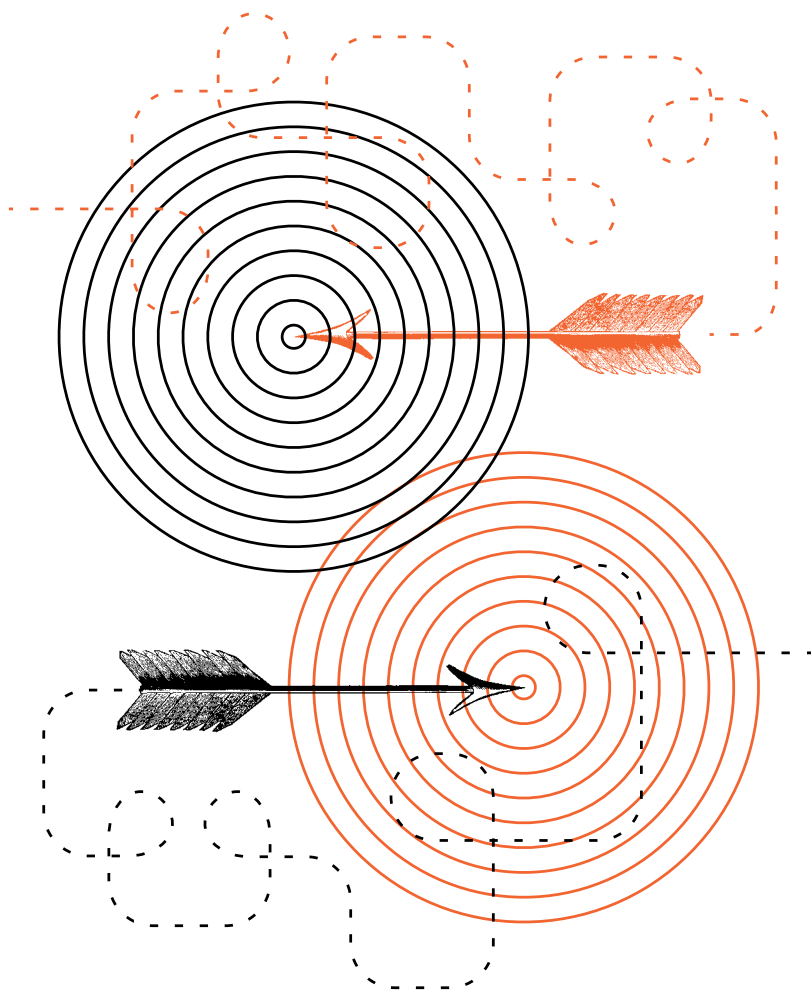
community, or phoning home more often. We fabricate ourselves into better people to inspire the actions necessary to become the fitter husband, the more loving daughter, or the better citizen. We use that image of ourselves as motivation as we work to close the gap between what we've imagined and what is true. Molding the world works the same way.

Every untruth forks reality and opens up a gap between what is imagined to exist and what actually does. Each fabrication creates a second version of the world where the untruth is true. Consider an entrepreneur standing before a few investors describing a technology she's developing. She is speculating about the potential applications of her research. The work, at this point, hasn't been applied in the market, and all she has are promising lab tests. Her proposal forks reality: we live in a world where the technology hasn't been applied yet, but the vision that the entrepreneur weaves about potential opportunity and profit determines whether or not the investors choose to risk their money. They invest if they perceive she can close the gap between the world as it is that day, and the world she wants it to be.

In an ideal situation, all fiction would improve our collective condition, but as we know, not everyone is interested in making good on their promises. Fiction can also be corrosive and deteriorate the foundations of what's already been built, undermining the stability of our arrangements rather than helping to build new things or strengthen existing structures. Lies corrode our understanding of reality by misrepresenting it, like a snake-oil salesman that goes from town to town promising medicine, but selling swill. Snake-oil salesmen fork reality just like the visionary, but they have no intention of closing the gap that opens up with their lie.

The salesman doesn't tell an untruth in order to get us to work towards it. Instead, he misrepresents what is in front of us so that we buy into a mirage. It's a messy distinction, and it's why design, rhetoric, and politics are so sticky and often mistrusted: the language we use to build the world is so close to what can be used to undermine it. Design and persuasion are manipulative, and if we have the skills to seduce others toward green pastures, we can also lead them off a cliff.

But the threat of a cliff is the cost of the pasture. The world swells, pivots, and grows when we close the gaps of our untruths. A willingness to imagine things differently and suspend our disbelief for one another are the interfaces we create to shape the world. Every time we tell an untruth, we confess that the world is not yet done. We have a hunger for a better condition, and we are, if nothing else, optimistic. The only way forward is through something we've never done, so we run full speed into the great imagined unknown to make this world for one another.



CHAPTER SIX

CONTEXT AND RESPONSE

“We sail within a vast sphere, ever drifting in uncertainty, driven from end to end. When we think to attach ourselves to any point and to fasten to it, it wavers and leaves us; and if we follow it, it eludes our grasp, slips past us, and vanishes for ever. Nothing stays for us.”

BLAISE PASCAL

The tightrope walker finds his balance by keeping his momentum. If he stands still, he will fall; if he locks up his limbs, he will throw his balance off. He stays on the wire by moving in response, swinging his arms up and down, and steadily setting one foot in front of the other. Like him, there are no fixed points in our design work, no opportunities to stop and hold still. We must respond and move, simply because the work moves and the space around design shifts as culture changes and the adjacent possible grows. Design is always in motion; we either sway with it or we get thrown off the line.

The responsive creativity that design requires is similar to what installation artist Robert Irwin started to do with his art in the 1970s. Irwin would make no formal plans before arriving at the gallery where his work was to be shown. Instead, he'd walk into

the room and spend a great deal of time observing the qualities of the space, assessing the shape of the room, and judging its light. He would then devise a plan and conceptualize the art based on his observations. The art he produced was a direct response to the context of his work. The space became his material; each piece was an ad hoc exploration.

Sometimes the space would suggest more grandiose pieces, like his installation at the San Diego Museum of Contemporary Art, where Irwin filled a large wall with fluorescent lights organized into interlocking modules shaped like Tetris pieces. Other rooms called for more minimal tactics, like his piece at the Museum of Modern Art in New York, where he merely changed the fluorescent lighting by alternating cool and warm bulbs, stretching a piece of scrim below the lights like a second ceiling, and stringing wire across the length of the room at eye level to prevent the viewer's eyes from focusing.

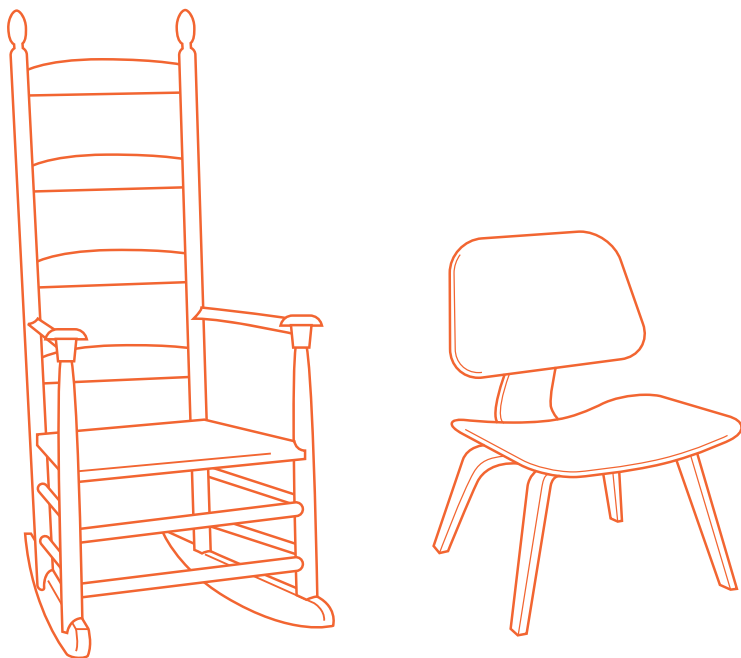
In either case, Irwin's process is to show up and let the context speak what it requires to him. The relationship Irwin has with the space reminds me of a few conversations I've had with portrait photographers about their work. One of the points that frequently comes up is that the majority of their job is to wait for the person to reveal their true self so that they can make an accurate portrait of their subject. The process is mostly waiting, more like listening than speaking, and most photographers say that the best shots come at the end of the session, because earlier exposures always feel rigid and false. The subject's guard is still up, but eventually, their true face emerges for the camera.

The necessities and influence of subject and context, whether in portraiture, installation, or design, take time to unfold. It is the designer's job to figure out a way to have a problem show its actual self so that he can respond to the truth that has emerged.

Getting to know a problem is a bit like getting to know a person: it's a gradual process that requires patience, and there is no state of completion. You can never know the full of a problem, because there is never comprehensive information available. You have to simply draw the line somewhere and make up the rest as you go along. Irwin describes his process, saying, "I took to waiting for the world to tell me so that I could respond.... Intuition replaced logic. I just attended to the circumstances, and after weeks and weeks of observation, of hairline readjustments, the right solution would presently announce itself."

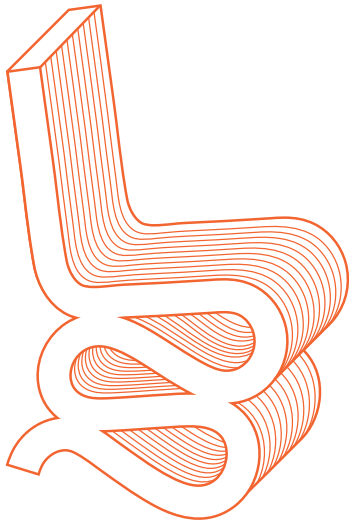
In other words, Irwin's process begins by listening: to the room, his intuition, and the work as he is making it. He then enters a dialogue with the space, going near and far just like the painter in the studio. Irwin's gaze, however, also contains the space around his work and how his piece relates to its context. His process favors field-testing on-site by improvising in response to the context. He summons a more human metric to forecast decisions by using instinct instead of logic. Logical thinking has a tendency to break when all the parts are moving, so Irwin speculates with his gut, makes a modification, then tests it with his eyes.

The physical forms of Irwin's work are not the emphasis of his practice. They are only meant to collaborate with the space and not intended to have any sort of significance themselves. I think this pattern also fits with the way that design operates: the products of design are just the means to an end. They are objects whose existence is rooted in the need that they serve. The primary purpose of the design is to have it do something particular, not be any particular thing. All of this implies that design is a field of outcomes and consequences more than one of artifacts. The forms that designers produce are flexible, so long as the results serve the need.



Let me give an example. Suppose I sent a design brief to a few designers asking them to design a chair. What might I get back?

We have a multiplicity of chairs from three different designers: a tall rocking chair from the Shakers, a bent plywood seat from the Eames Office, and a curved chair made of cardboard by Frank Gehry. There are certain similarities and patterns in the chairs, because the objectives of the work act as a constraint on the process. They guide the designer to certain inevitable conclusions which are necessary to have the design fill the need it seeks to serve. Each chair has a seat, all form a cradle for the sitter, and all the chairs are of similar size that is based on the proportions of the human body. The constants of the designs are determined by the unavoidable logistical issues that must be addressed to make the design useful. A chair, for instance, must follow certain proportions to comfortably hold a human body.



LEFT

Traditional Shaker Chair
1860s

CENTER

Molded Plywood Lounge Chair, LCW
The Eames Office, 1946

RIGHT

Wiggle Chair
Frank Gehry, 1972

But the three chairs clearly have differences in structure and style. Multiplicity will always crop up with design, even in spite of constraints, because the work is subjective and without fixed solutions. The products of design are more negotiations of issues and responses to problems than absolute, fixed solutions, and this provides plenty of space for different takes and perspectives. Grouping the chairs together makes it evident that each design is an attempt to fill the need of sitting seen through the lens of each designer's disposition. Their responses are a negotiation of the problem with its context, and the designers are a part of that context.

The success of one design, however, does not suggest that the others are less useful or not as good. Design can have diversity in its solutions to problems without compromising the success of any of them. One approach does not negate the quality of

another, so the comfort of a Shaker chair does not imply that the other two are uncomfortable simply because they are different. Gehry's cardboard chair, for instance, has no legs, but legs are only necessary to support the seat at a proper height. Gehry was able to scrap them because he found a different way to lift the seat.

Our chairs differ because of the dispositions of their makers, but also because they were made at various times in different cultures. Time and place have a large impact on the products of design, because they dictate what is possible. A Shaker, for instance, could not have created the Eames' chair, because plywood did not exist, never mind the technology to bend the wood. The adjacent possible had expanded in the one hundred years between the first Shaker chair and the Eames' chair, which opened up new opportunities to rethink how chairs were made.

Culture also has an effect on the products of design. There is no guarantee that the Shakers would have found the Eames' chair desirable to make, even if they had the technology needed to produce it. The relationship of design and culture presents another two-way bridge where influence goes both ways: culture creates design's target by defining what is desirable. Simultaneously, the best design recalibrates what we think and how we feel about what surrounds us. The two shine on one another: culture changes what it expects from design after design changes culture, meaning that when our work hits the target, that target moves out from underneath it.

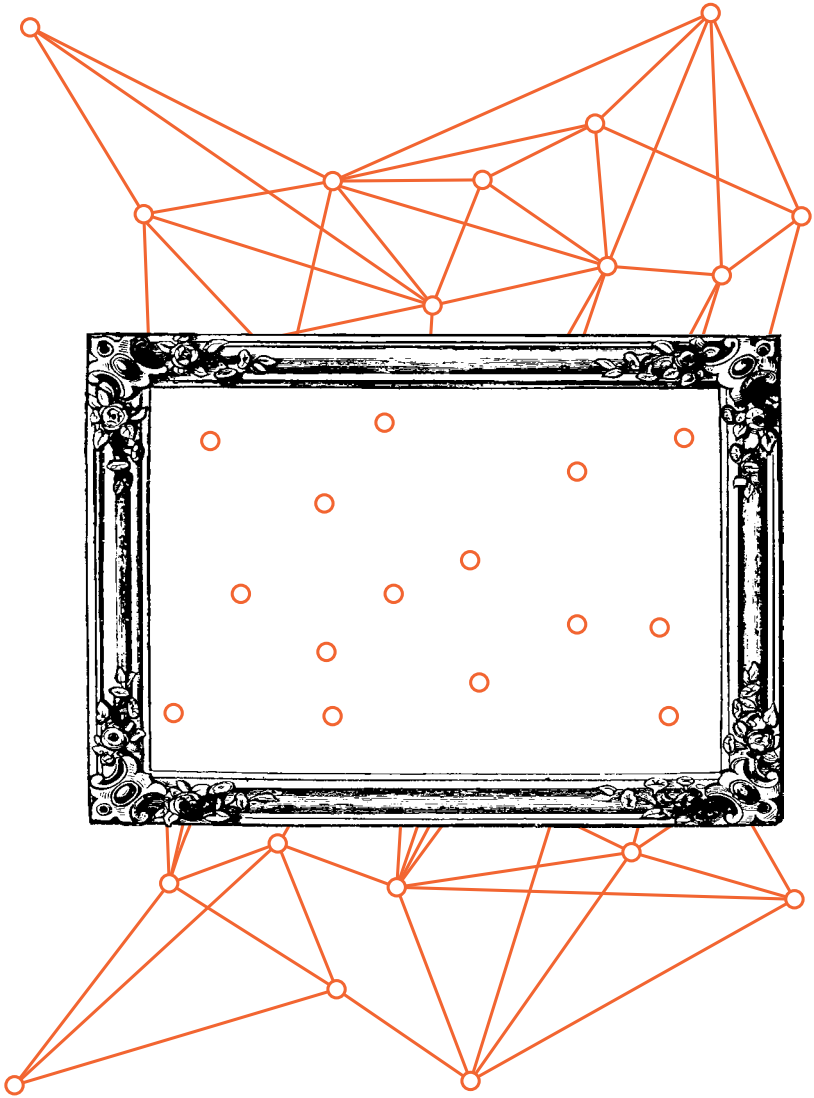
The shifting bullseye suggests that we should reconsider our conception of design as a problem-solving endeavor. Hitting the bullseye is only ever a temporary state, and rather than seeing that as a problem, we should pull another arrow from our quiver and celebrate the moving target as the way we inch toward better

circumstances. We should embrace the subjective nature of what we do and allow for the multiplicity of responses to thrive, because the mixed pool represents the diversity of human perspective. That diversity fortifies us, makes us strong. Most of all, we should build movement into our definition of the craft and its successful outcomes. The best design acts as a form of loosely composed, responsive movement, and seeks to have all the adjacent elements sway together.

This is a generous definition, much greater than just problem solving, because the best design has to offer much more than making problems go away. Design can also build up good, desirable artifacts, experiences, and situations that are additive forces in this world. It helps us live well by producing and elevating new kinds of value, such as engagement, participation, and happiness. These are design's true outcomes, because the practice, at its root, is simply people making useful things for other people. It's life-enhancement, and we can make it for one another, so long as we act responsively and keep our momentum moving forward, just like the man on the tightrope.

PART THREE

THE OPENING



CHAPTER SEVEN

STORIES AND VOIDS

“Draw your chair up close to the edge of the precipice and I’ll tell you a story.”

F. SCOTT FITZGERALD

Great design moves. In the first part of the book, the internal movements of the maker were assessed as an opportunity for improvisation by using the affordances of formal structures like the three levers as a framework. The next portion looked at motion through the lens of the work’s cultural context. It explained how the world advances by expanding the adjacent possible and shifting culture, and how the motion that surrounds the work should be incorporated into the designer’s decisions through a responsiveness that sways with the work’s context. The motion continues once the work leaves the hands of its creator and moves to the audience. After publication, there is an opportunity to achieve a resonance that emotionally moves the audience, and if successful, the work continues its movement by being passed around and shared. If we’re interested in having the work resonate and propagate, narrative becomes an essential component to design, because nothing moves as quickly and spreads so far as a good story.

Stories are a given — they permeate all cultures and interpretations of life. Narrative is such a fundamental way of thinking that there are even theories that say that stories are how we construct reality for ourselves. We use them to describe who we are, what we believe, where we are going, and where we came from. We create myths about our own origins, such as the Iroquois story of how the earth came to be on the back of a turtle, or the ancient Greek tale of Prometheus stealing fire from Zeus and giving it to man, or the Egyptian Hapi bringing fertility to the land by flooding the Nile.

The scope of these tales is daunting, but the stories we weave need not be grand. A myth about how Helen of Troy's face launched a thousand ships is just as much a story as a coworker's tale about their shoelace snapping on their lunch break. A story is simply change over time, and the scale and scope of that change doesn't matter so long as it has momentum. A story, in fact, doesn't even need to go anywhere, as long as it feels like it is about to head somewhere good.

My favorite example of a dead-end story is Edward Hopper's painting *Nighthawks*. I have a print of it that sits in the drawer of my desk. It's become an object of habitual storytelling for me, because it feels like it has an inert potential to go somewhere, but it thwarts my efforts to figure out exactly where. All Americans are familiar with *Nighthawks*, whether they know the painting's title or not: it depicts a few people sitting in a nearly empty 1940s New York diner at night. Few pieces of art have the level of recognition that it enjoys, and even fewer achieve the painting's cultural resonance as to be able to be spoofed as often as it has since it was made seventy years ago. Why has it risen to such stature in our collective consciousness? What is it about this painting that makes it so sticky?

We're attracted to the painting because it is not finished. All of the paint has been applied, but there's a gap that frustrates the viewer from deducing what is happening in the picture. *Nighthawks* is a detective story, and like most of Hopper's work, it concerns a void. What is absent matters just as much as what is present, creating a tension between what is said and what is implied. It's a framework for a story where everything has been established save the plot itself. The painting is lacking; it requires us to contribute something of ourselves in order to fill the void and finish it.

Many have created their own stories about *Nighthawks*: Joyce Carol Oates wrote monologues for each of the characters; the magazine *Der Spiegel* commissioned five different dramatizations of the painting; and Tom Waits made a whole album about it. No matter who is finishing the painting for Hopper, viewers project themselves into *Nighthawks* and read the image depending on how they see themselves. There are a few touchstones that guide our stories, but so many details are up for grabs. The quality of the painting pulls us in and requires us to complete it, and what we say suggests something about us.

I think about how the painting was made shortly after the Pearl Harbor attack. I see four individuals with the wind knocked out of them by catastrophic events. I see eyes glazed by the uncertainty of what the future holds. I see a woman whose relationship may collapse and a group of men who may have to go to war. I imagine mouths unable to develop their feelings into words. They all sit in silence, staring off into some void, lumbering into some unknown future. I divine all of this from a painting, and I think to myself how I would kill to have this sort of rapt attention on anything that I've ever made.

Hopper's lure is that the painting lacks a story. He sets the table for us, but we must serve ourselves. The reason *Nighthawks*

has such a compelling hook is because it raises an interesting question with so many clues, but never answers it. Yet the quality of the painting makes us perceive the answer must lie within. Those questions will be answered, even if we have to do it ourselves. Narrative is a device we use to make sense of unfamiliar or unresolved things.

In my first few years teaching graphic design, I instructed a class called Graphic Design Systems. Our tools were color, form, and composition, and we practiced methods of using those building blocks to emotively communicate ideas. All work was to be abstract and nonrepresentational, and students were forced to explore the potential of purely visual communication without the additional complications of meaning that come with typography, photographs, and illustrations. How would one create a composition to describe dissonance? How can color and line be used to make something look joyful? After a few weeks, I began noticing a pattern in how the students discussed the work. On critique days, when we were all faced with a wall of red circles, blue squiggles, and clusters of lines, students would provide feedback through stories.

“This one seems to work really well. It makes me dizzy, because it feels like I’m being sucked down into a vortex, like I’ve fallen into a rabbit hole like Alice.”

“I’m not sure that this composition feels joyful, because it seems that this triangle is too aggressive, almost like it’s angry at the squares.”

“It’s like a middle school dance. Some shapes are dancing, but the music doesn’t look like it’s very good.”

“That circle probably has bad breath.”

I was surprised by how effective this mode of feedback became to the students. They were having more meaningful conversations

about the work by telling stories rather than by describing the formal qualities of the compositions. The students were personifying and manipulating compositional elements in a kind of collaborative storytelling exercise. The students had limited experience in talking about the relationships of form on the page, but they were well-versed in human relationships, so it made sense to discuss the work through that lens. After a critique, the take-aways were always vague in words, but wonderfully specific in consequence. Everyone always knew what was expected after the session, even though the logistics of doing so weren't captured in the words. Make those shapes get on better. Let the dance be fun, so all the shapes want to move. And somebody get that circle a mint.

Storytelling is one of the most efficient communication methods we've devised. Its effectiveness is why so much of the wisdom and insight about what it means to be human is wrapped up in fables and parables. The lessons of a story are easy to deduce, and they foster a sensitivity to specifics and create empathy inside of the listener. All stories, as stated earlier, are changes over time, so if you pay attention to what changes, you'll find the point of the story. This also implies that if we are looking for ways to use narrative in our work as a design material, all we need to do is ask where the time passes to find the story's proper place.

Telling a story with design in a magazine or book, for example, is possible by using the passage of time as a reader goes down the page or moves from spread to spread. Slowly decreasing or increasing the line height of a block of text, for instance, tells a story by suggesting urgency or relaxation as the lines expand or contract. Similarly, magazine designers spend incredible amounts of time ordering and pacing their publications spread by spread, creating an experience for the reader as they flip through. After a series of quiet, typographic spreads, a publication might choose to

run a splashy design with few words and a large photo to capture the reader's attention. In advertising, narrative can be created by changing the design of the same billboard over the course of a few months. In interaction design, the passing of time could be implied by the user's scroll, or maybe the application detects that it has been a week since the user has last opened it, then responds accordingly. Drip email campaigns can also be mechanisms for storytelling. And narrative is, of course, obvious in areas like film, music, and comics, because time is already in the material's nature. There is an opportunity to tell a story whenever time can be assumed and pace can be controlled.

In addition to conveying information and entertaining, narrative is also a device that creates empathy, which allows us to better understand one another and ourselves. I have fond memories, from when I was young, of how my parents would sit at the kitchen table before serving dinner and talk to one another about their day. My sister and I weren't terribly interested in the office politics at my mother's job, but my father was always there, listening and nodding. Now that I'm older, I realize that the point of those chats was to give my mother an opportunity to tell a story so that my father could understand why she was a different person that night compared to when she left for work in the morning. She was describing the change in her over time, bridging the void between her and my father that developed throughout the day. There was distance between them, and her story closed the gap.

Even now, I'm still learning about the use of these conversations. I catch myself telling similar stories about my day, and realizing that while they may benefit the other person and help them to understand me, I'm also telling them to better understand those events myself. We can fill the gap between what we know of ourselves and what is actually there by going through the motions

again. Stories become our gateway to understanding our own lives as well as the lives of others.

In 2008, Pixar released its feature film *Wall•E*. The movie concerns a robot living on Earth in the distant future where the planet has been abandoned by humans, because it has been made inhospitable by an exorbitant amount of garbage. It's *Wall•E*'s job to collect and compact that trash. *Wall•E*'s vocabulary is limited (he's only able to say his own name and a small set of chirps and whistles), yet the narrative masterfully sustains momentum for two hours. *Wall•E* meets another robot named Eve, discovers life on Earth in a small sprout, and hitches a ride into space to alert the humans that life can be supported on the planet again. And I'll admit it: in a moment of weakness, a robot made me cry.

You might say, "That's the point of movies – to entertain us, to make us laugh, cry, feel." I suppose these are all true, and that does temper my shame a bit. But *Wall•E* is a testament to the power of storytelling, because despite the limitations of a robot as a lead character, the film is able to tap into an emotional core. *Wall•E* is anthropomorphized like many cartoon characters, but he is not a fish, tiger, or anything else that has ever had any life to it. He is a mute, animated hunk of metal with no life essence that has somehow been given such an emotional depth that he holds us – enraptured – for two hours. The audience is able to achieve a certain sense of empathy with *Wall•E* through the power and propulsion of excellent storytelling. His successes are our successes, and his pains are our pains, even if he is just a circuit board.

Story has the ability to humanize things that weren't thought to be alive before, and I have to wonder if the inverse is true. If you take a robot and add a story, it becomes more human. If you took

a person and removed their story, would they become something less worthy of sympathy? There's an old story about David Ogilvy, one of the original mad men that established the dominance of the advertising field in the 50s and 60s, that seems to deal with storytelling as an avenue to create empathy. One morning on his walk to work, Ogilvy saw a beggar with a sign around his neck.

I AM BLIND

The poor man slouched in a corner and would occasionally hold the cup up to his ear to give it a rattle, because he was unable to tell how much money was in it by looking. Most days, the beggar didn't hear much. Ogilvy was in good spirits that day. It was late April in New York, when the air is beginning to warm, and there's a peaceful pause before the city falls into the oppressive heat of summer. He decided to help the beggar, and dropped a contribution into the cup. Ogilvy explained what he did for a living when the beggar thanked him, and he asked for permission to modify the sign around the man's neck. Upon receiving consent, he took the sign and added a few words.

That night, on his way home, Ogilvy said hello to the beggar, and was pleased to see his cup overflowing. The beggar, frazzled with his success, and uncertain of what Ogilvy did to the sign, asked what words were added.

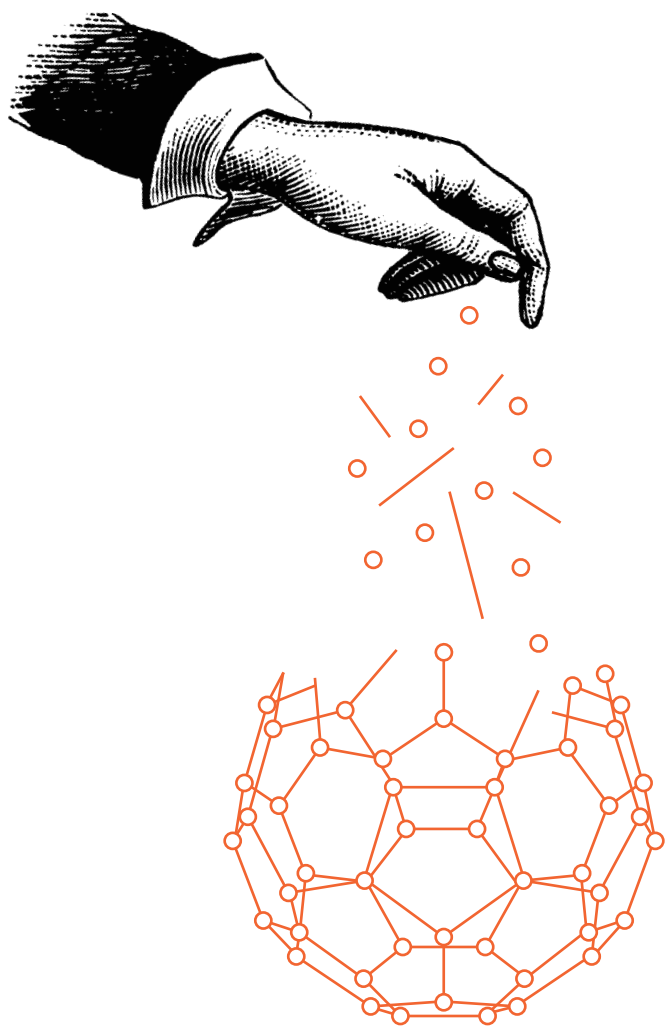
IT IS SPRING AND
I AM BLIND

Ogilvy was able to create empathy in the passersby, who would have ignored the blind man, by adding a story.

I love that story, because it speaks to the best of what we can do for one another. It also suggests what we should seek to do with the stories we tell. Roger Ebert described the specifics eloquently by calling the goal “elevation,” saying, “I would consciously look for Elevation, remembering that it seems to come not through messages or happy endings or sad ones, but in moments when characters we believe in ... achieve something good. ... One human life, closely observed, is everyone’s life. In the particular is the universal. Empathy is the feeling that most makes us human.” Stories with elevation let us empathize.

The tale of the blind man’s sign is also about storytelling. I first heard it from a friend over a cocktail at an airport bar, and he had it told to him by a former coworker around a campfire at a company retreat. Stories spread through a human network, they branch and expand, to produce a hand-off of understanding between a group of people. Each story that’s remembered signifies something noteworthy that has been comprehended, whether it is exceptional or of the everyday. The stories we tell represent bigger things, whether it is a take on the beginning of the world, the bond between my parents, the feelings I project onto one of my favorite paintings, or the connections between people once they are given the language to empathize.

And I think that this gets us to the most important aspect of narrative: the quality of the story is a second-rate concern so long as we empathize with the person it is about and care for the one telling it. A good story speaks to the experience of someone else, but in its telling creates another shared experience for the speaker and listener. The story moves, and with each telling, it keeps a hint of the wisp of the last voice that told it, and retains a bit of the luster of the last shared moment it made.



CHAPTER EIGHT

FRAMEWORKS AND ETIQUETTE

*“The question, O me! so sad, recurring – What good amid these, O me, O life?
Answer.*

*That you are here – that life exists, and identity;
That the powerful play goes on, and you will contribute a verse.”*

WALT WHITMAN

There are two successful outcomes when a design focuses on its audience: resonance and engagement. Stories speak to the first and frameworks to the latter. Frameworks are the structures that allow for contributions to be made to the products of design, and increasingly, it has become the work of the designer to create these frameworks. One of the more central questions that design must now address is how one produces an enticing environment for conversation, community, and creativity.

A framework is the bridge that connects the designer to the audience and goes both ways. It also nicely resolves a thought that crosses my mind frequently while working: “What if the audience is smarter than I am?” If the audience knows more about what they need than the designer does, it seems silly to not have a way to gather their thoughts, opinions, and proposed

solutions. Frameworks open up a valve of communication and contribution; if effective, they reap the rewards of an intelligent and experienced audience. A good framework is an enticing means of contribution and an invaluable feedback mechanism. It gives designer and audience shared ownership of the products of design, a true synthesis of requirements.

Largely, the practices that make for good improvisation produce good frameworks, because both are created to help initiate creative work and encourage contributions from others. I'm reminded of the Japanese *renga* mentioned earlier, where the poets would contribute lines and daisy-chain them together to create a whole greater than the sum of its parts. The framework wasn't the poem, but the structure and methods employed to help produce it. There were rules and limitations to the game, with social etiquette layered on top, and these elements interacted to create the materials for the poets' interaction. I think all of these patterns apply to contemporary frameworks as well: there is the action that needs to be done, the tension of creating a worthwhile larger work, and the social etiquette necessary to pull it all off. The goal is the same now as it was in the time of the *renga* – to build something of quality, to have others contribute something of themselves in the process, to have those individuals interact with one another as a community of contributors. All frameworks are implicitly social in that they are an environment where conversation, sharing, and building occur. They're collaborative.

Earlier I discussed improvisation as it applies to a personal creative process, but more frequently, improv is a social act. The results of the improvisation are built up through dialogue between many individuals, whether it is a group of jazz musicians sharing a stage and trading fours, or a troupe of improv comedians feeding one another material to get laughs. And so all of the tenets

that influence improvisation on an individual level also need to be applied collectively for frameworks. Contributions must be accepted, and then appended by someone else, which brings us back to “Yes, and....” Momentum also matters here, so the materials need to trade hands frequently, with tight feedback loops to quickly incorporate each contribution to the whole. There’s a special satisfaction in contributing to something, and it becomes even more rewarding when everyone can see how their part has influenced other aspects of the creation.

Liz Danzico likes to frame up her experiences of contribution by telling a story about a saltbox that hung beside her mother’s stove while she was growing up. Occasionally, her mother would ask her to add a bit of salt to the pot while the meal was on the stove simmering. Salting was a way for her to participate in making dinner; the salt was an agent of change that she could use to contribute to the meal, and the saltbox was the structure that allowed her to contribute. The saltbox, if you will, was the framework.

I think the process of salting is an apt analogy for a creative offering, because the soup in the pot isn’t Liz’s creation, but she’s the one who imbues it with flavor by adding salt. Salting happens one pinch at a time – it is a gradual process – with success determined by tasting afterwards. We judge what we’ve done by testing the change we’ve created, and that’s how a good framework should feel for the audience when they contribute. The path is self-correcting, because they can observe the influence of their actions and make changes if needed. Maybe the soup needs more salt. The feedback loop is purposefully tight. That’s why you can trust a child to help with dinner without ruining the meal: it’s a small effort with low risk, but big rewards.

Salt releases the food’s natural flavors when applied judiciously, and this speaks to the benefits of a successful framework: it’s not

the main dish, but a meaningful addition to what the audience already wants to achieve. It enhances what they already intend to do and increases the quality of what they would have been able to achieve on their own. But frameworks have a tendency to disappear when they are intuitive and carefully planned, because our attention is on the wonderful fruits of the process. We typically only notice frameworks, like salt, when something is out of balance. Consider salt in a cookie: we only taste it when there's too much or not enough, because when the balance is just right, we hardly realize it's there.

Frameworks have always existed, from game design to the office suggestion box, but their importance has been amplified by the presence of the internet and the opportunities that the web affords. Designers must manage a new kind of conversation around their work, because connectivity has created new opportunities for audiences to contribute. We are no longer only designing logos, brochures, and posters, but now also experiences and interactions that provide the path for audience engagement. If resonance and engagement are our goals, then improvisation is the blueprint for creating these interactions. Improvisation's ability to manage the contributions of others and lead them to a desirable outcome makes it a prime lens to view and understand these new requirements.

The proximity of the audience to the work should be considered an overlap of interest. The designer and audience are now wed in co-authorship, with each of their contributions part of the dialogue that establishes the characteristics of the project and the direction it will take. *Kind of Blue*, for example, is credited as an album by Miles Davis, but, in truth, it is an album made collaboratively with all the other musicians in the studio. The music did indeed spring from the limitations Davis wrote on those slips

of paper, but once providing the framework, he wisely stepped back and relinquished complete control and authorship.

Designers should do the same with the frameworks they produce. They should begin by setting good restrictions that act as suggestions, but then step out of the way to see where the audience takes those purposeful limitations. Stepping out of the way requires a new way of thinking, because the designer can no longer command the whole ecosystem of the work if others are contributing. The control that designers so often desire is undermined through an unpredictable collaboration with the audience.

Again, the solution is for the designer to sway responsively to the shifting context of the work with the contributions of the audience. The key is to understand when to surrender control and let the audience drive, and when to exert authority to focus everyone's effort to ensure a more meaningful outcome. A gentle touch, more often than not, is all that's needed to guide things in the right direction. One could say that Davis' genius with *Kind of Blue* was introducing that gentle touch to jazz, favoring a few simple scales over the elaborate scaffolding of Bebop.

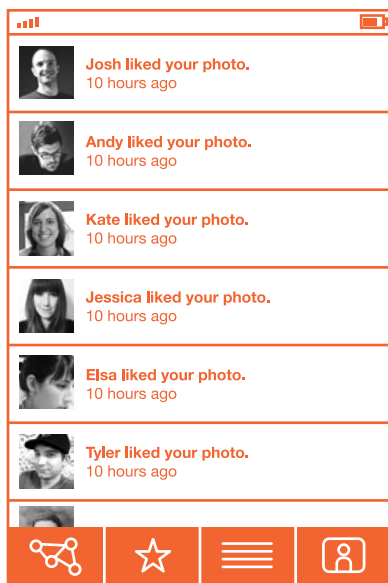
A good set of well-chosen rules makes the contributor feel like they are already halfway done: all that is left to do is to sort out the details and execute their idea. A good example would be the easy hand-holding of a MadLib – name a few words, drop them in, and then read what funny nonsense results. The framework limits what words go where; place an adjective here, a verb there, then a name, and presto: you get a funny story. Bad choices in frameworks, however, have a tendency to feel too limiting; they are frustrating and unclear to the audience and squelch any inkling of interest in participating. Imagine if the MadLib asked for a present participle that modifies a noun as

an adjective. The value proposition for contributing becomes an unappealing one.

The contributions of the audience fortify the work, create identification and ownership in them, and solidify the community around the design. Frameworks are collaborative and social in nature, so etiquette also becomes a concern for the designer. I have a friend who collects etiquette books, and it's only recently that I think I've come to understand why she does this. The books highlight the important points of our engagements with one another. Manners underscore what we feel is proper. Etiquette is composed of the rules of engagement, and how we interact when we're together. Designers need to think about setting these rules, because they exist to grease and ease social interactions.

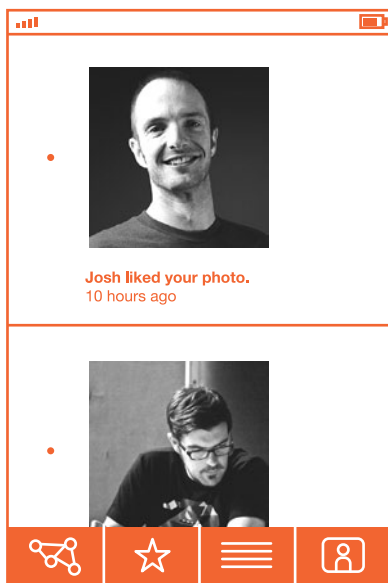
The start of the internet produced a lot of discussion about “netiquette” to establish the social norms that would dictate our interactions in this new and unfamiliar digital space. Those conversations have largely vanished in the past two decades, which is a shame, because while the web has become increasingly social, we haven't developed many new social protocols to handle the glut of demands created by socializing online. Our initial attempts at netiquette translated our existing manners into the digital space. We were correct, to a large extent, to bring along the behaviors that come from kindness and politeness, but collective socializing online is not a mirror image of doing so in physical space. Most relationships are asynchronous and anonymous. Believing that a simple one-to-one translation of the norms we have in physical space should work in digital space underestimates the influence that our new connectivity has over the way we socialize. The tools we have shape how we use them, and the social web, frameworks, and their design decisions establish how the audience contributes and how they relate to one another as individuals.

The story about Ogilvy and the blind beggar speaks to the consequences of when the personhood of an individual is amplified or minimized. The human presence changes behavior. Ogilvy created a space for empathy by telling a story, and I think that the decisions of a designer can influence whether or not users empathize with one another when huddled around a framework. Empathy is crucial in these cases, because frameworks are the means to build up things collaboratively. Let me give an example. A few weeks ago, I was using an application on my phone that is essentially a framework for sharing photos with friends. These friends can comment on the photos and favorite them. There is a screen in the application that lets you look at the updates describing who has liked a photo that you have taken, or if new people have shown up and subscribed to your stream of photos. The interface looks, roughly, something like this:



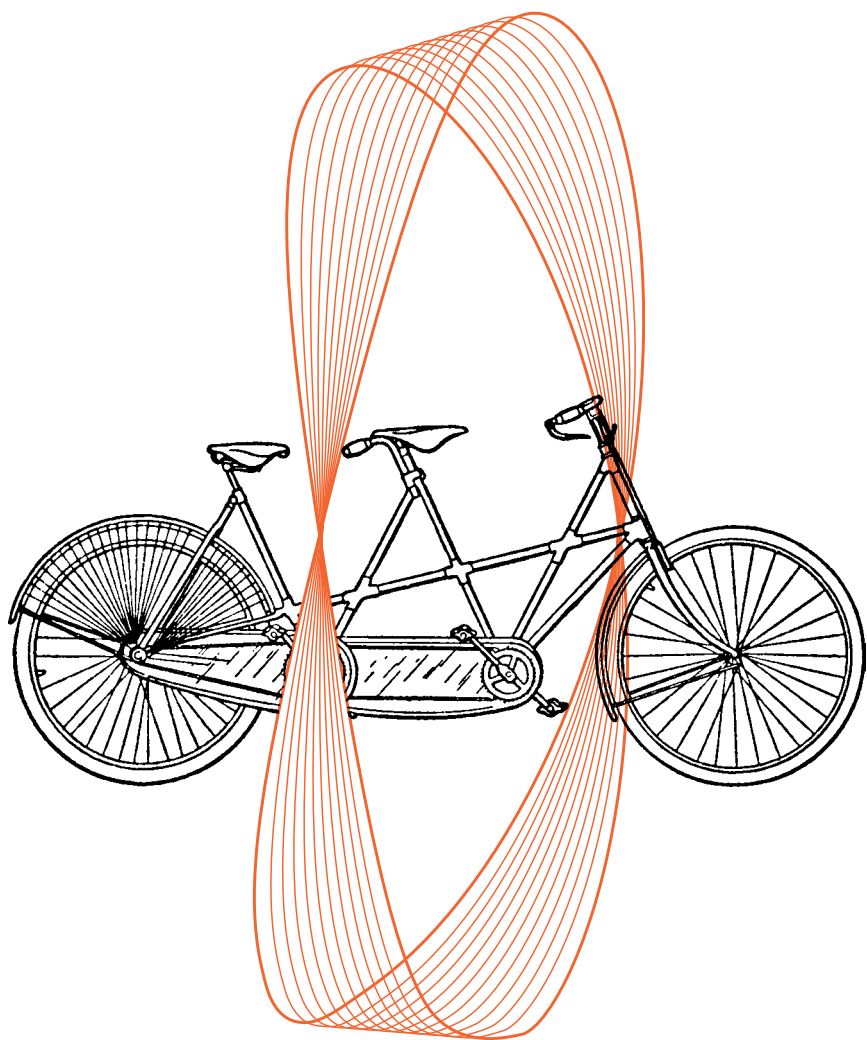
It's a nice design, and it provides a concise digest of activity around the photos that I've taken, but I think it's a complete failure in reinforcing the emotions that make the behaviors it presents meaningful. I look at this screen often, but the one thing I should feel – thankfulness for the kindness and recognition of others – never materializes.

Except for the one time it did: I opened the application one day to discover a rendering bug had enlarged the avatars on this screen. That one simple change made me feel a part of this photography framework and the community it sustains. Seeing the faces of the ones who liked my photos made me part of a web of mutual appreciation. The people snapped back into focus as individuals.



I began to think about the screen's original design: it had information density, but it wasn't a suitable representation of personhood. The design was optimized for consumption of

information rather than thankfulness for the interactions and relationships it depicts. Appreciation is a significant aspect of positive experiences; if the design choices have been optimized for consumption instead, it turns an opportunity for nourishing collective resonance into a gesture of empty snacking. All of which begs the question: was the rendering mistake actually a *mistake* if it fixed the most fundamental problem of the original design? The bug was eventually fixed and the screen returned to the original layout, but I want my big faces back.



CHAPTER NINE

DELIGHT AND ACCOMMODATION

“Who ever said that pleasure wasn’t functional?”

CHARLES EAMES

Design doesn’t need to be delightful for it to work, but that’s like saying food doesn’t need to be tasty to keep us alive. The pedigree of great design isn’t solely based on aesthetics or utility, but also the sensation it creates when it is seen or used. It’s a bit like food: plating a dish adds beauty to the experience, but the testament to the quality of the cooking is in its taste. It’s the same for design, in that the source of a delightful experience comes from the design’s use.

There is a tendency to think that to delight someone with design is to make them happy. Indeed, the work may do that, but more appropriately, the objective is to produce a memorable experience because of its superior fit. The times that design delights us are memorable because we sense the empathy of the work’s creator. We feel understood, almost as if by using the work, we are stepping into a space designed precisely for us.

Outside of design, the most delightful memories are some of my strongest. They’re of the idyllic times where I felt like I fit: the

world seemed to be orchestrating itself just for me. I was exactly where I was supposed to be at the right time. Of course, these situations weren't constructed for me, but the experiences felt like they were tailored. They were specific and personal, empathetic and warm. The experiences shine more in their remembrance, turning into a kind of self-perpetuating myth whose importance grows with each retelling. Why shouldn't delightfully designed experiences be like these memories? Now, it's far outside of the capabilities of anyone to maneuver the parts of the universe to recreate the idyllic experiences to which I refer, but with each project, designers are given a chance to align the specifics in a fitting way to create that same sort of feeling. Empathy creates an opportunity for skillful accommodation.

Again, design gets wrapped up with how the work *feels* while being used. All design is experience design – whether it is visiting a website, reading a book, referencing a brochure, interacting with a brand, or interpreting a map. All of these interactions and objects of attention produce experiences of use, and those experiences can be made better and more memorable by skillfully catering to the audience in an accommodating way.

Delight, unfortunately, can be painted as a quick fix or a gimmick that offers a snazzy way to spit-shine a poor idea with novelty. The intentions of creating accommodating work go deeper than just a surface treatment, and are meant to build and maintain meaningful, nourishing, and codependent relationships between the designer and audience. The decisions that make a design delightful are an expression of compassion for the audience and care for the work being done. They should attempt to build up long-term benefits rather than temporary gains. The gestures that make a design delightful can be small, but their implications are meaningful: they are part of an attempt

to engage an audience in a consequential, human way, and to maximize the opportunity of the situation for everyone.

The correct choices feel much like an embrace. A space of accommodation has been skillfully created by the designer for the audience to occupy, and the audience need only to step into the space for it to be completed. It's an architected space crafted through empathy based on the designer anticipating the disposition and needs of the audience to achieve a good fit. For instance, there is a certain small satisfaction when our spell check learns to automatically correct our frequent typos, or when the handbasket appears in the grocery store right as we pick up the extra item that makes it too difficult to carry everything with our bare hands. The fit is the result of a successful decision made in response to the desires and natural behaviors of the audience.

There's room for a delightful approach in most design, even in the most conventional of exchanges. In Griffin, Georgia, for instance, there's a road sign hung over the state highway a hundred yards in front of a bridge. The sign warns oncoming traffic of the low overpass ahead by saying:



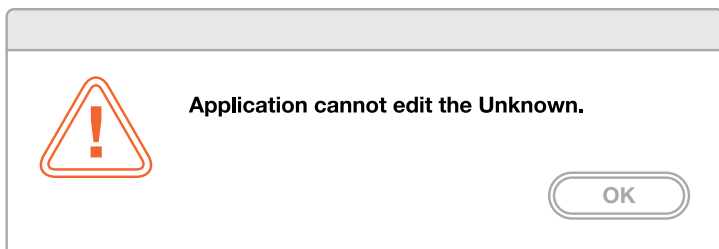
IF YOU HIT THIS SIGN,
YOU WILL HIT THAT BRIDGE

There are many different ways that the sign could have been made, but this particular one is effective because all three parts of the design – the message, tone, and format – are treated in a delightful way. The text gains clarity, immediacy, warmth, and humor through the tone of the writing, and the format is manipulated in a pleasing way because of the position of the sign. Placing the sign over the road rather than next to it gives the warning a

more direct relationship with the hazard it warns against. It's not just a written warning, but also a feedback mechanism for the real threat ahead. The sign provides a great example of how to approach a design problem to create delight, and highlights what makes a design delightful: it empathizes with the audience and their circumstances, surprises in its delivery, and achieves a clarity in what it is trying to say or accomplish. A delightful experience is the overlap of these three things.

Surprise is a crucial component, because it is hard to delight someone if they expect what they are being given. Delight fades when there is entitlement or predictability, and that's why so many of the delightful experiences in commerce involve a customer being under-promised then over-delivered. They get into an engagement expecting a certain amount, and are delighted when they get more than they bargained for.

The simplest form of delightful surprise is serendipity, when we are presented with an unexpected relevancy. Serendipity in design provides a new viewpoint that makes us look at what we are doing in new ways. It is the opposite of purposefully designing for delight, but like a scientist observing natural occurrences in the lab, understanding the natural patterns of things allows us to reconstruct them in our work. One of my favorite serendipitous occurrences is an error message that came up one day while writing:



Isn't it pleasing to think that software has pathos, and that writing is just as difficult for it as it is for us? I admit, most error messages create a large amount of grief because they signify lost work, but when this particular one popped up, I had to laugh. "Application cannot edit the Unknown" (capitalized, proper noun), and all I could do is to accept it and say OK. The computer had been personified for a moment, and in its existential crisis, I felt like it understood my writer's block. It was comforting to have company when lost in my words. This happy circumstance means that one of the best opportunities to delight the audience is when something goes wrong.

We can also be surprised by delight when the mundane is rethought and elevated. At the Ace Hotel in New York, a required exit sign over a door was an eyesore, and a stark contrast from the considered, detailed wall where it was mounted. Rather than accept the wart as it was, the sign was embraced as a chance to create an experience for the hotel's guests by integrating the exit sign into the space. Now, surrounding the sign are other letters painted on the wall in a similar condensed style:

EVERY EXIT IS AN ENTRANCE SOMEWHERE ELSE

Every requirement is an opportunity for delight, even the ugly ones. Sometimes the creative treatment of these warts are the most enjoyable parts of a design.

Delightful design also adds clarity by finding the balance between adding details for resonance and taking them away for simplicity. When the two are balanced correctly, we're left with

a design that shows up when it offers something of value, and then gets out of the way when it is not needed. Sometimes, more must be added to give clarity to the work, such as how a map may have added guidance along with street names to make it easier to navigate; but usually value and delight are created by taking things away and reducing friction.

It is a chore in most hotels and airports, for instance, to get connected to the public WiFi. The process is wrought with roadblocks and complications: login screens, user agreements, registration pages. The web page used to access the WiFi at the Ace Hotel, however, has a simpler approach to that interaction:



The internet button surprises and delights, because it understands what the user wants to do, and eliminates everything else that doesn't pertain to that goal. Clarity emerges, and delight shows up with it, because we feel like our intentions are plainly understood.

The most important element of delightful design is empathy. Clarity and surprise are only achievable through empathy with the audience. An intimate understanding of the audience means that our designs can be warmer in their communication and more appropriate. We can be friendly and good-natured with the ones who imbue our work with its value. Projects that seem cold or excessively composed are more indicative of a lack of understanding than a mark of professionalism. One can speak naturally and personally when they know someone well, and a friendly, affectionate, and hospitable tone is essential to cater to audiences, encourage dialogue with platforms, and produce the utility and resonance that great design seeks to achieve.

Delightful design attempts to make the work more pleasurable for everyone involved in it, and in doing so, makes the designer and the audience more aware of one another. This seems to be a foolish thing to say, but without the empathy that delightfulness requires, it's quite easy for the designer to be short-sighted and see the design work as a set of logistical problems to overcome or creative challenges to master, rather than an opportunity to produce something that enhances someone else's life. The warmth and exuberance of communication and the accommodation to the audience necessitated by delightful design also makes it easier for the audience to spot the presence of the designer in the work. The work becomes more humanized in its tone and effect, so it becomes easy to see that there are people behind it.



CHAPTER TEN

GIFTS AND GIVING

“Not I, not I, but the wind that blows through me!”

D.H. LAWRENCE

There is an old Japanese tale about a poor student who was away from home and living at an inn. One evening, as his stomach grumbled, he smelled the briny scent of fish coming from the inn’s kitchen as the innkeeper made his dinner. He wandered his way outdoors to the kitchen’s window, and sat below the sill with his meager meal of rice, hoping that the scent of the fish might improve his paltry dish. The student did this for many weeks, until one night the innkeeper spotted him and became furious. He grabbed the youngster by the arm and dragged him to stand before the local magistrate, demanding payment from the student for the scent of the fish that he had stolen.

“This is most curious,” said the magistrate, who thought for a moment and then came to a conclusion. “How much money do you have with you?” he asked the student, who then produced three gold coins from his pocket.

The student feared that he would be forced to pay the innkeeper the last of his money, but the magistrate continued. “Please,”

he said, “put all the coins in one of your hands.” The student did as he was asked. “Now, pour those coins into your other hand.” The student dumped the coins. With that, the magistrate dismissed the innkeeper and student’s case.

The innkeeper yelled in confusion, “How can this be settled? I’ve not been paid!”

“Yes, you have,” replied the magistrate. “The smell of your fish has been repaid by the sound of his money.”

The Japanese have many tales about this eighteenth century magistrate’s rulings, but the story of the stolen smell is the most often told. The student, despite not paying for the fish, was able to benefit from its scent, enjoying what amounted to an accidental gift from the innkeeper that added flavor to his bowl of rice. I feel similar to the student when enjoying the creative work that most inspires me. I’m working on my own projects, eating my humble bowl of rice, while reading, watching, and using the best that humankind has to offer. I’m awkwardly stringing together words into sentences, and then I get to have the wind knocked out of me by the first paragraph of *Moby Dick*. I get to be in that work’s presence, to sit under the window and steal the scent of the things I love, in order to improve what I make.

Stop and look around you. How much of your environment is created? How many things that surround you are designed by someone? From the wheat-pasted posters on the street, to the octagonal stop signs on the road; the overstuffed arms of the sofa where you sit, to the milky consistency of the page on which these words are printed, or maybe even the bezel of the device on which you’re reading this. All of these choices are designed, and they all coalesce into the experience of this moment. Most designers realize that much of our lives are designed, but we don’t often stop to think that the work’s widespread presence

turns our design choices into significant contributions to the ambiance of life. The lesson of the innkeeper's story is that the things we make transcend commerce and ownership – they are an experience to have rather than an object to own or a service to access. There is an aspect to the work's value that can not be described in dollars and cents.

Typically, the success of a design is defined by the economics of the work. Good design is profitable, because finances help see that design endures. But as stated earlier, design is equal parts art and commerce. The dual nature implies that there are opportunities and values in the practice that transcend commerce to enter into a space of collaboration and value creation that can't be captured on a ledger. Design seeks to create experiences in addition to being profitable, so the price and profit of the work represent only part of its value. I think the most fitting way to think about the best works of design are as gifts.

Lewis Hyde, in his landmark book *The Gift*, describes how art simultaneously exists in both the market and gift economies, and that the appropriate way to look at the work of a creative individual is as a gift. Hyde uses the qualities of a gift economy to articulate the attributes and value of the creative perspective and to assess the resonance and worth of the creative work once it is shared with others. There is value in a creative work to bond people and engender cohesion in communities, and this worth can't be fully articulated in strictly commercial terms. Instead, Hyde looks for lessons in gift economies to understand the patterns and opportunities of an arrangement where value is exchanged outside of finances.

The gift lives in the work, but also in the work's creator. We typically describe someone's talent by saying they have a gift for it, as if their eye for color or perfect pitch were blessings imbued from

someone somewhere else. In our best, most creative moments, it feels as if we are hardly doing the work ourselves, achieving a sense of flow where time disappears, improvising becomes easy, and decisions seem instinctual, like some unknown force is guiding our steps. The ancient Greeks believed that their artists were guided by daemons – divine attendants who delivered creativity and insight to the artists waiting for them. The Romans later called their daemons geniuses. Writer Elizabeth Gilbert, in a lecture for the TED conference in 2009, said that the Greeks and Romans thought their artists were not geniuses, but rather had one – genius being something to be in the presence of, that could come and go as it willed, and not something contained in the artist themselves. The genius bestowed the gift of insight to the artist, and it became the artist's responsibility to use the material provided by the genius.

Regardless of where our talents and tendencies come from, the gift of the individual is an assignment: their talents must be used to sing a song of their own. Their personal gift is made good through their labor, and the gift is passed on to others through the work they produce. We feel an obligation to use our natural resources to build and make, to mold and shape the world around us for the betterment of others.

This is hard work, though, because the obligation to one's gift forces us down a road where there is no logical end to the amount of effort, time, and attention we put into it. We have a tendency to toil and sweat the details, even beyond the point of clear financial benefit. David Chang, head chef at New York restaurant Momofuku, made a cameo on the television series *Treme* and framed the gap between efficiency and the extra effort extolled by so many creative individuals in their practice by calling it the "long, hard, stupid way." In Chang's case, the long, hard, stupid

way was exhibited all over the kitchen, from preparing one's own stock, to sweating out the details of the origins of the ingredients, to properly plating dishes before sending them out to the table. Commercial logic would suggest that Chang stop working once it no longer made monetary sense, but the creative practitioner feels the sway of pride in their craft. We are compelled to obsess. Every project is an opportunity to create something of consequence by digging deeper and going further, even if it makes life difficult for the one laboring.

The long, hard, stupid way makes the process of design look like toiling, sweating over a drafting table, and producing piles of rejected ideas and prototypes. It's going longer, thinking harder, working smarter, and staying up later. This opens up a gap between the amount of these human resources that make financial sense and the exorbitant amount of care and attention that is actually applied to the work because of the obligation to the gift. The fruits of that labor can be sensed by the audience; in fact, we seek it out.

It's the extra essence that manifests as a well-plated dish when it comes to the table, an articulately phrased sentence as it appears on the page, or a daub of paint that sings of life in a portrait by getting the light in the eyes just right. The long, hard, stupid way is the path of creating special experiences for the individuals who can notice the details, almost as if one were speaking a private language to those attuned to listen. These careful details are what make the scent from the kitchen at the inn worth smelling.

Hyde states that a necessary element of a gift is that it must be bestowed. One can not ask for what they get, otherwise it is not a true gift. Hyde's definition mirrors the general structure of most design jobs: one person (the client) hires another (the designer) to create something for a third (the audience). It is hard to imagine

this situation as anything other than gift-giving when the work is made out of kindness and consideration. Gifts – whether wedding gifts, birthday presents, or the simple exchange of business cards at a meeting – operate in a social layer to initiate a relationship between people or to fortify an already existing connection. Gifts are a form of social currency, and this is fitting for design, because it is a communicative endeavor that always exists in a social context. The work has its movement initiated in its creation, and that movement gains momentum when given to the audience as a gift. The work continues its movement as it becomes distributed and shared; becoming something that is passed on after the initial hand-off. This fits nicely with another declaration Hyde makes about gifts: that they must move, and the more movement, the greater the value assigned to the creation.

In an episode of the television show *The West Wing*, there's a scene about heirlooms where President Bartlet asks his personal aide, Charlie, to go on the hunt for a carving knife to use over the holidays. Bartlet rejects each knife that Charlie brings back, citing the important details that each blade lacks. This happens several times, much to Charlie's exasperation, until he finally brings the President the best possible knife he can find in Washington. President Bartlet inspects the knife closely while Charlie describes the finer details of what makes this knife the best available: its weight is properly distributed while in the hand, its edge is honed, fine, and sharp. President Bartlet refuses even this blade, but then produces a knife of his own, one that has been in his family for generations and was made by a silversmith named Paul Revere. He gives it to Charlie as his Christmas present.

A family heirloom accrues more value with the greater number of generations it has been passed down. It does not matter that the object itself remains the same, because the space around

the object – its social context – is what makes us feel that the item is more valuable. The connection to Paul Revere lent Bartlet's knife a high financial value, but its social value was a product of its tradition and shared experience. The knife tied its possessor to a long line of others. I look at the obligations of our talents as a similar situation. We are part of a long line of people who have been tasked to shape this world in big and small ways, and the longer that line runs, the more valuable our opportunity becomes.

Bartlet's knife also shows that we are introduced to the finer details of a good gift and educated to its nature so that we may be able to appreciate it more fully. The context can produce a feeling of gratitude, and whether it is a family heirloom or a piece of design specially crafted for an audience, the space around the object creates an experience that primes the receiver for appreciation and thankfulness. Design gains the ability to nourish when it acts as a gift rather than as something to create yearning. We get to close loops of desire rather than open new ones.

We manipulate the context around the work to create a better experience for the one we're giving it to, much like how President Bartlet sent Charlie on a wild goose chase so that he would have to teach himself about what makes a fine knife. Gifts are wrapped for a reason – it frames the exchange, creates a surprise, and lengthens time to ensure an opportunity to have an experience. A similar thing happens when reading an old-style book with deckled edges. The edges don't offer any sort of utility in contemporary books, but they were a necessity in much older titles. Readers would slice open pages with a knife, because the text was printed on folded paper on both sides. The binding would seal the pages shut on the right edge, and they would have to be

torn, like opening a letter, to unveil the next page of text. The process turned the reading process into a literal page-by-page unveiling of a story. Italo Calvino said in his novel, *If On a Winter's Night a Traveler*:

This volume's pages are uncut: a first obstacle opposing your impatience. Armed with a good paper knife, you prepare to penetrate its secrets. With a determined slash you cut your way between the title page and the beginning of the first chapter.

The cutting of bound pages transforms a simple page turn into a treasure hunt, and while the obstacle doesn't necessarily scale well for someone who ravenously reads, it does make a simple page flip feel a bit like a child tearing through Christmas gifts at a feverish pace. Ripping apart pages meters the pace of reading, and frames it with a bit of nostalgia and romanticism. If anything, it forces the reader to spend more time with the words. Sometimes slowing down is a gift, because it lets the reader more fully appreciate the skill and capabilities of the writer. The design decisions of the format encouraged savoring for a better reading experience.

The success of a gift is quantified by the experience of its recipient, and harkens back to the primacy of the listener or audience. The qualities that make a great gift are the same characteristics that have been used to mark good design in this book: thoughtfulness in the choices that were made, understanding and responding to the context, and using empathy to accommodate and customize for fit.

Design, like many gifts, gains its primary value through customization to the one it is given to. "It's the thought that counts," as the saying about gifts goes, and that thoughtfulness implies

an understanding of the individual receiving the gift. This is why cash is thought to be an underclass of present: it may be the most flexible and valuable from an economic standpoint, but the ability to spend it anywhere means that the gift was never personalized. Good gifts must be tailored to their recipients, so the difference between giving fifty dollars in cash and thoughtfully spending fifty dollars on someone is immense. It suggests that the quality of the gift is not just in its objective qualities like flexibility or cost, but in its subjective characteristics like intent and context. The space around the gift and the environment in which it is given sets up an excellent experience.

And perhaps the line between thoughtfully buying a gift and just giving the money to someone relates to the reason why so many creative individuals feel it necessary to do things the long, hard, stupid way. To merely work within the boundaries of financial concerns and not maximize one's creative capacity is to give someone the cash. Singing a song of our own while we make our work uses the full capacity of the creative person to create new value and something of consequence. There is a contribution greater than just the commercial concern; there is a human investment of talent, perspective, and perseverance.

These are the elements that resonate with the audience, because the work becomes a link between two individuals. Both sides of the equation are humanized, initiating a relationship between them through publishing the work. A few years ago, my friend Rob Giampietro was designing a business card for a client, and during a presentation of design options, the client chose one, then asked if the design was completed. In a moment of insight, Rob responded that the design of the business card wouldn't be finished until the client gave it to someone else. The implied exchange was part of the design, and Rob's task was to create a framework for that gift

exchange to occur. The measure of a design is in its capacity to be shared: something travels from one person to another, and in the process, they both gain. Like a gift, design requires movement; the work must be shared, the ideas must move. A business card that stays in its owner's pocket is no good.

The publication of each design project initiates an exchange of gifts. On the one side, the designer and client offer their work; while on the other, the audience gives their attention, contributes through platforms, and offers their financial support. We value all these contributions, but the gift of attention is perhaps the most valuable. Attention may seem like an easy gift to give, but it is not; it is the scarcest resource available because its quantities are limited and nonrenewable. We can't produce more attention, and there are ever more things vying for it each day. Attentive audiences should be rewarded with high-quality work, and there should be a symmetry to the quality of each.

In the 1970s, Robert Irwin explored the qualities of attention as a gift. He called the experiment "being available in response." He would be available to other people who sought his presence, attention, and time, just like his responsiveness to the rooms where he installed his art. He explained:

I just sort of let it be known that I was available, in a way like I'm saying it to you. I mean, I didn't put out any ads or anything, but word got around. And you could be, let's say, up at UCLA, and you'd say, "Well, let's take advantage of that. We'll have him come up and talk to the students." And that's what I'd do. Or, "We'll have him come up and do a piece on the patio." And I would just come up and do that.

“There’s an important distinction to be made here,” [Irwin] continued, “between organizing and proselytizing, on the one hand, and responding to interest, on the other. I was and continue to be available in response. I mean, I don’t stand on a corner and hand out leaflets. I’m not an evangelist. I’m not trying to sell anything. But on the other hand, if you ask me a question, you’re going to get a half-hour answer.”

The experiment started slowly, but within a few months, Irwin was almost continually on the road. The project lasted two years. He’d show up at schools and talk to students, or visit institutions and do an installation. Irwin himself said that he wasn’t attempting to sell anything, implying that his availability existed outside of commerce and so was a gift. While his gift was free in commercial terms, it was terribly expensive in attention, making it a truly significant offering. The writer and media theorist Clay Shirky recently said, “We systematically overestimate the value of access to information and underestimate the value of access to each other.” How inspiring for Irwin to devote so many years to being fully available to those who were interested.

The relationship between quality work and quality attention, however, is a bit of a chicken and egg paradox. Which comes first? Do people make good work to gain the rapt attention of an audience, or do they not bother with refined work until they know others are listening? Inside of commerce, this is a problem, because it doesn’t make much sense to make a financial investment without a good hunch of reward. Luckily, for the creative individual, it is of no concern. The desire to produce great work will never leave the one making it, because of their sense of obligation to their gift. The song must be sung.

The things that initiate the exchange of high quality attention may start inside of the designer, but the products of the process have a tendency to have authorship and ownership evaporate. Sometimes the things we design lose the signature of the one who creates them, because their application is so widespread that their sway in culture diffuses to such an extent that it enters the air like the scent of the innkeeper's fish. They become a shared experience molding our interpretation of the world, becoming our points of reference, like the shape of a Coke bottle, the gait of the illuminated man on a street's crosswalk sign, the design of a paper clip, or the recycling logo. Design can sometimes achieve a state so fused with the culture, so widespread, distributed, and engrained into the background, that it recedes in spite of its up-front positioning. It can become easy to presume that these things have always existed, and forget that they were designed and originated with someone's decisions.

One of the best examples of this in graphic design is Milton Glaser's I ♥ NY logo. It's become something without an author, a shared symbol that permeates across all the spoofs and iterations it has inspired. Glaser's mark has become a gift to the culture that is shared, referenced, and celebrated. The mark became a vessel for emotion, a platform ready for the contributions of the audience to project their own affiliations onto to better articulate their appreciation for the city. Now, the mark is a shorthand to express affection for anything.

The art critic John Berger said that great art creates a space and gives it a face. In doing so, it's almost as if the gift names these hidden and formless experiences and enables us to more fully realize them, like the release that happens when we're searching for a word that is on the tip of our tongue, and someone else provides it for us. Empathy, understanding, and the codependency

created by making things for others allows us to describe the overlaps between us by creating this shorthand language of complex feelings and experiences. All we need to do is point at something and treat it as a symbol for something more.

We are dependent on each other in this way – we finish each other's sentences, fill one another's needs, and help each other to become better. A person is not a closed system, they can never be fully self-sufficient. We need each other because we cannot make everything ourselves. Everything was invented, but it was not done alone, so we should revere the times we are able to fill this complementary role for others, and cherish when others do so for us. It's the words of others that teach us to speak, the expressions of life by other people that teach us how to express ourselves. The great opportunity of design is that we are frequently afforded the privilege to fill another's needs and desires.

I used to be a bit jaded about my work in an attempt to shield myself from the responsibility of it. I'd say, it is just a logo, only a promotional piece. It's only a website, just an essay. But, the things that we make are more than just objects. They're the way we paint pictures of what's to come. They are the projects that give us license to imagine a better future for ourselves and everyone else. These objects represent the promises that we make to one another and symbolize the connections between us. They come from the friction between the world we live in and the one we want to live in by building on top of our longings and exemplifying our capabilities.

W. H. Auden said a culture is no better than its woods. I'd say it's also no more than the things that it makes. We understand the lives of faded communities by the vesper trails they leave behind as stories, objects, and votives that represented something more. Everything fades, and in the end, all we have are one

another and the things we make to put between us. As art historian George Kubler said, “The moment just past is extinguished forever, save for the things made during it.” All of these creations linger, and they echo across the long line of time and speak to what those people were able to build and what they believed.

And I believe in so much. I believe in the two-way bridges we build that connect us to one another. I believe in the deep interconnectedness of everything, in the benefits of our codependency, and in the opportunity of today when we believe in a tomorrow. I believe in the gift that creative people are given and in the obligation to use it. I believe that we have done well, but I think we can do better. I believe we can do much, much better. There is more making to be done. There are dreams out there that must be made real.

And if you look closely, and ignore the things that do not matter, what comes into focus is simply this: there is the world we live in and one that we imagine. It is by our movement and invention that we inch closer to the latter. The world shapes us, and we get to shape the world.

ENDNOTES

- XIII “march backwards into the future”: McLuhan, Marshall, Quentin Fiore. *The Medium Is the Massage*. New York, London, Toronto: Random House, 1967.
- 19 “...a more beautiful question”: Cummings, E.E. *Collected Poems [of] E. E. Cummings*. Harcourt, Brace and Company, 1928.
- 22 Vermeer, Johannes. *The Art of Painting*. 1666. Kunsthistorisches Museum, Vienna.
- 22 Van Rijn, Rembrandt. *The Artist in His Studio*. 1626–28. Museum of Fine Arts, Boston.
- 26 “aired its final episode of *Reading Rainbow*”: Calhoun, Ben. “Reading Rainbow Reaches Its Final Chapter.” *NPR*. NPR, 28 Aug. 2009. Web. 02 Apr. 2012. <<http://www.npr.org/templates/story/story.php?storyId=112312561>>.
- 29 “A sunflower seed...”: Flanders, John. *The Craftsman’s Way: Canadian Expressions*. Toronto: University of Toronto, 1981.
- 34 “pheromones of the master’s own breath.”: Watson, Lyall. *The Nature of Things: The Secret Life of Inanimate Objects*. London: Hodder & Stoughton, 1990.
- 37 “I’ll play first...”: Miles Davis Honda Scooter Ad. Perf. Miles Davis. Commercial. YouTube. 1 Feb. 2008. Web. 8 Apr. 2012. <<http://www.youtube.com/watch?v=R1CwXz8Xidc>>.

- 37 “Lighting one candle...”: Hass, Robert, Bashō Matsuo, Buson Yosa, and Issa Kobayashi. *The Essential Haiku: Versions of Bashō, Buson, and Issa*. Hopewell, NJ: Ecco, 1994.
- 47 “...putting form and content together.”: Blumenthal, Saul. “Designer Paul Rand Speaks at Media Lab.” *The Tech*. Massachusetts Institute of Technology, 15 Nov. 1996. Web. 02 Apr. 2012. <<http://tech.mit.edu/V116/N59/paulrand.59n.html>>.
- 53 “A small bowl arrived...”: Achatz, Grant. “What Grant Achatz Saw at El Bulli.” *Diner’s Journal Blog*. The New York Times, 16 Feb. 2010. Web. 02 Apr. 2012. <<http://dinersjournal.blogs.nytimes.com/2010/02/16/what-grant-achatz-saw-at-el-bulli/>>.
- 54 Johnson, Steven. *Where Good Ideas Come From: The Natural History of Innovation*. New York: Riverhead, 2010.
- 61 “the world as it will be...”: Asimov, Isaac. *Asimov on Science Fiction*. Garden City, NY: Doubleday, 1981.
- 71 “We sail within a vast sphere”: Pascal, Blaise. *Pascal’s Pensées*. Project Gutenberg. 27 Apr. 2006. Web. 8 Apr. 2012. <http://www.gutenberg.org/files/18269/18269-h/18269-h.htm#p_72>.
- 73 “...the right solution would presently announce itself.”: Weschler, Lawrence, and Robert Irwin. *Seeing Is Forgetting the Name of the Thing One Sees: A Life of Contemporary Artist Robert Irwin*. Berkeley: University of California, 1982.
- 81 “Draw your chair up close...”: Fitzgerald, F. Scott, and Edmund Wilson. *The Crack-Up*. New York: J. Laughlin, 1945.
- 91 “...you will contribute a verse.”: From the poem *O Me! O Life!* Whitman, Walt. *Leaves of Grass*. New York, NY: HarperCollins, 2000.
- 101 “Whoever said that pleasure...”: *Design Q&A with Charles Eames*. Perf. Charles Eames. YouTube. Web. <<http://www.youtube.com/watch?v=3xYizrd1QCg>>.
- 109 “Not I, not I...”: From the poem *Song of a Man Who Has Come Through*. Lawrence, D. H. *The Complete Poems*. New York: Penguin, 1971.

- 111 Hyde, Lewis. *The Gift: Creativity and the Artist in the Modern World*. New York: Vintage, 2007.
- 112 “Elizabeth Gilbert, in a lecture...”: A New Way to Think About Creativity. Perf. Elizabeth Gilbert. YouTube. TED Talks. Web. <<http://www.youtube.com/watch?v=86x-u-tzoMA>>.
- 112 “the long, hard, stupid way...”: Brion, Raphael. “Treme Watch: David Chang Gets a Cameo.” *Eater*. Eater National, 13 June 2011. Web. 02 Apr. 2012. <<http://eater.com/archives/2011/06/13/treme-watch-david-chang-gets-a-cameo.php>>.
- 114 “In an episode of...”: Sorkin, Aaron, and Patrick H. Caddell. “Shibboleth.” *The West Wing*. NBC. 22 Nov. 2000. Television.
- 116 Calvino, Italo, and William Weaver. *If on a Winter's Night a Traveller*. London: Vintage, 1998.
- 117 “the design of the business card wouldn't be finished until...”: Giampietro, Rob. “Reflections on Recent Work.” *Lined and Unlined*. 5 Jan. 2009. Web. 2 Apr. 2012. <<http://blog.linedandunlined.com/post/403632689/reflections-on-recent-work>>.
- 118 “I just sort of let it be known that I was available...”: Weschler, Lawrence, and Robert Irwin. *Seeing Is Forgetting the Name of the Thing One Sees: A Life of Contemporary Artist Robert Irwin*. Berkeley: University of California, 1982.
- 119 “We systematically...”: Hochman, David. “Office Party? Let's Tweet It.” *Nytimes.com*. The New York Times, 4 May 2011. Web. 2 Apr. 2012. <<http://www.nytimes.com/2011/05/05/fashion/05Twitter.html?pagewanted=all>>.
- 121 “A culture is no better than its woods.”: Auden, W. H. *The Shield of Achilles*. New York: Random House, 1955.
- 121 “The moment just past is extinguished forever...”: Kubler, George. *The Shape of Time: Remarks on the History of Things*. New Haven: Yale University Press, 1962.

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