Grace *in* Uncertainty

A Designer's Search for Meaning

JERRY TAKIGAWA

This book is dedicated to the designer in all of us.

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Introduction

Everything that needs to be said has already been said. But since no one was listening, everything must be said again.
—André Gide, French Writer

Grace in Uncertainty began as a keynote address to the University and College Design Association (UCDA) Summit in Riverside, California. Accompanying this honor was the invitation to address the process known as "design thinking" and its impact on the designer's roles. Observing the world through the lens of design thinking, I connected some personal, scientific, and cultural dots in ways that surprised and intrigued me. This led to understanding that design thinking is a microcosm of a larger trend, one recognizing that everything is connected and holism is a desired natural state.

This little book is based on three basic tenets:
- The discoveries of quantum physics are precipitating a tectonic shift in human consciousness.
- Consciousness is the foundation of everything.
- Everything is connected.

Through *Grace in Uncertainty* I will show how the creative processes employed by designers and artists working in other disciplines mirror the shifts in thinking that are required to

thrive in the 21st century. I also wish to appeal to designers to take on the role of inspiring others to embrace this shift in thinking. The book is presented in three parts:

Premise:
Recognize that consciousness is the foundation of everything.

Practice:
Think outside of the box in order to see there is no box.

Purpose:
Make hope a part of everyone's life.

When I began working as a designer in 1968, X-Acto knives, Letraset dry transfer type, and Rapidograph pens were the tools of the day. There was no Photoshop, no Google, no World Wide Web. In 1984 we were introduced to the Mac, and the digital revolution began. It took a while for the transition to digital to take hold. Many proven processes in the print industry had to change or become obsolete. Industry standard proofs were no longer available. Entirely new problems that had not previously existed began to surface. A singular, tried and true process was fading and a new process was emerging to replace it. Even though the digital printing environment has stabilized and users have become more confident, innovations continue to enter the market, requiring the industry to continually recalibrate its functionality. Today the business environment is fluid and dynamic, challenging us to continually adapt to new standards and paradigms.

    The evolutionary changes in the design and print industry are but a part of what is happening in the world today. All businesses are experiencing the evolutionary challenges of shedding a slower, mechanical environment in favor of a dynamic new environment fostered by modern physics.

    Although this narrative is written from one designer's perspective, the principles apply to anyone interested in understanding how a shift in his or her thinking can profoundly and positively affect how they see themselves and their place in the world. It's my hope that this book will be a catalyst to inspire you to meet these challenges and gain an understanding of the undercurrents shaping our world.
—Jerry Takigawa. Carmel Valley, CA, January 2013

I. PREMISE

Consciousness is the foundation of everything.

Hidden in Uncertainty

We used to understand the world as stable and predictable, and now we see it is unstable and inherently impossible to predict. —Eric Liu and Nick Hanauer, *The Gardens of Democracy*

As is typical, UCDA asked me for a brief description and title for my keynote presentation months in advance of their event. With the content of my talk still in progress, I submitted a broadly descriptive paragraph titled *Reality Is Subject to Change.*

As a designer, have you ever noticed that feeling unsure of where you're going is fundamental to the creative process? When we seek creative ideas or inspiration, it's not unusual to feel uncertain of where we will end up. This was something I needed to come to terms with early on in my career. The ability to be present in the creative void took some time to achieve. Although deadlines and creativity seem antithetical, in our line of work they go hand-in-hand. Over time I learned some practical lessons.

Fear does not help, nor does forcing the process in an attempt to speed things up. It's best to relax and, whenever possible, plan ahead to allow sufficient time. Today I am more prepared to trust that a solution will manifest. Designers who are able to be present in the creative void—that open space

between *what is* and *what could be*—thrive in that space, even if they are uncomfortable. They have cultivated a psychological acceptance of uncertainty because it ultimately represents infinite potential and possibility. This is not a new idea. In 1817, John Keats coined the phrase "negative capability." By this he meant a person's ability to tolerate uncertainty, allowing room to embrace unexpected possibilities.

Clearly, this feeling is not shared by many classically trained thinkers—those who adhere to the thought model born of the industrial age. This model is identified with a matter-based, mechanistic view of the world. Rationality, predictability, and control were the norm beginning in the 17th century. This view is inclusive of the need to be certain, to know the *right* answer right now. We were taught that matter is solid, that we are separate entities—apart from nature—and that logic prevails over intuition. Unfortunately, this outdated model of thinking is still dominant in many businesses today.

One contributing source for our classical model of thinking comes from the misinterpretation of Darwin's "survival of the fittest" theory, which over time has lost the meaning of its original claim: "It is not the strongest of the species, nor the most intelligent that survives. It is the one that is most adaptable to change." In *The Descent of Man*, Darwin spoke of survival of the fittest only two times while he spoke of love 96 times. Fundamentally, the physics of life and the biological make-up of all living things demonstrate the necessity of cooperation and partnership, not dominance. Eric Liu and Nick Hanauer in *The Gardens of Democracy* observe, "A fundamental assumption of traditional economics is that competitiveness creates prosperity. This view, descended from a misreading of Adam Smith and

Charles Darwin, weds the invisible hand of the market to the natural selection of nature…. Cooperation is the true foundation of prosperity. Competition, properly understood, is between groups of cooperators." The Latin root for the verb *compete* is *competere*, which means "to seek together." The contemporary use of *competition* has long since distanced itself from its cooperative origins.

The perpetuation of this manner of thinking is also rooted in our education system. Imagination and creativity are inherent to young children. Yet as children progress through elementary school, the innate connection to creativity is conditioned out of them, replaced by a need to know the *right* answer and by the belief that there truly is only one correct answer. Author and neuroscientist Jonah Lehrer points to the 4th grade as a turning point. At 1st grade level, 95% of students feel they are creative but by the time they reach 12th grade, less than 5% feel this way. Imaginative, creative, and innovative thinking are discouraged in favor of performing well on standardized tests.

Today, new theories of organizational leadership that follow emerging scientific views transcend the classical thought model. Much is being said about a new way of regarding how the world works. Traditional logic about predictability, reliability, and control does offer some useful tools. However, to thrive in today's dynamic, networked, and rapidly changing environment, it is essential to embrace some fresh perspectives. It's also useful to understand that the old views are not invalid—they may simply limit our experience of what is possible. The new views expand our experience and reset boundaries.
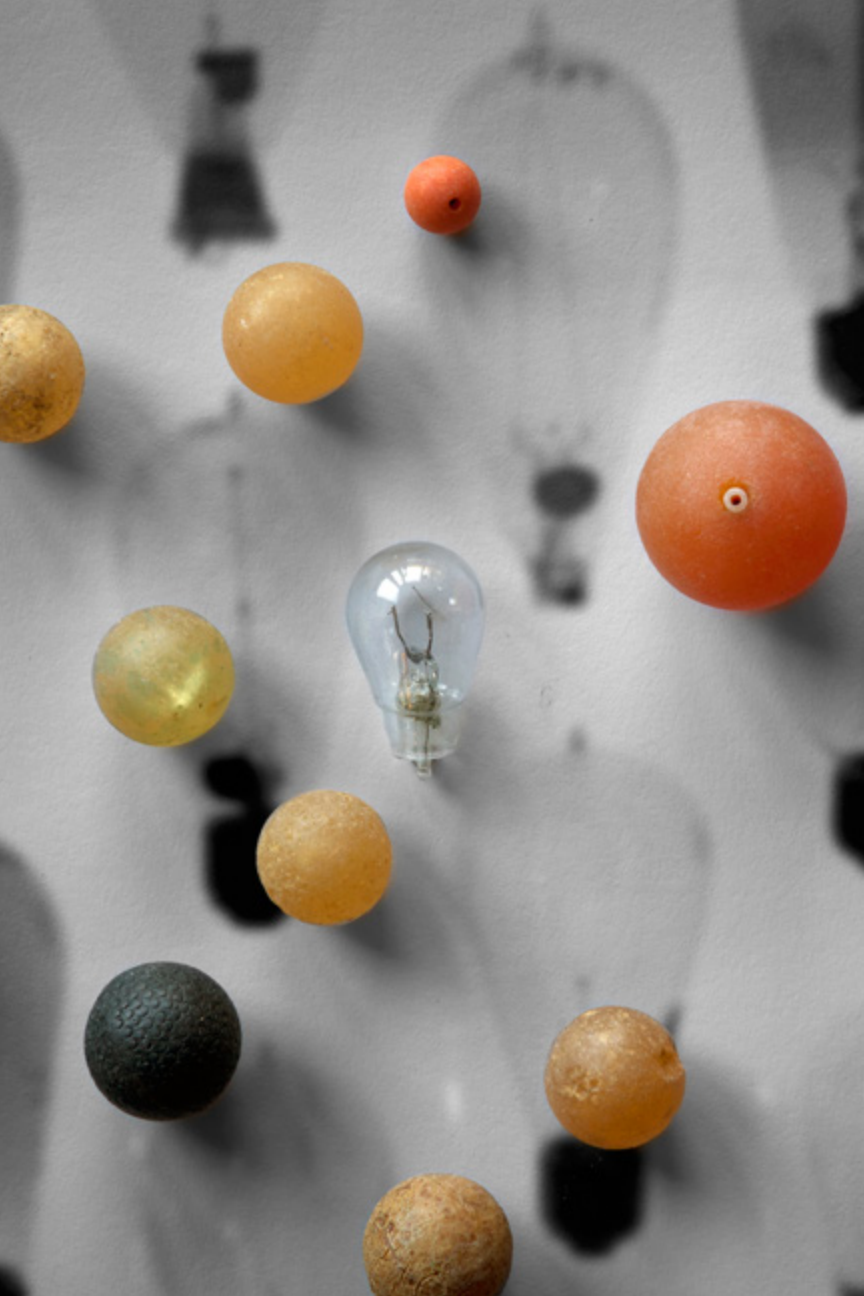
Thinking Outside
the Culture

We live in a world the size of our understanding.
—Guy Finley, Philosopher

History tells us that the same patterns that bring success to any civilization eventually cause it to become static. Dr. Frank DeLuca, psychologist, echoes this observation on a personal level: "Our strengths, when overdone, become our weaknesses." Roger Martin, Dean of the Rotman School of Management at the University of Toronto believes, "We need to understand how reliability, which at first appears to ensure success for any business that cultivates it to its highest point, turns out to be the chief limiter of success." All people and organizations go through cycles—beginning, growth, maturity, and eventual decline—unless they reinvent or innovate at maturity to renew the cycle. Ideally an organization is founded because someone has a vision of a better world; eventually, that better world is assimilated and becomes ordinary and the need to transform or innovate becomes imperative again. To avoid decline, an organization must innovate and adapt so it once again envisions a better future. Today, that cycle of innovation is accelerating.

Apple's oft-cited commitment to design integrity declares ongoing and constant innovation is the new normal. According to Phillip Duncan, Global Design Officer at Proctor and Gamble, "Innovation is that which connects the familiar with the unknown. That leads the audience to be curious and explore. That's when brands become endearing to them." Constant innovation is a struggle for traditional business thinking. It's easier to long for the days of "business as usual," but we won't be returning to those days. Instead, "business as *un*usual" is the new convention. Innovation expert and author Cynthia Barton Rabe claims, "Breakthrough ideas come from *zero gravity thinkers*, those not weighed down by conventional wisdom." The Zen principle of the *beginner's mind*, illustrates this point of view. In fact, Rabe suggests, "as expertise increases—creativity decreases."

Q: How many designers does it take to change a light bulb? A: Does it have to be a light bulb? This classic joke contains a professional design truth. The point here is to ask "stupid questions" and to question basic assumptions. It doesn't matter if we've assumed the validity of something, even for years, if it doesn't make sense anymore. The light bulb joke shows us how to reframe a familiar problem in an unfamiliar way. It could be reframed as "How do we bring more light into the room?" And from this new reference, new answers can be uncovered—such as to paint the room white or to install a skylight.

Scientific discoveries have revealed a new reality and the need for a shift in thinking is profound. To paraphrase Marshall McLuhan, there's one thing fish know absolutely nothing about: water. They don't know what wet is because they have no experience of dry. Similarly, we swim in a medium called culture. Culture is comprised of the stories we tell ourselves about how our world works. In the Western world, our story is a Newtonian worldview—one that seeks to isolate and analyze, predict and control. It's a materialist, mechanistic, and reductionist reality. Understanding the power of our underlying culture is paramount. It shapes our perceptions, our bodies, and our brains. Most importantly, culture shapes what we believe is possible.

In 1973, astronaut Edgar Mitchell founded the Institute of Noetic Sciences (IONS) after seeing, for the first time, the planet Earth from space. The conclusion of a 2007 IONS report noted "Materialist science represented an evolutionary leap from a mindset that relied on religious authority for verifying truths to one that valued an objective search for knowledge. In this global age of rapid change and transformation, it is time for another such leap . . . [to] include the rigorous study of subjective, inner experience, a renewed appreciation for meaning and purpose, and a recognition that the world of consciousness is far more mysterious and influential than we have ever imagined." The IONS's 2008 report warns us about our worldview assumptions and the negative impact they have on the global culture and environment. Some of those assumptions include the following: growth is good, therefore more growth is better; economic wealth, the GDP, is the truest indicator of our well-being; self-interest serves the common good; we live in a world of scarcity; humans are separate from nature; the Earth is to be exploited; people are intrinsically bad; and technology—or God—will save us.

What are the consequences of these assumptions—of our classical Newtonian way of thinking? They have caused

climate change, resource wars, arms sales, peak oil (the point of maximum rate of oil extraction after which terminal decline ensues), population growth, privatization of water, rainforest destruction, fisheries depletion, species extinction, pollution of the oceans, human trafficking, gender inequality, and poverty for billions of people. Our cultural worldview and our behavior, based on that view, have caused a significant impact. For those aware of this impact, we are in search of a balance between economic growth, ecological sustainability, and socio-economic justice.

Perception, too, is largely influenced by culture. The dominant Western worldview isn't built on a foundation of synergy and connection. It's based on differences and distinctions, and it assumes we're separate from nature. "When our Western (and Westernized) culture sees the world as dead matter, the world becomes something to exploit," warns author and artist Paul Devereaux. We are victims of our own perceptions.

These assumptions are deeply embedded in our cultural psyche. A revealing study done in 2004 at Emory University studied how the "political" brain of the voter works. Using functional magnetic resonance imaging (FMRI), the investigators presented, to a sample of Republican and Democratic voters, contradictory statements made by John Kerry and George W. Bush. The voters were asked to rate to what degree the statements were contradictory. The study concluded that "Partisan beliefs are calcified and the person can learn very little from new data." Neuroscientist Jonah Lehrer commented on the study: "Instead of using their reasoning faculties to logically analyze the facts, they use reason to buttress their opinions."

It's important to understand how the quality of our thoughts and beliefs, whether conscious or unconscious, create the world's conditions—intentionally or accidentally. Designers understand that brands behave in this manner also. Without active *conscious* intent, brands become accidental rather than intentional. Beliefs as frozen as those demonstrated in the Emory study demonstrate little or no critical thinking. They display a lack of imagination, a plethora of laziness and what science calls *least-resistance pathways* or automatic responses. The human mind is possessed by thought, yet "I think" implies volition. In truth, a majority of our thoughts are involuntary and repetitive—that is to say, automatic. That voice in your head has a life of its own. Cell biologist Bruce Lipton believes that 95% of our thoughts are subconscious—programmed by well-meaning adults during the first six years of our lives—and only 5% of our thoughts are truly conscious. With so little cognitive thinking being exercised, society's resistance to change takes on a new clarity as do the consequences of our repetitive thinking.

Everything Is Connected

Technology promises to let us do anything from anywhere with anyone. But it also drains us as we try to do everything everywhere. We begin to feel overwhelmed and depleted by the lives technology makes possible. —Sherry Turkle, *Alone Together*

Clearly something is not right when personal self-storage is a $22 billion a year industry. It's become evident that most *things* do not connect or satisfy us. According to design anthropologist Dori Tunstall, "Rituals of consumption are no longer satisfactory to us because they are empty of human relationships." Author Simon Sinek believes that people don't buy what you do—they buy why you do it.

According to Sinek, *why* is the key to connection in the brand universe. Sinek studied successful companies that created exceptional brand value to see if he could observe what traits they had in common. He found that they clearly communicated their primary underlying purpose, or "why." He also discovered we understand a why better when it was expressed metaphori-cally—that is through pictures, poetry, and stories. This is due to the fact that the limbic brain, the part of our brain that processes feelings, trust, and is responsible for behavior and decision-mak-ing, doesn't have the capacity for language. The neo-cortex, on

the other hand, is the rational, analytical, language-based part of the brain but it doesn't influence behavior.

Author and brand advocate Marty Neumeier rightly defines a brand as a person's *gut feeling*. Brand strategy, done well, creates visceral distinctions rather than mental distinctions. To cite an example, classical corporate marketing communication relies heavily on facts and data, features and benefits. The neocortex understands and stores this data but behavior or decision-making is largely unaffected. On the other hand, if we communicate our *why* message in the form of a metaphor, we're now talking to the part of the brain that drives decisions and behavior in a language it understands. A metaphor is a figure of speech. It is created through pattern recognition, by connecting the dots, and through insightful recombination—things that a computer cannot do. When a message is conveyed effectively using creative metaphors, stories, and images, the audience gets a resonant gut feeling and is then inspired to act or access more information. Without an interested limbic brain, no amount of rationality, features, and benefits, will create engagement or action. Creativity and innovation are founded, in part, on new combinations of previously unconnected ideas and images. In this way, designers are excellent connectors of ideas. Physicist Richard Feynman identified the power of metaphor in understanding new concepts when he said, "Our mind evolved in a simplified world, where matter is certain, time flows forward and there are only three dimensions. When we venture beyond these innate intuitions, we are forced to resort to metaphor."

New evidence of the power of connectivity was introduced by quantum science. Physicist Niels Bohr discovered that once subatomic particles are in contact with one another, they

remain aware of—and forever influenced by—each other. Termed quantum entanglement, these particles are instantly connected across any location and distance by virtue of the quantum field. In the field, much like the internet, things are not linked together in a linear fashion but in a dynamic, networked web-like field. The principle of entanglement paves the way for understanding instant connectivity such as telepathic communication.

It seems that connection is the invisible phenomenon underlying our existence, bringing purpose and meaning to life. Yet if everything is as intertwined as quantum physics, ecology, and Eastern spirituality tell us, why do we feel isolated?

Science indicates that separation is an illusion, yet Western culture in particular is still heavily immersed in a mechanistic worldview. For example, Western medicine strives to isolate and study phenomena, while Eastern holistic medicine analyzes and treats the whole: body, mind, and spirit. Early on, Western philosophers gave more credence to logic over intuition breaking the mind-body connection. This was all part of industrial age thinking which shaped our beliefs and institutions until recently. Traditional Western culture views reality as separate parts. In truth, we are whole systems in a universe of interpenetrating whole systems.

How do we establish human connections? Even though electronic connection such as email and instant messaging is ubiquitous, it isn't as satisfying or rich as connecting face-to-face with another human. It's easy to avoid vulnerability when texting. So why be vulnerable? To paraphrase sociologist Brené Brown, we need to be vulnerable to be *seen* and connected to others. "Vulnerability," Brown says, "is the birthplace of innovation, creativity, and change." In the classic model of thinking, vulnerability is seen as a weakness. Yet it's Brown's view that vulnerability is not only the key to both connection and creativity—it is the epitome of courage. The ability to be at ease with vulnerability is a close cousin of the ability to be with uncertainty—two key attributes that have the power to move our species further down the evolutionary road.

II. PRACTICE

Think outside the box in order to see there is no box.

Black Hat Culture

The future is no more uncertain than the present.
—Walt Whitman, American Poet

Humans are biologically hard-wired to sense danger thanks to the amygdala (groups of nuclei that activate the sympathetic nervous system). In fact, we're much better at sensing danger than we are at sensing opportunity.

An evolutionary faculty that has served us well, the amygdala response would have us believe, for instance, that a recession is a good time to retreat. When things become uncertain, we reflexively pull back, and turn to the past for answers. But this is like trying to drive forward while looking in the rear-view mirror. If we were better at sensing opportunity, we would recognize the value of learning how to steer into a skid. Remember, what you do (or don't do) at a low point in history will define who you'll be at the next high point and for decades to come. Too often, the inability to be with uncertainty clouds our ability to recognize new solutions.

In his book *Six Thinking Hats*, Edward de Bono presents a framework called "parallel thinking" which transcends the idea that a problem might only have two sides. It offers a fresh alternative to traditional argument—a way to expand beyond an

I can't understand why people are afraid
of new ideas. I'm afraid of old ideas.
—John Cage, Composer

"Either/Or" worldview to a "Both/And" one. Parallel thinking helps groups focus on six primary aspects of an issue—facts, data, emotions, assets, pitfalls, and creativity (each represented by a different colored hat)—which are then addressed in depth one at a time.

De Bono developed this process as an antidote to Western culture's centuries-old embrace of classical Greek logic. Through Socrates, Aristotle, and Plato we've inherited the idea that the argument is the process through which we find the truth. The de Bono Group contends that argument is necessary, but lacks constructive and creative energies. "We need to solve problems and to open up opportunities, as well as to design new possibilities, not just to argue about two existing possibilities."

When it comes to default Western thinking, we're basically a black hat (what could go wrong?) culture. It's time we learn to don all the hats to see that we've been thinking inside of a box that never really existed to begin with.

The Road Ahead
Isn't a Road

We don't know where we get our ideas. What we do know is that we do not get them from our laptops. —John Cleese, British Humorist

We once believed the world was flat, the earth was the center of the solar system, and that matter was solid. These worldviews shifted when new scientific discoveries were made, and now they're shifting again. Evolution requires us to refresh our competitive advantages constantly. To innovate forever is not a strategy—it's a simple fact of survival.

In a recent *Fast Company* article entitled "Secrets of the Flux Leader," Robert Safian concludes "There exists no single model that leads to success. Tolerating, accepting, reveling in paradox is the approach demanded by our chaotic economy." Dianne Collins, author of *Do You QuantumThink?*, reminds us that "We struggle for certainty when the very essence of life is its uncertainty."

Industrial age thinking was effective while we lived in a world of predictable outcomes and the universe was viewed as a mechanical machine. Things moved more slowly; cause

and effect were straightforward. But almost a century ago, we opened Pandora's box to reveal that we live in a quantum world. It's an entirely different world, one of Both/And rather than Either/Or. Matter can exist as a wave or particle—which means opposites are both true at the same time. We live in a world of infinite possibilities.

"According to scientists," Collins states, "there is no objective world "out there" separate from us to be described... It is a world of energy in flux, always shifting and changing, and we creatively interact with it. Reality is context-dependent. We are the cause shaping what we see based on whatever we bring to our observation." Neuroscientist Jill Bolte Taylor concludes "The more aware I am about how I am influencing the energies around me, the more say I have in what comes my way." According to the Kabbalah, the physical world comprises 1% of our reality; 99% is the pure energy of creation. We can access the 99% through using of our mind and our intuition, however most people spend all of their energy focusing on the 1%.

How much of our old thinking is still useful and what needs to be expanded as we begin practicing being in the world in a whole new way? From the quantum view, reality is not static nor is it absolute. The universe is one of infinite possibilities with certain probabilities. Which possibility manifests depends on the observer. It's as if the universe is an out-of-focus image until we place our attention on something that brings it into focus—manifesting our reality. Matter isn't solid; it's mostly empty space. This is another way to say that things are far more plastic than they look.

The dilemma today is that we embrace the transistor, the laser, the internet, and the cloud while at the same time we're still trying to use industrial age thinking to navigate our lives in a quantum reality. We're operating our businesses, government, economy, healthcare system, and education system using a 150 year-old map.

This is the 21st century. It's time to transform our 17th century industrial revolution beliefs, organizations and economy into a new worldview that is respectful of people, the environment, and economic sustainability.

The Whole Truth

What is true is that if you're not prepared to be wrong, you'll never come up with anything original.
—Ken Robinson, Author and Education Advocate

I believe that balanced integration is a key component people need in order to be successful in the 21st century. Life is paradoxical. It embraces contradictory propositions that nevertheless co-exist and are true. Electrons can be particles and waves. Time can go forward and backward. Things want to be separate. Things want to become whole. Quantum reality expresses itself as a Both/And model.

Traditional business has always struggled with an Either/Or dilemma by only looking at existing options. If business leaders approached problems through design thinking, they could generate new ideas not previously considered and integrate the best of all worlds. People who have succeeded brilliantly don't choose from existing models. They're creators and builders of new models. What might these models look like? In the healthcare industry, combining the best practices of Western and Eastern medicine would be a beginning; in education, implementing interdisciplinary curriculums that pair left and right brain subjects like art and math. For

economics, we could assign value to the largely feminine task of nurturing our children and families which, in turn, would create healthier societies. To accomplish these goals, we need Both/And whole systems thinking.

In my book, *Many Hats*, I touched on intuition as a means of "knowing before knowing why." Traditional business thinking tends to devalue intuition in favor of logic because it is more measurable. Intuition and insight—sparks that ignite creativity and innovation—are very often smart re-combinations of two or more existing concepts previously not seen for their new synergetic efficacy. Artists and designers are privileged to spend more time than most people using intuition as a primary professional tool and intuition can lead to whole systems thinking.

In my own life, being raised Japanese-American has meant an ongoing challenge to practice the Both/And model by integrating two opposing cultures. Recently, I was invited to participate in a group art exhibition entitled *Transcendental Vision, Japanese Culture's Influence on Contemporary American Art.* The curator asked the artists to write a statement about their personal experience of the theme. Because of that request, I became aware of the haunting forces underlying my desire to integrate the polar aspects of Western and Eastern culture. Namely, I sought to create unique original works that support harmony and the common good. Eastern cultures value context, order, and social harmony while Western cultures value subject, uniqueness, and individual expression—polar opposites. Neither is wrong or better than the other but each is limiting when taken separately. I was not conscious of this influence because I simply accepted the union of two worlds.

Much like a wave in the ocean, each of us is unique as well as part of something bigger than ourselves.

Just as uncertainty and vulnerability are an integral part of the creative process, so too is failure. Again, this is in stark contrast to the traditional MBA model where getting it right and succeeding is paramount. The creative process allows that it's okay to fail, especially when you fail *forward* by incorporating what you learned into your next endeavor. In fact, it's okay to fail big. The percentage of my successful ideas is minor in comparison to the rejected ideas. Still, design thinking is an iterative process and exploring multiple prototypes can yield better solutions. Thinking is truly a cost-effective activity. The key is to know which ideas are successful—and that requires a blend of intuition, logic, and trusted feedback.

III. PURPOSE

Making hope visible.
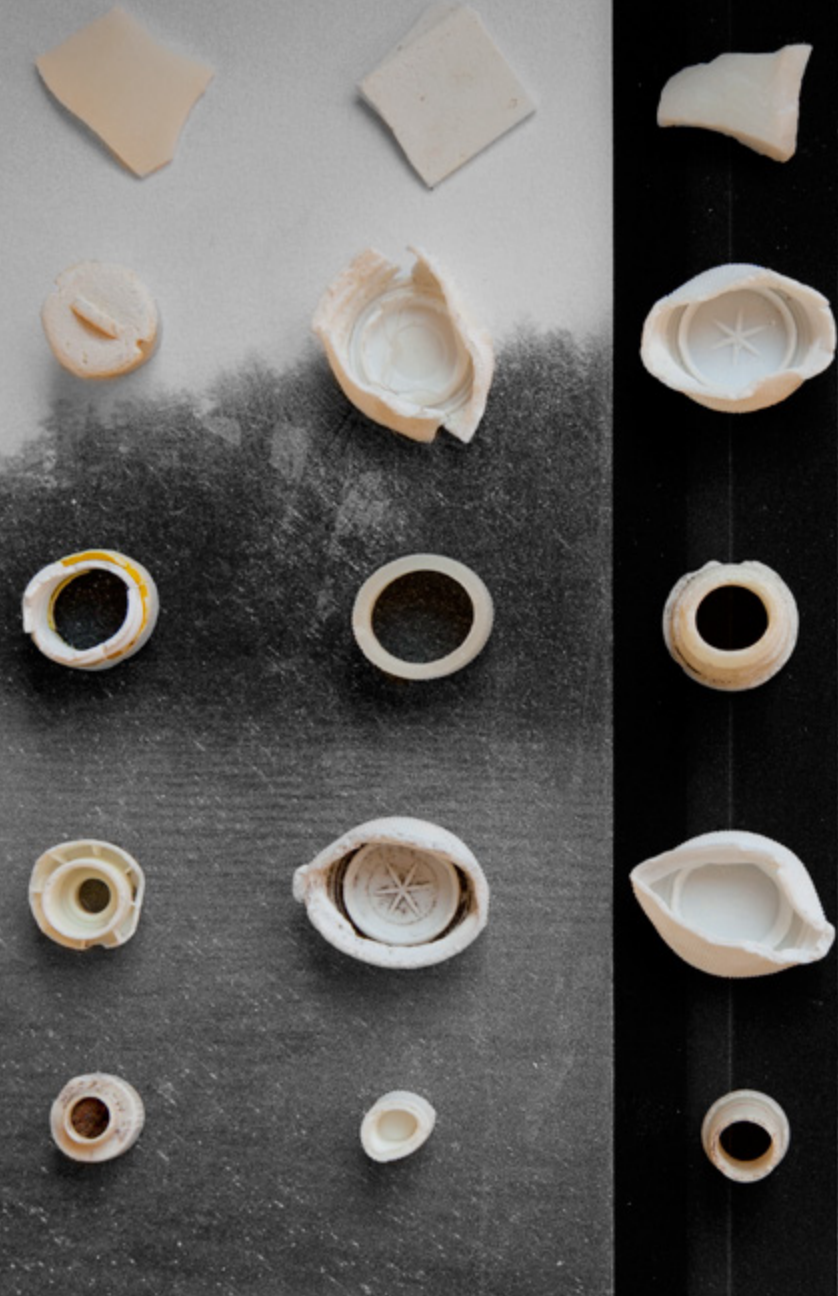
Third Brain Thinking

I do not see any way out of humankind's multiple dilemmas except that one route that got us here in the first place: our powerful creativity. —Matthew Fox, Episcopal Priest

As designers, we see the world as it could be. This can be a blessing, or a curse. But this is what we do. It's called abductive reasoning: the ability to imagine something that doesn't exist yet. Because designers have such skills, we always face a choice: promote the status quo "business as usual" (an outdated economic theory) or promote a better world (what could be). Are we using our talents for the right thing? The older I get, the more I see that meaning is intrinsic to promoting a better world.

Still, because a better world is an unknown factor, traditional business thinkers are skeptical, if not fearful. As designers, we don't have the luxury of being cynical because cynicism kills curiosity—a necessary ingredient for innovation. If we are a part of the commercial material world, I believe we have a responsibility to understand what consequences we may be precipitating (accidentally or intentionally) and to make certain that the consequences are aligned with our conscience. Yes, we want to be creative and innovative, but to what effect?

My experience has shown me that most designers are

The use of our intuition is our
own access to nonlocal mind,
the universal field of intelligence.
—Dianne Collins

naturally optimistic. The glass is half full. Think of it this way: optimism is becoming a scarce and precious resource. Designers are tailor-made to take on the role framed by architect Cameron Sinclair to "make hope visible." Our plate is getting bigger, in part, because of our appetite to make the world a better place. The definition of a designer is anyone who desires to change an existing situation to an improved one. Taken literally, this means there are a whole lot of designers in the world. Therefore it's important to remain flexible when defining what a designer is or does. If you want to know what solutions are possible, not just what solutions exist, you will have to design. And today, design delves far beneath surface appearances to include working in whole systems.

From a designer's perspective, the perfect time for a design project is when everything is failing. Designers are facile at defining problems and fluent in the processes that lead to new solutions. Design is certainly not new to business but its main use, until recently, has simply been to apply aesthetics to product and service offerings. Today, design thinking is increasingly on the radar of leading business management institutions. Design thinking curriculums are offered in MBA programs. These institutions know designers are bringing much-needed imagination, creativity, and innovation to archaic economic thinking. Savvy business leaders are beginning to understand the power of design that companies such as Apple, 3M, and Proctor and Gamble have embraced for decades.

What is "design thinking"? Coined by the international design firm IDEO, design thinking is the process used by designers to solve problems and create new possibilities. This is accomplished by relying on empathetic research. Mastery,

as described by author Roger Martin *(The Design of Business)*, is being able to do things exceptionally well as a result of experience and repetition. Originality involves experimentation, spontaneity, and comfort with the process of trial and error. Mastery without originality is repetitious; originality without mastery is risky, if not random. The power lies in the combination of the two. In design thinking, there is a preference for both.

Is design thinking an attempt to codify the creative process? Yes, but as a problem-solving innovation center it is invaluable to business. Traditional business leaders appreciate a left-brain explanation for our right-brain processes. The creative process, from the outside looking in, does appear mysterious. And when you think about where we go in search of new ideas, there's all the more reason to have a credible professional definition. So where do we go?

Science says we have a "nonlocal" mind, meaning a mind that doesn't exist within the confines of time and space. The nonlocal field is the source of our imagination and intuition and it contains all possibilities. If the current scientific view that we live in an observer-created reality is true, then our thoughts and perceptions create our reality. The problem is that most of our thoughts are automatic or subconscious—programmed and repetitive—which means we are inadvertently recreating what already exists.

 The question is, how does design thinking intersect with quantum thinking? When designers are involved in the creative process, they are experiencing a quantum thinking "space."

Whether in search of creative insights or not, the mind of the archetypal designer is always scanning—and often more imaginative and creative when at play or immersed in a new or different environment. This manifestation seems to be characteristic of the nonlocal mind. In her book *Do You QuantumThink?*, author Dianne Collins affirms the scientific principle of nonlocality, "The use of our intuition is our own access to nonlocal mind, the universal field of intelligence." The use of "third brain thinking"—a combination of intuition and logic—can result in something better than either the left or right brain can create on their own.

Design Truths

Life uses messes to get to well-ordered solutions.
— Margaret Wheatley and Myron Kellner-Rogers,
Kellner-Rogers and Wheatley

When you look around, everything that humans have created began with a creative insight. Creativity is the most important tool humanity employs in developing solutions for society, sustainability, and quality of life. Creativity is a common universal process yet, as Jonah Lehrer observes in his book *Imagine*, how creativity works is very often a misunderstood mystery. American priest and theologian Matthew Fox sees creativity as a place. He notes, "We are told by those who have studied nature that creativity happens at the border between chaos and order." In this regard, chaos is a precursor to creativity.

We love the solutions creative minds contribute to our lives, but creativity has yet to become a priority in education or business. Like many things that are powerful and seemingly magical, the creative process is mistrusted by classical business thinking because it is messy, immeasurable, and unpredictable. It also requires a degree of vulnerability, uncertainty, the ability to tolerate failure, and what Lehrer calls *grit*: the hard work required to transform a concept into tangible expression after

an initial creative insight.

While we're examining the creative process, we should take a look at how designers themselves are perceived—what's our brand? There's a story about a mother whose son is a designer but she doesn't have a clue as to what he does. Is this true for you? It's true for designers when their clients demonstrate that they don't know how to work with us. I polled a small sample of UCDA designers, asking them to list their top challenges. One consistent response was that their clients—university administrators—didn't understand what design is, how the process works, or why it's important. We're a young profession and a misunderstood one. A client's lack of experience and understanding is not limited only to the graphic design profession. I've spoken with many architects who echo the same sentiment. Perhaps designers are insecure about talking to clients about the creative process. We benefit from a better understanding of our own design process as well as a better understanding about the business process. They are parts of the same whole system. How can we become more confident about the creative process?

In my case the benefit of writing two previous books, *Idea Soup* and *Many Hats*, was twofold: the content informed my clients while the process helped me to clarify ideas for myself. Brand training is another way to help clients understand the science behind the power of creativity. Learning is always a lever for change. In my experience, however, many business leaders can't take the time to understand design. They just want design to solve their problems. Their plate is full of daily tactical issues and design can seem like a marginalized department in their organization. Perhaps the more we enter into an age where continuous innovation is the norm, business leaders will do well to become familiar with design thinking.

Unfortunately, traditionally risk-averse thinking can be a catalyst for its own demise. Such is the fear of change. Remember, our brains are hardwired for survival—to sense danger, not opportunity. Interestingly, the Chinese symbol for danger is also the symbol for opportunity, illustrating they are two sides of the same coin. Can designers help traditional business see the potential and imperative need for design? I believe we can. We slip into the quantum field for creative inspiration and back to Newtonian reality to write a business proposal. Designers are travelers between two worlds.

If we cultivate this ability, and then inspire others to more successfully see the power of a new worldview, we can help those who are stuck in the old worldview move into the future. Liu and Hanauer (*The Gardens of Democracy*) remind us that behavior is contagious. Why not model the behavior for living in the new quantum reality? For centuries, the human mind has been wired to perceive the world as a potentially hostile place. Margaret Wheatley and Myron Kellner-Rogers affirm in their book, *A Simpler Way*, that "We are in a constant struggle for survival, that the consequence of error is death…" Instead of fear, limitation, and scarcity, can we help traditional business see that life is about creativity not survival? That, paradoxically, we make even greater errors when we are fearful.

See Change

What we do is important to the extent that people are important. Perhaps one of our problems is to learn how to provide people with experiences that open them up to growth.
—Saul Bass, Designer

Today, quantum reality is the multidimensional reality with which we are all tasked to become familiar. By so doing, we begin to experience the power of creative intent. Science places us at the beginning of the sixth mass extinction on this planet—the first mass extinction attributed to human behavior. Since this is a human-created unintentional consequence, we have an opportunity for human-created intentional solutions.

Adherent to the glass half-full metaphor, I believe this current state of entropy is a necessary foundation upon which the new order can be rebuilt. As with all evolutionary changes, we can use our new understanding for good or for evil. With knowledge comes power—will it be power for personal gain or power for the common good? Will Liu and Hanauer's principal of "true self-interest is mutual interest" take root in our transforming worldview? Will their premise, "society behaves how you behave" be leveraged for the common good? It's my hope these tenets will become socially embedded. Complexity

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economics affirms, "We are all better off when we are all better off." Eric Beinhocker's definition of *wealth* is "accumulated solutions to problems." So what is the purpose of an economy? It's the creation of wealth—and the best way to do this is to have more competitors on the field.

We live in a time of expanding possibilities—unprecedented opportunities with unlimited technological capabilities. We can do almost anything we can think of, yet our culture still struggles with the question, "What is worth doing?". As designers, we're in the business of imagination and we often are the link to culture for the clients we serve. Design is a valuable, underestimated process in the world.

Designers benefit greatly from following their curiosity and cultivating varied interests. Through engagement with the world, we bring broader perspectives and insightful connections to the design process. Consider it cultural cross-training for creativity. Unlike the Newtonian model of deconstruction, design thinking recombines, reconnects, and "makes things whole." Integration of varied interests outside of design is essential to spark the imagination to innovate. This allows the many diverse viewpoints surrounding an issue to be seen together and a new unified whole to emerge.

Our tools are empathy, curiosity, logic, intuition, experimentation, prototyping, and fearlessness. Our process includes vulnerability, uncertainty, and failure. Design, like art, can lead the way to change. After all, it's the gatekeeper of public communication. The power to change the world has always rested precariously on the ability to create an effective communication. But how do designers perceive themselves in the big picture? How dedicated are we to the idea that design advances culture

and that culture shapes what we believe is possible? How aware are we of our creative process? Is it inextricably linked to the thinking needed to flourish in the new worldview? And how committed are we to make hope visible for others? Is this too much to think about in addition to serving the needs of people, planet, and profits?

Admittedly it's a tall order. Still, we're talking about a fundamental shift of consciousness, a profound transformation of behavior—a sea change. We stand in the middle of a decades-long shift in scientific and cultural worldviews. Systems are no longer linear and people are not always rational and predictable. Instead, we find ourselves in a new reality—a dynamic, adaptive ecosystem. It is at once exhilarating and disorienting and, without question, brimming with possibilities. Your thinking is genesis and your actions are contagious. So what is worth doing? If you're a designer, I ask you to use that professional optimism to always see a better solution, a better alternative, a better world. I ask you to find a way to inspire friends, businesses, and communities to see opportunity in change. Make it a calling. Some of you have an innate desire to make a difference in the world. You already know you're here for a greater purpose. If there ever was a time to act on that desire, it's now. What is the desired outcome of these actions if not to accelerate the shift of human consciousness and create a better world? Knowledge is of no practical value without making it an alive and visible part of the world.

There is a part of you that already realizes the paradox inherent to the process of bringing this new world into existence—this is what we are purposed to do. Although it's not our place to push anyone's consciousness evolution, we can

impart the compassion to make the journey uplifting. Design can lift consciousness through imagination—words, colors, images. As our economy resets to a new sustainable model, we have an opportunity to reevaluate what is important to us. An occasion to not resist our own evolution. We have the innate ability to inspire, transform, and redesign our world.

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Acknowledgements

Jerry Takigawa

In nature, organisms thrive in a state of cooperation. Businesses that collaborate, innovate, and adapt will thrive. All matter exists in a dynamic relationship of cooperation. Whether you call it the zeitgeist, the worldview, or the dominant school of thought, the defining spirit of this time in history is dynamic and energetic expansion—in other words, change. In the old world of matter and machines, the edges were well defined. Welcome to the new world. Do you see constant and rapid change? Or do you see new possibilities?

Takigawa Design offers a creative center for clients and organizations that want to pursue untapped opportunities and design their way forward. They are aware of the false certainty of the past and are seeking to create a positive future. They are clients who wish to bring a product or service to market that seeks to make the world a better place.

If you find our story interesting or you'd like to learn more, we look forward to meeting you.

About the Photographs
False Food—Jerry Takigawa

The volunteer from the Monterey Bay Aquarium holds up a jar for the television audience to see. The plastic pieces filling the jar were collected from the belly of a dead albatross. Mistaking plastic debris for food, countless albatross die of starvation. From the moment I understood, I felt compelled to bring this alarming awareness to the attention of a broader audience.

Disturbing images have the potential to overload or repel the viewer. I knew that I wanted my images to redeem hope and beauty from a gyre of pollution and death. I have come to realize this inherent desire to resolve polarities is deeply rooted in my Japanese-American heritage. It's a synthesis of an East/West aesthetic and politic—both unique and individual, collective and mutual.

In a recent exhibition catalog, Robert Reese, director of the Carl Cherry Center for the Arts observed, "Salvaging such defiant beauty from plastic artifacts recovered from the albatross provides a compelling metaphor of survival in the modern world—both human and animal."