

Alyce Santoro's *Philosoprops: A Unified Field Guide* is radical (meaning "proceeding from the root") in the truest sense. What at first seems like an account of her personal process of creation unfolds into a manifesto about the paradoxes of self-consciousness. We learn that her "philosoprops" give contemporary form to perennial conundrums. Long associated with Zen koans and ancient attempts to square the circle, her artworks playfully re-invent time-honored techniques for inducing illumination through befuddlement. Yet the book also reveals her intention of going far beyond celebrating the novelty of riddles. She seeks to give voice to the unclassifiable heretics that occupy the liminal realms at the boundaries of art, science, religion, and spirituality. Instead of succumbing to modern society's push towards specialization and categorization, she uses philosoprops to encourage pulling the rug out from under paradigmatic assumptions to examine the complex unities of existence. By documenting the decades-long nucleosynthesis of her own creative process, Alyce has managed to provide a touching insight into her own ongoing epiphanic supernova. Her explorations of the complementary possibilities of intuitive reason, gentle empiricism, and precise speculation have not only produced delightful objects, they have also enabled her to make a compelling case that embracing multiple perspectives on the world is essential for cultivating empathy, compassion, and reciprocity. *Philosoprops: A Unified Field Guide* is an open invitation to her fellow astronauts aboard the magnificent Spaceship Earth to embrace the playful nature of a mutually beneficial cosmos: in her words, to believe in everything instead of nothing.

– David McConville, *cosmographic hermeneut and Chairman of the Buckminster Fuller Institute*

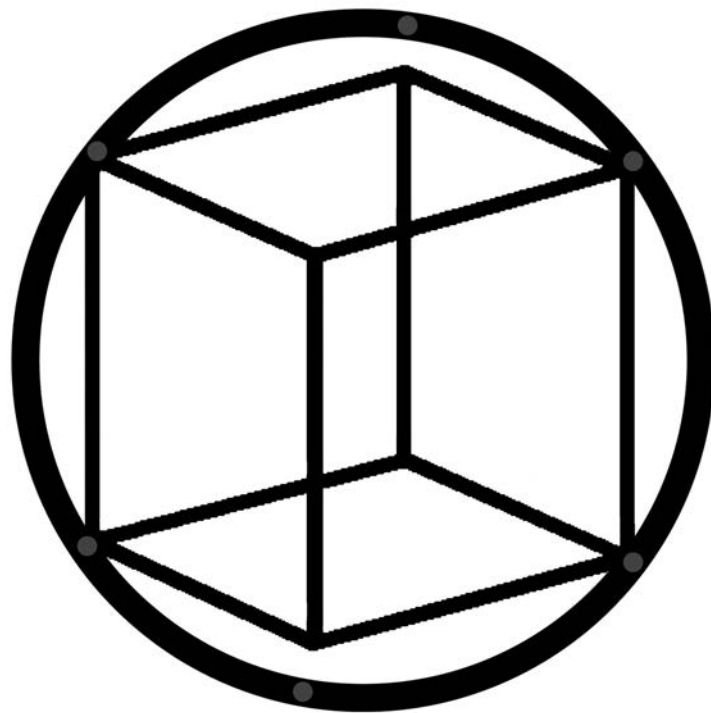
Alyce Santoro (a.k.a. Alyce B. Obvious) is keen at pointing out with graphic grace, material beauty, and steampunk sensibility what should be obvious to us all: that the universe is marvelous, and that a down-to-earth, resilient lifestyle is immediately available to anyone who is willing to tune in, unplug, and DIY. Philosophical apparatuses and instruments – *philosoprops* – are the tools of Alyce's obvious multiverse. Informed by a love of wisdom and an absurd sense of humor, these material *propaganda* draw attention to human behaviors and the social, political and environmental ramifications of our beliefs and actions. Alyce's instruments broadcast a hopeful message: that changing the world for the better begins the moment we realize it is possible. When we reach out with open arms, an open mind and an open heart, simple actions (like hanging laundry in the sun to dry instead of relying on a machine powered by coal, fracking, or nuclear fission) take on transformative power. By raising questions like "Is magic real?" "Are we separate from one another?" and "Can we create a more just, egalitarian system?" philosoprops disarm us, make us smile, and show us a path towards participation in the wonder of it all. Whether we decide to notice what we notice, embrace paradox, follow our instincts and intuition, or live simply...the choice is ours.

– Eve Andrée Laramée, *interdisciplinary artist, ecological activist*

Alyce Santoro is best known as the inventor of the most creative advance in textiles in the past few millennia. Her Sonic Fabric brought cloth and clothing into an entirely new sensory and indeed ontological realm. Dialectical materialism may have gone out of style in recent times, but Sonic Fabric has assured that dialectical material has a great future. Now, with Philosoprops, Santoro dedicates her impressive creative energies to the cause of making sure that dialectical philosophy, and indeed, philosophy as a whole, also has an auspicious future. Her new book is a kind of “Guide for the Unperplexed.” If you fear that you may be lapsing into some kind of dogmatic slumber, Philosoprops will shake you up a bit and render you more creatively perplexed. What is a philosoprop? It’s a prop, something that helps you philosophize, and it’s also an op, an opportunity to have fun doing it. Santoro says that philosoprops are like philosophical toys. This is one of their most admirable qualities. They help bring play, and maybe even joyfulness, back into philosophy. It’s often been said that the origin of philosophy is in childlike wonder. But has this truth been taken seriously, or seriously unseriously, enough? Santoro thinks not, and wants to do something about it. Philosoprops is a guide to engaged philosophizing, to doing, and not just thinking about doing. It helps return philosophy to everyday life. Philosoprops takes philosophy out of the hands of the philosopros and philosoprofs and puts it back in the hands of the philosopeeps. Who knows what will happen when you get hooked on philosoprops? They may help you notice how you notice what you notice! If you do enough philosopropping, you may discover that in the end wisdom is just a mountain to be plucked, or a flower to be climbed, step-by-step! Whether or not you accept Santoro’s invitation to “choose determinism,” I certainly hope that you will be determined to get this book!

– Max Cafard, *surregionalist writer, psychogeographer, Zen anarchist*

PHILOSOPPROPS: A UNIFIED FIELD GUIDE



by **ALYCE SANTORO**

PHILOSOPROPS: A UNIFIED FIELD GUIDE

by Alyce Santoro

Offset printed in an edition of 250.

#_____ of 250

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OBVIOUS PRESS, 2013

DEDICATING THE MERIT
(VARIATION ON A BUDDHIST TRADITION)

May any merit achieved by me through these earnest efforts
be shared by all beings everywhere across space and time.
May the path for every being be secure and peaceful
and lead to supreme enlightenment
and complete liberation
for all beings.

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1. WHAT IS A PHILOSOPROP?

The word *philosoprop* is a portmanteau of *philosophy* (love of wisdom) and either *prop* (theatrical property) or *propaganda* (influential communication), depending. A philosoprop is a device, implement, or illustration – crafted or discovered ready-made – that can be used for the purpose of demonstrating a concept or sparking a dialog. I began collecting and contriving them many years ago, quite by accident.

I didn't set out to become a maker of philosoprops, per se – my path has led through science, scientific illustration, conceptual art, and social activism, ultimately becoming an amalgam of all of these things.

After noticing that, more than anything else, my work consisted of multimedia social interventions and apparatuses as catalysts for discussion, reflection, and action, I felt compelled to invent a word to describe the associated artifacts. The term *art* felt too ambiguous; *philosoprop* seemed more precise.

I am by no means the only person making philosoprops. In fact, it could be argued that they are everywhere, contained in nearly every facet of human endeavor throughout history: many works of art, music, poetry, and literature; religious icons; shamanic implements; acts and signs of resistance and protest; some scientific instruments; and even some culinary delicacies could be thought of as philosoprops. Anytime we need to express the ineffable, make the invisible visible, or connect with the intangible, we may find that a philosoprop comes in handy.

There is evidence that as far back as the 1600s European “experimental philosophers,” opticians, and mathematicians (the label *scientist* to encompass all of these disciplines hadn't yet been established) began defining the tools of their trades – inventions such as the prism, camera obscura, sundial, barometer, ruler, and the telescope and microscope – as *philosophical instruments*.¹ Devices such as stroboscopes, stereoscopes, and kaleidoscopes that were used as much to provide entertainment as to lend insight into the ways in which we perceive space and/or time fell under the subheading of *philosophical toys*. It wasn't until the 19th and 20th centuries that the term *scientific* became associated in particular with laboratory equipment.²

Implements of research into the natural world have long provided inspiration for artists, scientists, philosophers, and the public at large. From beakers, flasks, and test-tubes, cabinets of curiosity, and planetariums to the Hubble Space Telescope and the Large Hadron Collider, scientific and philosophical instruments spark the imagination and “provide metaphors for writers and poets, they have an important pedagogical role in illustrating and confirming theory, and they define for the public what is acceptable science.”³

Revolutionary historical examples of philosoprops – illustrative works that have caused profound shifts in the way entire populations envisioned their place in the universe – might include Leonardo da Vinci’s famed “Vitruvian Man” (or “Proportions of the Human Figure”) around 1500 or Copernicus’ drawings of the heliocentric solar system published a few decades later. In the mid-1300s a French thinker by the name of Nichole d’Oresme developed a coordinate system by which to plot units of time against space along intersecting horizontal and vertical axes. With the advent of the graph, both “experimental philosophers” and artists were able to visualize and consider abstract data – such as the movement of objects through space and three-dimensional perspective – in new ways.⁴ More recently, the double-helix model of the DNA molecule (1952) and the “Blue Marble” photograph of earth from space taken by the Apollo 17 crew (1972) have been noted for their widespread cultural impact. (Although, as journalist Naomi Klein recently pointed out, gazing down at an abstracted image of earth from high above may have done as much to reinforce humanity’s sense of separation from nature as it has done to remind us that we are all sharing one small, stunning planet.⁵)

In 2000 I attended an exhibition titled *Unnatural Science* at Mass MOCA in western Massachusetts. Among the pieces, all in some way inspired by scientific investigation, was a work titled “Apparatus for the Distillation of Vague Intuitions,” by Eve Andrée Laramée, consisting of an outlandishly intricate arrangement of laboratory glassware etched with “unscientific” words and phrases such as HANDFULS, PARADOX, UNSPECIFIED, and UNNECESSARY EXPLANATORY PRINCIPLES. Upon experiencing Eve’s piece I realized that I was part of a tradition of artist-scientist-philosophers: I would not have to pick a discipline – it would be possible to work in all at once.

While this book serves as a sort of history and field guide to mostly my own philosoprops, it is my hope that by putting a name to the genre others will feel compelled to add to it. By telling the stories of the inspiration behind many of my works (with historical references to science, art, and philosophy), I explore the causes of current social, political, and environmental crises and suggest that the way forward will require profound shifts to our collective vision of culture, to the conditions we accept as “normal” within our society. I believe that through the cultivation of all forms of personal creativity, everyone can play a role in the urgently needed re-envisioning of our relationships with one another and our surroundings.

PHILOSOPROPS: A UNIFIED FIELD GUIDE is equal parts art exhibition catalog, cultural critique, autobiography, and invitation to reconsider the standard compartments into which we are taught to divide our world. It also serves as a long answer to the question I am most frequently asked: *What made you think of that?*

2. WHAT IS THE PURPOSE OF ART?

There are likely to be as many answers to this question as there are artists and art appreciators – indeed, as there are human beings. Each of us is experiencing this phenomenon we call reality in an infinitely unique way; each of us possesses a different range of aptitudes and sensitivities, which, when recognized and cultivated, can be channeled into highly creative, sharable forms of expression. Through the purposeful transmission of impressions and moods, we can convey abstract experiences and begin to perceive ineffable aspects of reality through lenses other than our own. This opportunity to see or hear the world from the perspective of another may cause us to feel less alone in our own existence, or it may “move” us to approach life with an altered, more profound sense of depth, richness, meaning, or empathy.⁶

Perhaps shamans were the first artists as well as the first scientists. Since time immemorial shamans have understood that the first step to bringing something out of the realm of the imaginary and into the world of the “real” is to give it physical form. There is power and what could be called “magic” in an idea that begins to take shape at the hand of the human who gives it life as a line, a rhythm or melody, or a bit of molded clay. The mental materializes. The invisible becomes visible and transmittable when it is drawn, sculpted, expressed in words, sound, or the design of an experiment – suddenly, *it exists*.

In ways not entirely dissimilar from these simplistic examples, when collective imagination is not allowed to flourish, the visionaries who garner the most power literally shape the world around us. Where pharaohs rule, pyramids appear; feudalism brings castles and walled cities; the influence of the church results in cathedrals; capitalist domination produces generic box stores surrounded by acres of tarmac upon which to park private low-occupancy vehicles. In previous eras, architects and urban planners might have, by design, encouraged reflection or brought the community together. Here in the early 21st century, however, the visionaries in power have a very different, remarkably effective agenda: create spaces that make people feel distracted and alienated from one another and from nature, accompanied by the illusion that the most effective way to assuage this discomfort is to purchase a manufactured product. The creative and content individual requires fewer trappings, and fewer trappings mean reduced profits for the CEO of the alienation alleviation widget corporation. Popular imagination is the enemy of the mogul, and the enemy of the consumption-based economic system in general – in the interest of keeping the wheels of consumerism greased, creative thinking must be suppressed and/or manipulated by any and all means possible.

Who will oppose these malicious, shortsighted visionaries? In my view, the artist is the shaman – or superhero – of our age, serving to remind the public of the power of personal and collective imagination. By carefully noticing the ways our lives are influenced by the sights and sounds that surround us, we can begin to create

alternatives, re-appropriate the spaces in which we exist, refocus the activities to which we willingly devote our time, and make choices that are healthier and more constructive for ourselves, our communities, and our planet. Fostering imagination for the purpose of transforming the prevailing collective vision is the inherently subversive function of the creative practitioner.

3. ARTIST OR SCIENTIST?

Art is the science of the intangible. Science is the art of the tangible. Humans rely on empirical data for all manner of existence management, planning, and development. But we are also equipped with a complex, often-underestimated, and little-understood sensory system capable of processing an infinite range of subtle sensory input that is also essential and integral to our perception of reality. If we have come to regard art and science as anything other than two halves of the same vital coin, both necessary for certain purposes under particular circumstances, this is little more than a foible of contemporary thinking.

I can't recall a time when the competition between disciplines to establish the most advanced or sophisticated one made sense to me, but in the Northeastern United States, I certainly remember it being implied throughout my education, beginning in elementary school in the 1970s. Science is something that smart, serious people do, and art is something people do for fun or as a hobby but not to serve an essential function.

From as far back as I can remember I wanted to prove this harsh thesis incorrect. I would make it my life's mission to find ways to bring art and science together.

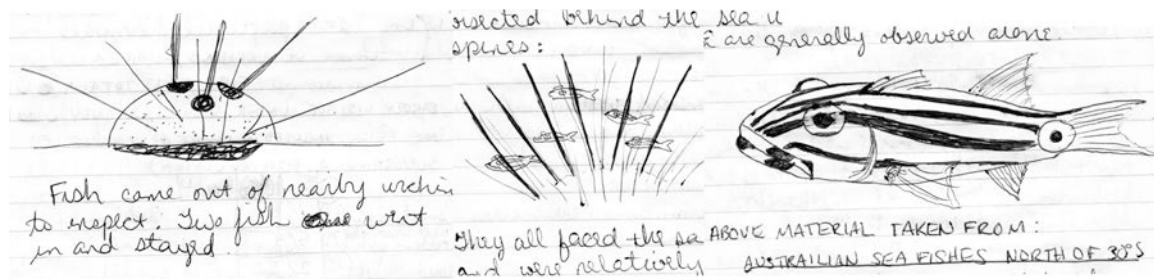
An only child raised in a log cabin in the woods, I was enthralled by every detail of the living world around me and felt compelled to learn all I could about it. In a "modern" society if an inquisitive young person craves a deeper understanding of her surroundings, the available options are likely to be drawn from the socially accepted, career-focused menu of *-ologies*. Vision quests, walkabouts, traditional planting and harvesting methods, and other, more immersive and holistic forms of nature study exist, but these are most often taught (when referenced at all) in passing as strange or "alternative" customs practiced by other, less "developed" peoples with different concerns and different standards for determining what should be deemed "practical."

Though I relished the elegant concepts behind chemistry and math, when conveyed in the classroom as dry abstractions divorced from everyday life, I found English, art, and music more engaging and easier to grasp. Upon learning theories about the bi-hemispherical brain and its purportedly different functions, it seemed evident my

own brain was bent toward the creative side. Determined to get the analytical half up to speed, I chose science as the focus of my higher education. Without much guidance on how or where to look for an interdisciplinary education, I decided to study science first, art later.

As an undergraduate marine biology student in the late-1980s, I frequently found myself overwhelmed by the astonishingly intricate processes that life entails. Creating meticulous drawings of the creatures I was investigating became an exercise in detail awareness and appreciation. I became intrigued by the role of the scientific illustrator, able to translate data into forms that can be easily accessed by trained and untrained audiences alike.

My first research project as a freshman undergraduate was conducted in a tropical lagoon off Uepi, a tiny jungle-covered island in the South Pacific. I was drawn to groups of five-lined cardinalfish that I'd repeatedly observed hovering within the spines of the long-spined black urchin. In order to learn whether the urchins were providing a source of nutrient or some other benefit aside from protection for the fish, I designed an experiment involving several model urchins constructed out of halved coconut shells fitted with spines made of broom straw. Upon deployment, the fish immediately began to populate the ersatz urchins. The thrill derived from creating forms that the fish seemed to find useful, then documenting the experiment with drawings, proved to be a harbinger of things to come.



In a flash of insight during the final semester of my senior year, my grasp of genetics, biochemistry, physics, and calculus suddenly deepened when I began to perceive these not as distinctly separate subjects, but as variations on a single theme: the dynamics of systems on a rare and vital planet. I was having what could be described as a mystical revelation – a sensation I was not able to reconcile until many years later, already well down the path to becoming more of a philosophical illustrator than a scientific one. I wondered why it had taken four years to arrive at this realization and why the interrelationship of everything had not been emphasized at the outset. Perhaps, like the riddle in a Zen master's kōan, the wisdom was there all along, obscured until the student was ready to receive it.

I was already a practiced skeptic when I arrived at college. Without any formal spiritual practice, my parents encouraged me to respect the beliefs of others, to

question everything, and to choose the models, if any, that seemed most sensible. I recall a moment in grammar school when my fellow students erupted in laughter at the idea of Muslims making a pilgrimage to kiss the Black Stone at Mecca; my mind immediately flashed to a classroom full of children in the Middle East, learning at precisely the same moment about Christians who ritually turn bread and wine into human flesh and blood, then ingest it. To me, kissing rocks seemed perfectly reasonable, especially by comparison. By the time the lesson on the Crusades came along, I was finding the harm caused in the name of a purportedly just and loving God absurd. I decided to reject religion outright in favor of a scientific understanding of the world.

It seemed to me that those were the available choices: religion *or* science, not something in between, and not something else altogether. When I first learned the word *atheist*, it seemed to fit – it's perfectly logical that belief should be preceded by evidence. Later, the slightly less definitive *agnostic* seemed more apropos – perhaps things can exist that are beyond the human capacity for understanding. It would be many more years before I came to realize that labels are little more than convenient, imprecise – and often completely inadequate – forms of linguistic shorthand. For me, the overwhelming intricacies of the Krebs cycle (the astoundingly complex series of biochemical feedback loops that turn food into forms of energy that can be used by cells), the structure and function of the DNA molecule, and the process of photosynthesis evoked profound feelings of reverence and awe. Ironically, my quest for rational understanding was leading directly into metaphysical territory.

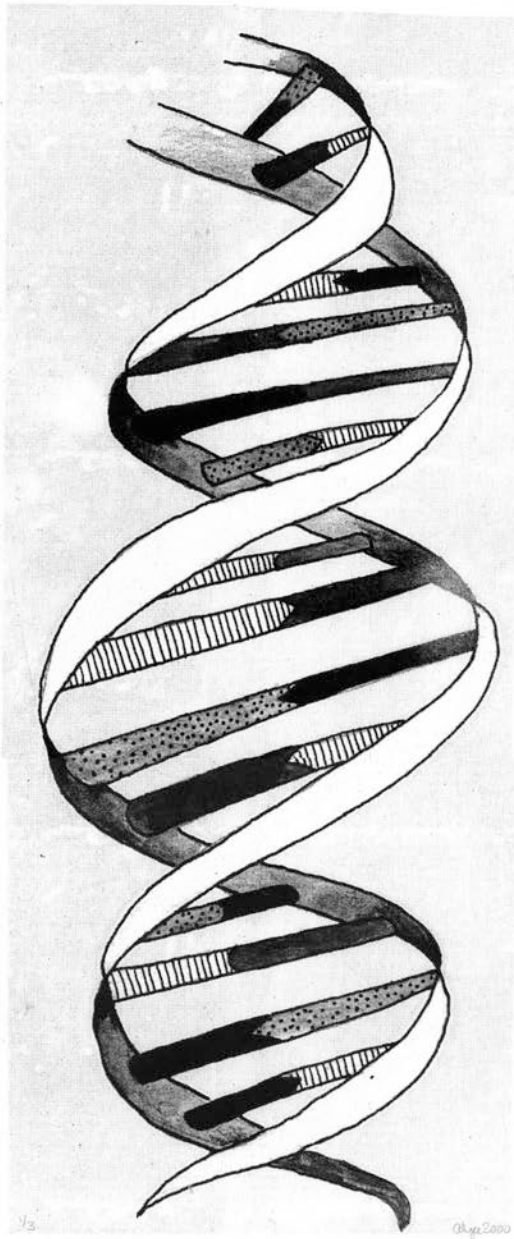
As far as I was concerned, if the 13.8-billion-year-old universe with its elegant smattering of a trillion swirling galaxies each filled with 50 billion stars and their respective orbiting planets (at least one of which is known to support trees, jellyfish, and scientists) can come about through some combination of random operations, serendipity, natural selection – along with any as-yet undiscovered, or at least unverifiable factors – then this process is no less miraculous, and no less worthy of veneration, than anything else referred to by some as divine.

It is not how things are in the world that is mystical, but that it exists.
– Ludwig Wittgenstein, Tractatus-Logico-Philosophicus (1921)

WHY, who makes much of a miracle?
 As to me I know of nothing else but miracles,
 Whether I walk the streets of Manhattan,
 Or dart my sight over the roofs of houses
 toward the sky,
 Or wade with naked feet along the beach just in the
 edge of the water,
 Or stand under trees in the woods,
 Or talk by day with any one I love, or sleep in the
 bed at night with any one I love,
 Or sit at table at dinner with the rest,
 Or look at strangers opposite me riding in the car,
 Or watch honeybees busy around the hive of a Sum-
 mer forenoon,
 Or animals feeding in the fields,
 Or birds, or the wonderfulness of insects in the air,
 Or the wonderfulness of the sundown, or of stars
 shining so quiet and bright,
 Or the exquisite delicate thin curve of the new moon
 in Spring;
 These with the rest, one and all, are to me miracles,
 The whole referring, yet each distinct and in its place.

 To me every hour of the light and dark is a miracle,
 Every cubic inch of space is a miracle,
 Every square yard of the surface of the earth is spread
 with the same,
 Every foot of the interior swarms with the same.
 To me the sea is a continual miracle,
 The fishes that swim—the rocks—the motions of the
 waves—the ships with men in them,
 What stranger miracles are there?

- Walt Whitman, *Miracles*, from An American Bible,
published in 1911 by The Roycrofters



CHANCE?

CHANCE? lithography and letterpress, 11" x 15", edition of 3, year 2000.

As wary as I'd become about the capacity of the dominant organized religions to divide people against one another, I was equally intrigued by the principles upon which they are ostensibly founded: namely, reverence toward the causative agents of existence.

During the fall semester of my junior year I ventured off alone to backpack around Western Europe with the goal of learning all I could about art, history, and culture – subjects that were markedly absent from a rigorous science curriculum. Expecting to concentrate on museums and art institutions, I was surprised to find myself captivated by cathedrals and other sacred sites, such as Stonehenge. I realized that over the course of millennia humans had been inspired to build exquisite monuments to a force I could neither see nor comprehend: soaring architecture, gilded altars, relics depicting moments of otherworldly sorrow, passion, ecstasy. I longed for access to such realms, beyond the reach of conventional detection systems.

In Venice I took in the torn canvases of Lucio Fontana, in Vienna the early scores of Mozart. At the Musée Picasso in Paris the multidimensional magic of cubism revealed itself to me for the first time, providing a perfect segue to David Hockney's faceted photomontages at the Musée D'Orsay. I began to see parallels between the cathedrals and the museums; both are dedicated to explorations into the great mysteries of existence. Artists and prophets throughout the ages have been impelled to see beyond the ordinary and to craft their visions into tangible, sharable forms.

But aren't many scientists also responding to an urge to understand the ultimate nature of the universe? While there are important differences in the approaches taken by art, science, and spiritual pursuits, as highly specialized platforms for examining the mysteries within which we find ourselves, they have in common the capacity to provide dimension and meaning to human existence. As much as science might care to think of itself as detached and unbiased, it too is practiced by individuals who are passionately – often completely inexplicably – driven toward the study of nebulae, mycelia, squid, or subatomic particles.

An abstract lithography artwork featuring a central, thick black circle. The background is filled with a dense, chaotic network of thin, dark lines and dots, resembling a technical drawing or a particle track. The overall composition is vertical and rectangular.

ART STUDIOS = PARTICLE ACCELERATORS = CATHEDRALS
PLACES TO ACCESS THE SOURCE

THE SOURCE, lithography and letterpress, 11" x 15", edition of 4, year 2000.

4: THE SOCIAL CONSTRUCTION OF SEPARATENESS

While it would be difficult to determine precisely when humans began wondering about and seeking ways to shape the world around them, it's clear that by the late 1500s scientist-philosophers such as Descartes, Galileo, Newton, and Bacon (building on knowledge derived from their predecessors in ancient Greece, Rome, Egypt, the Islamic world, Persia, China, and India) were working to improve the accuracy of knowledge using experiments based on observable phenomena and reason. New, refined instruments such as telescopes and microscopes unlocked vast and transformative insights into physics, mathematics, biology, medicine, navigation, and transportation.

These new empirical methods stood in contrast to the hermetic, alchemical, and other esoteric forms of study also practiced at the time, which combined both the physical and the mystical. The animistic beliefs of the Renaissance Naturalists were seen by the group of emerging European rationalists as a threat to their burgeoning methods of inquiry.

Many people in the West were becoming convinced that the universe is less alive and more akin to a machine. Descartes, for example, held that the physical universe "consists of nothing more than the mechanical collisions of inert material particles,"⁷ ("mind" being something altogether separate) and felt that the success of all future study depended upon the abolishment of the notion that the forces that animate humans are in any way related to the forces that drive the rest of nature.

Descartes, a brilliant contributor to the field of mathematics, also played a pivotal role in the widespread acceptance of the notion that the human sensory system is unreliable as a means of gathering data. He believed that the most God-like (Descartes is thought to have been a deist – a Catholic, to be precise) form of knowledge is that derived by deductive reason alone.⁸

Descartes inadvertently did the thinking for forthcoming generations when he famously declared in his 1637 Discourse on Method, "*I think, therefore I am.*" But exactly who or what is this entity commonly referred to as "I"? And might not *feeling* also play a significant role in our sense of being? One might infer from Descartes' axiom that thinking is an endeavor carried out in complete isolation, contained within one's body, and entirely disconnected from the outside world. Reconsidering any limitations we may impose on our definitions of "thought" and "mind" now will help us to evaluate whether our philosophical and scientific, analytical and intuitive, creative and mathematical paradigms are ultimately constructive. Moving forward, necessary adjustments can be applied as we strive to cultivate a more peaceful, sustainable existence on planet Earth.

Physicist David Bohm stated in Wholeness and the Implicate Order:

“Indeed, to some extent, it has always been both necessary and proper for man, in his thinking, to divide things up, and to separate them, so as to reduce his problems to manageable proportions; for evidently, if in our practical technical work we tried to deal with the whole of reality at once, we would be swamped. So, in certain ways, the creation of special subjects of study and the division of labour was an important step forward. Even earlier, man’s first realization that he was not identical with nature was also a crucial step, because it made possible a kind of autonomy in his thinking, which allowed him to go beyond the immediately given limits of nature, first in his imagination and ultimately in his practical work.

Nevertheless, this sort of ability of man to separate himself from his environment and to divide and apportion things ultimately led to a wide range of negative and destructive results, because man lost awareness of what he was doing and thus extended the process of division beyond the limits within which it works properly. In essence, the process of division is a way of *thinking about things* that is convenient and useful mainly in the domain of practical, technical, and functional activities (e.g., to divide up an area of land into different fields where various crops are to be grown). However, when this mode of thought is applied more broadly to man’s notion of himself and the whole world in which he lives (i.e. to his self-world view), then man ceases to regard the resulting divisions as merely useful or convenient and begins to see and experience himself and his world as actually constituted of separately existent fragments. Being guided by a fragmentary self-world view, man then acts in such a way as to try to break himself and the world up, so that all seems to correspond to his way of thinking. Man thus obtains an apparent proof of the correctness of his fragmentary self-world view though, of course, he overlooks the fact that it is he himself, acting according to his mode of thought, who has brought about the fragmentation that now seems to have an autonomous existence, independent of his will and desire.”⁹

It is one of the most profound paradoxes of the human condition that under ordinary circumstances we experience ourselves as separate entities, while occasionally, under extraordinary circumstances (during extreme states of bliss, love, duress, meditation; during a near-death experience; or with the aid of hallucinogens, perhaps) we come to the clear realization that separation is a temporary, convenient illusion, while interconnectedness is the true nature of being.

Certainly the value of reason and logic as a cultural “advance,” one that serves to dispel ignorance and fear, cannot be underestimated; many of the challenges faced by modern society are caused by a dearth of rational, critical thinking. But it is possible to attach oneself so wholeheartedly to reason that healthy forms of multisensory analysis and expression become diminished. Perhaps the alchemists had some ideas worth saving:

SEVEN HERMETIC PRINCIPLES ACCORDING TO THE KABALION¹⁰:

1. The Principle of Mentalism.

ALL IS MIND. THE ALL is SPIRIT which in itself is UNKNOWABLE and UNDEFINABLE, but which may be considered and thought of as AN UNIVERSAL, INFINITE, LIVING MIND.

2. The Principle of Correspondence.

AS ABOVE, SO BELOW; AS BELOW, SO ABOVE. This Principle embodies the truth that there is always a Correspondence between the laws and phenomena of the various planes of Being and Life. And the grasping of this Principle gives one the means of solving many a dark paradox, and hidden secret of Nature. There are planes beyond our knowing, but when we apply the Principle of Correspondence to them we are able to understand much that would otherwise be unknowable to us.

3. The Principle of Vibration.

NOTHING RESTS, EVERYTHING MOVES, EVERYTHING VIBRATES. This Principle explains that the differences between different manifestations of Matter, Energy, Mind, and even Spirit, result largely from varying rates of Vibration.

4. The Principle of Polarity.

EVERYTHING IS DUAL. Everything has poles; everything has its pair of opposites; like and unlike are the same; opposites are Identical in nature, but different in degree; extremes meet; all truths are but half-truths; all paradoxes may be reconciled.

5. The Principle of Rhythm.

EVERYTHING FLOWS. Everything flows, out and in; everything has its tides; all things rise and fall; the pendulum-swing manifests in everything; the measure of the swing to the right is the measure of the swing to the left; rhythm compensates.

6. The Principle of Cause and Effect.

EVERY CAUSE HAS ITS EFFECT; EVERY EFFECT HAS ITS CAUSE. Everything happens according to Law; Chance is but a name for Law not recognized; there are many planes of causation, but nothing escapes the Law.

7. The Principle of Gender.

GENDER IS IN EVERYTHING. Everything, and every person, contains the two Elements or Principles, or this great Principle, within it, him or her. Every Male thing has the Female Element also; every Female contains also the Male Principle.

With the scientific revolution well under way in 18th century Europe, scholar and author Johann Wolfgang Von Goethe recognized that valuable animistic, alchemical, and hermetic technologies were being lost, discredited by those choosing to abandon the esoteric entirely in favor of modern systems that emphasize the rational, reasonable, and measureable. Goethe felt that the old and new systems were not entirely incompatible and should not be perceived as diametrically opposed; rather, they should be drawn upon under separate-yet-complementary

circumstances. He developed techniques intended to enhance and deepen the study of nature beyond what is possible by objective analysis alone. He called his preferred approach *delicate empiricism*: "the effort to understand a thing's meaning through prolonged, empathic looking and seeing grounded in direct experience."¹¹

"Goethe argued that it is not enough to train only the outer senses and the intellect. He maintained that, as a person's abilities to see outwardly improve, so do his or her *inner* recognitions and perceptions become more sensitive: 'Each phenomenon in nature, rightly observed, wakens in us a new organ of inner understanding.' As one learns to see more clearly, she or he also learns to see more *deeply*. One becomes more 'at home' with the phenomenon, understanding it with greater empathy, concern, and respect."¹²

Inspired by Goethe, 20th century German conceptual artist and educator Joseph Beuys' life and work focused on the profound socially transformative potential of personal empowerment and creativity that emerges when one engages one's sense of intimate interrelationship with the biosphere.

Beuys believed that "only from deep, sustained reflection upon the nature and purpose of creative activity could social change arise."¹³ He felt that "man is a being who needs nourishment for his spiritual needs, and that if he could cultivate and train this primary nature, this spiritual nature, he could develop whole other energies."¹⁴

Even small, routine gestures, when performed from a deep sense of compassion for and responsibility toward one's place and community, enhance the lives of all those who experience them, including one's own. For this reason, Beuys famously declared, "Everyone is an artist." He called work that has transformative potential "social sculpture."

To make people free is the aim of art. Therefore art for me is the science of freedom. – Joseph Beuys

The practice of permaculture – an integrated system of design and cultivation by careful interpretation of one's environment – is based on similar principles. In the words of Bill Mollison, co-developer of the original framework, permaculture is "a philosophy of working with, rather than against nature; of protracted and thoughtful observation rather than protracted and thoughtless labor; and of looking at plants and animals in all their functions, rather than treating elements as a single-product system."¹⁵

The permaculturist strives in all ways to minimize waste and input of energy and resources while maximizing efficiency and yield, striving always to sustain oneself in ways that not only reduce harmful impact, but also serve to enhance the surrounding land and community if possible.

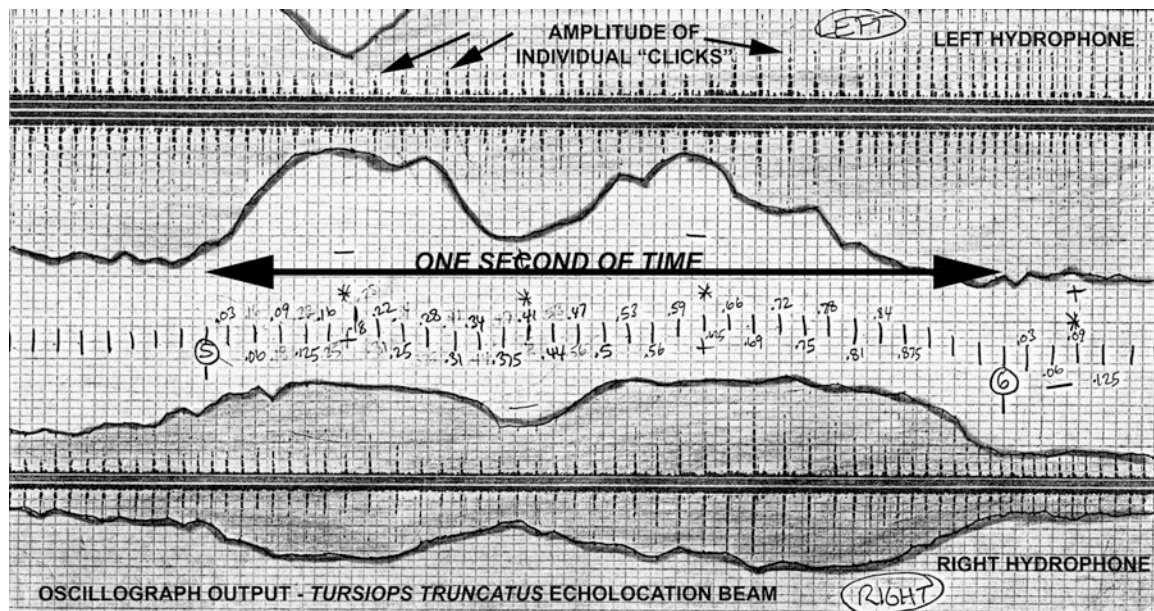
Modern science as it is currently practiced, for all its transformative power, includes no such tenets. Its overwhelming influence is accompanied by the compelling impression that it is above reproach and that civilization's "progress" depends on it.

However, it may behoove us to examine the repercussions of many of the things we have come to accept as technological "advances." While we have remained focused on the miracle of humanity's boundless curiosity, we tend to lose sight of the fact that so much of today's research is funded by corporate interests driven by little more than the urge to discover that which commands profit and power.

In art, attempts are made to distinguish between "fine" and "commercial" forms, *fine* being that which is (ostensibly) motivated by a desire for aesthetic and/or conceptual enrichment, and *commercial* being that which is created to serve an economic function. A straightforward label that communicates the intended purpose of a work of art can help us to gauge an honest, accurate, and appropriate response to it. Nowadays, when we say "science," it is difficult without a similar clarifying term to understand exactly what we mean. Due to funding pressures "fine scientists," ones who are able to practice out of an earnest sense of curiosity and concern for nature and humanity entirely unswayed by the interests of their sponsors, are fewer and farther between than ever.

This is a lesson I learned first-hand in 1989 during an internship at Long Marine Laboratory at the University of California at Santa Cruz. As an undergraduate I was increasingly drawn to physics as a profoundly elegant means of describing invisible phenomena. As a classically trained flutist interested in exploring the limits of the instrument, I was discovering the world of experimental music, such as that of John Cage and Laurie Anderson. The study of bioacoustics seemed like an ideal way to combine these interests. I ventured off from my small East Coast college to work with a group at UCSC on a study of sounds produced by marine mammals. My professors at Southampton College had not been under pressure to produce research; all of them simply seemed passionate to share their knowledge about marine algae, salt meadow cordgrass, or quantitative analysis. I remained blissfully oblivious to the uniqueness of this circumstance until I arrived at UCSC and encountered a laboratory full of scientists anxiety-ridden at the impending end of a grant. Not only was everyone worried about finishing the work before the money ran out, but they were apprehensive about the source of the funding itself – the Office of Naval Research. I was stunned. How could scientists motivated by a love for the sea and its creatures willingly contribute to a body of knowledge that was ultimately intended to advance military technology (never mind the questionable practice of holding marine mammals captive in the first place)? I wanted no part of such a thing. But I too was intrigued by the sonic senses of whales and dolphins, and I was compelled to learn more about the unexpected challenges that come with being a scientist. And so for several months, along with my fellow researchers, I struggled with the awareness that, while we were making exciting strides in our understanding of echolocation, all of our data could be used to develop deadlier war machines.

The study depended upon the participation of two Atlantic bottlenose dolphins (*Tursiops truncatus*) called Echo and Misha. Wearing eyecups to obscure their vision, the dolphins took turns swimming toward a target surrounded by an array of five sensitive microphones. A dolphin would touch the target with his beak, then surface to receive a fish as a reward and have the eyecups removed. Each trial was recorded with both audio from the hydrophones and video shot from windows in the walls of the pool. Once the data were collected, my job was to match video of the dolphins' bodily movements with millisecond-by-millisecond audio records of the echolocation "clicks" as they swept across the array. From this data we could better understand the dolphins' abilities to aim the signal as they located the target.



While inquiry into the world around us is generally thought of as a noble endeavor, there are contrasts (overt, subtle, and/or untidily intertwined) between that which is undertaken for altruistic purposes, or even simply to satisfy human curiosity, and that which is motivated by arrogance, greed, and the quest for power. Intoxicated by the potential for financial gain and political influence, the most reckless and tyrannical among us are manipulating finite geological features and biological organisms (including other humans) into commodifiable, exploitable "resources," justifying this behavior by claiming that short-term gain for the few is more imperative than long-term concern and care for the resilience of systems that sustain the many.

If we wish to design experiments that proceed in ways that are as impartial and repeatable as possible, the scientific method provides an effective framework. In order to carry out studies that are accurate *as well as* ethically appropriate, some deeper and less clear-cut factors must be taken into consideration.

We can begin by acknowledging that while a firm vision of ourselves as objective observers, unbiased and entirely separate from our experiment (and from nature itself), serves a specific function integral to the scientific mode of information gathering, this approach stands in marked contrast to our actual sensitive, nuanced, everyday experience of the world. As effective and important as it may be to maintain a detached stance for scientific purposes, it is not productive or prudent to apply these same principles across all disciplines and under all circumstances. By admitting that absolute separation between observer and observed is a practical impossibility – but that it is necessary for research purposes to strive toward a state of neutrality – we embrace the existence of a fundamental paradox and can begin to move toward the development of a wiser and more honest science.

We have to remember that what we observe is not nature herself, but nature exposed to our method of questioning. – Werner Heisenberg

When the kind of objectivity that is imagined to be constructive between scientist and sample is assumed by a population to be universally applicable, the result is a culture that values the measurable over the intangible and the numeric over the emotional and that perceives itself as distinctly separate from (or superior to) the environment with which it is inextricably interrelated.

Emotional alienation from a people or place makes willful neglect, abuse, domination, and destruction more acceptable and sets up the necessary preconditions for imperialist political, social, and economic systems to take hold. Hierarchical social structures have become standard across the globe. But shifts can begin to occur the moment the distinctly isolated parts model is weighed against personal experience and we notice that it is not consistent. By cultivating a profound, empathic sense of interrelationship, we begin to notice that every existence affects and is affected by an infinite number of associations and factors, like a single note in an intricate symphony that loses its meaning when examined alone.

There is fundamental error in separating the parts from the whole, the mistake of atomizing what should not be atomized. Unity and complementarity constitute reality. –Werner Heisenberg

Among many peoples who have retained traditional pre-industrial-era customs, it is taken for granted that humans are directly connected to their surroundings. Elements of the natural world are often honored as esteemed “relations” and teachers. Moral judgments are based on the principle of reciprocity – in order to maintain balance, one does not take from another (or from nature) without considering the potential impact on the larger community and how one can best contribute in return.

Words from Around the World that Indicate a Sense of Shared Labor, Mutual Aid, Cooperation, &/or Sacred Reciprocity:

Ayni, Minca – Quechua: Reciprocal relationship.

Naffir – Arabic: Cooperative labor system.

Gadugi – Cherokee: *“Putting together the bread.”* Pooling resources.

Bee – Colonial North American: Cooperative labor system.

Talkoot – Finnish: Cooperative labor system.

Gotong Royong – Indonesian: Cooperation toward a shared goal.

Ubuntu – Bantu: *“I am because we are.”*

Botho – Tswana: *“Gain respect by respecting others, gain empowerment by empowering others.”*

Ahimsa – Sanskrit: *“Do no harm.”*

Harambee – Swahili: *“All pull together.”*

Meitheal – Irish: Cooperative labor system.

Dugnad – Norwegian: Cooperative labor system.

In “developed” cultures where cooperative models have been replaced by ones in which the individual is perceived as separate from his or her environment and the community group, we cannot turn to our most widely accepted mode of information gathering for guidance on issues of morality, as the scientific method is not designed to serve such a function, nor does it contain tenets that could be used in cases of ethical dilemma. For clarity on such issues one might expect to turn instead to philosophy or religion. Several of the world’s most prevalent religions, however, also fail to provide adequate guidelines.

Hegel pointed to belief systems that place deities in obscure places outside of, beyond, or above oneself as having a culturally divisive effect. Suddenly the world (and even the body) is somehow flawed when compared against perfection attainable only by gods. When we relinquish our sense of the inherently interwoven, egalitarian nature of reality, we begin to perceive ourselves as the exiled “other.”¹⁶ We place faith in an external, superior, controlling entity and diminish ourselves as lesser beings incapable of making righteous choices.

20th century philosopher Mircea Eliade spoke of the Judaeo-Christian compulsion to reinforce this dualistic view by de-emphasizing all sense of the transcendent in common objects and experiences (Eliade called awe-inspiring manifestations in everyday secular life “hierophanies”), reserving sensations of reverence for institutionally sanctioned entities only.¹⁷ This outlook renders life’s ordinary occurrences bland and lifeless and imposes prescribed boundaries within which we may seek limited and temporary relief from our disconnected, alienated state.



The Homeopathic Remedies for the Five Ills of Society is a set of elixirs for social ailments based on the premise that “like cures like.” “Violence” was prepared by soaking a bullet in distilled water. “Greed” is an infusion made from coins. “Consumerism” is a dilution of bottled water from Wal-Mart. “Alienation” is empty (in homeopathy, the more diluted the remedy, the more potent it is). “Detachment” contains a drop of super glue many times diluted (this is a “dialectic remedy,” the ailment being countered by its opposite. I wonder if, like especially diluted remedies, paradoxical ones have special potency as well?). Brown glass medicine bottles with droppers, ongoing series, 2002 – present. *Image courtesy Klemens Gasser and Tanja Grunert Gallery.*

Nearly every major aspect of Western culture – our dominant faiths, educational establishments, medical systems, methods of food and energy production – are set up in tiered schemes that put the individual in positions of dependence upon external forces to provide for his or her needs. If we have an ailment, we put our trust in a doctor who may prescribe a standardized remedy, temporarily alleviating symptoms without necessarily attending to the underlying conditions unique to each individual case. If we need food, most of us don’t visit a garden – we go to a grocery store where we acquire processed, shrink-wrapped, depersonalized, “value-added” products. If we need electricity, we plug into a wall socket. If we desire a relationship with forces beyond ourselves, we may visit a priest or guru. But rarely are we reminded that direct access is within our reach. In a hierarchical system, it behooves the middleman to be perceived as the wellspring itself.

When the origins of our most fundamental needs are obscured or co-opted, we relinquish autonomy and responsibility. But by reestablishing a direct connection to the source, we cease to be passive consumers and become engaged social architects.

5: TOWARD A NEW COSMOGONY

How can we begin to create a more just, egalitarian system?

In the cases of artists, alchemists/hermeticists, holy people, and shamans, it is often acknowledged that any tangible transformative effects that take place in the “real world” will be direct reflections of the depth of the inner work of the practitioner. The inclination to take up these intense, lifestyle-encompassing vocations is usually preceded by a sense of irrepressible inner urgency to do so. A “calling” can be catalyzed by an illness, a near-death experience, a harrowing journey, or any encounter with states of consciousness that defies rational explanation. The struggle to manage extreme emotions (grief, love, bliss, etc.) can cause a sense of complete overwhelm and lack of control over that which one had come to regard as a vestige of oneself. Like a swimmer fighting against a raging current, the moment we relinquish our attachment to a particular trajectory, we become able to maneuver more gracefully within the torrent.

In 2004 I created a headdress made from glassine papier-mâché and spines from a pencil urchin. I draped kelp over my shoulders and emerged from the Atlantic Ocean along the Rhode Island coast in a kind of ceremonial act to illustrate a sentiment expressed by Joseph Campbell:

The shaman swims in the same water the psychotic drowns in.



Shaman or Psychotic? ("The Virgin"), live action, 2004. *Photo by Matthew Magee.*

The successful emergence from great duress can leave one humbled by the power of forces that are experienced as simultaneously intensely personal and yet common to all. A deepened sense of solidarity with and compassion for the existential condition of one's fellow beings can become the impetus for acts of creativity and altruism.

On August 21, 1994, I visited the Collection de l'Art Brut – a museum of art unlike any I had ever before encountered – in Lausanne, Switzerland. Beginning in 1945 French painter/sculptor Jean Dubuffet began amassing a collection of works made by people who had been unexposed to formal schooling in the practice of art-making. Some of the artists had been prisoners or patients at psychiatric hospitals or had lived in isolated or otherwise stressful conditions. Without exception, the pieces felt powerfully, sometimes painfully, expressive: tiny drawings inside every square on hundreds of sheets of graph paper; epic fantasies revealed over the course of thousands of pages; elaborate wooden towers with crank-driven sound makers; portraits of kings made of seashells; tattoos that had been peeled off of corpses, stretched, and dried. Each group of works in the museum was accompanied by a biography of the individual who created it. I took notes on a few of the striking commonalities:

- Most of the artists were completely oblivious to their audiences. They created art not for any social or economic reward but because they felt overwhelmingly compelled to – it just sprung forth from them, and for the most part, they assigned little material value to it. Some of the artists exchanged large, complex pieces for cigarettes.
- Although many of the artists worked in an unrefined style reminiscent of that of a child, the attention span necessary for the completion of elaborate, detailed works far exceeded that of the average child.
- Many of the artists began to create late in life, when the sense of self-consciousness is perhaps diminished (as in early childhood).
- Many of the biographies contained accounts of “invisible forces” and spirit guides that informed the individuals of their destinies as creative practitioners. For example, while working in a coal mine, one of the artists heard voices ordering him to become a painter.

Over the course of the day it became amply apparent that these artists were motivated by concerns very different from those whose works are typically housed in more conventional museums of art. I began to grasp the range of possible intentions behind the manifestation of a creative artifact, from the desire to document an experience, generate healing, convey a message, or address a yearning to increase one's social status or wealth. I could see clearly that the thing that motivates one to create art ultimately determines the effect of the resulting entity's physical presence in the world. It also became clear to me that, although the works created by the artists in Dubuffet's collection were profoundly moving and beautiful,

in many cases, society had failed these individuals during their lifetimes. Often, those regarded as peculiar, eccentric, or psychologically damaged are avoided or shunned, cut off from forms of guidance and support. In industrialized societies, when someone exhibits behaviors that are considered outside or counter to the norm, treatment often involves attempts to realign the individual's behavior to within socially accepted bounds, rather than encouragement to channel unique energies in constructive ways.

Eventually, when enough people in a society change their view of what is "normal," culture shifts. Slaves are freed, women vote, genocide ceases. But prior to the moment when the tide turns, those who anticipated the change and fought in favor of it are viewed as radicals.

Around the world, artists, writers, musicians, permaculturists, and other types of creative practitioners, communicators, and activists are playing a vital role in destabilizing the foundations of oppressive corporate, agricultural, biotechnological, financial, and political regimes by building and sharing alternative models for thought and action. The absurdity of reliance on endless growth, conspicuous consumption, cheap fossil fuel, and other unsustainable, detrimental "norms" is coming to light, and a return to more emotionally fulfilling and healthful ways of life is well under way.

While much progress is being made, the human-caused challenges facing the biosphere are overwhelming and must be addressed immediately and comprehensively.

Before considering the question WHAT CAN WE DO we have to look into the question HOW MUST WE THINK? – Joseph Beuys¹⁸

Much can and has been done without directly addressing the flawed underpinnings of our collective belief systems. While it is possible to temporarily assuage symptoms of underlying imbalances, enduring, systemic healing requires a deeper, more holistic approach. All manner of effort toward restoring society and ecology could be greatly enhanced and accelerated by reconsidering and re-envisioning shared perceptions of our place in the world.

To adequately address Beuys' postulate, we'll need to go all the way back to the Big Bang.

While we may feel that the Big Bang is a fascinating and wondrous theory, when we boil it down to just the data, these subjective judgments cease to be relevant. In the effort to completely eliminate all human sensory factors from our equations, we may arrive at the logical supposition that humans and our apparent consciousnesses are the result of billions of years' worth of arbitrary, mechanical, electrochemical

events. With human sentiments extracted from the story of our origins, what remains is a cosmogony that is cold, mechanical, and impersonal.

Upon closer scrutiny, however, we may find that some parts of Western culture's most prevalent account of our universe's beginnings stick to the physics, chemistry, and math, while the parts that insinuate emotionlessness are not, in fact, verified by data (for good reason – the mechanisms of science are not intended to measure human sentiments). As yet, science may not have discovered a tangible unit (particle, wave, or other sort) of “mind,” “intelligence,” or “consciousness,” yet our experience provides extremely convincing evidence of the existence of such phenomena. Outside of the rigors of the laboratory, we routinely use faculties that come pre-installed in the human organism to gauge particular states and qualities (anger, inspiration, love, awe, etc.).

Is it really necessary, constructive – or even scientifically honest – to emphatically deny that sense and mind (and the humans who possesses such) may be an integral aspect of nature? Might it be possible (and prudent) to develop a comprehensive, extra-scientific narrative that adheres to available physical evidence while holding that the origin, role, extent, and purpose of consciousness remain enigmas worthy of further investigation, contemplation, and awe?

The highest thing a person can attain is to marvel. – Johann Wolfgang von Goethe

As Goethe expressed through his notion of “delicate empiricism,” experimental science conducted with objectivity can, for separate social or philosophical purposes, be complemented by the addition of a sensory dimension. Suddenly, abstract numerical or other statistical information can be viscerally – as well as intellectually – grasped. Individuals cease to feel distinct, isolated, and removed and begin to experience themselves instead as inseparable parts of the phenomenon. As humans we are eminently capable of detecting nuance and paradox; we can embrace subjective information when appropriate, without compromising pragmatic ideals or posing threats to the institution of science.

A new, more inclusive cosmogony that puts humans in the midst of rather than above or outside the world invites a deeper sense of place and a more profound appreciation for our condition as mutual beneficiaries of a highly improbable reality.

Sometime in the mid-1990s I came upon this passage in Peterson's Field Guide to the Stars and Planets:

"Hubble's observations that the most distant galaxies are receding from us faster than closer galaxies can be explained if the universe were expanding in a way similar to the way a giant loaf of raisin bread rises. If you picture yourself as sitting on a raisin, all the other raisins will recede from you as the bread rises. Since there is more dough between you and the more distant raisins, the dough will expand more and the distant raisins will recede more rapidly than closer ones. Similarly, the universe is expanding. We have the same view no matter which raisin or galaxy we are on, so that the fact that all raisins and galaxies seem to be receding doesn't say that we are at the center of the universe. Indeed, the universe has no center. (We would have to picture a loaf of raisin bread extending infinitely in all directions to get a more accurate analogy.)"¹⁹

I chuckled to myself at the clever use of such a down-to-earth metaphor, common to many spiritual traditions, to describe such an enormous and complex astrophysical concept. I had been reading a lot about the early universe at the time, and I was wondering what might have come before the Big Bang. I tried to envision it:

ALYCE'S RIDE ON A RAISIN

For many years I was a devout existentialist. I espoused a bleak, godless, condemned-to-be-free, faithless, death-is-the-end philosophy. Then I discovered that believing in everything is more fulfilling than believing in nothing. I could be a spiritual being without joining an organized religion, and without forsaking science. I discovered Oneness, *Om*, a universal particle of energy that is the essence of all things, ancient Eastern philosophy and modern physicists' Theories of Everything (TOEs) and Grand Unification Theories (GUTs) elegantly joining forces.

While meditating one morning awhile back, my mind floated out into a vast expanse of planetless, starless, matterless space. I began to wonder about Oneness, about the nature of the basic Particle. It occurred to me that this fundamental force must have some sort of "inspiration" inherent in it (I pictured a tiny acorn containing all the information needed to grow into a tree). I was adrift in an infinite ether resonant with an invisible swirling energy, a low hum, an *emotion* really, desperate for a way to express itself. Then BANG (the BIG one)!

Vibrating energy flowed out into the Universe, bursting forth into matter, manifesting itself in all things. I asked myself, what force could be this *inspired, passionate, creative, desperate* to express itself? There is only one possibility: LOVE. Then I realized that God is Love, and the shock jolted me out of my vision. I was worried. Would I suddenly get the urge to go door-to-door sharing my new insight? No, the Universe expresses its creativity through me in another way.

Who we are and what we feel and what we are made of cannot spring forth from nothing. We are not composed of anything other than the stuff of the universe. Particles and impulses and emotions, even, and *inspiration* were already here, floating around, disembodied. Bodies and minds are a relatively new development. God, Om, superstrings, were here 15 billion years (at least) before we (in human form) emerged. Our individual human selves are just creative outlets for the Infinite Source. The Universe is as conscious and expressive and intelligent as we are. Or, I should say, we are as conscious and expressive and intelligent as *It*.

* * *

I decided to use this text along with the quote from Peterson's Field Guide and a traditional recipe for bread to make a book in the form of a cake mix box. This piece became one of my early philosoprops, works that can be used to demonstrate ideas or that serve as jumping-off points for discussion.



Universal Raisin Cake Theory, offset printed, 6.5" x 9" x 2", edition of 1000, 2005.
 Photo courtesy Klemens Gasser & Tanja Grunert Gallery.

Over a decade after I'd produced the first few test prints of The Universal Raisin Cake Theory, I met Enrique Madrid, an anthropological scholar on the U.S./Mexico border who had developed a similar hypothesis related to tortillas.

THE SOCIAL & SCIENTIFIC IMPLICATIONS of the PERFECTLY ROUND TORTILLA²⁰

When I first set out to make art about science I imagined making technical renderings of specimens in black ink for textbooks. While enrolled in school for scientific illustration, however, I found that sound, sculpture, weaving, writing, gardening, and cooking are also media that can be used to explore and express particular aspects of the wonders of our world. As years have passed I've become increasingly concerned with humanity's impact on nature and our inherent interconnectedness with it and with one another. I'm not exactly illustrating science anymore as much as I'm attempting to express – in lots of different ways – a sense of awe at the phenomena into which it lends insight.

“The things to do are: the things that need doing that you see need to be done, and that no one else seems to see need to be done. Then you will conceive your own way of doing that which needs to be done, that no one else has told you to do or how to do it. This will bring out the real you that often gets buried inside a character that has acquired a superficial array of behaviors induced or imposed by others on the individual.” – R. Buckminster Fuller

I learned about Enrique Madrid shortly after moving to Texas from Brooklyn, NY in 2006. I was in the midst of a lengthy discussion with a new friend on the possible social impact of discoveries in quantum physics when he mentioned a local scholar and native of the Texas/Mexico border who had developed a formula that related Big Bang Theory to the making of a perfectly round tortilla. In that moment I knew that a meeting with this man was inevitable. I'd already created “The Universal Raisin Cake Theory,” based on a metaphor that astrophysicists use to describe the way the universe is expanding. Clearly this connection between physics and food would require further exploration.

In 2007, the Buckminster Fuller Institute²¹ began offering an annual prize to the individual or team who could present the most universally accessible and implementable strategy with the potential to positively impact the greatest number of people in the shortest possible time frame using the smallest number of resources. Bucky called this kind of solution a “trimtab,” named for the tiny rudder on an enormous ship that performs the critical job of steering.

I had a hunch that the trimtab the Institute was looking for was going to be something tangible – like bringing solar power, sustainable agriculture, or water catchment to a remote village, or designing a way to supply the entire planet with wireless internet. I was pretty certain that the winning strategy would not be a

method of pointing out all the unique, individual, creative ways in which each of us – with a little encouragement – are capable of becoming trimtabs. But to me it seems that the most efficient, affordable, accessible means of changing the world for the better is likely to come in the form of a collective mental shift. What if enough of us simply *decide it is possible* to contribute in positive ways to our families, communities, societies – and just do as much as we can with whatever means we have available to help make it happen?

"All of humanity now has the option to 'make it' successfully and sustainably, by virtue of our having minds, discovering principles, and being able to employ these principles to do more with less." - R. Buckminster Fuller

My mind kept working on the riddle of the trimtab, but I didn't submit a formal entry to the competition until 2011. I titled my proposal "The Instant & Efficient Comprehensive & Synergetic Omni-Solution, a Customizable, Interdisciplinary, Collaborative, Philosophical Approach to Social Change." The SOS project would be a call to action, a compendium of possible strategies, and a means of describing, documenting, and contributing to do-it-ourselves revolutions currently underway around the world.

Just as I was about to submit my application to the BFI, I was asked by Ballroom Marfa to represent them in the 2011 Texas Biennial, a statewide showcase of galleries, museums, and artists. The beautiful old Masonic Hall building in downtown Marfa was offered as a place to present my project during the last weekend in April. I was thrilled to have the opportunity to launch the Synergetic Omni-Solution so close to home, and I wanted include local visionaries – people who seemed to be engaged already in Synergetic Omni-Solutions of their own. I knew immediately that Enrique Madrid and his tortilla formula would be a perfect fit.

To many, the profound power and meaning contained in the everyday act of tortilla making may not be so obvious.

In late March, after trying to make a date to visit the Madrids for several years, the moment had at last arrived to spend a day with Enrique and Ruby at their home in Redford, Texas learning, cooking, and eating. From the moment I walked through the door, I was immersed in the sights, sounds, aromas, and tastes of border culture (part of Enrique's mission is to "*preserve endangered flavors*"). Over Ruby's superb cappuccino we discussed philosophy, politics, and methods of nonviolent activism. Enrique read from passages he'd carefully highlighted, underlined, and earmarked in his vast collection of books. The day began with a reading from Morality by Walter Sinnott-Armstrong:

“To determine what is morally right, we should ask who gets harmed, how, and how much. The debate should be about how to avoid and prevent harm.”


We discussed ways in which feeding people is a radical act – to keep people hungry is to oppress them. To teach people to cook wholesome, tasty food is to provide them with the wisdom to feed themselves, their families, and their communities in body and spirit.

Then we moved on to tortillas, and to the research behind the discovery of Enrique’s famous formula. While travelling extensively in Mexico, Ruby and Enrique noticed that nearly every tortilla is perfectly round. The pair concluded that the making of a round tortilla is a right of passage – if a person can make a perfect tortilla, it not only means that the person is a meticulous cook, but it also implies that this person is capable of growing corn, harvesting it, grinding it, making the masa, and feeding a family.

It turns out that the universe at the moment of the Big Bang and a *testal* – a ball of masa about to become a perfect tortilla – obey the same simple principle – *uniform expansion*. The early universe expanded out uniformly in all directions to create a sphere. The central plane of that sphere is a flat, perfectly round disk – exactly like a well-made tortilla.

$$\frac{uo\Delta_m}{cp} (72^\circ) = \emptyset$$

u = uniform
 o = omnidirectional
 Δ_m = distribution of mass
 cp = central plane
 72° = rotation (x5 = 360°)
 \emptyset = perfectly round tortilla



“The secret of tortillas is UNIFORMITY.” - Enrique Madrid

RECIPE for 6 UNIVERSAL TORTILLAS

2 cups FLOUR
 2 tablespoons LARD*, SHORTENING, or OIL
 1 1/2 teaspoons BAKING POWDER
 1 teaspoon SALT
 VERY HOT WATER

**LARD is preferred, as it is an “endangered flavor”.*

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The tortilla formula is best demonstrated using wheat flour dough. The basic idea is to begin with a round ball of dough about the size of an egg. Place your dough ball on a floured board, then use a rolling pin to apply 14 pounds per square inch of pressure. Roll up one inch and down one inch to create a groove. Rotate the dough 72 degrees. Now roll again – this time up 2 inches, down 2 inches – with the same amount of pressure – to create a wider groove. Rotate 72 degrees again. Repeat this process, rolling out further on every rotation, until you have turned the dough five times (5 times 72 equals a full rotation of 360 degrees).²²

I refer to many of my own works of art as “philosoprops,” objects that can be used to start a conversation about philosophical or scientific concepts. During the course of the 3-day Synergetic Omni-Solution launch event, I served loaves of Universal Raisin Cake baked in a solar oven, we ate Buckyballs made of ice-cream cones (see Fig. 1), I demonstrated how a Ruben’s Tube makes sound waveforms visible in flames (see Fig. 2), and I taught a group of desert-dwellers how to harness the wind and use it to sail around downtown Marfa. As far as I’m concerned, however, the quantum tortillas that Enrique taught a hungry crowd to make at the Masonic Hall were some of the most effective and tasty philosoprops ever.



Enrique Madrid demonstrating his formula for a perfectly round tortilla: *uniform omni-directional distribution of mass divided by the central plane*. Flatten the ball of dough using uniform pressure, then turn 72 degrees. Do this 5 times to equal 360 degrees. The null sign = a perfectly round tortilla.

If Buckminster Fuller were around today, I like to imagine he'd agree that trimtabs come in many forms, and that the more of them we have at our disposal, the better off we'll be. Perhaps some of the most efficient trimtabs may be found in things so obvious we tend to overlook them – ancient techniques and cultural traditions passed down from generation to generation, for example. It's even possible that there are tens of thousands of trimtabs being rolled out in households throughout Mexico, on the Texas/Mexico border, and around the world right this very moment.



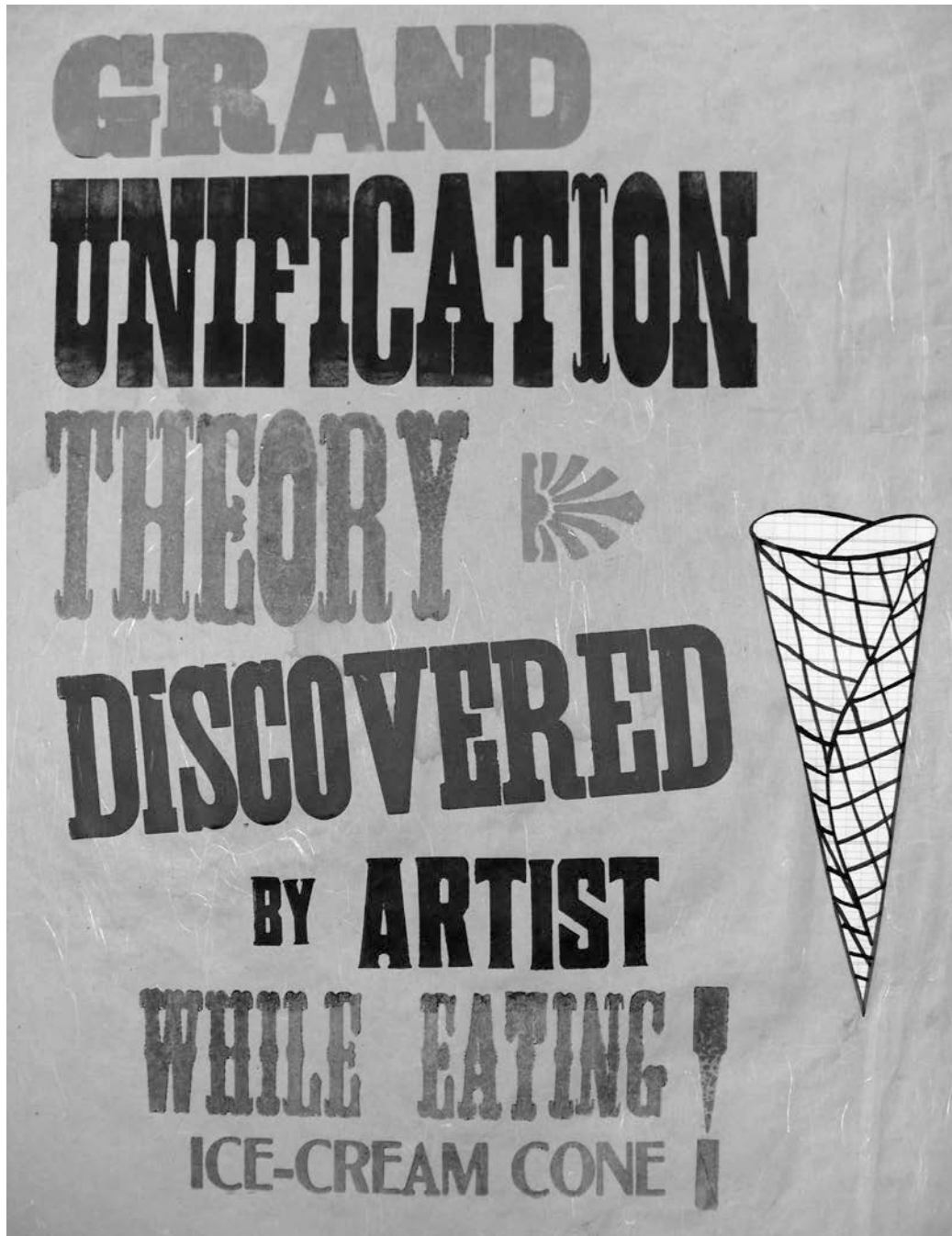
FIG. 1 – I began making these balls inspired by Buckminster Fuller's geodesic structures out of ice-cream cones glued together at the tips during an artist's residency at Vermont Studio Center in 2006.



FIG. 2 – A **Rubin's Tube** is a simple apparatus used to make sound waves visible in flames. Here I am manipulating a row of flames using sounds produced by an amplified flute.



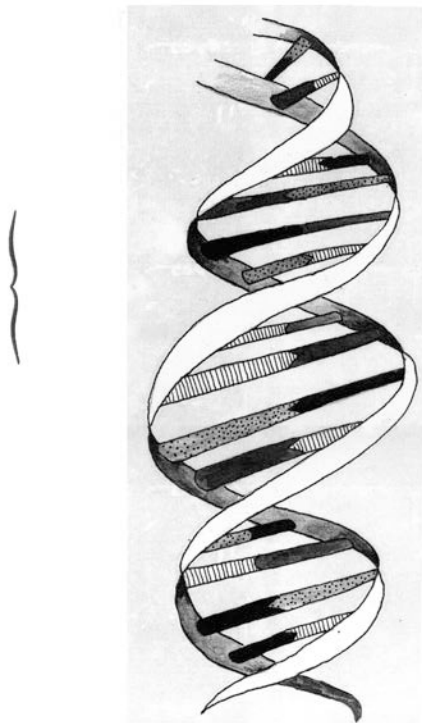
WAVES become MATTER is a slogan I use repeatedly in a variety of printed forms.



Grand Unification Theory Discovered by Artist While Eating Ice-Cream Cone, edition of 16, letterpress, 30" x 18", 2001. Many years before discovering that ice-cream cones, when attached at their tips, form a perfect sphere, I learned that triangles are the strongest shape. Once while eating ice cream, I had an intuition that the basic unit of matter may be conical.

6: WHEN THE MUSE CALLS, ANSWER

Immediately upon graduating with a BS in biology in 1990, I headed north to Rhode Island, the Ocean State, to begin a study of scientific illustration. Feeling strongly compelled to learn how best to convey topics in science to audiences-at-large, I enrolled in Rhode Island School of Design's scientific and technical illustration graduate certificate program. Evening classes allowed for the pursuit of regular full-time employment. Expecting my first job out of college to closely resemble those I held as an undergraduate (teaching sailing and waiting tables), I was thrilled to secure a position as a research assistant on a salmon aquaculture project at the University of Rhode Island. I was leading a strange life, commuting from a ramshackle factory building loft space in the city to a rural university campus, where, by day, I was caring for fish, preparing special feed from scratch, then killing and dissecting them and running tests on their livers. My colleagues knew, and found it a bit unusual, that by night I was studying art. My urban loft-mates – mostly artists and musicians – found it odd that, by day, I was a scientist. I felt uneasy in both worlds, not quite sure where I fit in, but determined to integrate art and science for reasons that felt urgent, if difficult to clearly articulate.



92% JUNK*
***ACCORDING to SCIENCE**

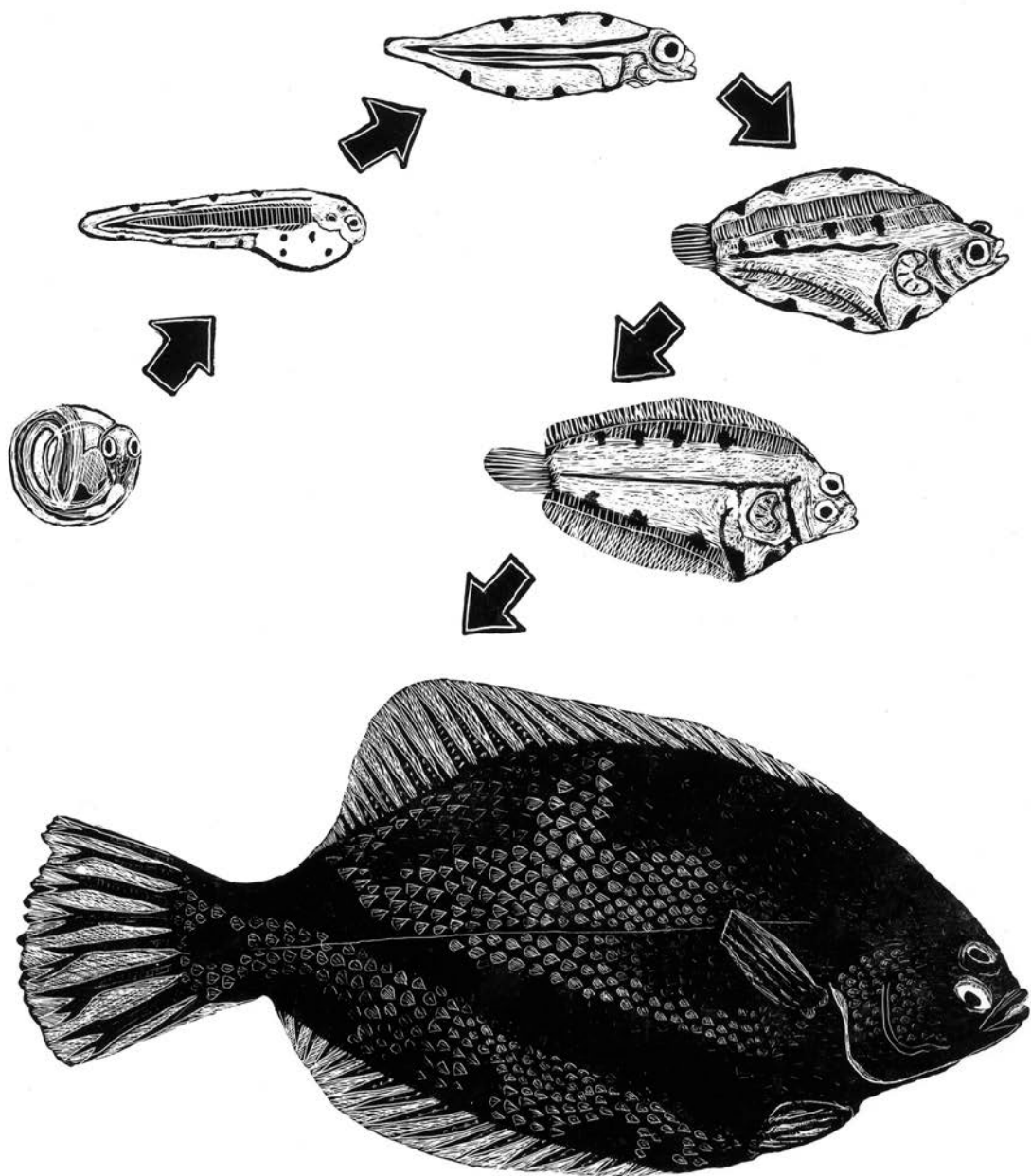
In this variation on the double helix sketch (that I had also paired with **CHANCE?**) I was poking fun at an idea being bandied about in the science community at the time that 92% of the human genome for which no coding function had been determined should be called “junk”...not something a bit less presumptuous, such as “mystery” or “as-yet-not-understood” DNA...but *junk*.

This piece was hung in the laboratory in which I was working. When I originally set out to become a scientific illustrator, I had imagined that I would be making art about science for a non-academic audience – not making works to serve as commentary on science intended for the scientists themselves.

Providence in the 1990s was a fertile place for artists. The cost of living was low, with large spaces in old brick mill buildings plentiful. Sculptors, painters, silkscreeners, musicians, filmmakers, and craftspeople all lived within a few blocks' radius. If someone sought collaboration or needed to learn a skill or to borrow a piece of equipment, chances are it could be found without leaving Olneyville. I was playing in experimental music ensembles, shooting super-8mm film, learning letterpress, and carving stone. While I cherished the technical pens I was using to make stippled renderings of skate egg cases in black ink for my illustration classes, they were not turning out to be my primary tools. It started to become apparent that realistic, meticulously scaled drawings communicated less about the character of my specimens than did styles that allowed for more interpretation and expressiveness. I became less interested in generating literal representations and began instead to make art inspired by my impressions of, and feelings about, science and nature.

One early drawing in particular made it clear that I was indeed headed into territory not charted by formal education in either science or illustration. I was investigating the life cycle of flounder, which, when they are born, seem to have all the skeletal and other characteristics of an ordinary, bilaterally symmetrical fish. I learned that over the course of their first two weeks of life, however, flounder begin listing to one side, swimming increasingly sideways, with their eyes slowly migrating over to what is to become the top of the head. By the time a flounder is about a month old, it is a fully formed (if a bit skewed-looking) flatfish, with both eyes on the same side of a camouflage-colored body, white-bellied underneath.

I found this metamorphosis completely astounding, and wanted to know how a fish that begins its life in a "regular" body would know that the time had come to begin transforming into an entirely different shape. The scientists studying flounder at URI could tell me that the process is likely triggered by hormones but that, as yet, there had been nothing discovered about the physical or chemical composition of a newborn flounder to indicate the impending change.



Flounder Metamorphosis, India ink on scratchboard, 1993.

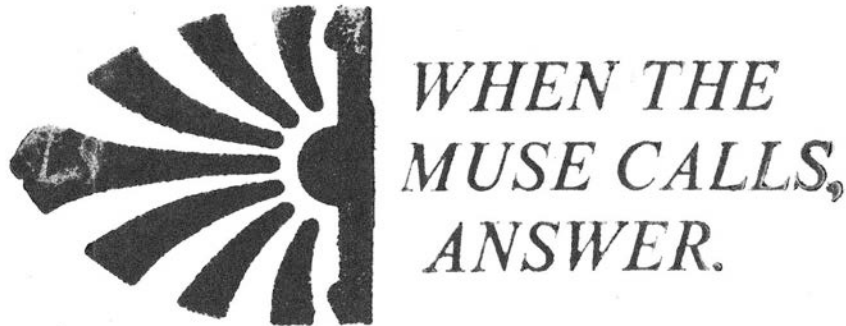
In the process of studying and drawing flounder, I gained a deeper appreciation for the strange beauty and mysterious habits of these creatures. In examining their every scale, their odd gaze, and the velvety, slimy feel of their skin, I developed a sense of respect and empathy for these fellow life forms that I did not see outwardly expressed by my fellow scientists; any feelings we may have had about the fish were not relevant to the research. But the sensation of awe and wonder was the part of science that I craved and felt most compelled to pursue. If I had known then about Goethe's idea of "delicate empiricism," I might have felt less like a misfit.

In the mid-1990s, after finishing the illustration program at RISD, I began working at URI's Graduate School of Oceanography on the GLOBEC (Global Ocean Ecosystems Dynamics) Project,²³ a multifaceted, multiyear study of how human-caused factors such as greenhouse gas emissions, overfishing, and pollution are affecting the world's oceans. Groups of scientists from institutions around the world came together aboard research vessels out of Wood's Hole Oceanographic Institute and URI to collect data from George's Bank, an underwater plateau in the North Atlantic. Specialists worked on currents, temperatures, and chemical components of seawater, while others studied larval fish and microscopic algae. Our lab focused on the collection and identification of microzooplankton – tiny creatures steered by tides and currents that serve as one of the bases of the marine food chain. A study of species distribution and density over time can be used to gauge the condition of an ecosystem.

I spent three weeks at a time at sea, three times per year, for three years – nearly 7 months total floating on the surface of the ocean. It was only during the final research expeditions that the ship was equipped with email technology. Prior to that, when we were at sea, we were as isolated together with our fellow scientists as early oceanographers and explorers had been. Idle time between "watches" was spent in a common area where people read, knitted, played cards, or chatted – laptops and handheld devices had yet to become ubiquitous. The few computers on board were firmly attached to desks or lab benches. I had the opportunity to do much more reading over the course of those years than I had been able to do in the years' prior while working and going to school at night. At sea I could become immersed in the worlds of Jeremy Narby, Buckminster Fuller, Stanislov Grof, David Bohm, and Fritof Capra. I read about Tibetan Buddhism, Peruvian shamanism, and the visible sound vibration ("cymatics") experiments of Ernst Chladni and Hans Jenny. It was becoming increasingly apparent to me that, throughout history, humans had developed many approaches to gathering knowledge about the universe and our place in it. I began to realize that western science is but one relatively recent, highly specialized tool in a collection of instruments that could be employed under particular circumstances. For the tangible, it may be the tool of choice; to deal with the immeasurable, other tactics may be more appropriate. That I had believed for most of my life that there could be only one singular, superior method to which I could devote my unconditional allegiance was beginning to seem absurd.

On February 12, 1991 I attended a reading and lecture by Allen Ginsberg at URI. The duende was palpable; already a great admirer, I was spellbound by Ginsberg's every word. There were two related pieces of advice he imparted that night that I found exceptionally moving:

PART 1:



When the Muse Calls, Answer. – Allen Ginsberg. Letterpress on postcard, 2001.

Ginsberg charged the audience with a responsibility: each of us has a duty to respond to moments of inspiration, even when we aren't prepared for them. I took this emphatic recommendation to heart and decided, from that moment forward, to dedicate myself to responding to the muse whenever it may call. Prior to making this formal commitment, I'd felt reluctant to think of myself as an artist. Even though I continued to work in science for several more years, it had come time to admit that the detached, literal mentality required of a scientist was being intermittently augmented by the aesthetic and concept-oriented sensibilities of an artist. If "existence precedes essence" as I'd learned during my teenage obsession with the existentialists, then consistent art-making qualified me as an artist.



When I first began studying the existentialists, in an effort to illuminate what Sartre meant by *existence precedes essence*, my father used the example of a teacup that functions as an ashtray. A person (or thing) is not necessarily what he or she (or it) purports to be – we are instead defined by our outward function and actions. If the teacup is used as an ashtray, can it really be considered a teacup, or does it take on a new existence as an ashtray?

The Ashtray/Teacup is perhaps my first philosoprop, though I hadn't started calling them that yet.

Ashtray/Teacups, Glass teacups, ceramic paint, letterpress "EXISTENCE essence" tag, open edition begun circa 1995.

PART 2: ***NOTICE WHAT YOU NOTICE.***

The things that catch our eye should not be taken for granted – the tattoo on the supermarket checkout person's wrist, a glass marble half buried in a mound of dirt on an abandoned lot, the smell of rain. That which goes unnoticed has no message for us, but the things we *do* notice may be significant emanations from the Muse (see Part 1). An implied corollary is that noticing *what we don't notice* might be revealing as well. As one becomes more adept at this skill, one might attempt intentional not noticing – which turns out in practice to be more akin to meditation than distracted obliviousness.²⁴

In 1998, I was invited by AS220, a community arts venue in Providence, to participate in an event associated with their annual Fool's Ball festivities. Contributors to the Goldstar Invitational were expected to present a new performative piece on stage, preferably something in a genre with which the invitee was unaccustomed. I decided to do a spoken word bit employing props. The word *philsoprop* came into being to describe the Satellite Dish Hat, small cartons of raisins used to illustrate the Universal Raisin Cake Theory (prior to it's full-fledged manifestation in print), boxes of Strike Anywhere Art Matches (see Fig. 3), Vital Discipline bar napkins (see Fig. 4), paper cocktail umbrellas painted silver (mini personal satellite dishes), and cards printed with the following text, all of which were distributed to the audience in small paper goodie-bags:

Every brain is like a satellite dish, each one attuned to a unique frequency, emitted by the Cosmic Infinity, where all that Is to Be Created, All that Can Be Created, EXISTS, woven into the energy particles of the universe, ready to be absorbed, translated, assimilated, manifested, by bodies that hear that feel the Harmony of the Spheres. Be tuned in. Reality is your oyster.



Satellite Dish Hat, found metal lampshade, strainer, model of the Eiffel Tower, year 2000.

These are the boxes of matches that I handed out at AS220:



Fig 3: PURE-ART strike anywhere MATCHES, matches, ink-jet print, 1998.

"WARNING: Producing art with financial profit in mind inhibits the natural flow of creativity. If this behavior has become impulsive, you must burn all of your work immediately upon completion in order to regain the freedom which comes with creating pure and uninhibited works of art."

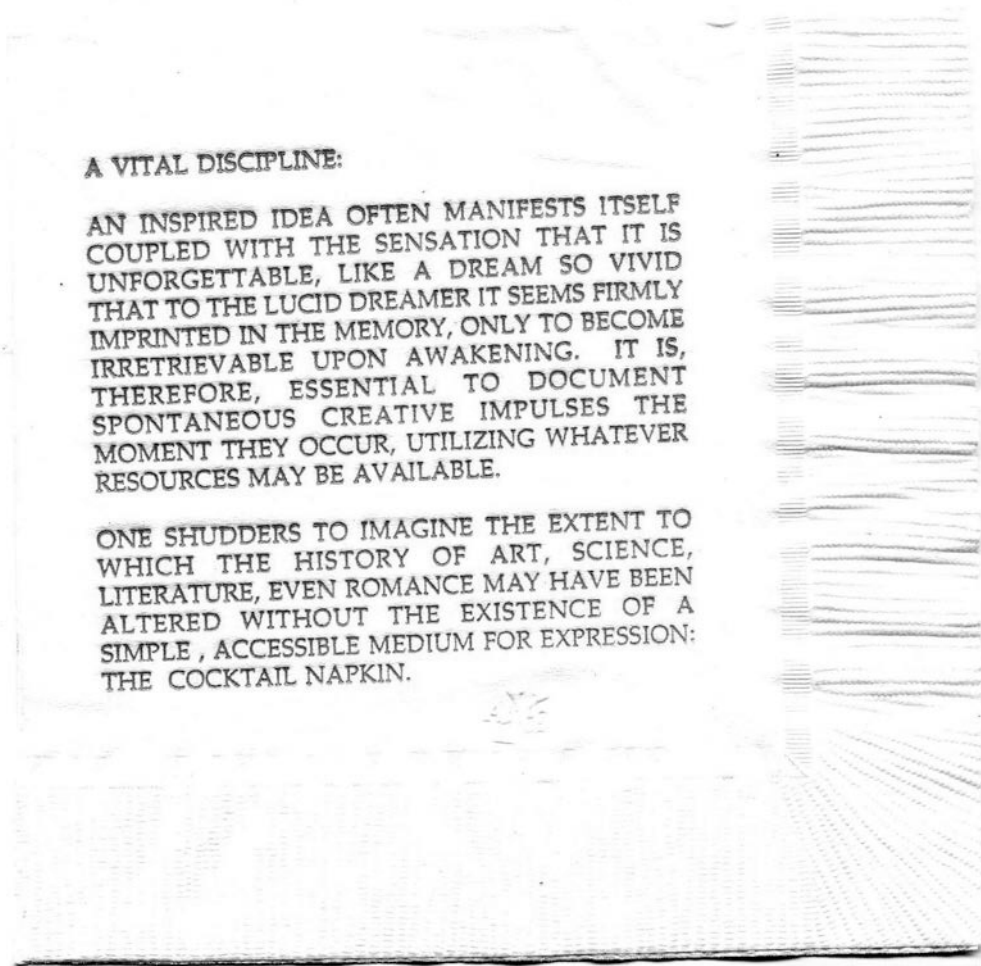


This is Fluxist Ben Vautier's Total Art Matchbox, circa 1968, which I did not learn about until several years after creating the Strike Anywhere Art Matches (I blame my unwitting copying on too-frequent use of the Satellite Dish Hat).

The Fluxus movement was definitely on my radar, but not to any great extent (in fact, most of my knowledge of art history was gathered during the European backpacking trip). I remember checking Fluxus books out of the Providence Public Library and feeling like I was a kindred spirit arriving on the scene a few years too late. I learned about artists' books and mail art as I was making things that could be classified as such. I learned that Ray Johnson, Jean-Michele Basquiat, Keith Haring,

and many other artists and musicians I'd come to appreciate had spent time on eastern Long Island while I was at Southampton College – but I'd been completely oblivious to the workings of the art world at the time. I like to imagine that perhaps I unwittingly crossed paths with – or even waited on – some of these great talents.

While working as a seagoing research assistant in the mid-1990s, I'd started to compile a list of exercises and principles that seemed necessary in order to succeed as an artist. Success, to me, had mostly to do with becoming an efficient channel for the muse. The first in a series of steps came to me in a burst of insight:



A VITAL DISCIPLINE, letterpress in gold ink on cocktail napkin (first incarnation in rubber stamp, circa 1995), year 2000.

Shortly after creating *A Vital Discipline*, I realized that it was little more than a wordy paraphrase of Allen Ginsberg's directive to answer when the muse calls. I decided to send a copy of it to him immediately as an expression of my gratitude for his inspiration and to explain that I'd accidentally appropriated his idea. A year later, I was grateful to receive a reply in the form of a photocopied letter. In it he apologized for having become too weak and busy to answer mail personally. He said he needed "to find time to relax and do nothing but cultivate the muse." His closing words were *immortality comes later*. But the purpose of my note was to let him know that, for him, immortality was happening *now* – that I was one of thousands within whom his inspiration was very much alive. I sent back a postcard with a message of thanks, urging him not to fear death because he would live on through his muse – others would cultivate and propagate it forever. I requested no reply. He died soon after.

I decided to call the work-in-progress "How to Become a Successful Artist" and later changed the title to "Evolution of an Artist." The remaining parts in the series followed quickly after *A Vital Discipline*.



PARABOX for Part 1, AN UNFORTUNATE PARADOX of **Evolution of an Artist**, steel box with no opening, just a slot, circa 2000.

AN UNFORTUNATE PARADOX:

Construct a steel Box with no opening, just a slot. If it's a Box with halves, like a tool box, lock it after cutting the slot and then discard the key, mindfully. The Box is now ready for use. Write down thoughts quickly using materials closest at hand. Do not concern yourself with grammar or spelling. Be honest, have no fear. When a pause in your thought-stream occurs, fold your scrawled-on bit of newspaper edge or envelope or what-have-you and slip it into the Box. No one will ever be able to access the contents of the Box - a permanent seal is of utmost importance. The Box has only one purpose: to facilitate the engagement of The Flow. The slot may eventually become clogged or the Box may become difficult to lift. These are indications that the Box is full and it has come time to archive it. A label affixed to the exterior of the Box may include any combination of the following: an alias; the year or approximate months in which the contents were conceived (or a numeral to indicate chronology); the words DO NOT OPEN EVER legibly emblazoned as a safety in case of discovery by an unwitting entity. Store the Box away in an attic or under a bed or on a remote shelf. You will not attain the desired mind-state (the intense sensation that a link exists between yourself and the creative power of the Universe) if you believe, even fleetingly, that someday the Box may be opened and the entries retrieved. If you are the sort who is prone to overwhelming episodes of curiosity (did you open packages in closets around holidays as a child?) then you must discard the Box when it has exhausted its function as a receptacle, perhaps by throwing it into a deep part of the ocean or into the back of a garbage truck. Savor the resulting catharsis. In the case of more profoundly affected individuals, each work may require eradication immediately following completion. The use of fire is optional. Strict adherence to this method will yield art that is unhindered, honest, and vulnerable. Make it a practice not to expose your work to the public or allude to your secret life as some sort of artist. You will begin to feel compelled to discard all of your work routinely, or to simply discharge it into the Box, at which point you will truly be a great Artist.

A. COINCIDENCE

Meaningful contribution to society can best be attained through recognition and honing of one's own unique aptitudes followed by lasting commitment to the development of this infinitely unique set of skills and drives. Follow instincts and notice coincidences. Unanticipated avenues may be the ones that ultimately lead to fulfillment. Beware of attachment to habitual behaviors and convictions—be prepared to discard long-held beliefs and consider novel solutions. Once your ideas and/or craft are prepared for dissemination, finding a receptive audience may be a matter of chance.

B. PERSISTENCE

Persist. By the time the average human brain reaches adulthood, it has developed a subconscious mechanism that eliminates concepts it deems too time-consuming, impractical, or socially unacceptable for consideration by the conscious mind. Children's brains, however, lack such devices and are instead constantly bombarded by original interpretations of their environment. They compensate for the resulting sensory over-stimulus with a compromised attention span. The creative adult is able to override the screening apparatus, allowing novel ideas to escape discard. Attention span must be simultaneously maintained so that projects can be manipulated until a sense of completion is achieved. No standards exist for the gestation period of a masterpiece—some require only moments from conception to tangible product. Others may depend on a lifetime of contemplation and revision, often under extreme emotional duress.

076258920	
Agent Number	Date Paid
C. ODDS Name (print) _____ Fame simply arises when a certain density of people become aware of an individual's form of contribution to society. Therefore, in order to become well-known it is imperative for one to seek the maximum number of appropriate venues for the presentation of concepts. As conspicuousness increases, the likelihood of reaching a receptive audience also increases. In this sense, becoming famous is like playing the lottery – your chances of winning increase with the amount you invest. Take risks. Identify your ideals and attempt to achieve them, even if you do not expect an immediate reward. Before success can occur you must believe it is possible.	
Signature _____ IMPORTANT: This ticket is valid only for drawing date(s) shown. Winners must claim prizes within one year following drawing date(s). All determinations of winners subject to the rules and regulations of the Rhode Island Lottery Commission. NOT RESPONSIBLE FOR LOST OR STOLEN TICKETS. Prizes of \$599 or less claim at any numbers agent. Prizes of over \$599 claim at the Lot — (401) 463-6500. Hearing/speech impaired, call 1-800-RI-55555. IF YOU HAVE OR BELIEVE YOU HAVE A GAMBLING PROBLEM, HELP IS AVAILABLE BY CALLING THE RHODE ISLAND COUNCIL ON PROBLEM GAMBLING AT: (401) 724-8552	
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I rubber stamped ODDS on the back of a lottery ticket. I would often buy several tickets with the same number, stamp them on the back, keep one and enclose the others in thank-you letters to those whose inspiration I had absorbed and could readily identify (such as Allen Ginsberg and Laurie Anderson). This way, if the number came up a winner, I would get to split the jackpot with my inspirations...and perhaps achieve some notoriety in the process. Back then, it seemed that gaining renown would be a necessary part of forming a broad, rich potential substrate for ideas. Since that time, the internet has become a viable medium through which to broadcast ideas in ways that are anonymous or in which attribution can be more subtle, without requiring the creator to maintain a presence as a focal point of the work. The "creative commons" – the notion that ideas can be willingly shared, elaborated upon, and appropriated as long as they are not used for commercial advantage – has gained widespread acceptance, especially among those who have come of age during the internet era.

7: COLLECTIVE CHANGES OF MIND

Surrealists of the 1920s and '30s made a game of creating collaborative texts and drawings by inviting players to add something to a work-in-progress without complete access to previous contributions. This process, called an Exquisite Corpse, is designed to challenge rational, literal, possessive modes and invite elements of absurdity, chance, and collaboration. Similar playful, nonhierarchical, participatory activities are evidenced throughout cultures in children's songs, rhymes, and playground games; improvisational music; slang; and particular idiosyncrasies of fashion. Nowadays, artifacts of creativity are embellished and reinvented constantly in the form of internet memes. An image of a pet or person caught with an awkward expression takes on different meanings according to slight variations in added text. Someone initiates a simple action such as striking a particular pose in an unexpected place, others follow suit, and the documentation becomes a collective body of work. Formal training in art is not necessary – anyone with a simple internet-connected electronic device and a few basic skills can participate.

Graffiti is another way in which creative collaborations can be carried out in public spaces.

The upside down LIFE project began shortly after George W. Bush took office for his first term as president. So much (on fronts ecological, social, and political) of what was going on in the world at the time seemed overwhelmingly absurd and out of control. It was hard to ignore the blatant signs that power was being strategically taken out of the hands of the many and concentrated in the hands of the few. The job of the despot is made exponentially easier if he (or she) is able to weaken a population emotionally, to convince people of their powerlessness.²⁵ Individuals who are able to think critically and maintain a sense of empowerment do not work to the advantage of a would-be oppressor. The moment we recognize that something is amiss, we can begin to imagine it corrected and take steps to rectify it.

The upside down LIFE posters are subtle empowerment propaganda. White block letters on a red background, when seen upside down, appear, for a fraction of a second, as abstractions. The brain almost instantaneously turns the image around, rendering it legible. The act of making things right begins with this kind of simple mental shift.

Since 2002, the upside down LIFE posters on newsprint (and smaller, similar stickers) have been added to already-evolving street art compositions in places around the world. In 2005, the piece took on an unexpected dimension when I was arrested in New York City for graffiti.



Alyce's Night in Jail/Upside Down LIFE Story, Friday, November 4, 2005²⁶

Last night was a glorious crystal clear autumn evening in New York City. I got off the F train bound from Brooklyn and wandered up First Avenue, past a few bustling bars, past the tiny DJ booth/storefront, past a multitude of pizzerias, taquerias, and laundromats, and past the row of Indian restaurants garishly decorated with multitudes of disco balls, chili pepper lights, and Christmas garland that I'd been frequenting since high school. One of the Indian markets had set up its wares on the sidewalk, and I stopped to admire tables stacked with bags of spices, teas, dried beans, candy-coated fennel seeds, and dried fruits. It made me happy to be a New Yorker, where I could stumble upon orange flower water, black sesame seeds, and homemade mango chutney on a street corner.

After a delightful meeting with some friends at a bar on Second Ave, I was meandering back to the train while keeping an eye out for appropriate spots to place a few of my upside down LIFE stickers. I'm always on the look-out for those little gems, spots that already have some renegade markings in spray-paint or stickers, where the blocky red upside down LIFE might serve to complement an already-evolving composition. That's the addiction for me with graffiti...it's like a musical improvisation, everyone playing off the notes that others add.

Sometimes you get to know a local player, and relationships form. For example, there's someone who does a spray-paint stencil of Bush's head with the circle-slash symbol around it, and whenever I spot one I almost always stick one of my DUMP W (upside down) stickers nearby. Here in Brooklyn, someone with a sticker the exact same size as my DUMP W ones, only with an ominous black

background and a large white “W” with the words THE PRESIDENT underneath, has been consistently sticking their sticker OVER my sticker. It’s a thrill to know that there is a Bush supporter out there who not only GETS my humor, they’re actually taking the time to engage in the game with me. See Fig. 1

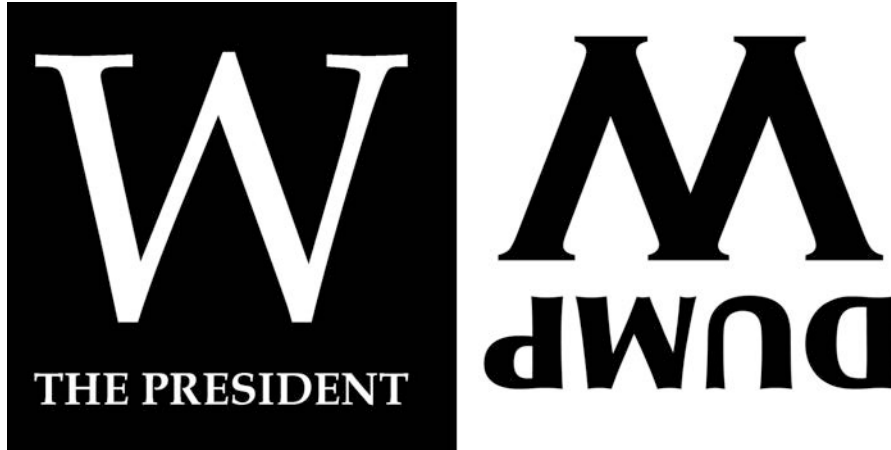


Fig. 1: W vs. M

In the case of the upside down LIFE, there’s one sticker in particular – a similarly-sized one with blue block letters on a white background that reads ALIFE – that I always try to get close to, without being sure of its meaning. A quick internet search revealed the following:

“Artificial Life is a field of scientific study that attempts to model living biological systems through complex algorithms. Scientists use these models to test and experiment with a multitude of factors on the behavior of the systems.

Artists at Fusebox see these algorithms as a starting point for a new artistic exploration where the interactivity is not only between the user and the computer program but within the computer system itself. We are just beginning to explore. Enjoy.”²⁷

How intriguing!

So last night, strolling along, I spotted the ALIFE tag at the base of a light pole (at the southwest corner of 2nd Ave. and 3rd St.). I took a moment to contemplate placement, then struck. Just then I noticed what seemed to be an off-duty cab and three motley-looking cabbies eyeing me. One moved closer and said with an accusatory tone in the manner of one who is accustomed to dealing with unruly children, “What did you just do?” And I admitted cheerily, but not entirely without suspicion, that I had attached a sticker to the light pole. I handed him one of the remaining stickers in the interest of clarification. The man said, again, with more sternness than seemed necessary “What does it MEAN?” The goal of much of my work is to evoke this very response – I am hoping to draw people into

discussions about the meaning and inspiration behind the pieces, many of which I have come to refer to as “philosoprops”. I replied, “It’s a take on the LIFE magazine logo. I usually place it where there’s already a patch of interesting graffiti where it can contribute to the composition somehow.” And the man said, as if I hadn’t revealed something that would make my true criminal nature clearer in his mind, *“BUT WHY DID YOU PUT IT UPSIDE DOWN?”*



By now of course I realized I was in some kind of trouble. But it seemed I was still ahead of the game – the officer was asking some excellent questions. the sticker was indeed working its magic as a “philosoprop”, and I guessed that before long the man would come to appreciate the concept, at least enough to let me off whatever hook I may be on.

Then the woman officer said, “We’re going to have to arrest you.” “For putting a sticker on a pole?!” I blurted back in disbelief. She replied, “That’s the law, and it’s our job to enforce it.” Then she took my purse, and handcuffed my hands behind my back. I was dumbfounded. I suggested that perhaps just making me pull the sticker off the pole and promise not to do it again would be sufficient punishment for a first offence, but they did not agree. They ducked me into the cab, which was not a cab at all, but a squad car. I sat in the back seat with the lady cop, while the more subdued of the two men sat in the passenger seat and took notes. What was my age? 37. Had I ever been arrested before? Nope, never even had a speeding ticket. Did I have any drug paraphernalia, weapons, or sharp objects on me? No...I assured them I was about the most innocuous offender they could possibly have hoped to capture.

They wanted to know more about my motives. Why was the sticker placed upside down? They passed around Polaroids of the crime scene. They were so perfect – the best philosoprops I could have hoped for. I wanted to hold them, but couldn’t due to the handcuffs. Before I realized how it might sound, I said, “I’ve never

been handcuffed before.” The men chuckled awkwardly, then the one driving said, “I’m not gonna touch that one!” and the lady cop added, “Yeah, you better not.”

I explained that I was actually a pretty legitimate artist. They asked if I could prove it, and I offered them the address of my website. They seemed strangely impressed. The driver immediately called a friend from his cell phone and had him look up my website while we were driving. Sure enough, the guy could see a picture of his friend’s captive, along with pictures of her work, including images of sites where I’d wheat-pasted the larger (and potentially more physically destructive) upside down LIFE posters. Ironically, I’d started using the stickers because they were quicker and less conspicuous to deploy than the larger silkscreened posters.

“The upside down LIFE is just about how crazy things are in the world right now...everything’s a mess,” I said. And they agreed. They reminded me again that they don’t make the laws, they may not even agree with them, they just enforce them. They said that they’d just come out of a meeting with Mayor Bloomberg, and that one of his big campaign mottos is “A Clean City is a Safe City.” I grumbled.

We arrived at the precinct in Alphabet City, on Ave C and 8th St. They took me into the room with the cells. There was a sign on the wall saying, “Search your prisoner carefully!” They removed my belt and jacket. Nothing with cords or strings allowed. I could keep my shoes, since cowboy boots have no laces. I was also allowed to keep my book – “Mexican Spanish” – which served as a kind of lozenge – during the time I was incarcerated. I could make one call using my cell phone, so I called my roommate to let her know that I would be late getting home because I was in jail.

They shuffled a group of men out of one of the cells and into another, uncuffed my hands, led me in and shut the door behind me. I was locked in. Locked into a concrete and metal room behind bars. For putting a sticker on a pole. I was acutely aware of the absurdity of the situation. Fortunately, it was under circumstances that were more amusing than horrifying. But I suddenly had a keen new awareness of the fine line between the two. The fact remained that I had been jailed for virtually no reason. What about others wrongly accused of much more serious crimes, others much less socially privileged than myself? What about people from other countries who don’t get to make their one phone call, who are locked away without hope of a fair trial or even humane treatment? I stared at my book, attempting to study Spanish vocabulary between thoughts. How would I have been feeling without the refuge of my book? Would I have been able to quiet my mind, to remain calm with absolutely nothing as a comfort or distraction?

I was removed from the cell for fingerprinting. I put my palms on a scanner. The officer (the one who'd been driving and was wearing a sweatshirt that said "DANGER: EXPLOSIVE: KEEP BACK 500 FEET") rolled each of my fingers across the glass as I watched my prints come up on the screen. Then he took my mug shots with a digital camera. It was all I could do not to burst out laughing. Mug shots! I was returned to my cell, and assured that they'd try to expedite my case as quickly as possible. I thanked the man, who seemed to have warmed up considerably, and went back to my book.

The lady cop came and asked me if I wanted a soda. I said no thanks, but I'd love some water. She went off to the vending machine and came back apologizing that they were out of bottled water. She said she didn't want me drinking the tap water because it might make me sick. She assured me that I'd be out within an hour, and offered me a piece of gum.

Then some other officers brought in a young woman, maybe 19 or 20, apparently strung out on something or other, crying hysterically. My cops came over and advised me just to ignore her. The girl came in and sat on the other end of the single wooden bench, leaning her head against the concrete, sobbing. After a few minutes I asked her what she was in for. She said trespassing, that she'd been squatting and had gotten caught on the roof of the building trying to escape. She asked me what landed me in jail, and I said graffiti. She asked me what kind, and I explained. She said that she'd been making a political statement by squatting, and that she was an anarchist. I had the impression that this was not my cellmate's first arrest. With exposed pink satin thong underwear, she climbed the bars, yelling, rudely demanding that our captors bring her a cigarette. After awhile one appeared, and we shared it. She fell soundly asleep with the cigarette still burning between her fingers.

An hour and a half went by, and the officers fumbled with paperwork and chatted about cat food at a table not far from my chamber. Once in awhile Mr. Explosive would turn to me and say, "Just a few more minutes!" or his cell phone would ring and it would be his buddy on the internet with more questions about my work. They'd discovered the fabric I weave from cassette tape, and wanted to know more about my connections with the band Phish.

The woman cop and Mr. E. went to go check the computer to see if my prints had come back from the main office in Albany. That left only the quiet cop with the Yankees sweatshirt to keep an eye on me. I asked him about the water situation, and again I was advised against drinking the tap water, and reassured it wouldn't be long before I'd be out. I asked him if he'd been doing this job long, and he said 12 years. I told him it felt strange being locked up, but that I felt pretty confident, being in the United States and in New York City in particular, that nothing too terrible was going to happen to me. I told him that I trusted completely, for

example, that if I really needed water that someone would bring me some, and how ironic it was that the reason I had none was because they were trying to find me the bottled kind. He told me that he'd been in the military for 8 years before becoming a cop, and how during that time he developed an appreciation for the things we take for granted in this country, like clean tap water and electricity. We agreed that Americans, as a whole, are pretty spoiled. I told him I'd always wondered what it was like to be in prison, and he offered that, although I was the one behind the bars, that he couldn't exactly leave his post either, and in fact was serving his second 12-hour shift in a row. He said he never expected to be a cop, it just happened because he needed to pay the bills. He said he doesn't even agree with a lot of the laws he enforces...he's just doing his job. I suppressed the urge to ask what he would do if he felt he had a choice.

And I thought to myself, this experience is becoming oddly reminiscent of a scene from Beckett or Sartre. Suddenly this poor man is the prisoner, and I am as free as a bird.

I'd been brought in at a little after 9pm, and now it was after 2am. I'd been studying Spanish during pauses in the conversation. Mr. E. was getting increasingly apologetic about the amount of time it was taking to free me – the computers in Albany were down. I assured him that I was fine, just a little thirsty. It would be no more than another half an hour. Prisoners came and went in the cell next to me, but I couldn't see them, though I could hear them. One had been yelling for quite some time that he needed to go to the hospital. Others were singing. Another man was being asked by an officer if he was a US citizen. He said no, but that he was a legal resident. The officer asked him where he was from, and he said Bangladesh. The officer said, "Where's that?" The man explained very patiently and politely in a voice completely devoid of foreign accent, adding that he's lived in New York for over 10 years. The officer replied, "Well, it looks like you'll be going for a ride then." The man said, "Sir? What do you mean by that, Sir?" And the officer said, "We'll be shipping you back." And then there was silence.

I stared at my book and thought about what was going on all around me. My cellmate would be staying all night, since she'd been picked up without ID. I would be getting my paperwork from Albany, and would have to appear in court on December the fifth. My officers assured me that I'd be let off on "time already served," as long as I showed up in court. Otherwise, there would be a warrant out for my arrest. My contact lenses were dry. I was thirsty. I'd been locked up for 6 hours. What about diabetics who find themselves suddenly in jail without insulin, or people who have children or pets, or those who have to be at work on time? What about people in other countries, travelers, people far away from home? What happens to prisoners in an earthquake or other natural disaster? I'd put some LIFE posters up in Mexico over the summer. One day I traveled across the

border from Texas by myself, and no one even knew I was there. I had no knowledge of Mexico's graffiti laws. What would have happened if I'd been arrested there?

I asked once again for water. The man with the Yankees sweatshirt said, "Really, Alyce, it will just be a few more minutes now...please...stop reading...just rest." I shut my eyes and leaned back against the concrete.

It was 3:30am when he came with the key to let me out. The lady cop had gone home, but the two men brought me out into the precinct where there were lots of other officers milling around. The Yankees guy handed me the paperwork and stood close by, flipping the pages and pointing out where to sign. Mr. E. reminded me several times not to forget to show up for my court date. I thanked them as I walked away, and smiled and waved as I pushed my way through the revolving door out onto Avenue C.

I felt strange. Woman alone, ejected onto desolate unfamiliar city street in sketchy part of town at nearly 4 in the morning. Thank goodness the police are around keeping things clean and safe. I walked toward a cluster of bars, figuring the odds of getting a cab there would be greater than they'd be directly outside the jail. A cab came, and I hopped in. The driver and I talked about how magical the city looks in the middle of the night, and about how easy it is to get around without any traffic. I couldn't identify his accent. It wasn't until we were around the corner from my house that he asked me what I'd been doing in that part of town at 4am. I told him I'd been arrested for graffiti, and explained a little about the stickers. I wish I could recall the witty quip he made while the machine tallied up the fee for the ride. \$15. I handed him a \$20 and told him to keep the change. He handed me back a \$5 and said, "No way, you've been through enough tonight...I wish I could do more." I tried to give it back and he pushed my hand away. I told him I would have liked to give him some stickers, but my supply had been confiscated. We laughed, and said goodnight.

I unlocked the door to my apartment at a little after 4am. I took a shower and put on the teakettle. I stood at the counter waiting for the water to boil, laughing out loud as I imagined the next morning, explaining to my parents that I'd spent the night in jail. My poor parents have been through so much with me, their only child, always off on some crazy adventure, or misadventure, as the case may be. Thirty seven years old, in jail for putting a sticker on a pole.

I drifted off to sleep in my own room, in a bed with a pillow and covers.

ADDENDUM: DEC 5, 2005

As I walked from the subway station toward Manhattan Criminal Court at 100 Centre Street, I considered my defense. In my research I'd discovered that only three items are considered true "graffiti implements": etching powder, spray paint, and wide-nibbed permanent markers. In no way are stickers considered contraband. Wearing an upside down LIFE t-shirt and with photos of the crime scene in hand for reference (I'd gone back to the site the day after the incident to take them), I planned to provide the judge with a monologue on the nature of my action – I would explain that I am a conceptual artist and that the upside down LIFE project happened to be about how topsy-turvy things had become in the world. Turning things around - making things right – would require a mental shift. Just then I happened to pass under a metal scaffold. Stuck to one of the uprights was a small square "Mike Bloomberg for NYC" campaign sticker. I recalled from my research into the rules regarding publicly posted propaganda that campaign paraphernalia is only permitted to remain on display for a brief period after November 8th. I was pretty certain the mayor was in violation of his own law. In my mind, my defense strategy was changing.

I sat in the courtroom with a hundred other petty offenders. When my name was close to being called, I was assigned a public defender. He led me outside and asked me to explain my case. I began to tell the story, and he stopped me immediately wanting to know what does the sticker *mean*? I was amazed – content and intention really seemed to make a difference.

The lawyer planned to try to get me off on time served. I was both disappointed and relieved when he suggested that I not do any of the talking.

When my name was called, I followed him up to the bench. I stood behind him while he explained that my sticker consisted of "non-specific philosophical humor," which I, of course, appreciated. The judge tried to charge me with possession of a graffiti implement, and the defender countered him. The lawyer, the judge, and the DA guys ("The People") argued back and forth (not without smirking) about it being a first offense, that there were prior markings on the pole, and that I had already spent an entire night in jail. It also seemed important that the nature of my message was non-commercial and basically apolitical. At first they were going to sentence me to one day of community service (typically consisting of erasing other peoples' graffiti) and give me an ACD ("adjournment on contemplation of dismissal"...the case dropped and fingerprints destroyed if I managed not to get arrested again for 6 months to a year) but the lawyer was able to convince the judge to eliminate the community service on the basis of time served. I was on ACD, but was freed with no other fines or punishments.

ADDENDUM #2: September 2009

I was careful not to deface any public property in New York City for the full year. I moved to far west Texas in 2006 (where I enjoy committing occasional acts of “non-specific philosophical humor”). As far as I know, my criminal records have been destroyed.



Upside Down LIFE Poster, Ojinaga, Mexico, 2005.



Upside down LIFE Poster, New York City, 2005.

The term *open work*, according to writer/semiotician Umberto Eco, refers to forms of art that leave elements purposely unfinished or ambiguous, to be interpreted, contributed to, or completed by the viewer, reader, or listener. Open works stand in contrast to pieces that contain themes intended to evoke a specific emotional response (the valor of war, the sacredness of a deity, or the majesty of a ruler, for example). Whereas the purpose of conventional, “closed” forms of art is often to bolster the artist’s (or patron’s) agenda, the meaning of an open work is unique to every individual who encounters it.

In his book The Open Work (*Opera Aperta*), Eco explains:

“After all, the crisis of contemporary bourgeois civilization is partly due to the fact the average man has been unable to elude the systems of assumptions that are imposed on him from the outside, and to the fact that he has not formed himself through a direct exploration of reality. Well-known social illnesses such as conformism, unidirectionism, gregariousness, and mass thinking result from a passive acquisition of those standards of understanding, and judgment that are often identified with the “right form” in ethics as well as in politics, in nutrition as well as in fashion, in matters of taste as well as in pedagogical questions.

At which point we may well wonder whether contemporary art, by accustoming us to continual violations of pattern and schemes – indeed, alleging as a pattern and a scheme the very perishability of all patterns and all schemes, and the need to change them not only from one work to the next but within the same work – isn’t in fact fulfilling a precise pedagogical function, a liberating role. If this were the case, then its discourse would go well beyond questions of taste and aesthetic structures to inscribe itself into a much larger context: it would come to represent modern man’s path to salvation, toward the reconquest of his lost autonomy at the level of both perception and intelligence.”²⁸

In the introduction to The Open Work, David Robey states, “Art is therefore political in its own special way; it produces new knowledge that can serve as a basis for changing the world, but it does not necessarily have an explicitly political content.”²⁹

Philosopher Henri Lefebvre believed:

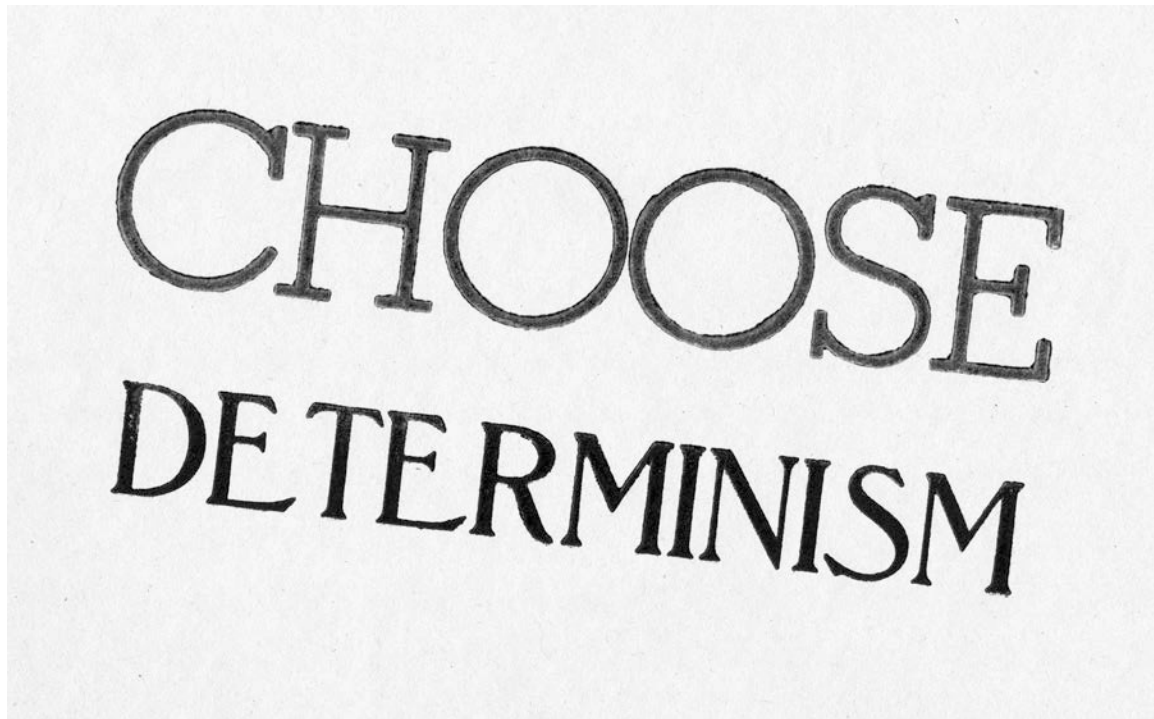
“Without claiming to *change life*, but by fully reinstating the sensible in consciousness and in *thought*, [the cultural “rhythmanalyst,” i.e., the artist] would accomplish a tiny part of the *revolutionary* transformation of this world and this society in decline. Without any declared political position.”³⁰

Eco goes on to describe the ways in which concepts in science become integrated into the “social imaginary” with the aid of art:

“It is true that neither the principle of indeterminacy nor quantum mechanics tells us anything about the structure of the world, being mostly concerned with ways of describing certain aspects of it; but it is also true that they have shown us how certain values that we believed absolute and valid as metaphysical frameworks (such as the principle of causality or that of contradiction) are neither more nor less conventional than most new methodological principles and are as ineffective as a means of explaining the world or of founding a new one. What we find in art is less the expression of new scientific concepts than the negation of old assumptions. While science, today, limits itself to suggesting a probable structure of things, art tries to give us a possible image of this new world, an image that our sensibility has not yet been able to formulate, since it always lags a few steps behind intelligence – indeed, so much so, that we still say the sun “rises” when for three centuries we have known that it does not budge.

All this explains how contemporary art can be seen as an epistemological metaphor. The discontinuity of phenomena has called into question the possibility of a unified, definitive image of our universe; art suggests a way for us to see the world in which we live, and, by seeing it, to accept it and integrate it into our sensibility. The open work assumes the task of giving us an image of discontinuity. It does not narrate it; *it is it*. It takes on a mediating role between the abstract categories of science and the living matter of our sensibility; it almost becomes a sort of transcendental scheme that allows us to comprehend new aspects of the world.”³¹

8: THE CAMPAIGN TO CELEBRATE PARADOX



CHOOSE DETERMINISM Flier, letterpress, 2000. See also choosedeterminism.com.

From the “Are You a Determinist? *YOU DECIDE!*” pamphlet/booklet:

My dad was a philosophy major in college. When I was a kid, we used to have lengthy discussions about free will versus determinism. For a long time I considered myself an existentialist...I surmised that we are condemned to be free, that we are each individually responsible for every detail of the unfolding of our lives. But as I got older, more and more seemed inherently out of my control. I began to sense that free will and determinism must be operating simultaneously, but my father insisted that you can't have intermittent free will...it's either all clockwork or all chaos, but not a little of each.

Then I learned about quantum physics, and about how the particles of everything around us are ultimately made up of mostly empty space held together by mysterious forces...forces that do not abide by the physical laws that govern large things. For all intents and purposes, quantum physics and classical physics cannot coexist...and yet they do. In fact, physicists are working around the clock to come up with a “grand unification theory,” a way to reconcile them.

To me, the free will/determinism dilemma is identical: determinism = classical physics, things abiding by predictable laws, and free will = renegade waves and particles appearing in two places at once, having non-local relationships, and

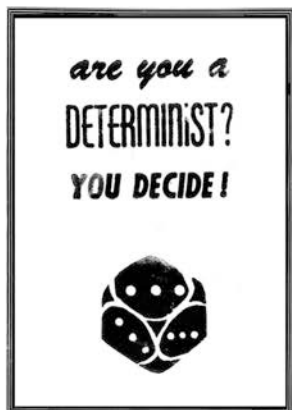
otherwise working behind the scenes to make our reality appear to be made of something solid.

For me, CHOOSE DETERMINISM is a sort of grand unification theory for philosophy. Maybe we can have a little of both. Maybe we have no choice...

The philosoprop I have developed to demonstrate these principles is a pair of dice with three dots embossed on all sides. The roller has the sensation of free will, but the number will always come up on two 3s. The dice come with a small propaganda-style booklet/questionnaire:



CHOOSE DETERMINISM Booklet, letterpress and photocopy, two custom dice with #3 on all faces, year 2000.



do you believe in FREE WILL?

if you're unsure, the following simple self quiz may help you decide.

1. Do you believe that matter and energy in the known universe behaves according to certain physical laws, such as gravitation?

☐ YES ☐ NO



2. Are the particles of which you are composed subject to the same forces as other particles in the universe?

☐ YES ☐ NO



3. Do you have any control over the weather, the rotation of the earth, the safety and well-being of your friends and family? What about parking spaces and traffic lights?



☐ YES ☐ NO



7. How do statistics work? How often do you encounter someone you know in an unexpected place?

- A. 1 to 3 times per year.
B. 100-1000 times per year.



4. Was this moment affected by events which occurred a moment ago?

☐ YES ☐ NO



Were those events affected by prior events? Continue asking yourself this question until you work backwards in time to the Big Bang.



5. Do you believe that nature has free will? Does the Universe, the Earth's atmosphere, and life itself choose to evolve in precisely the way it does?

☐ YES ☐ NO



6. Does everything always go exactly as you plan?

☐ YES ☐ NO



My dad was a philosophy major in college. When I was a kid, we used to have lengthy discussions about free will versus determinism. For a long time I considered myself an existentialist...I surmised that we are condemned to be free, that we are each individually responsible for every detail of the unfolding of our lives. But as I got older, more and more seemed inherently out of my control. I began to sense that free will and determinism must be operating simultaneously but my father insisted that you can't have intermittent free will...it's either all clockwork or all chaos, but not a little of each.



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CHOOSE DETERMINISM

OUR CHOOSE DETERMINISM PHILOSOPHOS GIVE YOU THE SENSATION OF FREE WILL, BUT ALWAYS COME UP ON THE SAME NUMBER!

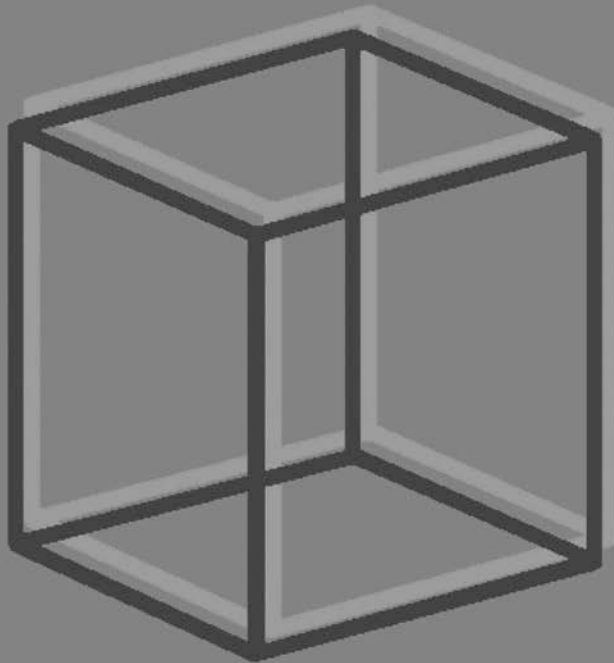
FOR MORE INFORMATION ON THIS AND OUR OTHER PHILOSOPHICAL CAMPAIGNS, PLEASE VISIT:

WWW.CHOOSETERMINISM.COM
WWW.ALYCESANTORO.COM

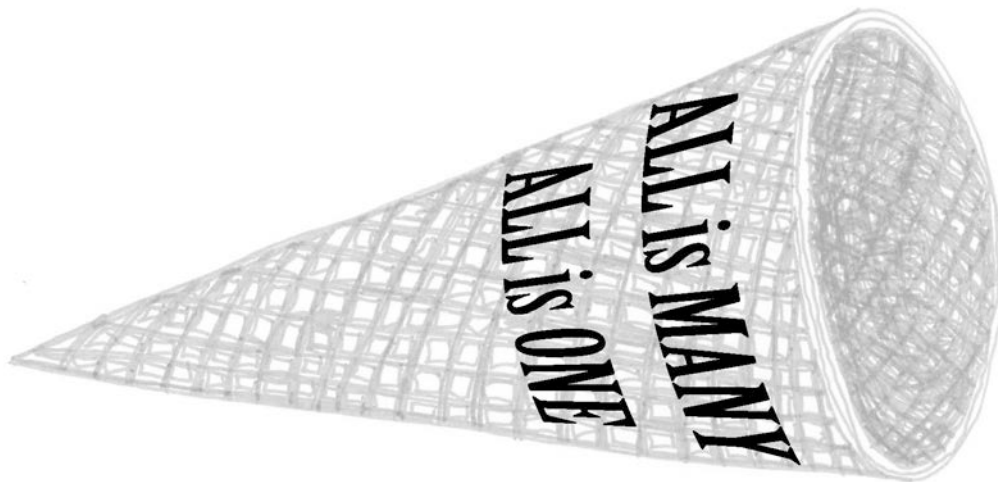
CENTER for the
OBVIOUS &
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is grateful for your support of the campaign to
CHOOSE DETERMINISM!

THE SYNERGETIC OMNI-SOLUTION
CAMPAIGN TO CELEBRATE

PARADOX



Campaign to Celebrate PARADOX, digital print, 11" x 17", 2012.



ICE-CREAM KOAN #1: INDEPENDENCE/INTERDEPENDENCE

CAMPAIGN TO CELEBRATE PARADOX: PARADOX #1:
INDEPENDENCE/INTERDEPENDENCE³²

July 4, 2012 – Independence Day offers a prime opportunity to reflect on one of the great paradoxes of contemporary American culture: independence and interdependence are not, as is commonly assumed, mutually exclusive concepts.

We are not *either* self-reliant, autonomous agents *or* cooperative, interconnected beings. Clearly, we are both. Paradoxically, we are simultaneously individuals *and* members of a society. Our freedom to be independent is not only *not hindered* by our willingness to act in cooperative, altruistic, compassionate ways – rather, *it is enhanced*.

Life, liberty, and happiness are symptoms of true freedom. Most of us know from first-hand experience that sensations of happiness and contentment rarely stem from selfish acts; on the contrary, the most profound joy comes most often from acts of generosity and caring.

Indeed, as a society it would benefit us to become more independent and self-sufficient in many ways – the more food, energy, and financially independent we can become as individuals, the stronger we become as people, communities, and as a nation.

Here in the US the words freedom and independence are so often coupled with the romanticized American idea of the “rugged individual.” We are taught from an early age that we are separate from our neighbors and our environment, that to

achieve success we must compete, and that the only success that matters is financial success.

Now is a good time to ask ourselves: have these principles led us to become healthy, happy people? Are we achieving the kind of wealth we have been striving for? Are we truly free in a society that has a different, far more lenient set of laws for the wealthy? Would we be freer and therefore more independent if we could choose paths that diverge from the limited ones advocated by the powers-that-be?

The beauty of our society is that we have the freedom to make choices that result in greater health and contentment for ourselves, our families, and our planet. Sadly, so few of us exercise these freedoms, in part because we have not been invited to embrace the paradox that to become profoundly free we must become profoundly interdependent.

* * *

9: SONIC FABRIC

My unreligious, vaguely Eastern-oriented upbringing certainly taught me to be on the lookout for commonalities between diverse sets of beliefs and, at the same time, appreciate their differences.

Back in 1987, while living in Santa Cruz, I encountered a string of Tibetan Buddhist prayer flags for the first time. Yogis explained that the small squares of colorful cotton fabric are imprinted with *mantras*, syllables that, when vocally toned, create ripples that affect thought and physical matter in much the same way that music emanating from a stereo can cause a speaker or other adjacent object to vibrate. Strings of prayer flags are used to adorn auspicious locations where the breezes blowing through them can, symbolically or literally, “activate” the depicted sounds, dispersing them around the world on the wind.

Particular mantras are implemented according to the circumstance at hand. In Buddhism and Hinduism, *OM* is considered to be the primordial tone from which all other tones (and forms) emerge. Prior to the existence of the universe, out of a latent field of infinite possibility, the sound *OM* was the first phenomenon to arise, serving as the catalyst for all subsequent vibration (and the formation of matter). This concept brought to mind some aspects of quantum physics: when we try to break matter down into smaller and smaller parts, we discover that everything that appears solid is actually made up of atoms, which are composed of protons, neutrons, and electrons...which, in turn, are made up of miniscule amounts of vibration separated by vast amounts of what appears to be empty space.

In Tibetan Buddhism, the Mantra of Interdependent Origination (Pratītyasamutpāda) states that everything that exists can do so only in intricate interrelationship with everything else. If the circumstances that would cause a thing to come into being never come to pass, then a thing cannot arise. If causative circumstances cease, then the thing that is caused also ceases.

om ye dharma hetu prabhava hetun teshan tathagato hyavadat teshan tsa yo nirodha ewam vadi mahashramana svaha

“This is, because that is. This is not, because that is not. This comes to be, because that comes to be. This ceases to be, because that ceases to be.”³³

As a budding biologist, these teachings made perfect sense. In order for a jellyfish to come into being, all the circumstances in the lead-up to it had to be exactly right. At the same time, the jellyfish couldn’t *not* exist, as it is filling a particular niche formed by the confluence of exquisitely ideal factors and will continue to do so until those circumstances cease to be.

As a nascent social theorist, it seemed a logical corollary that the ills of the world could be alleviated by – and *only* by – eliminating the circumstances that cause them to come into being.

As a person who was becoming increasingly inclined to use objects and sound to illustrate concepts, the prayer flags struck me as elegant metaphysical technologies. Upon learning about their function, I was immediately reminded of experiences I'd had while sailing as a kid. Racing sailors are constantly seeking to refine their awareness of the ever-changing elements; most employ *tell-tails*, wind-indicating apparatuses consisting of strands of yarn or other material attached to the boat's rigging or to the sails themselves. The movement of the tell-tails is used to gauge slight shifts in the strength and direction of the breeze, to which the skipper responds by making adjustments to the trim of the sails, increasing the efficiency with which the force of the wind is transformed into forward motion. Cassette tape is commonly used to make tell-tails, as it is ubiquitous, responsive, durable, and dries quickly. My father used to keep an old cassette on board, and whenever a tell-tail was needed, a strand would be torn off and tied to the wire stays that secured the mast. As we would sail along, I would often stare up at the fluttering tape, imagining that if the wind hit it just right, whatever music it contained (The Beatles, Bob Dylan, Beethoven, Cat Stevens?) would come wafting out. The instant I learned about Tibetan prayer flags, I thought of the tell-tails and began wondering if a fabric imbued with sonic potential could be woven from cassette tape.

THE ART of SAILING



TELL-TAILS

To become a good sailor, one must become highly attuned to weather conditions, especially subtle changes in direction and strength of the wind. There are many ways to do this – observe ripple patterns on the surface of the water, look at flags on shore, notice the way boats swing on their moorings (the bow will always point upwind), or simply feel the wind on your body.

Sailboats are often outfitted with low-tech wind indicating devices called “tell-tails” ... a feather mounted to the masthead, or a length of yarn tied to the rigging. Another commonly used tell-tail material is cassette tape. An old tape can easily be kept on board and a short strand clipped off as needed. Cassette tape is especially well-suited for this task, as it is durable, ubiquitous, quick-drying, and very sensitive to the wind.

As you become a practiced sailor, you will begin to instinctively process data provided by the tell-tails, the curvature of the sails, ripples on the water, and the balance of the hull. You will begin to cultivate a subtle awareness of the way in which every slight movement translates into elegant efficiency.



FIG 1.

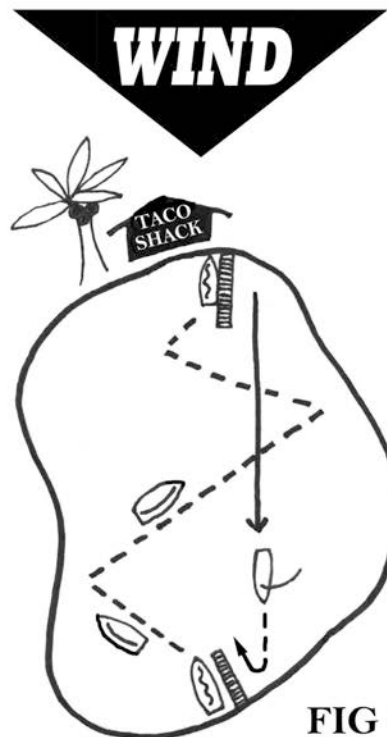


FIG 2.

BEATING TO WINDWARD

1. You cannot sail straight into the direction the wind is coming from - instead, you must sail at angles to it, making progress by zig-zagging.

2. By bringing the bow of the boat directly into the wind you can depower your craft quickly in order to avoid collisions, make repairs, arrive at a dock, or any other purpose for which you need to slow down or stop.

FIG 3: PATTERNS of WIND on WATER from LIGHTEST to STRONGEST

RITUAL

Checking the weather, donning appropriate gear, provisioning, rigging your vessel, the sights, sounds, and scents of your marina or launching area, and your community of fellow sailors are all part of the many rituals associated with sailing. Joining a racing fleet, either as a skipper or member of the crew, is an excellent way to learn to sail while becoming familiar with customs and traditions. On the racecourse novice sailors can follow leaders in the fleet and attempt to emulate their techniques and strategies. Skills, rules, tactics, and learning to tune one's boat to maximize efficiency are important, but ultimately the sailor whose boat moves with the greatest elegance and speed is the one most finely attuned to the subtle forces of nature.



FIG 3: PATTERNS of WIND on WATER from LIGHTEST to STRONGEST.

In 1990, I graduated from college and moved to Providence to begin the study of scientific illustration. All the while, the idea to weave with tape remained in the back of my mind. In 1995, I began actively collecting tapes that contained spoken word, sounds, or music that might be appropriate to include in a kind of planetary prayer flag. I imagined the mantras of Tibetan monks woven together with Gregorian chants and the music of Hildegard of Bingen; Muslim calls to prayer; Carnatic and Hindustani music; Chinese, Western European, African, North, South, and Central American folk music; Tuvan throat singing; and any other sonic artifacts I could find.

I put up fliers around Providence asking for donations of tapes – prerecorded ones or those prepared especially for a planetary prayer flag project. I began to keep a portable cassette recorder on hand at all times so that I could collect the sounds of everyday life. I would embark on extended sound-collecting expeditions, wandering through the city listening intently and taking meticulous samples of ambient noise.

I learned much later that the Situationists, a group of social interventionists based in France from the late 1950s until the early 1970s, had raised urban roaming-with-awareness to an art form they called the *dérive* (drift). They used the word *psychogeography* to describe the ways that the feel of a place, including sounds, smells, and sights, affect the people who inhabit it. Looking back, I can say with certainty that I was a great appreciator of the psychogeography of 1990s Providence.

Years passed as my tape collection grew. I was getting excited about the idea that an irreparably damaged cassette of my high school punk band would be woven together with John Coltrane and Laurie Anderson. Once I'd amassed 100 cassettes, I began researching homemade looms and decided to experiment by knitting with the tape. The resulting fabric was a loose, loopy web. In 2001 I was knitting in the café adjacent to my studio when Phillip May, a friend who worked in the textile lab at RISD, happened to come in. He offered to try weaving with the tape on one of the school's looms. Using the cotton warp thread in the two colors that were already on the loom – beige and dark gray – he used the cassette ribbon as the weft. When Phillip delivered the samples, we were both amazed – the resulting fabric had the tightly woven feel of a light canvas with a mysterious sheen. He had used all 100 tapes, resulting in two 4-foot by 3-foot panels of material that took on the overall color of the warp thread. I could make out several inch-wide bands of subtle variation in the hue caused by the composition of different kinds of tape (chrome, black, or brown). Also visible were thin lines of yellow, blue, and red resulting from the leader tape used by particular cassette manufacturers. The exact location of my high-school punk band jam session could be identified by the red leader. The global prayer flag project seemed complete.

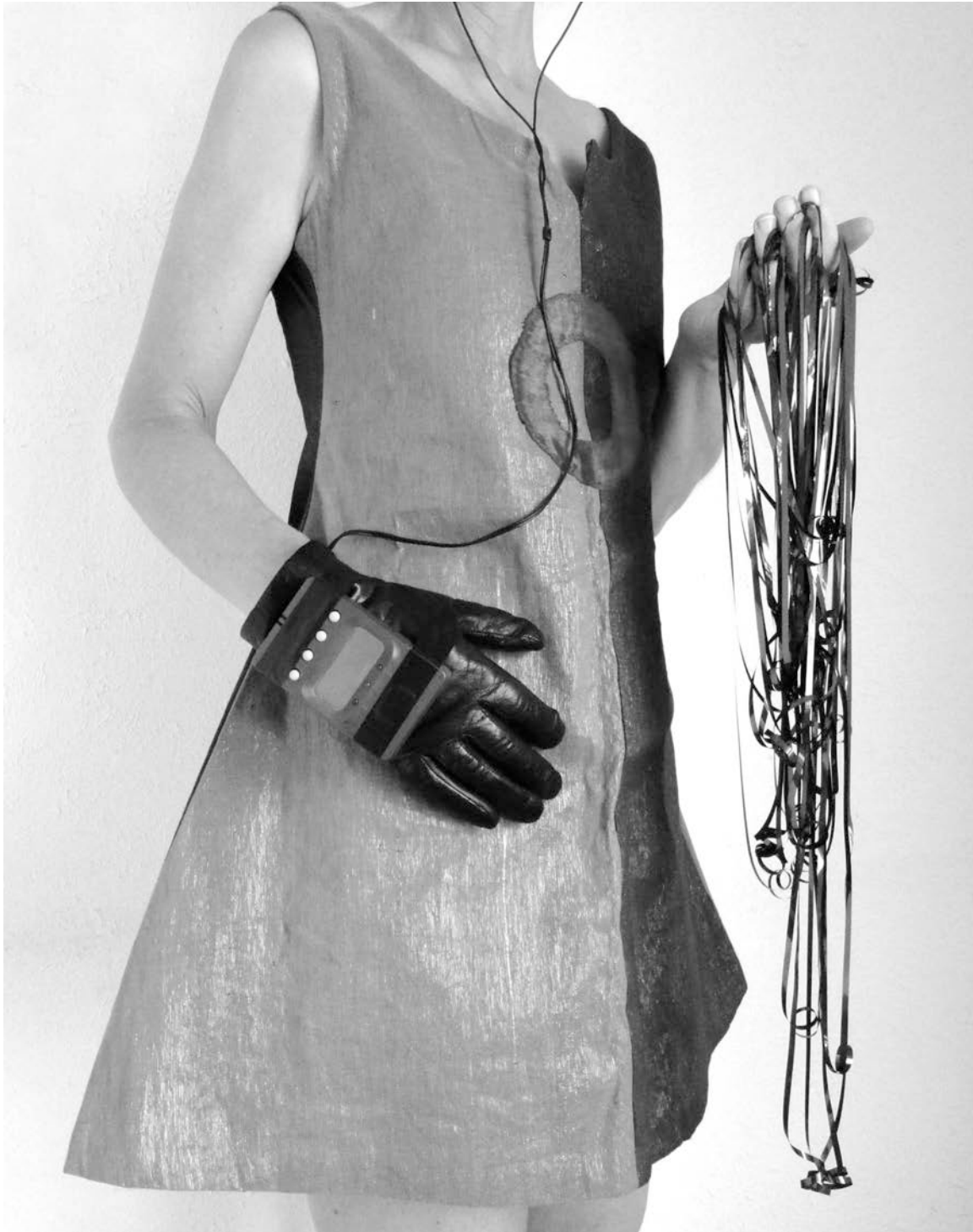
In early 2002 I moved to New York City with a body of work consisting mostly of silkscreen and letterpress prints, some specialized headgear, and a couple of early philosophopros, including the two panels of fabric woven from cassette tape.

Soon after arriving in New York, I learned about the Sunday afternoon salons that Louise Bourgeois held at her home in Chelsea. The invitation was by word-of-mouth – those who had been to a salon could give Louise’s number to whomever they felt would benefit from a critique with the grande dame herself. I called, and Madame Bourgeois answered – I could attend the following Sunday. I’d been told by others familiar with these sessions that everyone is expected to bring food or drink to share with the group. I brought homemade cookies; everyone else brought bottles of liquor. From the outside, the house blended in to a row of well-kept brownstones. Immediately upon entering, however, it took on the feel of a slightly dilapidated farmhouse in the French countryside, complete with creaky wooden floors, peeling paint, frayed upholstery, and dusty stacks of books covering every surface.

We were led into a small room in which chairs lined the walls. There was a coffee table in the center where the offerings were placed. Louise held court from a desk at one end of the room – taking turns, we were to bring our work up to the desk for a one-on-one critique. Shots were poured and passed around. When my turn came, I showed Louise the two panels of fabric and provided a brief explanation. She exclaimed, *BUT WHAT DOES IT DO?* I blurted out the first thing that came to mind. “It’s for rituals,” I said. *THEN DO A RITUAL!* she demanded. I quickly splashed a few drops of cognac onto the floor and clapped loudly three times to purify the space. I laid down one of the panels, then asked everyone to place something of their own on the cloth while holding in mind an intention. I chanted OM over the objects, then handed them back to their owners, announcing that they were now amulets charged with wish-fulfilling power. As the gathering was breaking up, one of the attendees asked if I knew whether the material was audible. *Audible?* I hadn’t considered it. He suggested taking apart an old portable cassette player and running the tape head along the surface of the fabric. I did, and sure enough it emitted a garbled, underwater-like sound, the result of the head being wide enough to pick up several strands of woven-together tape at once.

Shortly thereafter, a friend gave me some information on a gallery looking for works made from repurposed materials to include in an upcoming exhibition. The gallery responded immediately with interest, but wanted to display the fabric in a form other than the two raw panels. I offered to create a dress inspired by the specialized garb worn by shamans and superheroes.

When the show opened, people started asking if Sonic Fabric was available by the yard. I was taken aback; it had taken twelve years to arrive at two small, precious panels of material, and the requests for yardage made me feel as if the magnitude of the effort that had gone into its creation was not being understood. I never intended to create a *product*. Friends reassured me that I was onto something good, something that, if it could be produced on a larger scale, could transcend the limitations of the “art world” and be used and appreciated in everyday life.



Sonic Fabric Shaman-Superhero Dress #1, 2002.

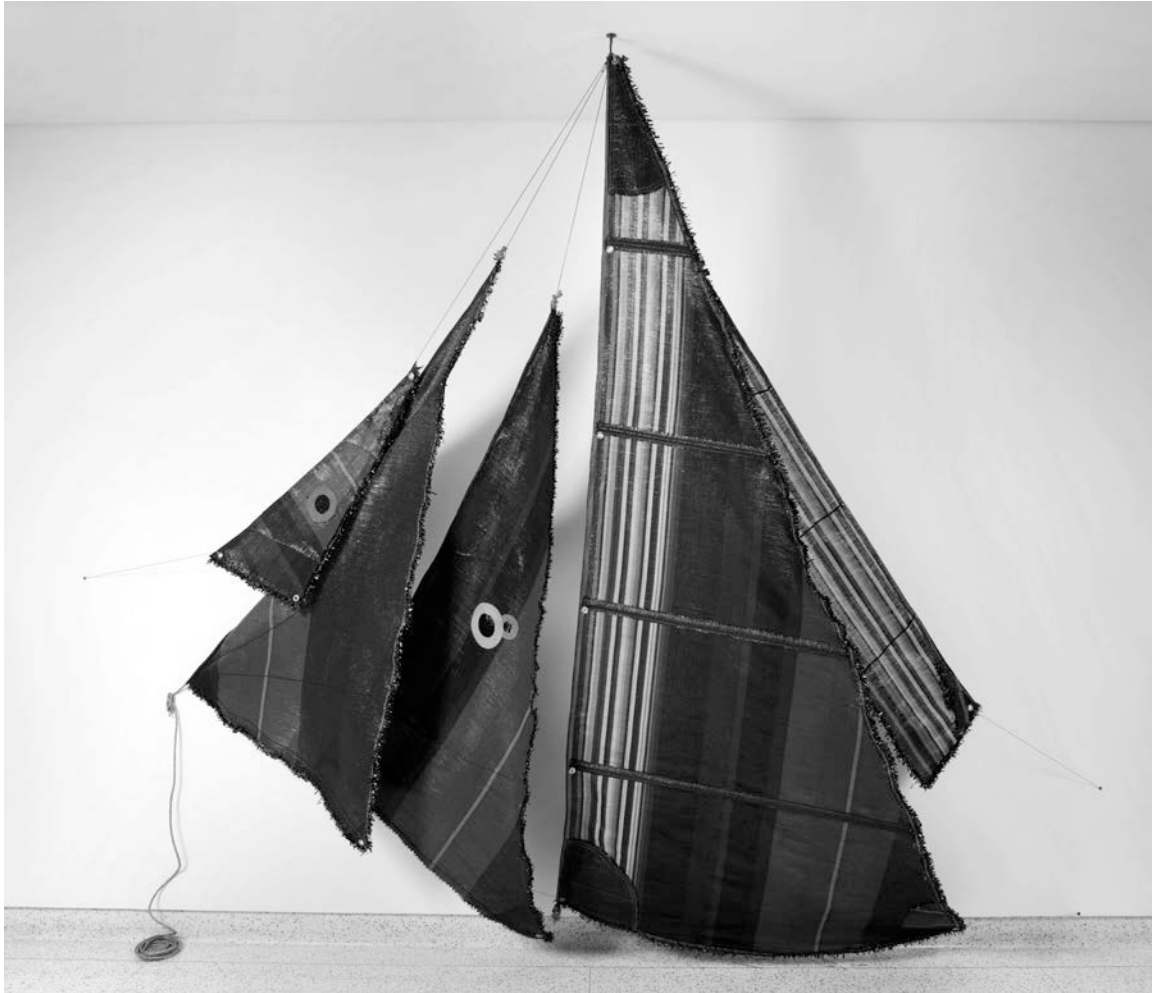
After much research, I was able to find a small family-run textile mill in New England that was willing to try experimenting with cassette tape. Another year went by before the process was perfected. I had the fabric tested for durability, and sure enough, it exceeded the standards required of commercial textiles. Sonic Fabric was unexpectedly becoming a kind of functional, sharable, audible form of conceptual art, available by the yard.

With the additional fabric, I could now experiment with screen-printing on some. The first strings of flags were printed with geometric patterns that were, to me, significant.



Tell-Tail Thangkas (Flags), silkscreen on Sonic Fabric recorded with the “Sounds of ½ Life” collage, 16” x 24”, 2004.

While in the testing phase, we tried an edition with a variety of different colored thread in the warp. By mathematically converting light wavelength to sound wavelength, I matched each color with a musical note so that, as a whole, the pattern can be “read” like a musical score. From this striped edition, I created a set of prayer flags in a form that I know well – sailboat sails. When sailing, one dedicates all of one’s senses to becoming highly attuned to the forces of nature. Like the architecture of a cathedral, sails – giant glowing arrows – guide the eye to look *up*.



Tell-Tail Thankgas (Sails – Musical Score), suit of Sonic Fabric sails, recorded with the “Sounds of ½ Life” collage. 9’ x 9’. Fabricated by Rick Draheim. 2007. *Photo courtesy Museum of Contemporary Art San Diego.*

In December of 2012, two months after Hurricane Sandy struck New York City, I was invited to mount an exhibition of the philosoprops at Klemens Gasser & Tanja Grunert Gallery in the Chelsea district of New York City. The gallery – like many others in the neighborhood – had been completely submerged during the storm and was in the process of being restored. While the gallery owners were appreciators of my philosophy-based work, for the reopening on January 10, 2013, they felt a

particular sense of urgency to exhibit a piece that could offer a sense of resilience, optimism, and cooperation with the elements. They wanted a 21-foot-tall set of Sonic Fabric sails to fill a room that had been flooded under 14 feet of water. On the night of the opening we hoisted the sails, raised a toast to Spaceship Earth, and symbolically broke a bottle of champagne on the bow of a boat we are all in together.



Tell-Tail Thangkas (Sails - After Sandy), Sonic Fabric recorded with a collage of sound samples collected on and under the streets of New York City, 10' x 21', fabricated by Rick Draheim. 2012.

During the month-long exhibition, I had the opportunity to demonstrate and discuss the philosoprops with many intrigued and intriguing visitors. We also hosted a series of four “Dialectic Revivals” (please see Chapter 10 for more on this project) on a range of approaches to socio-ecological intervention. It became evident over the course of the month that the philosoprops work best as catalysts for conversation – they make less sense when regarded as static, separate, aesthetic objects. Also, they are most meaningful in relationship with one another as a cohesive collection, with individual pieces able to be drawn upon to illustrate particular points as needed.

This book was created to offer some insight into philosoprops so that others might feel compelled to create them and so that the ones made by me can better do their intended work with or without my assistance, whether they are housed in a physical location or not. The ideas are the substance of these pieces and do not belong to me – they are out there in the ethers, ready to be absorbed, translated, assimilated, manifested, by bodies that hear, that feel, the Harmony of the Spheres. Be tuned in. Reality is your oyster.



10: THE STRUCTURE OF A PHILOSOPHICAL REVOLUTION

When the Arab Spring began in 2011, first with the self-immolation of Tunisian street vendor Mohamed Bouazizi and quickly spreading to Cairo's Tahrir Square, it was a frigid winter in the mountains of far west Texas. Though I was over 7,000 miles away, via the internet I began to feel connected to uprisings taking place in the Middle East, North Africa, and around the world.

At the beginning of the occupation of Tahrir Square, a demonstrator tweeted that grandmothers who never could have imagined participating in an uprising were bringing tea to the square to sustain the protestors. Seconds later I tweeted back: *what kind of tea?* Mint, they said, usually made from fresh leaves, but since resources were scarce, they were using dried. I tweeted back to say that I would make mint tea in my tiny cabin far away with which to toast them and would be envisioning their continued strength and courage as I added some fresh leaves from a plant we were keeping inside for the winter. Revolution was no longer an abstraction engaged in by distant strangers; sharing a cup of mint tea with new friends in real time made geographical separation irrelevant.

By the time I learned that the OCCUPY movement was due to begin in New York City on September 17, 2011, I knew the time had come to reveal myself fully as not only one who is striving to combine art and science, but as one who feels compelled to use these findings to comment on the ills of the world and to develop constructive ways to remedy them. Synergetic Omni-Solutions were cropping up everywhere as students, teachers, workers, farmers, and subjugated peoples and communities around the world began realizing the power of cooperation and collective action on grand scales, and connecting, joining forces, and receiving acknowledgement and support for these initiatives globally via the internet.

As I became ever more deeply engrossed in and energized by these movements, I started writing. What began over two decades ago as an impulse to combine art and science has grown into an urgency to find effective, creative ways to communicate about nature's intrinsic value, not as a financial commodity, but as a fundamental extension of ourselves. Like social ecologists, I believe that the challenges facing our environment will continue to escalate until and unless there are massive changes to hierarchical systems of governance that perceive economic vigor as separate from, and more important than, that of people.

The five articles in the following section emerged during the global tumults and revelations of the past few years. In many ways they could be taken as a summary of these two decades of thought (and as such may serve to reiterate some of themes covered earlier in this book), leading right up to the present moment. The Dialectic Revival and The Obvious International are currently in progress (summer 2013).

THE STRUCTURE OF A PHILOSOPHICAL REVOLUTION³⁴



Scanning Electron Micrographs of Mycorrhizae³⁵

“If contemporary science points to inadequacies in present-day modes of thinking, we can ask: What will be the shape of the new manner of understanding required by our future? I believe that artists are the harbingers of the future mentality required both by science and by the imperatives of living in our precarious times. For centuries, artists have struggled to create ways of seeing and knowing that often appeared to be at odds with the burgeoning science of our era. I believe that we now truly stand in need, not only as scientists but as a civilization, of the artist’s cognitive capacities. In them, when rightly developed, might the two streams of our cognitive inheritance commingle?” – Arthur Zajonc³⁶

To a profound yet rarely acknowledged extent, our basic understanding of the world is shaped by the culture within which we find ourselves. We learn what thoughts, beliefs, behaviors, and aspirations are appropriate from a kind of collective mindset, which operates like a constantly modulating swarm – the influence of a powerful individual or idea resonates within the cloud, altering its shape to dramatic or subtle effect, for better or for worse.

Here in the early 21st century, the notion that each of us is an isolated entity, ever at odds with one another and with the ecosystems of which we are a part, is a fundamental aspect of our collective belief system. Until we evaluate the

implications of this assumption and discover that there may be new, more multifaceted and constructive ways of thinking, our collective swarm – unaware that it is a swarm at all – is bound to drift ever deeper into perilous territory.

How did we arrive at a worldview so deeply invested in dividing things up into distinctly isolated, irreconcilable parts? From the 16th century onwards, with the advent of scientific techniques for analyzing the world, separateness seemed rationally verifiable – microscopes allowed us to see that matter is composed of smaller, distinct parts; telescopes showed us that our universe contains celestial bodies separated by vast distances. In some parts of the world, the dominant holistic, interdependent way that our ancestors perceived themselves as woven in to a vast web of being was on the wane. Humans became the self-imposed most sophisticated entities in the Universe. And yet we had little to do with the design of the hardware that we use to make this bold determination.

Some believe that the human intellect evolved at random out of available building blocks. Some attribute it to a supreme being or entity. In the Western world, these are the standard choices: random or God, take your pick. Other cultures have more nuanced ways of defining and expressing the kinds of intelligence that go into the making of a fish, a leaf, a rain cloud, a mountain.

During earlier eras in recorded history, humanity underwent profound collective shifts in the ways in which we perceive ourselves in the world, often accompanied by fierce resistance. During Galileo's time, emerging forms of analysis clearly demonstrated the reality that our planet is not at the center of the solar system. While this revelation took time for many to accept, we have since collectively agreed to depend upon science as the preeminent way to gather information, going so far as to diminish other less quantifiable ways of knowing (such as "gut feelings", empathy, and intuition).

The knowledge that emerges from hard science tends to reinforce a dualistic perception of the world. Because something is made of parts, we conclude that each of those parts has an existence separate from the whole, neglecting the logical corollary that parts can exist only in relation to the whole. Science favors definitives, and culture follows. But human consciousness is not limited to understanding through absolutes – we are capable of perceiving and transmitting subtle shades of nuance, irony, and paradox. We are individuals and part of society simultaneously. Embracing interdependence does not require us to forsake independence. Concepts do not often fit neatly into boxes.

Perhaps we are now in the throes of a radical new paradigm shift, one that we are looking to science to confirm, but one that cannot be expressed through empirical data alone. We cannot turn to the scientific method to prove that objectivity is an illusion, that the existence of parts does not preclude the existence of a contiguous whole. It will require a comingling of qualitative and

quantitative methods of inquiry in order to effectively transmit the notion that humans must now relinquish our assumed position as separate, superior beings. We are receiving overwhelming data from all fronts: violence begets violence, pollution begets disease, greed begets poverty and instability. No action happens in a vacuum – autonomous agency is an illusion. Our spaceship Earth and everything aboard it functions like a giant living organism; if its parts cease to be in symbiotic relationship with one another, the system breaks down.

The humancentric model of the biosphere is an improvident construction.

400 years ago, there were profound sociological implications of the shift from geocentrism to heliocentrism. But humanity was not in imminent danger of perishing as a result of a faulty worldview. Today, in the absence of a visceral realization that the perilous state of our environment is the direct result of systemic social and political injustices enabled by an inherently narcissistic narrative, we are likely to continue our flaccid attempts to mollify symptoms without the ethical foundation required to shift the behaviors that are causing the problems. Until we begin to perceive ourselves not as superior but as equal and integral to all other phenomena, our misguided actions will continue to serve as a destructive force in the world.

* * *

Of course, there exist today, and have throughout history, peoples who wholeheartedly perceive themselves as equal and integral to all other phenomena. Such cultures tend to be based less on the notion of responsibility to oneself alone (“rugged individualism”) and more on the principle of collective responsibility, sharing burdens and rewards in order to strengthen the entire community. When a cooperative mindset is forsaken in favor of an individually focused model, members of a society gamble the intangible securities of kinship and assurance that basic needs will be fulfilled against the possibility of personal material gain that could far exceed what is possible within the cooperative social unit. In societies in which analytical thinking becomes dominant, the perceived value of the quantifiable becomes greater than that of the abstract. But when we stop to evaluate this commonly held belief, it may become clear that unquantifiable factors are the ones that lend our lives profound meaning – love of family and friends, time to care adequately for home and health, leisure to spend at creative endeavors or in nature, sense of belonging and place. When immeasurable elements are sacrificed, genuine fulfillment, security, and enduring happiness eludes us.

Goethe's Game, like Sonic Fabric, is a piece that spent at least a decade in gestation. In thinking about our biosphere as a closed system in which our every action, however slight, affects the whole, I recalled a toy popular in the 1970s called "Booby Trap." The game consists of a wooden tray containing dozens of cylindrical pieces that are held in tightly by a spring-loaded arm. The object of the game is for players to take turns removing pieces one at a time without tripping the arm. Sometimes the arrangement of pieces appears stable, but physical proximity is not always an accurate indication of the action of one entity upon another. After it had occurred to me that a scaled-up version of this game containing fragile pieces held under great tension could serve as a dramatic illustration of the ultimate interrelationship of all the elements that compose our reality, it took years to gather the requisite materials to build it.

If you would seek comfort in the whole, you must learn to discover the whole in the smallest part. – Johann Wolfgang von Goethe

The entire universe is in tension. – R. Buckminster Fuller



Goethe's Game, salvaged lumber, hand-thrown ceramic game pieces fabricated by Mike Bianco, metal school bus bar, custom-fabricated metal spring, 4' x 6' x 3', 2009.

WHAT DOES COLLECTIVE DEMOCRACY LOOK LIKE? IT'S UP TO US.³⁷



As the “advanced” nations of the world sink deeper into financial, ecological, and moral bankruptcy, a growing contingent of the global population refuses to stand idly by while our collective future is carelessly gambled away by a rapacious few. With the aid of the internet we are tangibly connected across borders and oceans, banding together and supporting one another in droves, pooling resources, knowledge, and skills to build a do-it-ourselves grassroots revolution of a kind the world has never known. This is not a war, or at least not a conventional one - the Indignados and the Occupiers are not after blood – we are fighting for the freedom to participate in building the kind of society we envision. It is becoming clear that many around the world share a common outrage: we are no longer willing to tolerate systems of governance that represent the wealthiest few at the expense of the many.

In Chapter 14 of his book PERMACULTURE: A Designer's Manual Bill Mollison offers a brilliant, concise outline of “Strategies for an Alternative Nation”. Mollison, who together with David Holmgren coined the term “permaculture” to describe a holistic approach to cultivating healthy ecosystems and societies, begins the chapter by suggesting that a stable nation is formed when members share a basic set of ethical values, such as willingness to strive together towards “an harmonious world community”.³⁸

While this may at first seem like an ambitious objective, there are steps that can be taken in an earnest effort to arrive at a common ethos, beginning with reconsidering our roles as individuals and citizens in an increasingly globalized society.

Practically from birth, we are taught to compartmentalize: we learn that we are separate from our parents, our siblings, our classmates. We learn that we are separate from those with other beliefs, nationalities, or skin pigmentation, and sometimes we acquire hostilities toward those we deem different from ourselves. Rather than learning to focus on our inherent similarities and accepting any

apparent differences as superficial, so often we are led to believe just the opposite. As we become alienated from our environment and fellow creatures, we also become divorced from a sense of responsibility to participate in taking care of the world around us. When we stop caring, we relinquish the power to make decisions about our needs to whatever entity thinks it knows best.

Fortunately it is quite easy to discover that we are not, in fact, autonomous agents – our actions have very tangible effects – well into the future – on everything and everyone with whom we interact. By suspending the tendency to separate and polarize, not only do we begin to see connections between individuals, disciplines, and philosophies; we also begin to see the way our beliefs, thoughts, actions, and decisions shape our world.

Who is to say what beliefs, thoughts, actions, and decisions are the right ones for an entire society? This brings us to the precarious question of freedom, that crucial thing that so many on all sides of the political spectrum claim to understand best, and feel is being impinged. Some define freedom as the ability to act in any way one chooses, so long as that action does not do harm to another. But in order to settle on this definition we must first discuss “harm,” and decide how much harm is acceptable, not only to other people, but from a permacultural perspective: we must also take into account harm to the planet.

In thinking about our definition of freedom, we may agree that, while we must be free to think in any way we choose, certain actions are more likely to lead to greater harm than others. We may also determine that some of our desires stem less from true inner longings and more from external persuasion, often from a commercial entity that has something to gain by capturing our attention.

By asking ourselves a few questions, we can begin to open a dialog on how to build a free society that also has a common ethical basis. The Iroquois Nation People, for example, have long engaged a rule of thumb: what effect will my present actions have on the “seventh generation” – approximately 150 years into the future? How would our behavior change if we were to routinely ask ourselves similar questions, such as who will be affected by my choices and how? Is there a more positive, constructive, efficient course of action? If I have plenty and my neighbor is starving, which will provide me with a greater sense of security and well-being: sharing or hoarding?

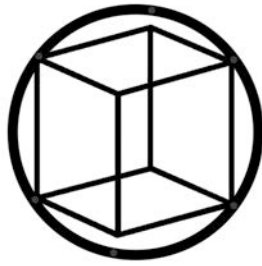
There are no singular, hard-and-fast “right” answers to any of these questions – rather, it is the process of honestly addressing them that has the potential to reveal the truly subtle, complex, and powerful ways in which we are connected to our communities and our culture. By allowing ourselves to think in less linear, literal, rigid ways and by instead cultivating forms of thought and dialog that are more encompassing, cyclical, and even accepting of contradiction and paradox,

we may discover new ways to relate and cooperate with forces once seen as opposing.

This proposed method of discussion stands in stark contrast to the more common form of debate in which participants attempt to “win” at all costs, often by employing emotional persuasion (rhetoric) rather than reasoned argument. Instead of aiming to overpower an opponent, those engaged in discussion based on dialectical methods agree at the outset that there may be more than one answer to a problem, and that all answers may lead to more questions, allowing for open-ended, continuously-evolving perspectives.

Willing members of a collective democracy agree to participate in creating a harmonious world community, each in his or her own unique way, beginning with the state of his or her own immediate situation. What this means, and where we go from here, is up to us.

What is required to transform the world is dialogue, critical questioning, love for humanity, and praxis, the synthesis of critical reflection and action. – Paulo Freire, Pedagogy of the Oppressed



WELCOME *to the* DIALECTIC REVIVAL

Here in the United States, whether we look to the language used amongst ourselves, in the media, or by politicians, we may find that our standard method of communication is based on ***rhetoric*** – a style of argument that relies on a set of distinctly isolated viewpoints, with each view-holder applying a range of persuasive techniques in an effort to prevail over a perceived opponent.

However, as we navigate our way into increasingly fragile ecological and social conditions unfolding around the world, another lesser-known approach with roots in ancient Greek, European, and Indian thought may be worth revisiting.

In stark contrast to the goal of rhetoric – to persuade by any means possible – the purpose of ***dialectic*** is for all involved to gain a richer, less prejudiced, more multifaceted understanding of a dynamic situation in all its complexity.

It is not surprising that dialectic is so little known and little understood in contemporary culture; throughout the course of history the word has been appropriated by different people for different purposes. Heraclitus, Socrates, Plato, Aristotle, Hegel, and Marx each developed their own signature varieties. If we could get all of these thinkers in a room together to engage in a dialectical discussion about the definition of dialectic, they may or may not agree on at least two basic tenets: (1) participants in a dialectic dialog allow the conversation to flow and evolve without expectation of a definitive conclusion, and (2) apparent paradoxes and contradictions inherent within arguments are identified and embraced without necessarily attempting to reconcile them (for example: each of us is simultaneously an individual *and* part of a society – attempts to address related issues must weigh both these conditions equally).

During different periods in history, forms of dialectic reasoning were adapted to the times at hand. While horns are locked and the clock ticks away on all manner of pressing social and environmental issues, I suggest that *now* is a fitting moment to evaluate the effectiveness (or ineffectiveness) of prevailing mechanisms for the exchange of ideas and to develop more appropriate, efficient, and constructive paradigms.

I am proposing a dialectic revival.

A new dialectic method has revolutionary potential. Transparency in communication is a radical act. The powers of obfuscation, confusion, and polarization are wielded with great skill by those who seek to suppress and control, often inadvertently drawing in even those with an earnest interest in clarity. Dialectic technique is an antidote, a way of dissolving veils of calculated deception to reveal the inner workings of an underlying reality.

A modern ***dialectic method*** could be applied like a scientific method especially for communication and distillation of understanding. Like the scientific method, it would be taken for granted that a communicator who wished to be recognized by his or her peers would be obliged to employ the dialectic method.

Before beginning, it would be firmly established that the primary goal of the dialectic method is to pool knowledge and compare and contrast differing viewpoints on a matter for the purpose of deepening overall understanding. Unlike forms of debate in which one side attempts to demonstrate the superiority of a singular view over an opposing one by any means available (including emotional persuasion not based in reason), dialecticians favor logic, analytical proof, and rational deduction. Dialecticians recognize that, since all conditions are in a continuous state of flux, definitive resolution is not possible.

The following is an outline of the steps in the DIALECTIC METHOD:

1. Establish the matter to be considered, formulate a hypothesis.
2. Identify and define opposing, ambiguous, and abstract concepts; acknowledge and accept contradiction, paradox, and nuance.
3. Determine commonalities and points of connection between contrasting views.
4. Reevaluate the matter in light of information gleaned through elucidation of both paradox and connection.
5. Develop and implement solutions based on refined understanding of the matter at hand.
6. For further clarification, formulate a new hypothesis and begin again at step 1.

– October 2011, http://www.alycasantoro.com/dialectic_revival.html

The proposed method of dialectical communication shares techniques with the arts of sailing and permaculture; in order to achieve success in these endeavors, one must maintain a heightened state of awareness, making constant adjustments to the conditions at hand, which are in a continuous state of flux. The keener one's powers of observation, the more elegant efficiency one is likely to achieve.

How does one go about the cultivation of acute awareness? Specialized systems have been developed over the course of centuries by monks, shamans, alchemists, artists, and naturalists. Such techniques often acknowledge that, in order to comprehend one's outer surroundings with clarity, one must simultaneously have access to a state of inner stillness. Without inner quiet, the integrity of input received by the senses will be muddled by interference, and we will remain unclear about how to wield the new information prudently.

The interplay between the personal, inner sensation of separateness and the outward, social experience of interrelationship (or, by contrast, feeling that all is interconnected but experiencing alienation from society) is one of the extraordinary features of the human condition.

In Buddhist traditions, a practice is made of turning the focus away from oneself (often by first closely examining one's "self" and coming to the realization that "self" is a rather nebulous and arbitrary convention), disciplining the mind to concentrate instead on feelings of compassion for all beings and dedicating one's thoughts and actions to that which may ultimately serve to benefit the greatest number.³⁹

This sensation can often be aided, as is the case in shamanic initiation, through intense contemplation of the ephemeral nature of one's own existence. When faced with the prospect of death, the true value of that which cannot be measured is often starkly revealed. Once death has been confronted, we can often return to living invigorated in the knowledge that every detail of existence is precious and that we are but one small aspect in an exquisite continuum infinitely greater than ourselves. Life becomes imbued with a simple, subtle, contented meaningfulness.

THE VISIBLE, THE INVISIBLE, AND THE INDIVISIBLE⁴⁰



Prevailing thought is like prevailing wind; it requires less effort to allow oneself to be carried along than to set a course that goes against it. Also like wind, thought is often presumed to be invisible. But one can quite easily learn to observe the effects of both on tangible objects, and thereby gain the ability to harness the power of either.

The first lesson in sailing usually occurs on the shoreline. Students are invited to determine from which direction the wind is blowing by looking for clues: flags, trees, boats at anchor, the feel of the breeze on one's own skin, and through careful observation of subtle variations in the texture of wavelets on the surface of the water itself.

Similarly, in order to see thought, one only needs to look around oneself. The urge to connect turns into telephones, televisions, and the internet. The inclination to travel manifests as cars, ships, planes, and trains. The need for social organization is revealed in our political systems. And so forth and so on...

But what is a thought, exactly? An electrochemical impulse? Does it require an embodied agent, or is it possible that ambient electrochemical forces cause matter to coalesce into particular patterns and configurations, resulting in the infinite variety of artifacts we find ourselves among? Needs, longings, and desires arrive with the distinct sensation that they are ours alone – but couldn't the existence of a tree be the outward expression of a fundamental "need" in the universe for an efficient, multifunctional carbon processing unit?

Sophisticated new investigative apparatus developed around the 16th century in the form of telescopes and microscopes suggested to their human operators that the world around us could be broken down into parts, and that we ourselves are unique entities that are distinctly separated from the environment in which we find ourselves. Galileo declared "*Measure what is measurable, and make measurable what is not so.*" That which could not be made measureable was granted an air of dubiousness, if not eliminated outright.

The scientific method (i.e., formulate a hypothesis; design and implement a controlled, objective experiment; analyze the result; repeat), however useful it may be for technical applications, was never really intended as an all-purpose standard to which social and philosophical principles should also be applied. Just because we cannot measure intuition, love, compassion, grief, or inspiration certainly does not mean that these things do not exist, or that they are somehow inferior to that which is tangible. Over the past 400 years as human culture has become increasingly industrialized, we have also become more compartmentalized. As we've come to put less value on the immeasurable, we've rationalized ourselves into a state of intolerance of the nuanced, the complex, the seemingly paradoxical. Things that could be taken as two sides of the same coin are instead viewed as diametrically opposed: independence vs. interdependence, art vs. science, religion vs. reason, classical vs. quantum physics; determinism vs. free will; left hemisphere of the brain (or political party) vs. right, etc.

Ironically, at the same time that scientific rationalism has come to dominate prevailing thought, science itself has taken a turn toward subtlety. With advances in quantum theory, we are moving into a strange new domain where things do not function according to the orderly and predictable rules that we have come to rely upon. Tests with subatomic particles are not only practically unrepeatable; they reveal that the very nature of our experiments makes objective observation impossible.

Fortunately there are many other ways to collect and interpret information about our reality. The ability to hold several seemingly contradictory views simultaneously; the willingness to cultivate, explore, and trust subtle sensory signals; the boldness and endurance required to set a course that defies the dominant paradigm – this is the domain of certain artists, poets, musicians, shamans, ecologists, permaculturists, philosophers, and others adept at seeing and feeling connections to the obscured dimensions and forces of nature that others neglect to notice.

Throughout history visionary practitioners from every field of human endeavor have felt compelled to share their particular mode of data processing. A few notable examples might include musician John Coltrane; conceptual artist, social-environmental activist Joseph Beuys; quantum physicist, philosopher David Bohm; writer, scientist Wolfgang Von Goethe; spiritual leader the Dalai Lama; inventor, futurist Buckminster Fuller; and poet Allen Ginsberg. Through their work, each of these individuals has given form to the otherwise ineffable. The products of their inspiration resonate in those who experience them – our senses know them to be true without analytical proof.

Goethe called investigation that involves a kind of connectedness to and empathic understanding of a subject *delicate empiricism*. Beuys believed that by becoming more attuned to the subtle forces of the ecosystems we inhabit we can rediscover innate aptitudes that will help us to mend ourselves, our communities, and the planet. He believed that it is the job of both shamans and artists to shake people out of ordinary, habitual states of mind and to reawaken latent faculties.

Even slight shifts in individual and collective values and intentions could quickly bring new sets of priorities into the mainstream, radically altering prevailing thought. Like a flock of starlings that moves in an elegant cloud of instinctive, constantly modulating cooperation, changes of mind can have an instantaneous ripple effect across an entire culture. When Beuys said *everyone is an artist* he implied that each of us is not only capable of accessing the same mysterious, improbable, constantly unfolding, infinitely creative phenomena – we *are* the phenomena. Each of us is an outcropping, an empathic agent of transformation, wired to receive, process, and transmit.

To hone one's connection with this font of supreme imagination, Allen Ginsberg prescribed this simple but profound experiment to aspiring creative practitioners: "*Notice what you notice.*" Like a single pebble out of thousands that catches our glance on the beach, the things we find ourselves aware of – and the state of awareness itself – these are the clues. Each of us is a receptor for a different part of the same sublime puzzle. Evidence is everywhere. The investigation never ends.

OBVIOUS INTERNATIONAL

MANIFESTO FOR THE OBVIOUS INTERNATIONAL⁴¹

With every passing moment, the exponentially-intensifying causes of the social, political, and ecological crises currently faced by peoples across the globe are becoming increasingly obvious; the wellbeing of all life on planet earth depends upon the immediate eradication of market-driven social structures that bolster the few at the expense of the many. The image of ourselves as separate – from one another, from nature, and from the havoc being wreaked – has reinforced the disastrously misguided impression that competition (as opposed to collaboration) and the quest for material wealth (as opposed to the cultivation of caring relationships) are not only prerequisites for fulfillment, but inevitable factors in the course of “evolution”.

Those of us who are members of the wealthiest, most technologically advanced (and often most exploitative) societies on earth can no longer afford to sit idly by, waiting for the catastrophes to run their course. Once we identify that which is founded on exploitation and avarice, we can begin to extract ourselves from these toxic systems and develop new approaches based on cooperation, empathy, and altruism. By engaging creatively and constructively in even the most seemingly mundane aspects of existence, each of us realizes the potential to become an active participant in the reimagining of every facet of civilization, in clarifying what it means to be *human*.

Like many philosophers before him, artist and self-described “social sculptor” Joseph Beuys posed the question “Before considering the question *WHAT CAN WE DO* we have to look into the question *HOW MUST WE THINK?*”⁴² By identifying the kind of thinking (individual and collective) that is shaping our situation (for better or for worse), we can begin to fundamentally and constructively recast it. Inner alterations in perception can lead to outward shifts in the structure of our relationships, society, and surroundings. But just as thinking differently leads to different actions, different actions can lead to different ways of thinking.

Convention-challenging artists, writers, musicians, permaculturists, philosophers, architects, and other creative practitioners are currently approaching the ills of our time from all sides. By cultivating an array of alternative visions and actions, we are subtly undermining and replacing cultural paradigms that define “success” based on quantity of material goods rather than quality of life. We are supplanting that which emphasizes division (between human and human, human and nature, mind and body, time and space) over interrelationship.

Drawing on art’s infinite possibilities, system-defying agents are re-humanizing, de-commodifying, and debunking all manner of contrived contraries by creating barter systems, cooperative workspaces, soup kitchens, food forests, and street libraries. In societies based on an ever-intensifying quest – not for peace, health, or contentment but for “progress” (broadly defined as the drive toward maximization of personal convenience, what social ecologist Murray Bookchin called “the fetishization of needs”⁴³) – strategies for existence that are participatory, inclusive, and non-hierarchical, and that encourage the sharing of skills, ideas, and resources (the maximization of *meaning*) are eminently subversive.

Beuys advised us to think first, but if critical thinking and appropriate action are not undertaken in a dynamic, harmonious fashion coupled with earnest consideration of underlying systemic causes, any remedies that may be derived will ultimately serve to temporarily assuage symptoms at best, or, at worst, divert attention away from authentic solutions while providing a false sense of effectiveness.

The most fruitful interventions will be ones that do not, inadvertently or intentionally, reinforce established destructive systems, but instead directly engage populations in acts of social transformation.

In philosophy, the collectively agreed upon definitions, symbols, styles, behaviors, ways of using language, and other factors that are held in common throughout a culture – assumptions about how things are “supposed to be” – are called the “*social imaginary*.” Whether it is “normal” to compete or cooperate, own property, go into debt, go to war, or go shopping is determined by a wide range of constantly-shifting factors, including the influence of our political, legal, and educational systems, corporate advertising, and the media...and various amalgams thereof. For the most part, the social imaginary is like a program that runs surreptitiously in the background – until we become consciously aware of it, we don’t tend to notice that our attitudes are being influenced by entities that may have a vested interest in them. When we fear our neighbor instead of loving him or her, industries that produce guns, fences, and alarms profit – we willingly give them our dollars in exchange for a strange kind of security indeed (does anyone remember the days when “security” meant having enough trust in those around

us to leave our doors unlocked?). The same happens when we buy into the illogical premise that it is “normal” to pursue endless economic growth based on finite resources that, if consumed, destroy planetary conditions that support life.

Changing what is “normal” in societies that are deeply influenced by corporate interests begins with rejection of forms of space (e.g., shopping malls, cloned fast food/coffee conglomerates, cubicle workspaces) and time (e.g., chronic busyness, obsessive scheduling, being “on the clock”) that reinforce behaviors and routines that alienate individuals from one another, from the development of a sense of connection to place, and from the clarity of mind that arises when we feel integrated and composed.

Philosopher Henri Lefebvre believed that the fundamental character of a society stems from the everyday habits of its people. Cultural change begins when customs change. As town squares and markets, inviting cafés, locally owned shops, pedestrian streets, and solidly constructed edifices are eradicated we succumb to a culture of the disposable, banal, isolated, and hurried, dispensed by short-sighted profiteers with little concern for enduring collective wellbeing.

Fortunately, the antidotes are obvious. We refuse to comply with those who would have us submit to a state of fearful isolation and frantic inability to think clearly, critically, and creatively. We do not allow our thoughts to be constrained by linear, commercialist clock-time, and we subvert it by realizing immeasurable, fluid, unstructured time that, infused with intention, flows via its own trajectory and with its own momentum (e.g., Parisian café culture of the 1920’s and 30’s, Black Mountain College 1933–1957, potlatch gatherings, jam sessions). By understanding the detrimental effects of prefabricated space, we can transform or avoid it to the greatest extent possible, and strive to create alternatives that provide inhabitants with deeper senses of connection to one another and to place (e.g., parks, camps, churches, locally-owned establishments, community gardens).

The Obvious International is an imaginary collective – one joins by imagining oneself a part of it. While the collective is imaginary, the relationships it generates and the results of its efforts are quite real – by re-thinking the meaning of evolution, humanity, progress; by reconsidering the meaning of *meaning* itself; and by living our lives according to what we find, we are setting a bold new course into the present. Each of us can start where we are, first by noticing, then by becoming practitioners of, the arts of the commonplace, the quotidian, the obvious.

This manifesto is intended to serve as a catalyst for further dialog and development of appropriate action. It is neither a starting point nor an end, but an articulation along a trajectory. This text is copyleft, share-ready, and open for

comment at obviousinternational.com. Plans, exchanges, designs, and modifications by collaborators are actively sought, collected, assimilated, and implemented.

OBVIOUS PRECEPTS-IN-PROGRESS:

1. Paradoxes exist everywhere.

By embracing paradox, we acknowledge the human capacity to perceive subtlety and nuance, and we recognize the speciousness of habitual compartmentalization and dualistic thinking. We may *feel* separate from nature, but in fact we are both separate and interconnected. We are individuals *and* members of a society, not either/or. Thought and action are not isolated functions; they are two facets of an intricate, dynamic process.

2. All is in flux.

When we appreciate that nothing is truly static or linear we gain a sense of the astonishing complexity of being. By embracing the idea that everything, including information, is in a constant state of refinement or modification, it becomes clear that conventional forms of communication that require one isolated viewpoint to prevail above another may hinder perception of subtle connections that exist within seeming contradiction. The dialectician's goal is not to "win" a debate, but instead to pool and analyze knowledge in order to gain a deeper, more holistic understanding of a situation.

3. Culture is in the quotidian.

To change what is normal, we must recraft the commonplace. We must cultivate reverence for and awe at everyday phenomena including air (breathing), hearing, seeing, digestion, flora, fauna, caring, clouds, stars, and the sun. By paying attention to the details of everyday existence (the ways we experience both space and time), we can influence its effect on ourselves and our communities.

This is a dynamic participatory occasion.

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