Metàfora Studio Arts

Barcelona, Spain

CONSCIOUS MATTER

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May 2023

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The modern West¹ has historically structured itself around an institutional framework designed to distort, or at least significantly limit, the full nature of reality. Driven by survival instincts, we have geared our collective mindset toward rationality and practicality, grounded upon a base of perception that favors competitive advantage over broad comprehension and awareness. Instead of synthesizing a shared understanding, we have siloed knowledge, separating science from philosophy and disregarding the fact that the two may be beneficially entwined, that one may provide a scaffolding for the other. Intuition and reason are perceived as opposite and opposing, ignoring the potential benefits of collaboration between the two mind-states. But as Carl Sagan asserted, "The notion that science and spirituality are somehow mutually exclusive does a disservice to both." While our limited human capacities may always restrict our ability to comprehend even a fraction of reality. I pose that only by employing both sides of our brain, the intuitive as well as the rational, can we achieve our full potential to better understand the nature of existence.

Humans are unlikely to be intellectually capable of perceiving more than slivers of the vast universe, or universes, that hold us and whose laws apparently dictate our behavior and that of the physical objects with which we share existence. "The human mind," said Einstein, "no matter how highly trained, cannot grasp the universe. We are in the position of a little child, entering a huge library whose walls are covered to the ceiling with books in many different tongues. The child knows that someone must have written those books. It does not know who or how. It does not understand the languages in which they are written. The child notes a definite plan in the arrangement of the books, a mysterious order, which it does not comprehend, but only dimly suspects."

¹Referring broadly here to Europe from approximately 1500, the United States from its founding to the present, and those cultures (or cultural subsets) that have assimilated the institutions, techniques and values of these civilizations; those countries with democratic and capitalist governments. Given the porosity of boundaries due to advances in travel and technology, stark divisions rarely hold up in modern cultural discourse. However, I am alluding in this case to the "Western" values that pervade much of our society and in fact have been adopted in some manner by much of the world, particularly as they pertain to research, development, resource allocation, and societal structure.

I saw no Way—The Heavens were stitched— I felt the Columns close— The Earth reversed her Hemispheres— I touched the Universe— And back it slid—and I alone— A Speck upon a Ball— Went out upon Circumference— Beyond the Dip of Bell—

- Emily Dickinson

Dark matter comprises at least twenty-seven percent of the known universe, but we know it exists only because we see its effect on those objects that are within our frames of perception. We have yet to come anywhere near a Grand Unified Theory (also described as the Theory of Everything), an overarching framework that would explain the physics of the entire universe in a single equation, the Holy Grail of science. And in fact, the more we learn about quantum mechanics, the more even Einstein's Theory of Relativity seems to crumble. The Standard Model of particle physics appears to explain the properties of matter, but it doesn't explain gravity. So our ability to understand the whole of reality certainly does appear to be severely limited by our own sensory and mental capabilities. And yet, mystics and Eastern philosophies have for centuries maintained that within our selves lie all the answers to life's questions. The non-dual nature of some Buddhist and Eastern philosophies extends beyond the hominid realm, insisting that there is actually no separation between that which is human and non-human, and in fact there is no separation between anything that exists, all are One. Says Tibetan Master Kalu Rinpoche, "We live in illusion and the appearance of things. There is a reality. We are that reality. When you understand this, you see that you are nothing, and being nothing, you are everything. That is all."

My artistic practice resides in the bridge between these two modalities - between intuition and critical thinking, between science and subconscious. My work is largely conceptual in nature, using

multidisciplinary methods and approaches to investigate and interpret the intersections between matter and consciousness. Referencing my background in environmental science, I employ basic principles of theoretical physics and biology, neuroscience and philosophy, as well as innate knowledge and heightened awareness, to explore consciousness, the immateriality of objects, and their potential agency.

BEYOND THE HUMAN REALM

As evidenced by the proliferation of recently-published mainstream books on the topic, the idea that other species may have consciousness is becoming increasingly accepted, or is at least being seriously considered, not only in the scientific community but also among some of the general population. There is an emerging scientific consensus that strong evidence exists which supports the attribution of some form of consciousness to other mammals, birds, and at least some cephalopod molluscs (octopuses, squid, cuttlefish). Of course, there exists the tricky issue of agreeing upon a definition of consciousness, which varies widely. For our purposes here, I will be referring to "phenomenal consciousness," or the idea that it might be like something to be a thing, as was famously posited by Thomas Nagel in his 1974 essay, "What is it Like to Be a Bat?" The fact that consciousness is not publicly observable, especially among species who are unable to communicate abstract ideas, makes it almost impossible to confirm for certain. And the extensive variation among animal species makes it difficult to rank and compare levels of consciousness, given that each species will likely have a distinctive "consciousness profile." (In 1909, biologist Jakob von Uexkull coined the fantastic word umwelt to refer to this differentiation of experience based on a wide variety of factors, including physiological makeup, mental capacity, and historical experience.) But the evidence that many animals almost certainly experience pain is convincing, including crabs and lobsters, who release a hormone very similar to our own cortisol when injured or removed from water, as well as prawns, who will stop limping and rubbing their wounds when given painkillers. Many primates consistently recognize

themselves in a mirror, and crows both demonstrate episodic memory and make tools, among a multitude of other examples.

Furthermore, rigorous, repeated studies have revealed that plants have the capacity to integrate sources of information, make decisions, and retain sufficient memory to perform predictive modeling. There is compelling evidence that plants may have the structure and capacity to form some level of basic consciousness, including the discovery that electrical impulses similar to those transmitted in the neurons of complex vertebrates are evident in plants. Scientists are just beginning to map the vast mycorrhizal networks shared by plants belowground, comprising elaborate systems of fungi that transfer nutrients and water, and potentially information, between individual plants. Ecologist Suzanne Simard's forest ecology research has found that Doulas fir "mother trees" are able to distinguish between their own offspring and the seedling of a neighboring tree, sending their kin more carbon belowground and reducing root competition by making space in the soil for their young. Pea tendrils, when stimulated in the dark, will store the "memory" of the stimulation until they have a light source and can make the decision to grow either straight or coiled. Plants that are exposed to certain sound vibrations have demonstrated increased immune responses, and growth rate and biomass consistently increase when some plants are in the presence of harmonious flute and violin music.

BEYOND THE ANIMATE

We might even entertain the idea of extending consciousness to inanimate objects. While it may demand a large mental leap to consider the prospect of panpsychism, both philosophical and physical evidence exists which suggests that inanimate or "unliving" things may have some level of consciousness as well as living things. Again, by consciousness I am not referring to self awareness, which is probably based on the sophistication of an advanced neurological system even among living things. Panpsychism (which arguably suffers from its hocus-pocus sounding terminology) is *not* animism (the view that all things possess a fully-developed, intelligent, and complex conscious-like spirit), nor is it hylozoism (the idea that everything is alive) nor pantheism (the insistence that everything is God). Rather, panpsychism simply raises the possibility that it may in fact "be something" to be a grain of sand, an atom, or even a quark, that they may have some level of phenomenal consciousness.

"Mirror"

I am silver and exact. I have no preconceptions. Whatever I see I swallow immediately Just as it is, unmisted by love or dislike. I am not cruel, only truthful, The eye of a little god, four-cornered. Most of the time I meditate on the opposite wall. It is pink, with speckles. I have looked at it so long I think it is part of my heart. But it flickers. Faces and darkness separate us over and over.

Now I am a lake. A woman bends over me, Searching my reaches for what she really is. Then she turns to those liars, the candles or the moon. I see her back, and reflect it faithfully. She rewards me with tears and an agitation of hands. I am important to her. She comes and goes. Each morning it is her face that replaces the darkness. In me she has drowned a young girl, and in me an old woman Rises toward her day after day, like a terrible fish.

- Sylvia Plath

This seemingly radical idea that within everything there may exist a mind of a sort (differentiated from a brain) does actually seem to have some merit if one is willing to open one's own mind and consider the evidence. After all, the idea that humans descended from apes, or that time slows down at high speeds, or even that the earth is round, were all considered crazy ideas among the mainstream when they were first suggested as possibilities.

At its most basic level, panpsychism is arguably the most elegant answer to the question of consciousness. David Chalmer coined the phrase the "hard problem of consciousness," asking namely where it arises and how subjective experience arises from objective brain activity. (The "easy" problems of consciousness are not in fact easy at all, but they could presumably eventually be solved using the current scientific method to establish how the physical processes of the brain work.) But might the problem be neatly solved by non-emergence? In other words, perhaps consciousness does not actually arise at all, but exists at every constituent level. It may be that we are looking at the problem from the wrong point of view. We assume that matter is fundamental, but what if consciousness is primary instead? The renowned theoretical physicist Max Planck, when asked if consciousness can be explained in terms of matter and its laws, said "No. I regard consciousness as fundamental and matter as derived from consciousness."

And if phenomenal consciousness exists at every level, matter might not be simply material, or more specifically may extend beyond the purely material and even may be contained within the non-material, by consciousness itself. As astrophysicist Adam Frank posed, "We must entertain the radical possibility that some rudimentary form of consciousness must be added to the list of things such as mass and electric charge that the world is built on."

MATTER AND IDENTITY

As one continues to question the nature of matter and of consciousness, one cannot help but also question the nature of identity and identification. We are all, tritely, the stuff of stars. Every atom that currently exists in the observable universe was present at the Big Bang, and we and everything we know are in constant states of change, evolving and degrading to change form. For as the law of conservation of mass states, mass can neither be created nor destroyed, although it may be rearranged in space, or the entities associated with it may be changed in form. The Ship of Theseus paradox poses the question of whether a ship remains the same entity as its disintegrating boards are replaced with new ones. If eventually the entire collection of materials making up the ship has been replaced, is it still the same ship? At what point does a holey sock cease to be itself? After one hole? After ten? When it no longer has a heel, or toe? Or when it ceases to become useful to its human owner? What if it then becomes a puppet, or a rag, does it still retain its "sockness"?

Where so many millions of powerful bawling beasts lay down on the earth and died it's hard to tell now what's bone, and what merely was once.

The golden eagle for instance has a bit of heaviness in him; moreover the huge barns seem ready, sometimes, to ramble off toward deeper grass.

- Mary Oliver

Less than half of the human body is actually "human" - the rest are made up of microbial cells, including bacteria, viruses and fungi. When measured in terms of genetics rather than cells, our human component shrinks toward irrelevance. There are 2 to 20 billion microbial genes in human bodies, compared to only 20,000 human genes, making us one percent human at best. Even those cells which are patently "human" regenerate rapidly, resulting in a human body composed of cells which are, on average, much younger than the age of the human itself. Using radiocarbon analysis, Jonas Frisen famously estimated that the average age of a cell in the human body is between seven and ten years old. However, he and his colleagues found that the average age of cells in our brain's cerebellum gray matter is approximately only two years younger than an individual's age, and cells that make up the central core of the lens of a human eye persist from their genesis during embryonic development to their demise at the individual's death.

We are dust and to dust return. In the end we're neither air, nor fire, nor water, just dirt, neither more nor less, just dirt, and maybe some yellow flowers.

- Pablo Neruda

So from a material standpoint, it's difficult to define a human at all. Could it be possible that our lasting "selves" reside merely in the part of our brain, just a few millimeters thick, that serves to process information, and in our most developed sense organ, the eye? Are our "selves" outside of our apparently boundaried body, or within every cell?

VITAL OBJECTS

We are still looking, however, through a decidedly anthropocentric lens. Post-Kantian Speculative Realists such as Graham Harman and Quentin Meillassoux suggest that we extend our thinking beyond ourselves and even our "point of view" and consider possible realities outside the human realm. A rejection of correlationism - the idea that things exist only according to the effects they have on humans - allows for an acceptance of a world that subsists and has meaning, in and for itself, independently of human beings. Since Galileo's radical declaration in 1610, we have understood that we are emphatically not the center of the universe. Now, according to our current understanding, we recognize that we are not even remotely a significant part of all that exists. As Bill Nye (the "Science Guy") so eloquently says, "We are a speck on a speck, orbiting a speck in a corner of a speck, in the middle of nowhere."

Even within our present space and time orientation (assuming space and time are not merely human constructs, which they well may be), we probably don't hold a prioritized position. Objects, according to Harman's Object-Oriented Ontology (OOO), exist separately from human perception, and further, they tend to "withdraw" from all direct contact, or even perception, both human and non-human. His ontology is flat - every thing that exists does so on its own footing - and therefore non-hierarchical. (However, Harman does make the point that his interpretation of a flat ontology means that "all objects are equally objects, not that all objects are equally dignified or valuable. Ontological equality does not mean political or moral equality.")

Jane Bennett, in her book, "Vibrant Matter" posits that the "quarantines of matter and life encourage us to ignore the vitality of matter and the lively powers of material formations." Objects, she suggests, have agency, "such as the way omega-3 fatty acids can alter human moods or the way our trash is not 'away' in landfills but generating lively streams of chemicals and volatile winds of methane" that have profound effects on humans and the environments in which we live. Of course, the prospects of "vibrant matter" and panpsychism have profound moral implications for how we consider the world around us. "How might our patterns of consumption change," asks Bennett, "if we faced not litter, rubbish, trash, or 'the recycling,' but an accumulating pile of lively and potentially dangerous matter?"

As humans, we perceive only those elements of the world whose qualities we attribute to being material. But that which we consider solid matter is actually largely empty space - electrons swarming around the nuclei of atoms with vast relative distances between them. Again, we are seeing only a sliver of the whole truth based on our limited sensory and intellectual abilities. However, while our powers of perception may be limited, we humans inarguably have a remarkable capacity to manipulate atoms and molecules, to accelerate and influence states of change. We combine elements to make new metals, glass, and plastics, all with new properties. The latter are a heavily manipulated combination of polymers, engineered to degrade slowly - so slowly in fact that some take more than 500 years to decompose (a misleading term in itself, as plastics may never break completely down atomically, they simply become microscopically smaller). Up until this point, our collective focus has been one-directional: how might we manipulate objects to suit our will and our needs? Things become much more complex if we turn that question around and ask if perhaps objects might manipulate us, not intentionally per se, but with at least some level of agency.

As the British philosopher F. S. C. Schiller stated: "A stone, no doubt, does not apprehend us as spiritual beings... But does this amount to saying that it does not apprehend us at all, and takes no note whatever of our existence? Not at all; it is aware of us and affected by us on the plane on which its own existence is passed... It faithfully exercises all the physical functions, and influences us by so doing. It gravitates and resists pressure, and obstructs...[vibrates], and so forth, and makes itself respected as such a body. And it treats us as if of a like nature with itself, on the level of its understanding."

Your great mistake is to act the drama as if you were alone. As if life were a progressive and cunning crime with no witness to the tiny hidden transgressions. To feel abandoned is to deny the intimacy of your surroundings. Surely, even you, at times, have felt the grand array; the swelling presence, and the chorus, crowding out your solo voice. You must note the way the soap dish enables you, or the window latch grants you freedom. Alertness is the hidden discipline of familiarity. The stairs are your mentor of things to come, the doors have always been there to frighten you and invite you, and the tiny speaker in the phone is your dream-ladder to divinity.

Put down the weight of your aloneness and ease into the conversation. The kettle is singing even as it pours you a drink, the cooking pots have left their arrogant aloofness and seen the good in you at last. All the birds and creatures of the world are unutterably themselves. Everything is waiting for you. A more unnerving contemplation might be how we consider AI within the possibility that consciousness could be fundamental. David Chalmers, in exploring the "hard question of consciousness," posed a thought experiment termed the "philosophical zombie" whereby a being might be physically identical to a human but possess no consciousness or qualia. When the question was posed in the mid-1970s it seemed outlandish to many; today it feels eerily prescient. If consciousness is fundamental and everything has some basic qualia, then language systems ("chat bots") with advanced processing capabilities might conceivably even be capable of acquiring a human-like self awareness.

But of course, consideration of physical "non-animate" objects as having some sort of force or power is not new. Native American and other indigenous traditions throughout the globe have long centered around the idea that the Earth and her elements contain a life force.

"To our indigenous ancestors," explains David Abram, "and to the many aboriginal peoples who still hold fast to their oral traditions, language is less a human possession than it is a property of the animate earth itself, an expressive, telluric power in which we, along with the coyotes and the crickets, all participate... Nor is this power restricted solely to animals. The whispered hush of the uncut grasses at dawn, the plaintive moan of trunks rubbing against one another in the deep woods, or the laughter of birch leaves as the wind gusts through their branches all bear a thicket of many-layered meanings for those who listen carefully."

Environmental activist John Seed invites us to ponder that "the distinction between life and lifeless is a human construct. Every atom in this body existed before organic life emerged 4000 million years ago. Remember our childhood as minerals, as lava, as rocks? Rocks contain the potentiality to weave themselves into such stuff as this. We are the rocks dancing. Why do we look down on them with such a condescending air? It is they that are an immortal part of us."

FRONTIERS AND FILAMENTS

As physicists, biologists, and mathematicians continue to unlock mysteries of the universe and push forward the frontiers of knowledge, we remain bound as a species by the limits of our understanding. But there are filaments woven by artists, poets and musicians who have managed to string a thread to that which is unreachable by any other means. "The poet," says David Whyte, "lives and writes at the frontier between deep internal experience and the revelations of the outer world."

The Dalai Lama, famously a supporter of the modern scientific method, states "Buddhism and science are not conflicting perspectives on the world, but rather differing approaches to the same end: seeking the truth." The same might be said of art, which offers a way to search for insight beyond our usual realm of understanding, shedding light on that which escapes normal discourse. Questions surrounding the nature of consciousness and reality may best be posed, not only by scientists and academic philosophers, but also by those creative souls employing imagination and intuition to investigate life's mysteries - by poets, artists and musicians who dare to entertain the illogical, the absurd and the unthinkable.

There is of course an inherent hubris in even attempting to create art. Not only must artists engage in the conversations carried forward over millennia, but we must find faith in our abilities to discover, distinguish, extract, and uncover mysteries and truths in order to even venture to translate our understanding, which is fundamentally limited - telling Picasso's lie to realize the truth.

"Art is a lie that makes us realize truth, at least the truth that is given us to understand. The artist must know the manner whereby to convince others of the truthfulness of his lies."

EXPLORATIONS AND INVESTIGATIONS

My artistic practice is an extended investigation into the nature of consciousness and matter and how both connect with, or perhaps even form, the fabric of reality. Working collaboratively with objects, I reimagine their function and challenge both the subject-object divide as well as the illusion of creative authorship. In a world gone mad with rampant manufacturing and overconsumption, I initiate discourse about our human relationship to objects, cycles of physical change, and the interconnectedness between the natural, material and immaterial world.

In a 2020 piece entitled "The world is a continuous restless swarming of things,"² I explore how value is assigned to material things, not just as artistic objects but intrinsically. Photographs taken of kitchen floor sweepings from a remote farmhouse in Spain's Costa Brava during the COVID-19 lockdown contain not only an archival record of a singular time, but also celebrate matter in all its forms. The photographs of rubbish unexpectedly resemble celestial bodies, referencing the early stars that manufactured the atoms in our bodies, and in all matter, and which were then dispersed in explosions across our galaxy. We are connected to all the molecules on Earth and to all the atoms in the Universe, and we are performing, along with everything else we know, an intricate dance of degradation and regeneration - continuously shifting, morphing, and altering states in an almost infinite variety of combinations. Treasures become trash, and trash become treasures as matter changes form to become new entities containing vast histories ultimately entangled with everything else. Therefore, a diamond holds no more value, on a celestial scale, than a broken piece of glass. Human constructs assign worth to certain objects over others, but at the macro level everything is one and the same.

² The world is a continuous restless swarming of things refers to a quote by physicist Carlo Rovelli in his book "Seven Brief Lessons on Physics", in which he states: "Quantum mechanics and experiments with particles have taught us that the world is a continuous, restless swarming of things, a continuous coming to light and disappearance of ephemeral entities. A set of vibrations... A world of happenings, not of things."

In 2021, during a show at Homesession Gallery, Philip Huber and I conducted a "Plant Zoom" in which we held a video conference call between twenty-four plants from fifteen countries around the world. Only those from the Kingdom Plantae participated, though a stray human or cat did occasionally pass by in the background. Through apparent humor, the work posed questions about how plants might interpret signs, about what sort of interference or environmental factors might hinder that interpretation, and about our own methods of communication, particularly during a time when Zoom calls became a major source of connection for humans.

But while the Zoom call was the main focus, under the staircase of the gallery was a tiny installation of objects, almost hidden from most viewers. Only the most perceptive people noticed it, but for those who did, the piece again provoked questions around the concept of the elemental value and about how placement affects perception.

Another work, "The Red String Incident" (2022), consists of a written narrative describing an adventure told from the point of view of a string that had been unwound (and rewound) through Barcelona's Sants neighborhood. A reference to Kafka's Odradek ("The Cares of a Family Man"), the story provided a vehicle by which to consider the string as more than a static object, to imagine it as a dynamic being for which it is something to be itself.

My most recent work continues to examine the potential agency of objects, incorporating elements of panpsychism, vital materialism, Object Oriented Ontology (OOO), and the idea that objects occupy spaces outside and beyond human perception. Jane Bennett suggests that objects "call out" to those whose senses are attuned enough to listen, and my work is an extended personal exploration of this idea. I activate a heightened awareness to matter's vitality, opening myself to the "voices" of objects, particularly those most frequently overlooked, and collecting those bits on the street that grab my attention and "demand" to be picked up. I listen to objects, or rather I sense them. I open my attention to those items that most humans would consider trash - not shiny "new" things, but instead those

more muted objects that have been discarded by humans, items in various states of decay on their way to becoming something else - as are we and everything we know. I'm most interested in those objects that were disposed of carelessly - small, pocket-sized items that were dropped or lost, not even intentionally thrown away. Are any of these objects missed by their previous "owner"? Which ones? Do the objects themselves respond in any way to having been lost? These are the objects which have fallen to the lowest caste on the scale of human value, completely disregarded by most. At one point they almost all had a purpose, a role to play within the human world; now they are "living" their own lives.

So I pick up a dozen or so small bits of trash off streets and sidewalks every day, not as a gesture of community service, but as a communion. Having done this for years, I now have piles of precious, semi-organized rubbish. They link me to my neighborhood, my adopted and inherent cultures, my fellow humans. They mark time. They carry stories of the people who once "owned" them, but also their own stories. They dictate visual poetry, and I become something of a translator, a collaborator, a conduit to a potential reality outside our normal frames of human perception.

"Reciprocity," says David Abram, "is the very structure of perception. We experience the sensuous world only by rendering ourselves vulnerable to that world. Sensory perception is this ongoing interweavement: the terrain enters into us only to the extent that we allow ourselves to be taken up within that terrain."

In a 2022 installation entitled "The fallacy of misplaced concreteness,"³ I extended the dialogue with "my" collected items, arranging them according to how they "wanted" to be placed and in relationships

³ The fallacy of misplaced concreteness is an idea formulated by Alfred Whitehead in his book Process and Reality (1929), and refers to the error of mistaking the abstract for the concrete. Whitehead explains the fallacy in a discussion on the spatial location of objects. He states that a concrete physical object in the universe does not possess the character of simple location without reference to its relations to other objects, and to think of a spatial point as being anything other than an abstraction is a mistake. In other words, people tend to mistake abstract concepts for accurate descriptions of reality.

to each other which they "suggested" (or sometimes "dictated"). Upon entering the space, visitors were initially greeted by what was apparently an empty white room; only upon further investigation did they notice that dozens of small found object "sculptures" were occupying positions in corners, on rafters, and in small crevices throughout the space. Some were more noticeable than others but all required that those experiencing the installation heighten their own awareness of objects and shift their perception beyond the traditional visual gaze of most art viewers. Or, as Scottish artist Martin Creed says of his work, they became "exercises in awareness, using commonplace materials and minimal intervention to draw to our attention things that we might otherwise overlook."

Most recently, I have begun to build suspended sculptures to create, in my usual collaborative process with objects, physical manifestations of the balance between dying and becoming. By physically capturing the dynamic nature of change, the works propel the discarded objects from a state of decay to a state of vitality, or somewhere in between the two. Cornelia Parker, the British installation artist whose work includes "Cold Dark Matter: An Exploded View" and "Anti-Mass", explains that as objects are suspended, they lose their "aura of death and appear reanimated, in limbo." Suspended, the sculptural forms become totemic, representing the bridges and the intersections between life and death, where everything resides.

I should note that I acknowledge the potential inherent conflict in recognizing objects as having autonomous meaning outside and beyond the human and then interacting artistically with them at all, even in cooperation. However, even Graham Harman, the "Father of OOO," insists that "A work of art needs a beholder. I do not believe that there is such a thing as art without humans," he says, "or at least there can be no human art without humans. Perhaps dolphins and parrots have a sophisticated form of aesthetic experience, but what we call art needs humans as a catalyst. The artwork itself is always deeper than whatever the beholder or the spectator sees of it. In the end, an artwork is not a physical thing lying outside of us, but a compound entity made up of the artwork and us." But I believe that art can be created purely for its own sake. Some of my work remains almost invisible. Almost everywhere I go, I create what I call "whispers" - visual conversations with objects, which remain tucked into corners, under ledges, in doorways. They are a daily practice, a ritual, created as much for the objects themselves as for any human viewer - or perhaps more accurately, I create them for nobody, for nothing, and thus for everything.

It is a radical act, in a world of media exposure, of Instagram and Pinterest, *not* to call out for attention, to create art that does not demand immediately to be seen - not work expressly intending to hide or conceal, but rather to suggest that one look more carefully. Moreover, I am not saying that we should all fade into the background, only that the background itself is rich. In some ways, it becomes an issue of limited space. We cannot all be gigantic, but everything is precious in its own right. And perhaps those things which are initially disregarded play a much larger role in the grander scheme than is immediately apparent.

Allen, C., Trestman, M. "Animal Consciousness", The Stanford Encyclopedia of Philosophy, Summer 2023 Edition

Bennett, J. Vibrant Matter: a Political Ecology of Things. Duke University Press, 2010.

Birch, J., Schnell, A., Clayton, N. *Dimensions of Animal Consciousness.* Trends in Cognitive Sciences, <u>Volume 24, Issue 10</u>, October 2020, Pages 789-801

Calvo, P. "What is it like to be a plant?", Journal of Consciousness Studies 24, 205-227, 2017

Carruthers, P. Human and Animal Minds: The Consciousness Question Laid to Rest, Oxford University Press, 2020

Chalmers, D. The Conscious Mind. Oxford University Press, 1996

Choi B, Ghosh R, Gururani MA, Shanmugam G, Jeon J, Kim J, Park SC, Jeong MJ, Han KH, Bae DW, Bae H. Positive regulatory role of sound vibration treatment in Arabidopsis thaliana against Botrytis cinerea infection. Sci Rep. 2017 May 30;7(1):2527. doi: 10.1038/s41598-017-02556-9. PMID: 28559545; PMCID: PMC5449397.

Dawson, S. *Creatures from the Black Lagoon: Lessons in the Diversity and Evolution of Eukaryotes.* https://ucmp.berkeley.edu/education/events/eukevol.html

Foundations of Tibetan Buddhism, Snow Lion Publications, 2004

Goff, Philip, William Seager, and Sean Allen-Hermanson, "Panpsychism", *The Stanford Encyclopedia* of *Philosophy* (Summer 2022 Edition), Edward N. Zalta (ed.), URL = https://plato.stanford.edu/archives/sum2022/entries/panpsychism Griffin, D. R. 1998. Unsnarling the World Knot. Berkeley, CA: University of California Press.

Harris, Annaka. Conscious. Harper, 2019.

Knight R, Callewaert C, Marotz C, Hyde ER, Debelius JW, McDonald D, Sogin ML. *The microbiome and human biology*. Annual Review of Genomics and Human Genetics. 2017;18(1):65–86.

Michael R, Bron AJ. *The ageing lens and cataract: a model of normal and pathological ageing*. Philos Trans R Soc Lond B Biol Sci. 2011 Apr 27;366(1568):1278-92. doi: 10.1098/rstb.2010.0300. PMID: 21402586; PMCID: PMC3061107.

Nagel, T. Mortal Questions. Cambridge: Cambridge University Press, 1979

PCA-Stream, https://www.pca-stream.com/en/articles/graham-harman-for-a-thought-of-objects-89

Schiller, F. Studies in Humanism. New York: Macmillan, 1907

Seager, W. "Consciousness, Information, and Panpsychism." Journal of Consciousness Studies, 2(3), 1995

Spalding, Kirsty L.; Bhardwaj, Ratan D.; Druid, Henrik; and Frisén, Jonas. *Retrospective birth dating of cells in humans*. Cell, Vol. 122, 133–143, July 15, 2005.

Strawson, G. et al. *Consciousness and its Place in Nature: Does Physicalism entail Panpsychism?* Exeter, UK: Imprint Academic, 2006.

Turnbaugh PJ, Ley RE, Hamady M, Fraser-Liggett CM, Knight R, Gordon JI. *The human microbiome project*. Nature. 2007;449(7164):804–810.