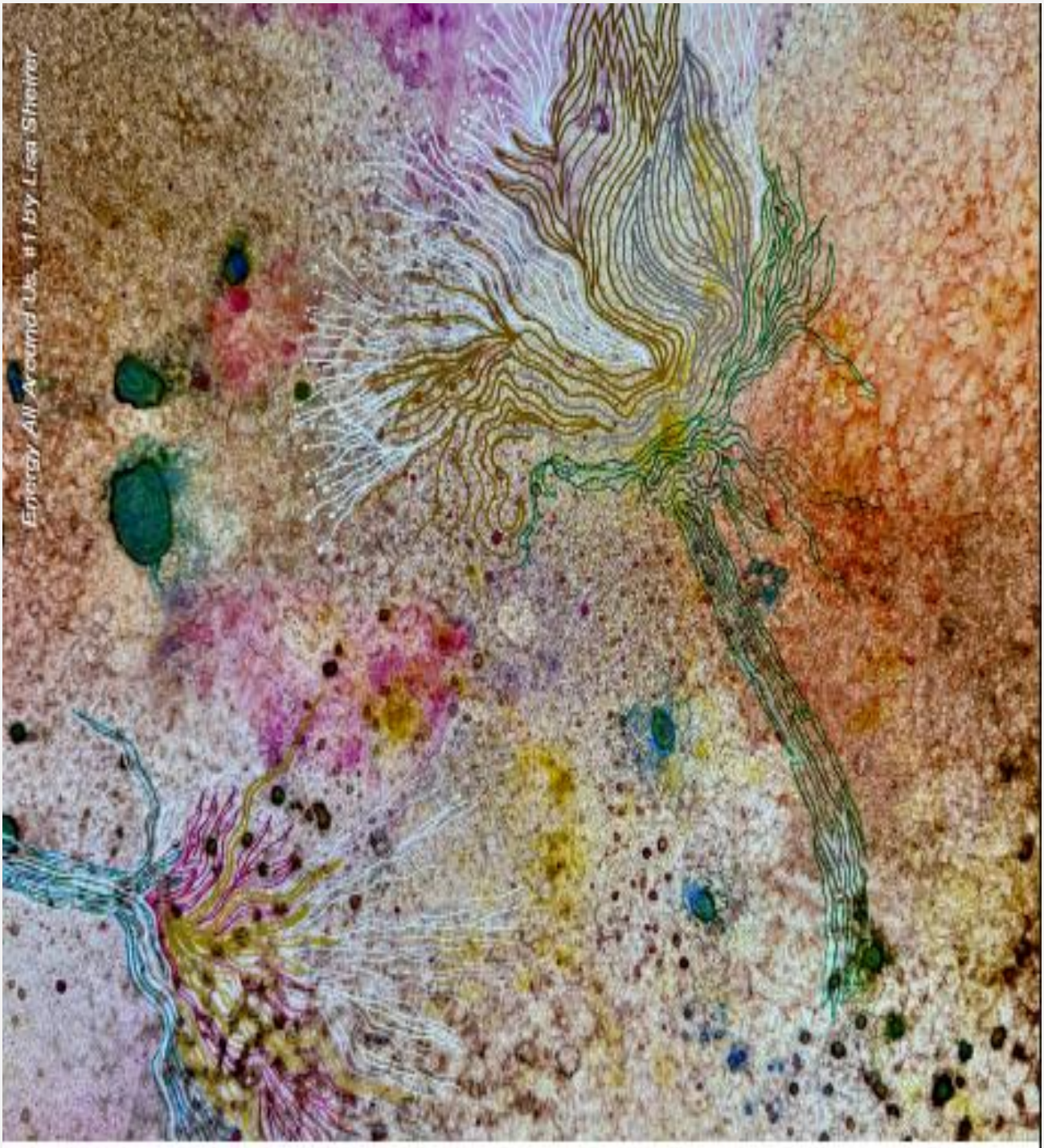
Catalogue



WHERE ENERGY MEETS MATTER

Exploring the Frontiers of Science

NOV 20, 2025 – JAN 20, 2026

FAC Frederick Arts Council

50 Years

Frederick National Laboratory for Cancer Research

“Where Energy Meets Matter: Exploring the Frontiers of Science”

Nov. 20, 2025

Presented by the Frederick Arts Council

In Partnership with the Frederick National Laboratory for Cancer Research, sponsored by the National Cancer Institute

“We look at the world once in childhood, the rest is memory,” writes the poet Louise Gluck. Unless of course you are an artist or a scientist who continues to make discoveries each day, exploring into adulthood, figuring out what the world is like.

The show “Where Energy Meets Matter: Exploring the Frontiers of Science” features creations by both artists and scientists who show curiosity and courage to explore across disciplines, topics and training—perhaps inspiring the rest of us to do the same.

The show includes artwork by a broad range of creators—scientists who are poetic; researchers who became artists; artists who conduct mathematical and botanical investigations—all with the common denominator of pursuing a better understanding of how the world works.

The show includes work by a MacArthur Fellowship Winner (called the Genius Grant); the youngest professor ever hired at MIT at the age of 20; a Nobel Prize winner; a new artist/naturalist; a research team based in Italy; two Frederick artists recently returned from Italy; a British artist; a New Yorker photographer; a quilt maker; a science team that uses videography—all who share the spark to learn, understand, express and convey their perceptions of the world.

Too often we remain in our specific fields without the benefit of interdisciplinary approaches that could spark breakthroughs.

This show serves as a catalyst to help ask questions across fields—does a depiction of starling murmuration provoke reflections on whether humans can

act as one; could origami solve complex mathematical problems; do depictions of the “Souls of Flowers” spark thoughts about the connections between plants, animals and people, suggesting a shared consciousness, connected energy, and links to infinity.

In this show, we hope to break down barriers and create an experience of art and science akin to jazz wherein thoughts and feelings can be improvised, in dialogue with one another, with the individual reactions and elements resulting in a greater whole of understanding and perception and even spurring new branches of inquiry.

Science is more important than ever when you consider the challenges of climate change, cancer, global pandemics, and technology developing faster than our bodies can keep up. And in science we often see pain-staking care and quiet iterative progress not well enough understood let alone appreciated. We also see collaborations of people working together in project teams of as many as 300 people across the world which is a model that more fields can benefit from.

In turn, art can help raise the profile of science and offer new approaches, insights, and points of departure. In art we more often hear from the individual voice, able to take risks, chart new territory, be radical, point in new directions, and offer new perceptions that can inspire and inform scientists and the rest of the world.

“Where Energy Meets Matter” shows an integration of the arts and sciences and celebrates learning and scientific inquiry that leads to solving the world’s most intractable challenges and it celebrates learning for its own sake, and is rooted in curiosity and joy which is the best of all engines for developing knowledge and fresh inquiry. We can all be more like artist/scientists and scientist/artists since we were all born to be curious, to create, to learn, to understand, and to try to survive.

Curatorial Statement by Louise Kennelly

Executive Director of the Frederick Arts Council (FAC)

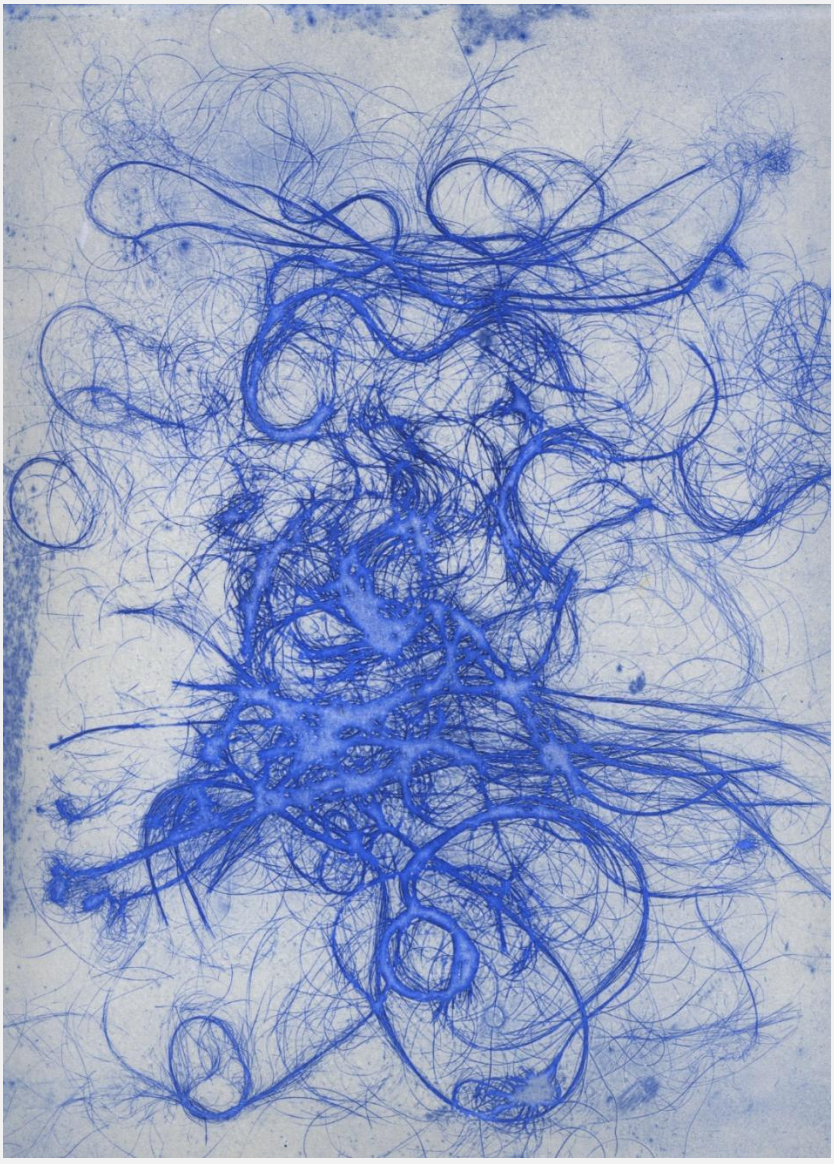
Thank you to the Curatorial Review Committee: Magdalena Scully, Thomas Turbyville, Paula Rubin-Wexler

Thank you to Leidos Biomedical, NIH/NCI and to the FNLCR/ATRF team who brought this exhibit to life, including Ethan Dmitrovsky, Magdalena Scully, Anne Gill, Victoria Brun, Jacqueleen Jordan, and Charles Hoffsommer.

Thank you to the FAC team for their dedication and expertise including Gabriella Smith and David Dooley.

This exhibit is in two locations: YMCA Ausherman Arts Center at 115 East Church St which is open to the public and the Advanced Technology Research Center.

Susan Aldworth (born 1955) has a background in philosophy, and a strong interest in investigating the workings of the human mind, especially consciousness and our sense of self. Her work on the relationship between the physical brain and our sense of identity has linked her with the Art & Science movement in the UK since the late 1990s, and she is an associate lecturer on the MA Art & Science at Central St Martins. Her work is held in many public and private collections including the V&A, the British Museum, The Fitzwilliam Museum, the British Library and The Wellcome Collection Library in the UK, and Williams College Museum of Art in the USA. Aldworth has exhibited widely both nationally and internationally. Aldworth is represented by TAG Fine Art, and is a regular presenter on BBC Radio 3 and 4.



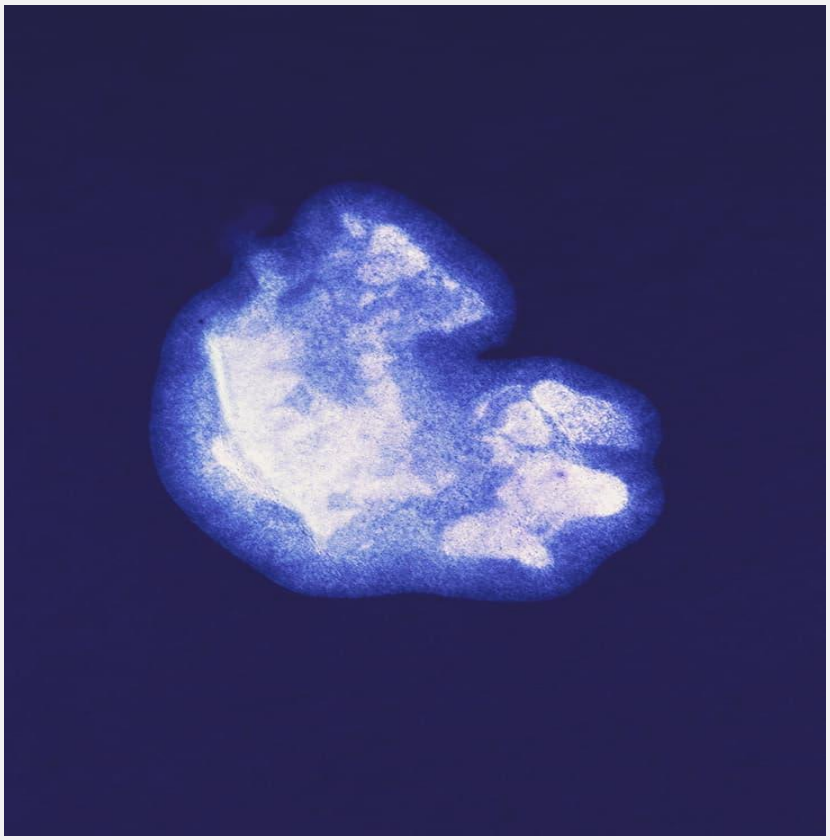
Entangled Self #4,etching on paper, 37x27cm, $1184 [at ATRF]

Aldworth's subjects range from consciousness, where she sees the brain at work with the neural pathways pulsing and sparking, to the brain in turmoil, disrupted by epileptic seizures which strike 'out of the blue'. The mind suspended in sleep, yet active with dream and nightmare, is the subject of the series *The Dark Self.* In the sombre sequence of monoprints, *A Puff of Smoke*, grief is pictured as a nebulous knot of pain overwhelming the mind. Harnessing process to imagination, Susan Aldworth's evocative prints help us to picture the emotions and sensations that animate the mind and define the self.

Passing Thoughts: a suite of 15 archival digital prints printed directly from human brain tissue

Chasing consciousness

*"Something happened in the studio when I was making the Transience etchings that made me realise that I could make a different type of print whilst still printing directly from the brain slice. The result is the fifteen digital photographic prints which make up the **Passing Thoughts** suite. The transformation in these prints from the flat brain slice to mysterious object was thrilling. **Passing Thoughts 3** and **4** appear to be translucent shells held in a heavily textured background. I don't think people will know what they are looking at. I hope that they will remain mysterious. They are unaltered photographs – authentic, strange and beautiful pictures of a human brain.*
They seem to capture a moment – and this we caught on camera in the studio when we were working with the brain slices. The images revealed themselves and then disappeared in seconds. They were transient and disappeared like a thought. We did not own that brain, it was lent to us. It made its mark and then it went. The prints are unique and we will never be able to get those marks again. They are important to me in that they bridge my interest in both the philosophy of mind and the physical human brain. Originally my intention was to just look at the brain as object. But the brain, in a funny way, turned from object to subject as we were making the work. So, they are not just anatomical works, they are about the transience of self."



Passing Thoughts,1, 27x37 cm $600

“Recently I have been thinking about the brain as matter, and as the centre of who we are. I was invited to observe a brain dissection at the Parkinson’s UK Brain Bank at Hammersmith Hospital in 2012, and, during the session, I was allowed to hold a human brain.
The experience was seminal – would it be possible to translate the physicality of the brain into a piece of work? It would be the ultimate portrait of someone – an image, unmediated, made from the authentic marks of the physical brain itself. I was excited about the potential of the project but aware that I was venturing into unknown territory.”

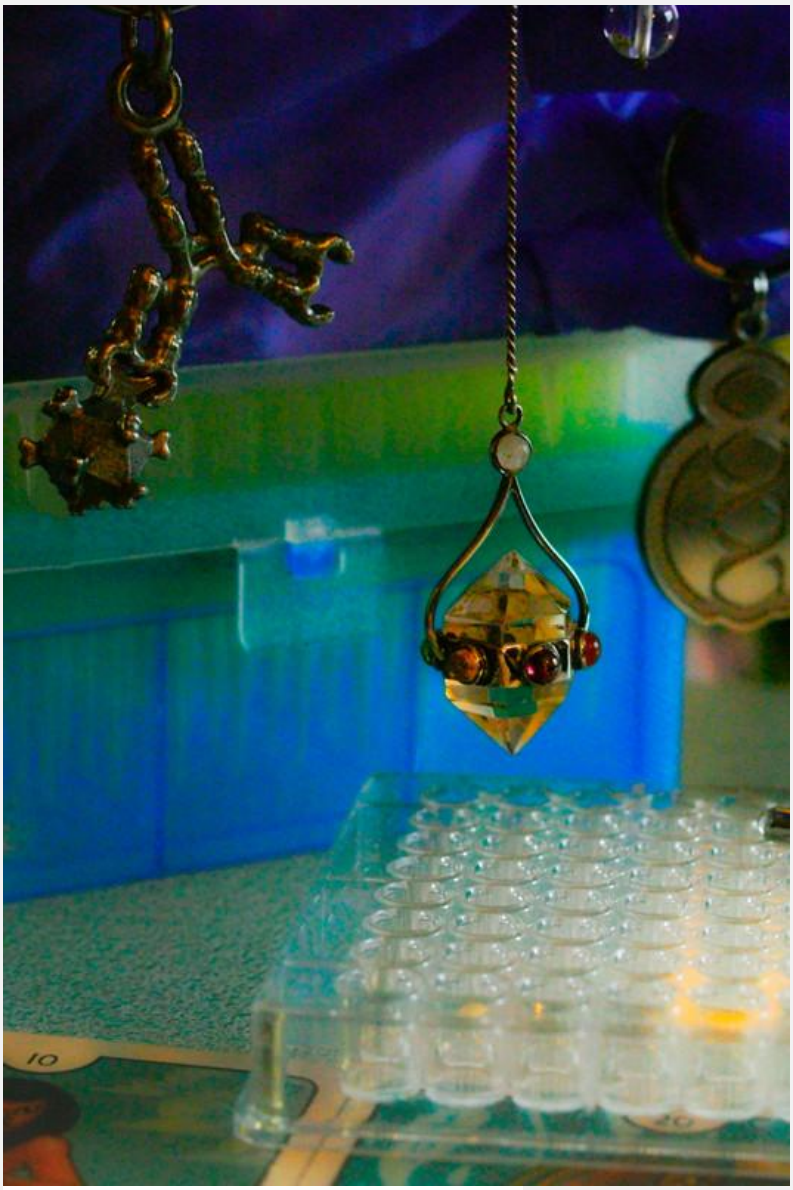
“Increasingly I am struck by human fragility.”

Passing Thoughts #2 27x37 cm, archival digital print $600

Shannon Beatty

Born stereoblind and extremely myopic, photographs brought the world to me.
■Forbidden to study art, I fell in love with the lab and spent forty years in R&D.
■I shot film with a Polaroid Swinger, a 1971 Leicaflex SL and a 1980 Canon AT-1.
■Cataracts slowly made me almost blind; in 2009 I switched to a Leica Digilux 3.
■Digital post processing is all well and good but I wanted film's breath and touch.
■Modern magic gave me bionic eyes and changed what I want to say with images.
■I'm shooting film again – expired, color-shifted, repurposed ciné film stocks.
■Currently making multi-layered manipulated cyanotypes on sensitized paper.
■Film-captures that follow are lightly-processed scans (4"x 6" or smaller equivalent)

SLICES OF LIFE, *2015*
kiln-fired glass
4" x 4" pieces forming a stack 1.5" high
$500.00
[at ATRF]



TOOLS OF THE ALCHEMIST, *2020*
Digital photograph, Chromaluxe print on aluminum
8" x 12"
$400.00

“TOOLS OF THE ALCHEMIST illustrates energies meeting laboratory materials used in monoclonal antibody assays.

SLICES OF LIFE represent moving structures in cells of the immune system: enzymes, granules, vesicles, EF hand proteins, antibodies.”

Karin Birch

Karin Birch, born 1960 in Point Barrow, Alaska, works in a hybrid medium of stain painting, hand embroidery and beadwork. She creates densely detailed biomorphic abstractions that explore memory, meaning and repetition to evoke contemplative experiences. She studied at the Corcoran School of Art and the Pennsylvania Academy of Fine Art, and has exhibited in the US and abroad, including the Museum of Art and Design, the National Gallery of the Craft Council of Ireland, the Delaware Center for Contemporary Arts, the Visions Art Museum and through the US Art in Embassies Program of the U.S. Department of State's American Embassy in Ghana, Sri Lanka, Burundi and Sierra Leona. Karin's work is in the permanent collections of the Boston Museum of Fine Art, the Renwick Gallery, D.C. Commission on the Arts and Humanities Art Bank and the US Embassy in Tashkent, Uzbekistan

Karin Birch

Subterranean Secrets

Hand embroidery, beadwork and acrylic paint on linen

13×14 in

on display at ATRF

$4,800

Karin Birch

Radiation Sky

14″ x 13″

Hand embroidery, beadwork and acrylic paint on linen

on display at YAAC

$4,800

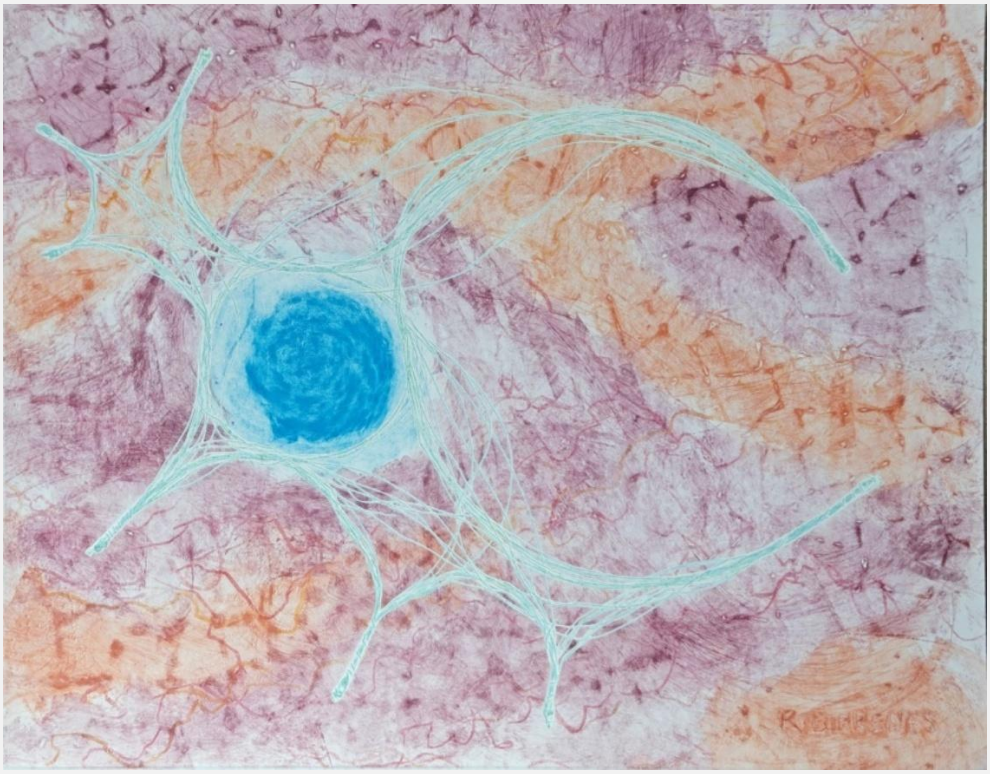
Subterranean Secrets and Radiation Sky were made while I was being treated for Cancer. Radiation treatment in particular was frighting and mysterious. So I imagined what it looked like through my emotional response to different stages of the process.

Robert M. Birkenes

Innovative printmaker and retired U.S. Foreign Service Officer with a passion for creative exploration—and for sharing through teaching and mentoring. Printmaking practice emphasizes non-toxic, accessible techniques and inventive use of everyday materials. Brings curiosity, clarity, and a collaborative spirit to every workshop, helping students gain confidence through experimentation and hands-on discovery.

Mitosis Variants
Collagraph print
14” x 11”
$260

“Through these wire-sculpted prints of mitosis and cytoskeletons, I explore cellular energy and structure, showing how order, motion, and chance organize matter, connecting scientific insight with artistic expression in layered, textured impressions.”



Cytoskeleton Lattice *(undated)*
Collagraph print
14” x 11”
$260

Gabriella Boros

Born in Israel, Gabriella immigrated to the United States as a child. Her narratives reflect her European parentage, Israeli childhood and American influences. She has a BFA from the University of Michigan School of Art. She currently lives and works in Skokie, Illinois.

Gabriella Boros has shown her prints, paintings and multimedia works nationally and internationally. Currently focusing on woodblock prints and handmade books, Gabriella also does nature photography, watercolors, paints in acrylic on wood panel, and makes drawings, sculptures and found-object cheeseboxes.

Showering After the Workout, *2019*
Woodblock Print
15" x 9" x 1"
$800.00

A Hug After A Long Day, *2019*
Woodblock Print
15” x 19” 1”
$800.00

“As an avid swimmer, I researched underwater plants with curative properties. In this series, I describe the sponges, the diseases they cure and the humans who benefit. This series was influenced by the awareness that global warming and pollution are killing off sponges in alarming numbers. In the print "Showering after a Workout", I show the sponge, Halichondria Okadai at the bottom alongside a fish for scale. The highly effective Halichondrin B anti-breast cancer drug was created from this sponge. The cancer cells surround healthy cells in the inset at upper right. In "A Hug After a Long Day," The Tectitethya crypta sponge is highlighted at the bottom. The retroviral drug AZT was isolated from this sponge after many years of research. Up above, the HIV virus is shown in the inset. This series highlights the importance of the research done by marine biologists and lab scientists in finding cures for diseases.”

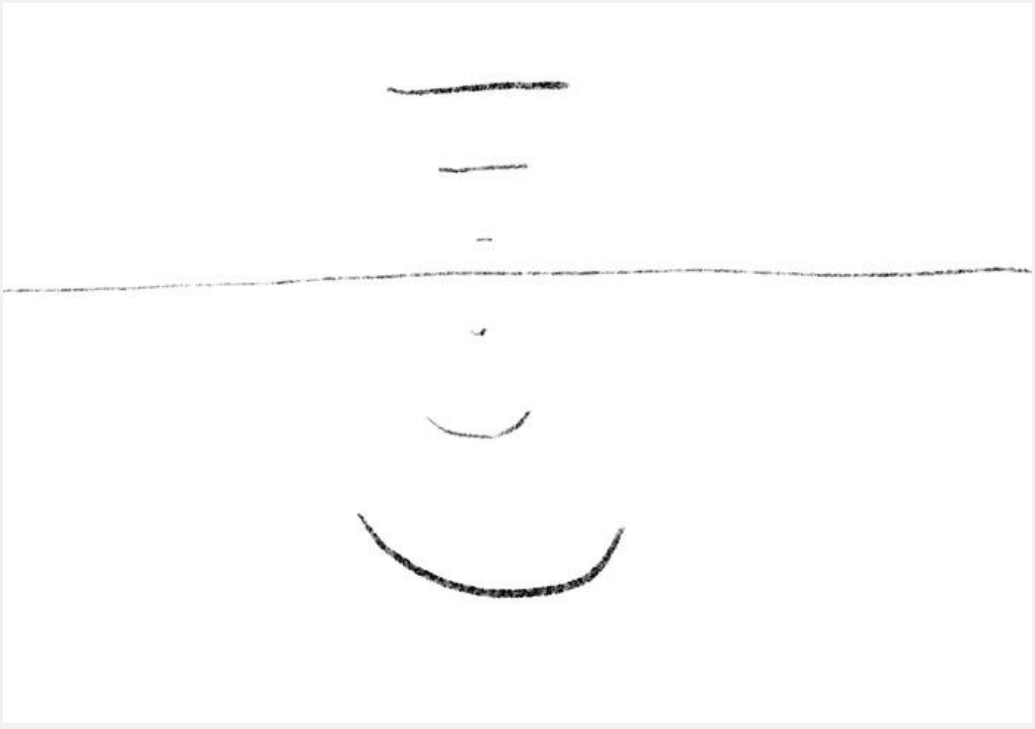
Jack Bradshaw

Jack Bradshaw is an independent artist and thinker who traded a decade-long career as a Senior Software Engineer at Google for a life of creative exploration and open-source programming. Although only nascent in his artistic journey, with a degree in Mechatronic Engineering, he brings a unique, systems-oriented perspective to his art, focusing on the inner workings of the human mind and the universe around us. Driven by a deep curiosity about the nature of consciousness and the forces that shape us, Jack's work bridges the gap between the technical and the philosophical. Further details are available at jack-bradshaw.com.

Particle-Trajectories, *2022*
Digital Painting (Procreate)
12.64" x 18.09" x 0"
$150.00

“These works explore the intersection of physical phenomena and artistic interpretation, directly engaging with the exhibition's theme of energy meeting matter. The first piece, Wave-Particle Duality, renders a foundational concept of quantum mechanics. The second, Particle Trajectories, provides an artistic representation of charged particles interacting within a field. The aesthetic is intentionally minimalist and monochrome, a choice meant to reflect the precision and objectivity inherent in the material world. This formalism, however, is mediated by artistic license and abstraction. This abstraction represents the role of the observer, referencing how even fundamental systems are influenced by the act of observation itself and blurring the line between the objective phenomenon and subjective perception.”

Wave-Particle Duality, *2022*
Digital Painting (Procreate)
12.64" x 18.09" x 0"
$150.00



Katherine Burke

Katherine Burke's work tells visual stories of identity, memory, and transformation. Using bold color, expressive brushwork, and intentional imperfection, I create pieces that embrace the beauty of flaws. My art seeks to spark conversation by transforming the familiar into new narratives that reveal how our stories, influences, and experiences intertwine in unexpected ways. Exhibits include the Group Exhibition: Maryland, Women Artists of the DMV with the piece Nicholas Uncaged, Wire Sculpture at Artspiration, Frederick,

Katherine Burke

THEORY

acrylic on canvas

30 x 40 in

on display at ATRF

$3,600

Inspired by the real cellular studies and organoid cultivation happening at Frederick National Lab, this work imagines the birth of a theory — seeded in darkness, nourished by observation, and pollinated by imagination, where ideas become discovery.

Erik Demaine

Erik Demaine, a professor of computer science at MIT, received the MacArthur Fellowship (often called a "genius grant") for his pioneering work in computational origami and related fields. His research combines mathematics and art, applying computational geometry to fields such as medicine, architecture, and space exploration, and he is also known for being MIT's youngest-ever professor at the age of 20. Demaine was awarded the MacArthur Fellowship in 2003 at age 22, at which point he was already an associate professor. Demaine states that he is motivated by choosing problems that he finds personally fun and interesting, a principle he also applies to his teaching. Demaine demonstrates an appetite for challenges that cross disciplinary boundaries and a capacity to synthesize ideas from disparate approaches.

“These pieces use a custom mathematical font representing each letter by a collection of helices, similar to DNA/RNA (see https://erikdemaine.org/fonts/cane/). We fold paper along curved creases and nature finds 3D forms to minimize bending energy.”

“Fundamentally, information wants to be free.”

Helix of Helices
Mi-Teintes watercolor paper
10" × 10" × 13"
$6000

Martin Demaine

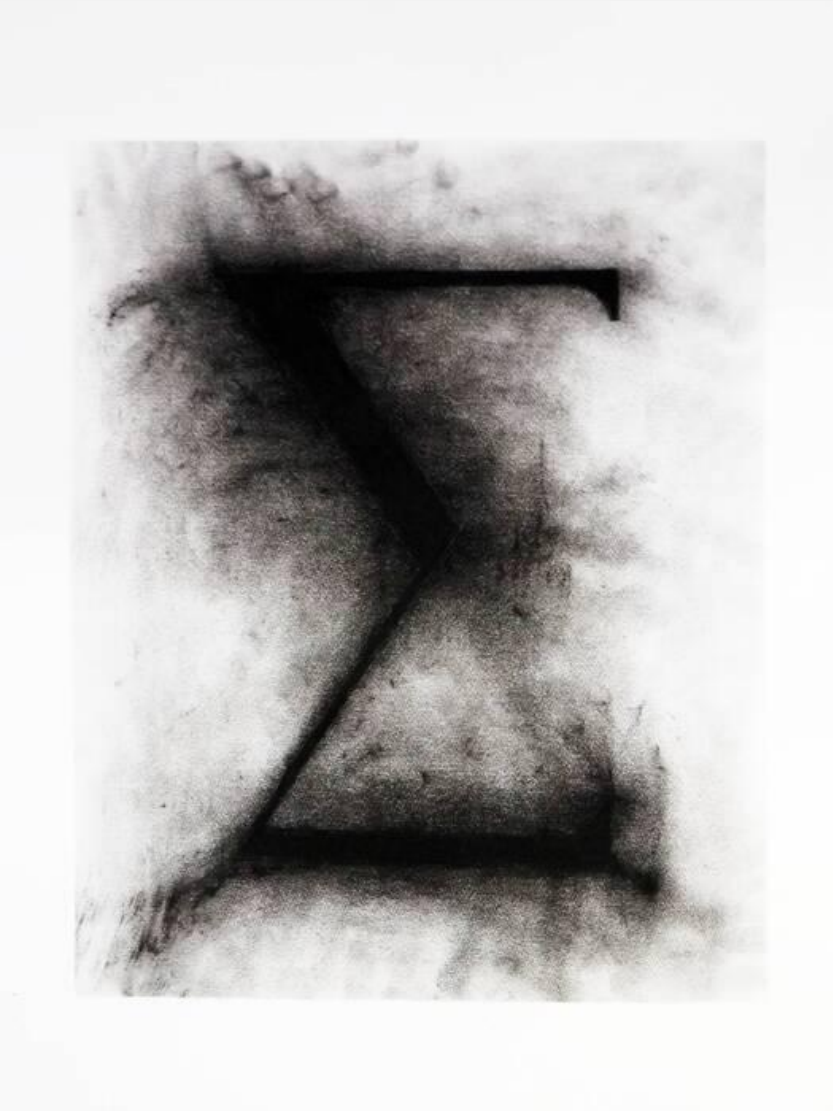
Martin Demaine was born in Boston in 1942 and grew up in Medford, Massachusetts. After graduating high school, he decided to study glassmaking in the United Kingdom. In the early 1970s Martin moved to New Brunswick, Canada where he established the first private hot glass studio in Canada. He is known as the father of Contemporary Canadian Glass. In 2005, Martin joined Massachusetts Institute of Technology (MIT) as the Angelika and Barton Weller artist in residence and as an instructor in the MIT Glass Lab. In 2013, Martin was awarded a fellowship by the John Simon Guggenheim Memorial Foundation and 2016 received the Rare Craft Fellowship from the American Craft Council.

“We find that the dialog between our scientific work and our artistic work inspires both our art and science in directions that would not be possible in isolation.”

Glass Hugs
Mi-Teintes watercolor paper and hand-blown glass
8" × 5" × 10" high,
$4500

David Eby

David Eby started his art career at the Hartford Art school in 1991, then left for a career in the world of finance as a project manager. For the next 30 years, he eschewed artisitic work, until the pressure to create became overwhelming. David's work is heavily influenced by decades of life in the corporate world, suppressing his need to create, and imbue abstract symbols with the powerful energy of self-denial.



Self Energy, *2025*
Charcoal on Watercolor Paper
22" x 30" x 1"
$250.00

The artwork "Self-Energy" represents the abstract and artistic representation of ancient Greek symbolism of the modern lexicon as it relates to quantum field theory. In quantum field theory, the energy that a particle has as a result of changes that it causes in its environment defines its self-energy Σ. The self-energy represents the contribution to the particle's energy, or effective mass, due to interactions between the particle and its environment. In electrostatics, the energy required to assemble the charge distribution takes the form of self-energy by bringing in the constituent charges from infinity, where the electric force goes to zero. In a condensed matter context, self-energy is used to describe interaction induced renormalization of quasiparticle mass (dispersions) and lifetime. Self-energy is especially used to describe electron-electron interactions in Fermi liquids.

Andrea Cavagna and Irene Giardina

Andrea Cavagna is a director at the Institute for Complex Systems of the National Research Council, in Rome. He has a background in theoretical physics and statistical field theory.

Irene Giardina is a Professor in the **Department of Physics, Sapienza University of Rome** and Institute for Complex Systems, CNR Rome Her research interests include **physics of living systems**, collective behavior in biological systems, statistical physics of disordered and complex systems.This

Their work on murmurations builds on their research of bird flocks with the Nobel Prize winning physicist Girogio Parisi.

Irene Cavagna and Irene Giardina

Dynamical evolutions of a starling flock

Credit: PNAS/Andrea Cavagna

1:02

Murmurations: When a starling flock acts as if it were a single entity it is acting as a critical system and is also optimizing its collective response to challenges such as a predator attack, according to theoretical physicist Giorgio Parisi and colleagues from the University of Rome. who carried out the study.

A mathematical analysis of flight dynamics in flocks of starlings suggest this is because the birds are effectively a single network, with every bird’s movements affected by every other bird’s movements, as if they were connected.

Chris Combs

Chris Combs is an artist based in Washington, D.C and Mount Rainier, Maryland whose sculptural artworks both incorporate and question technologies. His show Supercycle (IA&A at Hillyer, 2023) invoked cycles of hype, such as “AI” and cryptocurrencies. The Next Big Thing (MoCA Arlington Innovation Studio, 2024) recreated Hokusai’s Great Wave off Kanagawa with E-waste that reacted to visitors’ faces and movements. Outsized Effects (Gradient Projects, Thomas, WV, 2023–4) included the room-sized Allegheny Data Company, examining data mining through the visual lens of coal mining. Industry Standards (McLean Project for the Arts, 2023) featured 18 works of reclaimed industrial components, reflecting on surveillance and environmental destruction. Madness Method, a public art collaboration with David Greenfieldboyce, was part of 2021’s Georgetown GLOW. He has shown at VisArts, DC Arts Center, Rhizome DC, and other DC-area institutions

Chris Combs

Genomic Signal Generator

Wood instrument enclosure, vintage indicators, knob, circuitry

7 x 7 x 5 in

Chris Combs

Impressions

Custom circuit
boards, green LEDs, computer, camera, algorithms, PLA, hardware

5 x 5 x 3in

Genomic Signal Generator

In the domain of electronics, there are “signal generators,” which continuously output a sine wave or other standard signal. The signals output by these devices are useful for many diagnostics; they're highly standardized; yet they don’t really encode information, per se.

I wondered what an equivalent piece of gear would look like if it was outputting the most important information—the human genome. This device, styled as prototype lab equipment and set in a real vintage lab-gear wooden enclosure, contains the 6.2-gigabase-pair human genome and continuously outputs it with flashing lights: A and T on the left, G and C on the right.

The knob adjusts its speed. Should you wave your hand near the metal handle, the lights glow more brightly as it senses your presence.

Impressions

"Impressions" is interactive, showing a sparkling version of any motion seen in front of the artwork. In other words, it is a sort of camera that converts motion into light.

Its 192 hand-soldered LEDs on a black circuit board evoke the night sky.

One of the aspects I find interesting about this artwork is that in technical terms, it is a very low-fidelity screen: its randomly-arranged pixels are nowhere near as clear as a normal screen. Yet, sometimes viewers recognize their own silhouettes in the device's sparkling screen. Our pattern-matching hardware turns out to be quite sophisticated.

Luc Fiedler

Luc Fielder is a sculptor and printmaker whose career began in 1985. He has a BA in Sculpture from Southern Illinois University and an MFA in Sculpture and Printmaking from the UC-Santa Barbara. He owns Elf Studios in Mount Airy, MD, specializing in custom sculptures, metal fabrication, and castings.

His award-winning work has been exhibited nationwide and he is affiliated with The Artist's Gallery of Frederick, MD, the Artist Blacksmith Association of North America (ABANA), and the Washington Sculptor's Group, among others.

He also helped with the construction of SkyStage in Frederick, MD, one of the most dynamic and important performing arts venues in the area.

Quark, *undated*
Forged and machined steel, and polished granite
17" h x 24" x 24"
$1,500.00

*"**Quark**-refers to a subatomic particle. The spinning quark (sculpture is kinetic) has been split in two, which reveals its inner material.*

***Bipolar**- references a bipolar neuron while at the same time plays off of two opposing geometric forms"*

Bipolar, *undated*
cast bronze
20" h x 6" x 7"
$1200.00

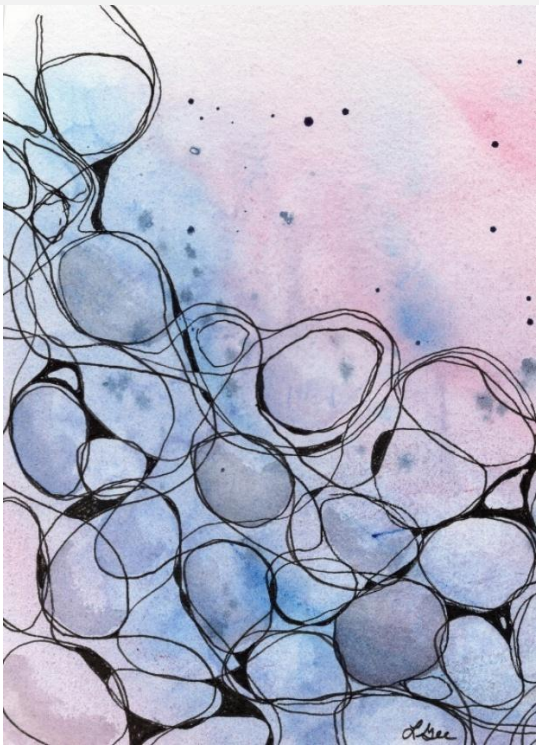
Laura Gee

Laura Gee’s artistic journey began in February 2025, inspired by a lifelong reverence for nature and science. Her work explores the quiet elegance of organic forms and the intricate patterns that shape our world—both visible and invisible. Living with Type 1 Diabetes and carrying the BRCA2 cancer mutation, Laura draws strength and clarity from these experiences, channeling them into art that celebrates resilience, curiosity, and the beauty of imperfection.

Professionally, Laura has worked across many levels of scientific research—from technician to trainer—and now serves as a communications specialist at Charles RiverLaboratories. Her paintings reflect her passion to illuminate the delicate balance between vulnerability and vitality, and to invite viewers into a space where science and soul quietly converge.

Where Energy Heals Matter, *2025*
Watercolor
9x12" (unframed)
$175

Vital Flux: Cells in Harmony, *2025*
Watercolor
6” x 10" (unframed)
$150



*“My work explores the almost **invisible yet profoundly human** realm where science and emotion converge — the demise of cancer cells, influenced from my personal relationship with the BRCA2 mutation.”*

Elliot Hamilton

Elliott Hamilton is a Maryland based muralist, sculptor, graphic artist, and painter. Elliott is a graduate of the University of Maryland where he was influenced by Maryland artists such as W. C. Richardson, Richard Klank, Patrice Kehoe, and David Driskell. Elliott's murals, sculptures and graphic arts can be seen in public parks and buildings throughout the DMV area.

Calvert Cliffs During Storm
acrylic on canvas
37" wide by 27" tall
$130

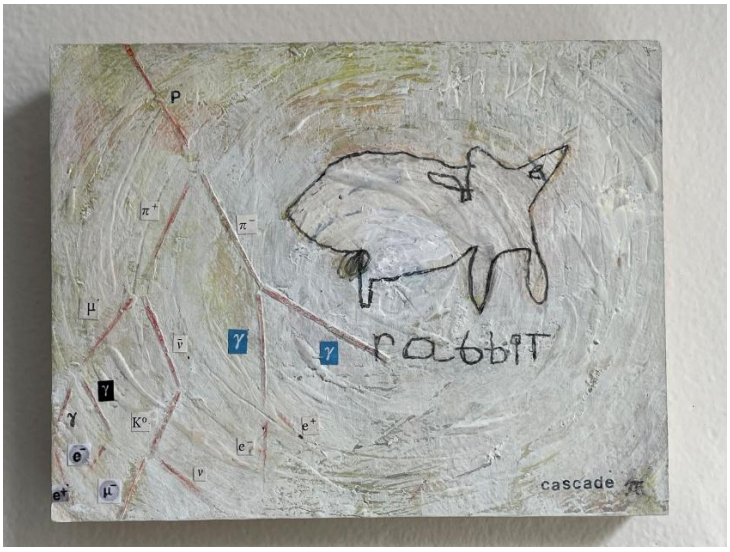
"Calvert Cliffs During Storm shows the power of a fierce storm with its wind, rain and waves, as it explodes into the cliffs. Sligo Creek Vernal Pool shows the complex interactions in nature where life may have began millions of years ago."

Sligo Creek Vernal Pool
acrylic on canvas
31" wide by 25" tall,
$90

Scott Homolka

Scott Homolka is an art conservator living in Frederick, MD, who enjoys pursuing art making, model building, and exploring the materiality of things. Scott currently is Chief Conservator at the United States Holocaust Memorial Museum. Prior to joining the USHMM, he was Director of Conservation at the Baltimore Museum of Art (2017-2022), and a conservator at the Philadelphia Museum of Art (2006-2017), specializing in works of art on paper and photographic materials. He is an elected member of the Print Council of America, and a member of the Association of Print Scholars. Scott has presented or published research on a range of conservation topics and the materials and techniques of artists including James Castle, Alfonso Ossorio, Jean Crotti, and Marcel Duchamp.

From 2011-2013 Scott co-developed the intensive course, Modern and Contemporary Print Identification, designed with the goal of increasing participants' knowledge of both traditional and post-digital printmaking processes and techniques. Scott earned a BFA in Painting and Printmaking from the University of Kansas, an MA in Art Conservation from Buffalo State College, and a Certificate of Advanced Study from the Straus Center for Conservation and Technical Studies, Harvard University.



Pi Meson Cascade Sequence / Rabbit
Acrylic paint, graphite, charcoal, and collage on panel
4 ½″ x 6″
NFS

"This work explores themes of memory and loss through the lens of high-energy particle physics, the search for order, symmetry, and meaning (and beauty) in the fundamental physical processes that allow what we experience to exist, to seem "real" to us."

Higgs Coupling Value / Sea Lion
Acrylic paint, graphite, charcoal,
and collage on panel
4 ½” x 6”
NFS

Amelia Jones

Amelia Jones took her first art class at FCC and graduated from SUNY Cortland NY with a B.A. in Elementary Education, minor in Art Education and M.Ed in Art Education from Towson University. She recently retired to Frederick for the vibrant arts scene after a career of teaching in multiple settings with a variety of ages (including FCPS and The Delaplaine Arts Center when it first opened). Having explored multiple media her main focus has been on drawing and painting or making things with nature. Whether the expressiveness of charcoal or linear qualities of pen and ink to the color and texture of oil paint or the flow of watercolor she has always preferred the direct connection of hand to paper. She likes to start with what she sees and deviate towards the abstract, while later realizing what she was intuitively trying to express.

Viva Las Vagus
Watercolor
9" x 12"
$75

“The vagal nerves are being explored for cancer symptoms and other research. Due to the nature of balancing between the brain, heart, digestive system, and breathing; I personified this intricate function as a dance through movement, color, and line.”

Viva Las Vagus I
Watercolor
5.5" x 9"
$80

Seth Kalish

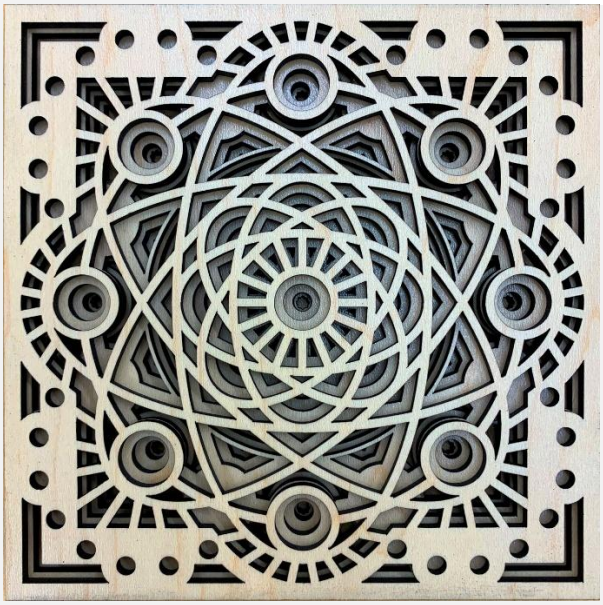
“My work explores meanings and associations from rendering lines, forms, and spaces into compositions of multi-layered abstract geometric designs. Using computer software, I create multiple layers to be laser cut from plywood, cardstock, or paper and assembled into a whole.

Inspiration comes from a universe of motifs, from sacred symbols, art, and architecture to nature and science, geometry, and mechanics. My process analyzes elements of visual ideas, proportions, patterns, and relationships. I begin with a graphic concept and ask myself where the form can go and what that direction would mean — considering addition and subtraction, repetition, intersection, changes in location, size, and rotation — developing designs of dimension and color.

In creating these abstract constructions, there is an investigation of aesthetic response derived from connections, similarities, symmetry, and contrasting ideas — a combination of philosophical musings and technical problem solving as I contemplate the mysteries of my artistic drive, style, and expression.”

Oxygenesis
mixed media plywood construction
11" x 11" x .75"
$395

Geometric Fusion Experiment
maple plywood construction
5" x 5" x .75"
$95



“"Oxygenesis" is an abstraction of a model of an Oxygen atom, rendering the imagined molecular form of this invisible but life-giving element. "Geometric Fusion Experiement" is a meditation on the inherent sacred geometry of molecular physics.”

Julia Laug

unnamed
Cyanotype, fabric and UV-sensitive dyes
NFS [many of the Laug cyanotypes in this show are $20]

Julia Laug is a local artist working full time as a second-grade teacher in Frederick County Public Schools. Laug works with a diverse selection of media, including acrylic, oils, cyanotypes, graphite, and collage. Her work is inspired by nature and the surrounding world.

”My cyanotype prints unite the concepts of art and nature. Many of my prints are created using actual organic matter placed over paper or fabric dyed with a UV sensitive dye. The work is exposed to the sun and a chemical change occurs in the dyed material. The space where the organic matter covered the dye was never exposed to the sun, leaving an impression of whatever was blocking the light. Using nature to create artwork where no two pieces are exactly the same because of organic material and conditions fascinatingly powerful.”

unnamed
Cyanotype, fabric and UV-sensitive dyes
NFS

Becki Laughlin

Born in Baltimore, Beckie Laughlin is an award-winning artist now living in Frederick County, Maryland. She has a B.A. in Art and a M.F.A. in Painting from American University in Washington, DC. For the past 50 years, Ms. Laughlin has shown and sold her work extensively in group and one-person shows throughout the DMV, and in New York City and Chicago. Her artwork is included in many private and corporate collections including the Educational Testing Service in Princeton, New Jersey. Laughlin was an Adjunct Professor in the Department of Contemporary Art and Theater at Shepherd University in Shepherdstown, West Virginia for several years. She now teaches Spontaneous Painting in her New Market, Maryland studio.

Awakening

acrylic on canvas

58 x 46 in

on display at YAAC

$3,800

Beckie Laughlin

Naut

acrylic on canvas

36 x 48 in

on display at ATRF

My primary concern in art is to explore energy in the natural world. "Awakening" suggests cells swirling around in a likely cancerous environment. "Naut" brings to mind the vicious energy of cancer causing mutations in the human body.

Jocelyn Lee

Jocelyn Lee was born in Naples, Italy in 1962. She received her BA in philosophy and visual arts from Yale University and her MFA in photography from Hunter College. Lee taught photography at Princeton University from 2003-2012 and at Maine College of Art from 1993-2001. She has been a visiting artist at Yale University, Bowdoin College, Mass College of Art, and New York University. Lee has exhibited internationally, and her work is housed in the collections of many notable institutions, including The Yale Museum of Art, New Haven, The Museum of Fine Arts, Houston and The Museum Folkwang, Essen. She is the recipient of the Guggenheim Fellowship, and her work is regularly featured in The New Yorker, New York Magazine, and other publications.

Wedding Flowers #2, *2015*
Archival Pigment Print
Size Variable

“Jocelyn Lee’s images are borne of nature. To walk into a room lit with her work is to look out at the universe itself—planets and moons, bright galaxies, nebulae, dark matter—all of it expanding, so much to examine that we are no mere onlookers but nineteenth-century naturalists engrossed with our telescopesor perusing our cabinets of wonders, our halls of biodiversity…..For Jocelyn, portraits are a kind of still life, and still-lifes a kind of portrait. It was barely a leap from the

troughs to her interest in human bodies, our own temporality, our blooming and fading, our collective stories, which are all the same in the end: we come, we go, wisdom accruing, skin sagging, liquids seeking their level, gases in, gases out, the fruit that we are, the petals of us, the leaves and bark…" -Bill Roorbach

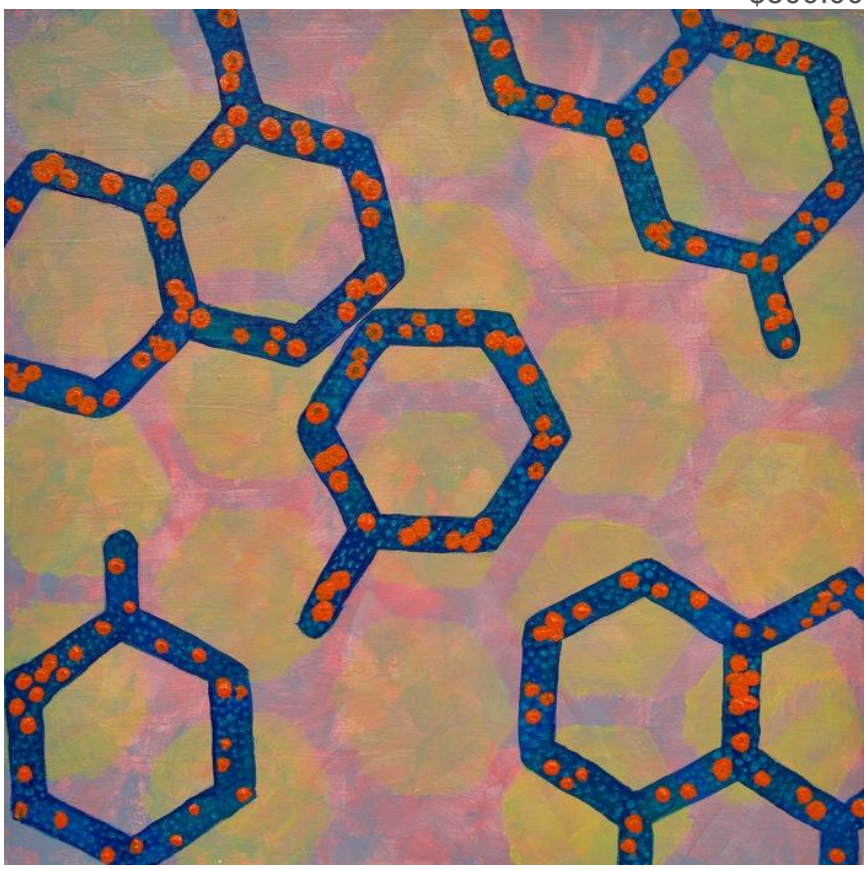
Newfoundland, *2008*
Archival Pigment Print
Variable Size

Daniele Lorio

Daniele Lorio is a painter raised in the world of art. Some of her earliest memories are of the scent of sawdust and gesso, creating alongside her sculptor father and painter mother. Though she trained as an opera singer at a conservatory and pursued a career in music, she remained deeply connected to visual expression. In her paintings, she explores the emotional resonance of rich color and the interplay between positive and negative space. Simple forms emerge from color fields, inviting a quiet tension that continues to provide fascination.

On examination, *2025*
(Painting, Acrylic on wood panel
8" x 8" x 1"
$500.00)
"I am fascinated by patterns—the quiet structures that organize and connect our daily experiences. The lines of a wooden floor, the linked pods of a subway train, the clustered repetition of green peas in a bowl—all reveal the underlying rhythms that shape the world around us. I am particularly drawn to the beauty of small spaces, where simple shapes transform into intricate, almost mystical forms. My work explores this microscopic realm, uncovering the delicate patterns and hidden geometries that reflect both the complexity and poetry of everyday life."

Intimate View, *2025*
Painting, Acrylic on Wood board
8" x 8" x 1"
$500.00

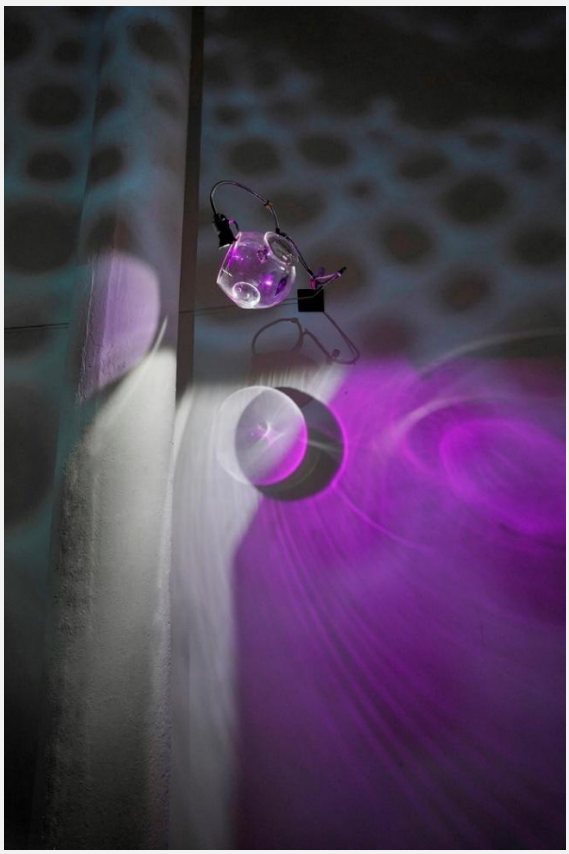


Dana Major

Dana has lectured in the Sculpture Department of the School of the Art Institute of Chicago and provides accredited studio internships at the undergraduate and graduate levels for enrolled students in AICAD, the Association of Independent Colleges of Art and Design, which include SAIC, Pratt, KCAI, and RISD.

Her 2011 MFA from SAIC follows her BA in Philosophy from DePaul University, and an 18-month arts apprenticeship in St. Petersburg, Russia. She maintains her studio at Mana Contemporary Chicago. Some of her accomplishments include displaying work at Elmhurst Art Museum, Chicago Art EXPO, and designing multiple installations for the Chicago Art Departments annual Crystal Ball Gala.

Eclipse Dimensions
Glass, Steel, Wire, LEDs
18" x 8" x 10"
$4800



“My lumières inhabit the margins of art and optical science, outside scientific hypotheses. Bound up with limitations of ways of seeing, science defines reality. I investigate how perception creates reality exploring light beyond what we usually see”

Temperance Dimensions
Glass, Steel, LED, Concrete
13 x 5 x 5
$2,300

Julie Maynard

Julie Maynard is a mixed media artist whose work combines collage techniques with photography and sculpture. She has been a juried member of The Artists Gallery, a cooperative gallery in Frederick, MD, since 2011. Her solo shows have included installations filling the room with images and sound.

Her work has been featured in shows at the Delaplaine Arts Center, the Strathmore, and throughout the region.

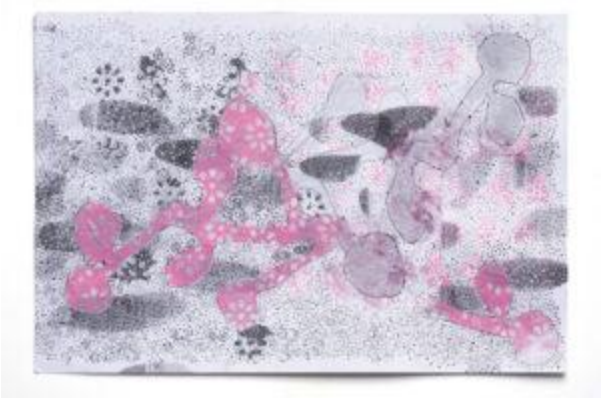
The Aesthetics of Technology,
paper collage
20”x50”x”
$900

“[these] pieces show life in a drop of water, with the microorganisms depicted as luminous and fragile, but also as made up of objects from the world of human dimensions. Letters and phrases jostle with diamonds and spiral galaxies.”

Shapeshift
paper collage
20x25
$450

Andrea McCluskey

A resident of Frederick Maryland for over 30 years, Andrea traded the rivers and tributaries of the Chesapeake Bay for the ancient mountains around Frederick County. She teaches Printmaking and Design at Hood College in Frederick, Maryland. Ms. McCluskey has maintained an art practice for over 40 years. While Andrea is primarily a printmaker, she works in a variety of mediums including sculpture, found objects, wood, video and installations.



Andrea McCluskey

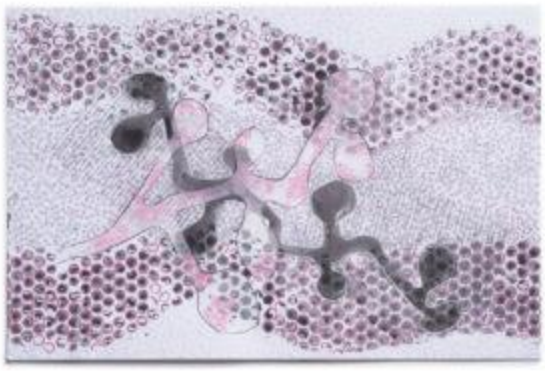
Trippy Day

Monotype

19.5 x 25.5 in

on display at ATRF

$500



Andrea McCluskey

Double Dutch

Monotype

19.5 x 25.5 in

on display at YAAC

$500

In working on these monotypes I started with an organic shape, the shapes stayed the same but the placement and mark making changes suggesting movement. It is as if the viewer is looking through a microscope at a changing organism.

Aynex Mercado

Born in San Juan, Puerto Rico, Aynex Mercado is the recipient of the Maryland Governor’s Disability Culture and Achievements Award, 2023. She was Vice President, DC Modern Quilt Guild. Her artwork is in numerous collections including the Cedar Hill Medical Center, Washington, DC. Her artwork has been in many group and solo shows. She is a self-taught fibre artist.

Waiting for Better Times
Fiber
35" x 30"
$800

“When everything felt messy, science helped us find our way—vaccines, tests, and new discoveries turning confusion into hope. This quilt circles around that energy, celebrating how we came together and found comfort when we needed it.”

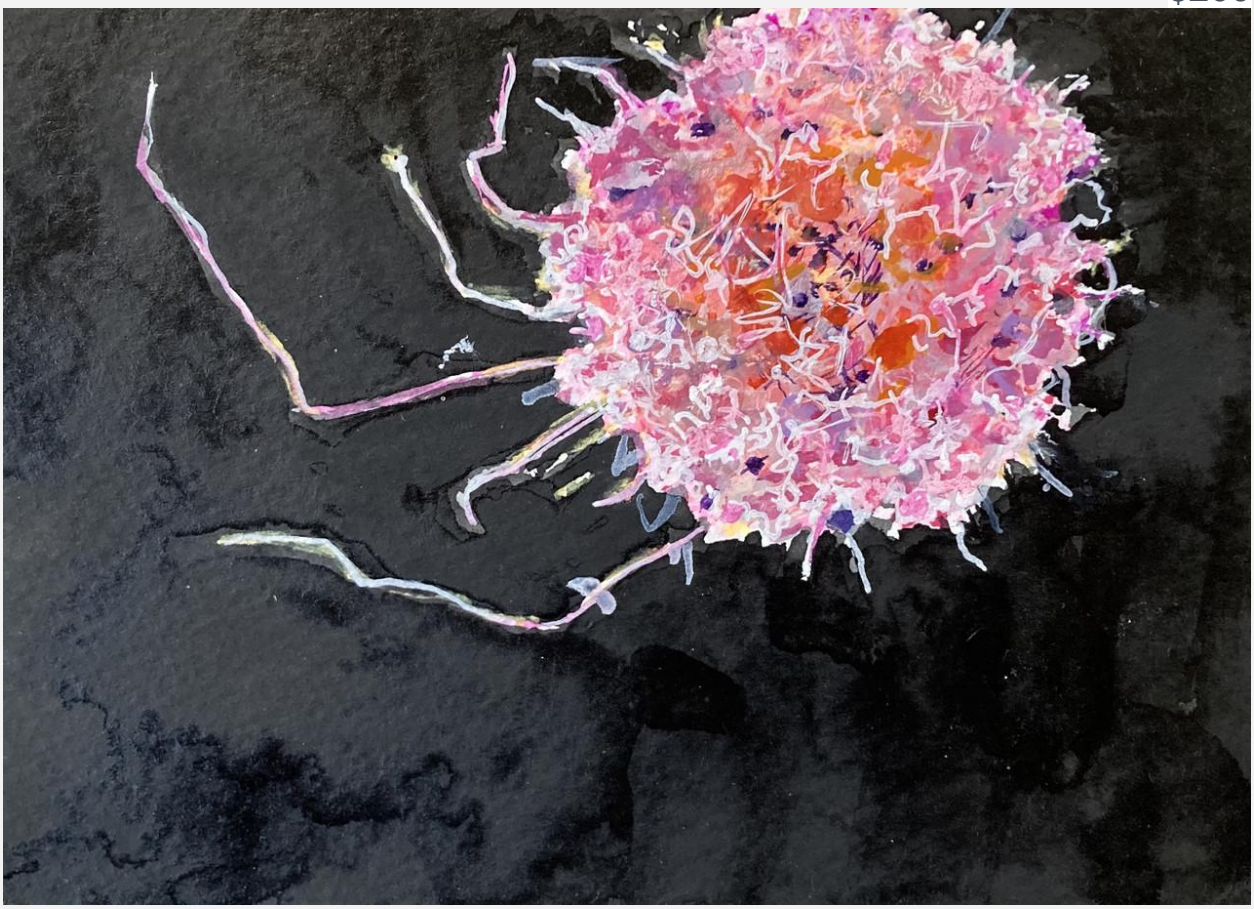
Emily Mooney

A licensed clinical art therapist with a practice in Frederick, MD, Emily Mooney is a painter whose works have been shown in galleries and exhibitions across Maryland.

Environment
Watercolor
8"X10"
$250

"*For me the most intriguing*
settings tend to be the mundane or those without obvious complexity."

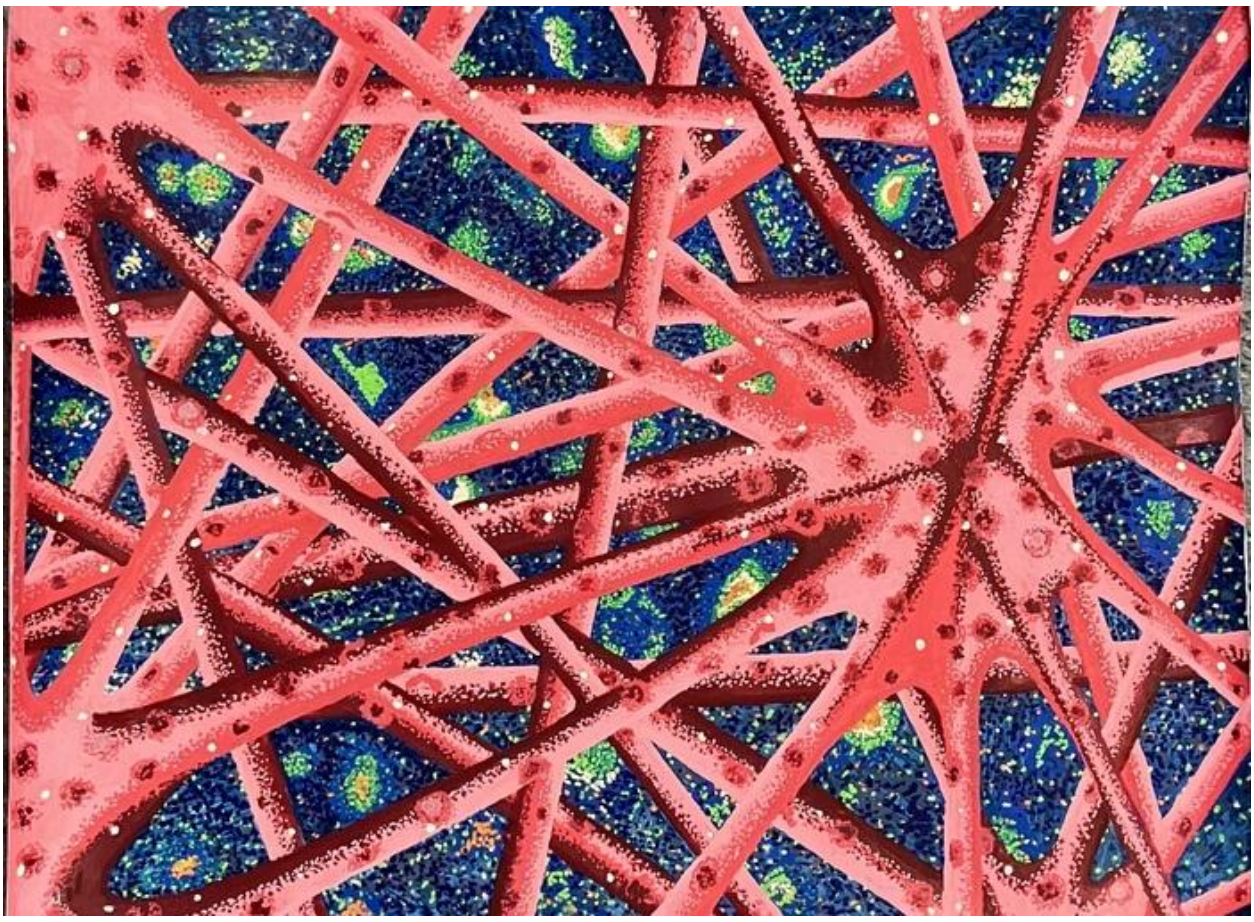
Human Natural Killer Cell Study
Watercolor
5"X7"
$200



Molly Palmer

A resident of Baltimore, MD, Molly Palmer describes herself as an “adaptable and creative professional with experience in hospitality, client relations, and the arts. Known for maneuvering seamlessly across diverse environments, balancing functionality with memorable experiences. Strong analytical and interpersonal skills with a proven ability to manage crises, think creatively, and deliver results under pressure.”

A contract artist for Paragon Artistry and a resident artist at Baltimore’s 857 Club, she has experience as an illustrator, painter, and muralist.



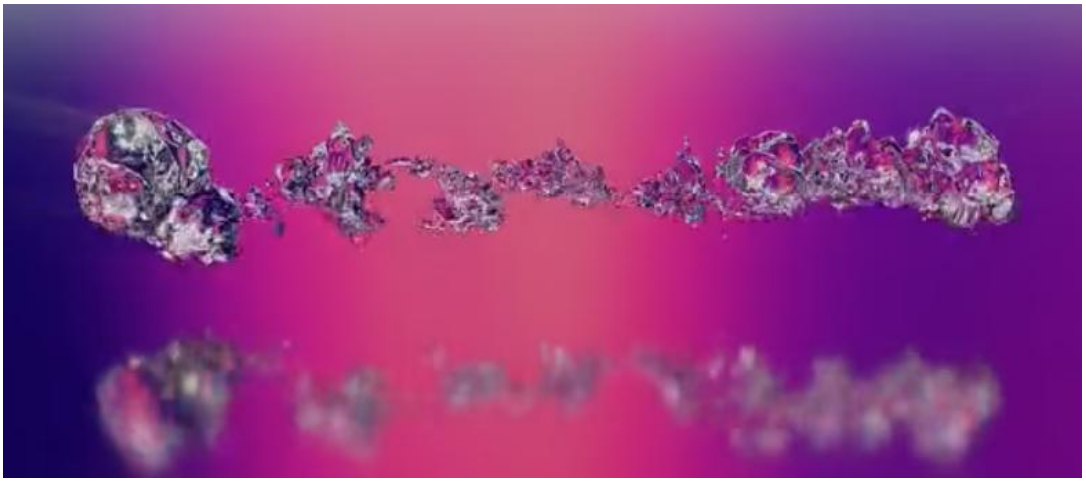
Compromised, *2025*
Posca pens (paint pens)
8.5" x 11" x 0"
Not for sale

“Immunofluorescence staining is a microscopy technique used to visualize and localize specific proteins or other molecules within cells or tissues. The slide of the monkeypox virus in a patient with HIV as the inspiration for my piece. The fluorescent infected cells are the background to the patient’s veins with a low white cell count because of their compromised immune system.”

Andrea Polli

Andrea Polli is an environmental artist working at the intersection of art, science and technology. Her interdisciplinary research has been presented as public artworks, media installations, community projects, performances, broadcasts, mobile and geolocative media, publications, and through the curation and organization of public exhibitions and events. She creates artworks designed to raise awareness of environmental issues. Often these works express scientific data obtained through her collaborations with scientists and engineers and have taken the form of sound art, vehicle-based works, public light works, mobile media experiences, and bio-art and design. Polli holds an MFA in Time Arts from the School of the Art Institute of Chicago and a PhD in practice-led research from the University of Plymouth in the UK.

She is a Professor with appointments in the College of Fine Arts and School of Engineering at the University of New Mexico (UNM). She holds the Mesa Del Sol Endowed Chair of Digital Media and directs the Social Media Workgroup, a lab at the University's Center for Advanced Research Computing. As an educator, Polli has created student-centered professional development, theory, practice and field-based courses and experiences for practicing artists, engineers and makers.



Power Drop, *2025*
Animation - duration1:12
Not for sale
https://vimeo.com/1082962414

"*In a single second Niagara Falls moves* ***over 52 billion*** *drops of water. Power Drop expresses that staggering power through a single, computer-animated water droplet projected in light. Through deformation and phase transformation, the droplet visualizes actual infrasound wave data."*

In the animation Power Drop, a droplet visualizes infrasound wave data generated by Niagara Falls over time. Infrasound waves are low-frequency acoustic waves generated by waterfalls when they convert potential energy of a massive amount of water into acoustic energy. These waves are the cumulative sound of 52 billion drops of water in collision. This infrasound was recorded for my project by The Gem infrasound logger, created and provided by my science collaborator Dr. Jake Anderson in the Department of Geosciences at Boise State University and recorded by collaborator Dr. Hugo D. Ortiz, Postdoctoral Fellow, the MIT Earth Resources Laboratory, (supported by National Science Foundation award #2122188). Assistance for animations by Nuno Sousa.

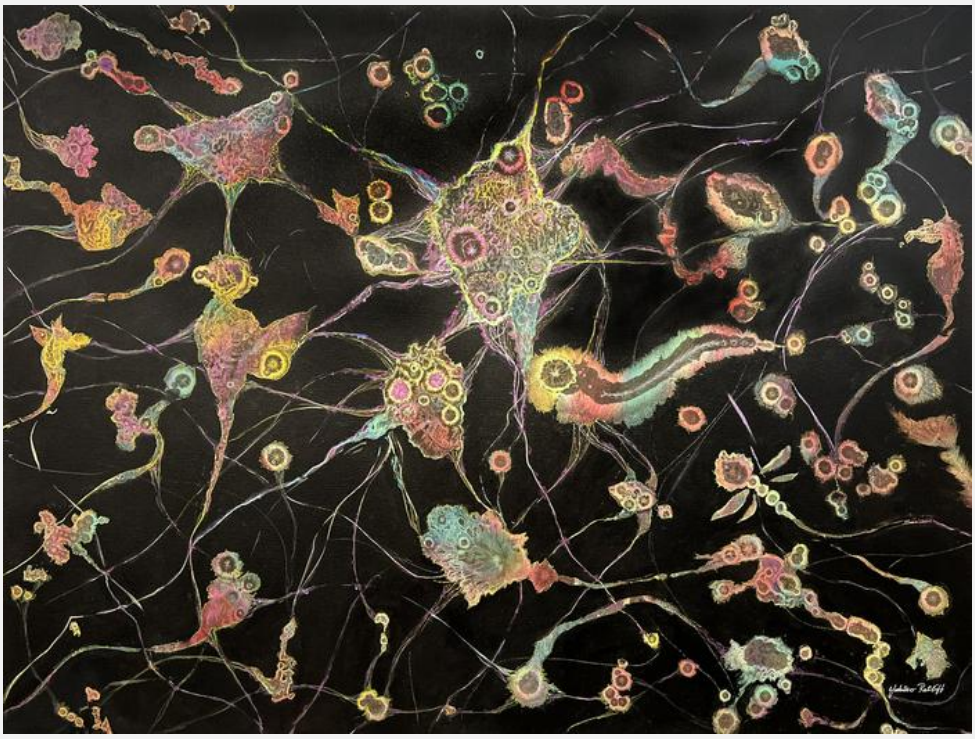
Niagara Drop, *2025*
(Still from 3D animation)
20" x 9" x 4"
Not for sale

Yoshiko Ratliff

Yoshiko Ratliff is a DC-Metro area-based painter and award-winning ceramicist. She was born and raised in Japan and uses her artwork to show the beauty and authenticity of the culture and her heritage. Her works rely on abstract organic underpainting with shapes and shades forming integral elements of the finished pieces.

She is a Member Artist at Touchstone Gallery in Washington DC and has exhibited her work at the DC Commission on the Arts and Humanities I Street Gallery, the Athenaeum Gallery, the Touchstone Gallery, the Mansion at the Strathmore, the CCACC Art Gallery, three times at the Creative Crafts Council Biennial Exhibition, Glenview Mansion and other galleries nationwide as well. She had two designs and ten stormwater covers installed for the City of Alexandria Old Town North Stormwater Cover Design Project.

Her work is found in US and international private and corporate collections and in the 2022 and 2025 DC Commission on the Arts and Humanities permanent collection (acquired through the Art Bank program). She has received many awards and has been featured in publications and radio interviews.



Neuro #2, *2024*
Acrylic
30" x 40" x 1.5"
$3,000.00

“Before the pandemic, when I was a ceramicist specializing in crystalline glazes, ***I saw images of neuronal activity*** *on the Society for Neuroscience and National Institutes of Health websites* ***with shapes similar to the crystals I produced in my glazes****. The painting, inspired by scientific images of neuronal activity, is a stylized, abstract depiction of neurons in the brain. Neurons fire in response to external stimuli from the five senses and internal stimuli from hormones, thoughts and emotions. As people gain life experience and grow, their perceptions, reactions, and internal dialogues shift and evolve, starting at this micro neurological level within the brain. Inspiration and the creative process also begin at this level, and the animal, insect, sea creature, and mythological shapes of the neurons in the painting depict both this process and how* ***it changes the artist's perceptions and broadens the artist's view*** *beyond the surface level of artistic subjects and concepts.”*

Janet Seifert

Janet Seifert is an abstract artist creating luminous, intuitive paintings and drawings that express novel ways of perceiving and interpreting the unexpected beauty transcending everyday life. A native of Baltimore, Janet studied studio art and art history at the University of Maryland, College Park on a full scholarship awarded by the Maryland State Legislature. Now residing in her home state of Maryland-- after a long stint on the West Coast-- with an artist studio in downtown Frederick, Janet exhibits regionally and is an artist partner with Art in Embassies, a U.S. Department of State program supporting cultural diplomacy through the visual arts. Her paintings and drawings are found in collections throughout the U.S. and in the United Kingdom.

Janet Seifert

Universe Rearranging Itself

acrylic painting on archival paper

38 x 30 in

on display at ATRF

$1,800

Janet Seifert

Stardust No. 14

acrylic painting on archival paper

16 x 20 in

on display at YAAC

$650

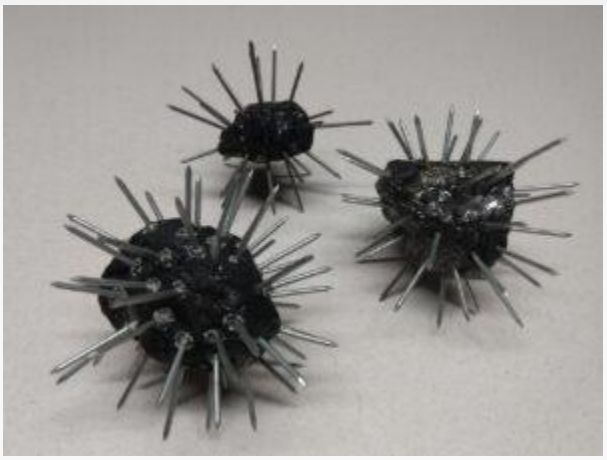
These two paintings are from my “From Stardust” series, inspired by the stunning NASA photos and the science of cosmology, which strives to understand the physical universe as a cosmic system composed of matter and energy that’s continually in flux.

Jon Sutter

Jon Sutter is a mixed media artist making 3D work from wood, glass, metal, and plastic. The industrial forms he uses are borrowed from mass produced objects and the built environment.

His pieces often include surfaces painted to look like metal, exposed bolts and hardware, and the use of found objects. His work explores issues relevant to the modern world such as climate change, invasive species, genomic research, and pollution, and often drifts into areas of political tension.

Jon's work is known for its thoughtfulness, attention to detail, and a high level of craftsmanship while frequently employing humor and irony along with visual metaphor. In addition to art, Jon devotes himself to writing poetry and volunteering. He holds a Baccalaureate degree from the University of Maryland and a Master of Fine Arts degree from Virginia Commonwealth University. His work is represented in both public and private collections.



Jon Sutter

Viral Coal

high anthracite and steel

10 x 10 x 4 in

on display at ATRF

$235

Jon Sutter

Macro-Plastics in the Body

wood, plastic, metal, paint

7 x 45 x 6 in

on display at ATRF

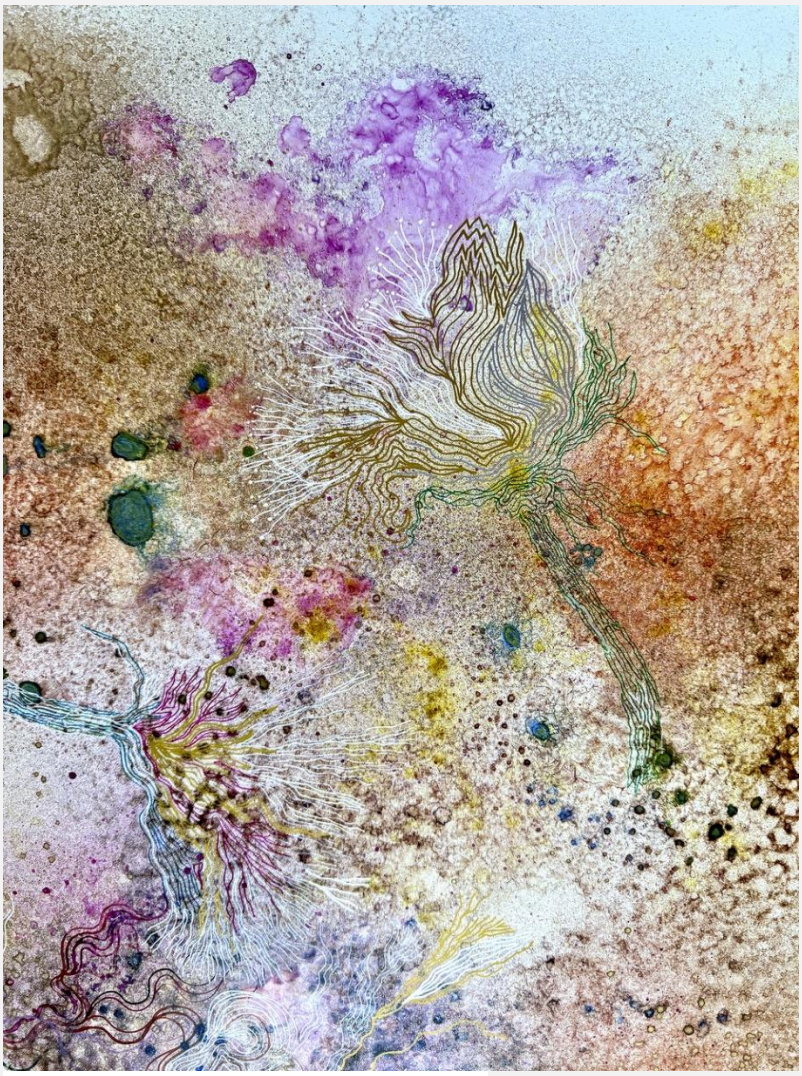
$2,800

I submit the following two pieces which seem relevant to the show themes:
The first entitled "Viral Coal" is made from anthracite and steel.
The use of coal at industrial levels for the last two centuries has contributed much to the build-up of atmospheric carbon dioxide that triggers the greenhouse effect and alters the climate. The work suggests that coal use infects the earth in the same way that a virus infects the body. This touches on both exhibition themes: the use of energy and the exploration of viral biology.
The second work entitled "Macro-Plastics in the Body" is an oversized syringe, nearly four feet in length, made from painted wood, plastic, and metal.
Micro-plastics are small to microscopic particles of plastic that are broken down from larger pieces. Recent research shows that the presence of micro-plastics inside the body has adverse health effects for both people and animals. In the environment micro-plastics enter the watershed
and are ingested by animals. People consume micro-plastics when they cook with Teflon pans,
use plastic utensils, and store food in plastic containers.
This work challenges a viewer to consider injecting large-size plastic pieces into the body to draw attention to the micro-plastics issue. The plastic "injectibles" for this work were gathered from litter that would otherwise have washed into the ocean, and touches on medical research as it relates to environmental issues concerning plastics (which are made from fossil fuels).

Lisa Sheirer

Lisa Sheirer is a visual artist living and working in Frederick, Maryland. She has a Bachelor of Fine Arts in painting and printmaking from West Virginia University and a Master of Fine Arts in sculpture from the University of Notre Dame. Ms. Sheirer has been creating artwork for more than 45 years.

Lisa is an artist in residence at the YMCA Ausherman Art Center, where her gallery and studio are located. She is also artist in residence at Foxhaven Farm in southern Frederick County.



Energy is All Around Us #1
Birmingham Inks, and Gel Pens on Yupo
20" x 30"
$750.00

“… biology and microscopy … has informed my subject matter & painting techniques. Looking through a microscope & studying scientific methods has informed my point of view, which has become both macro & micro.”

Blakeian Portal #5,
Ink on Yupo
14" x 14"
$1,200.00

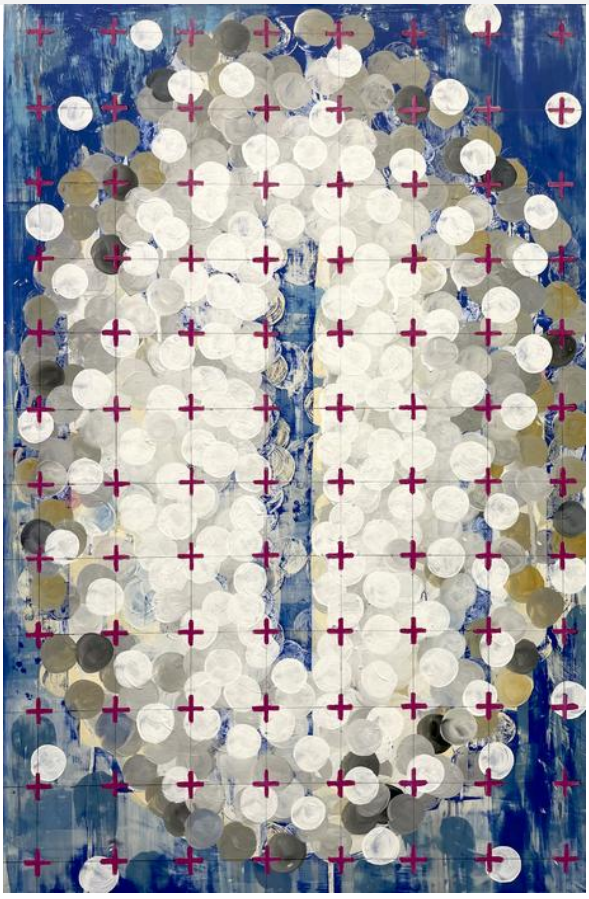
Scott Thorp

Scott Thorp is a professor of art at Augusta University, Chair of the Department of Art and Design, Associate Vice President of Interdisciplinary Research and a highly accomplished artist who is widely published in academia both in the discipline of art and regarding art criticism and education.

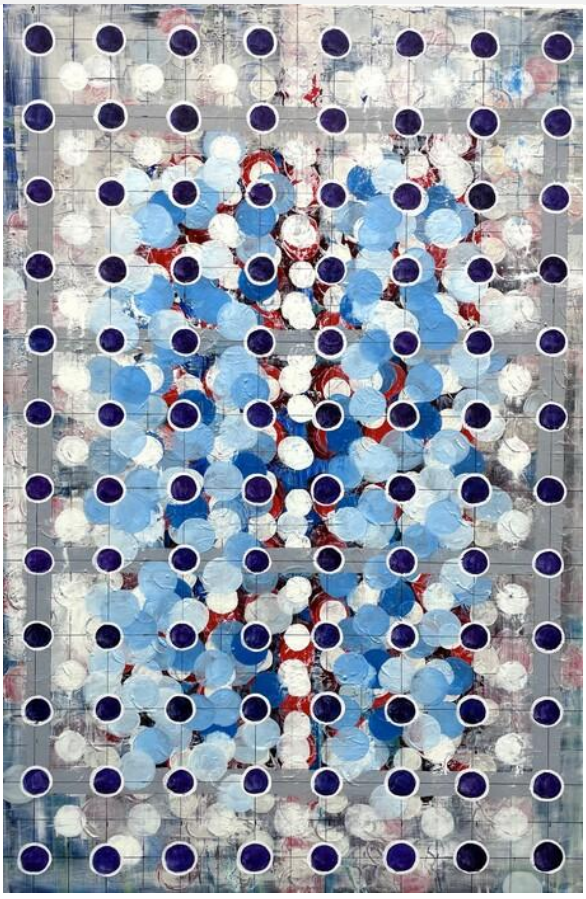
He has an extensive list of exhibitions and solo shows as well as conference presentations, media appearances, and was a representative of the Leonardo Art Science Evening Rendezvous Talks https://leonardo.info/laser-talks

His work explores naturally occurring patterns and matrices and seeks to visualize them, making both the micro and macro scales more manageable and human.

My paintings are abstract investigations into visual systems that echo the structures and forces found in nature and science. Through layered colors, lines, and circles, I create compositions that refer to both microscopic and cosmic scales. They suggest cellular formations, wave patterns, and energetic fields. These works explore the tension between order and entropy, reflecting the dynamic interplay of energy and matter. Inspired by concepts such as the unit interval and emergent forms in physics, my practice invites viewers to consider how unseen forces shape both the natural world and our perception of it. Rather than depict, I aim to resonate. This allows meaning to emerge through engagement and interpretation.



Lepanto 3, *2025*
Oil on panel
36" x 24" x 1"
$1,200.00



Presence 2, *2024*
Oil on Panel
36” x 25” x 1”
$1,200

“My paintings are abstract investigations into visual systems that echo the structures and forces found in nature and science. Through layered colors, lines, and circles, I create compositions that refer to both microscopic and cosmic scales. They suggest cellular formations, wave patterns, and energetic fields. These works explore the tension between order and entropy, reflecting the dynamic interplay of energy and matter. Inspired by concepts such as the unit interval and emergent forms in physics, my practice invites viewers to consider how unseen forces shape both the natural world and our perception of it. Rather than depict, I aim to resonate. This allows meaning to emerge through engagement and interpretation.”

Angelo Varisano

Angelo Roman Varisano was born in Heidelberg, Germany, and is a multidisciplinary artist based in Central Pennsylvania. His work has been exhibited throughout the United States and draws on influences found both here and abroad, exploring themes around the nature of being and the variety of human experience.

Kiss, *2025*
Acrylic and oil pastels on canvas
77" x 56" x 1.5"
$2,000.00

“My practice spans painting, sculpture, and performance, often blurring the boundaries between mediums to explore the ephemeral nature of the human experience. Working

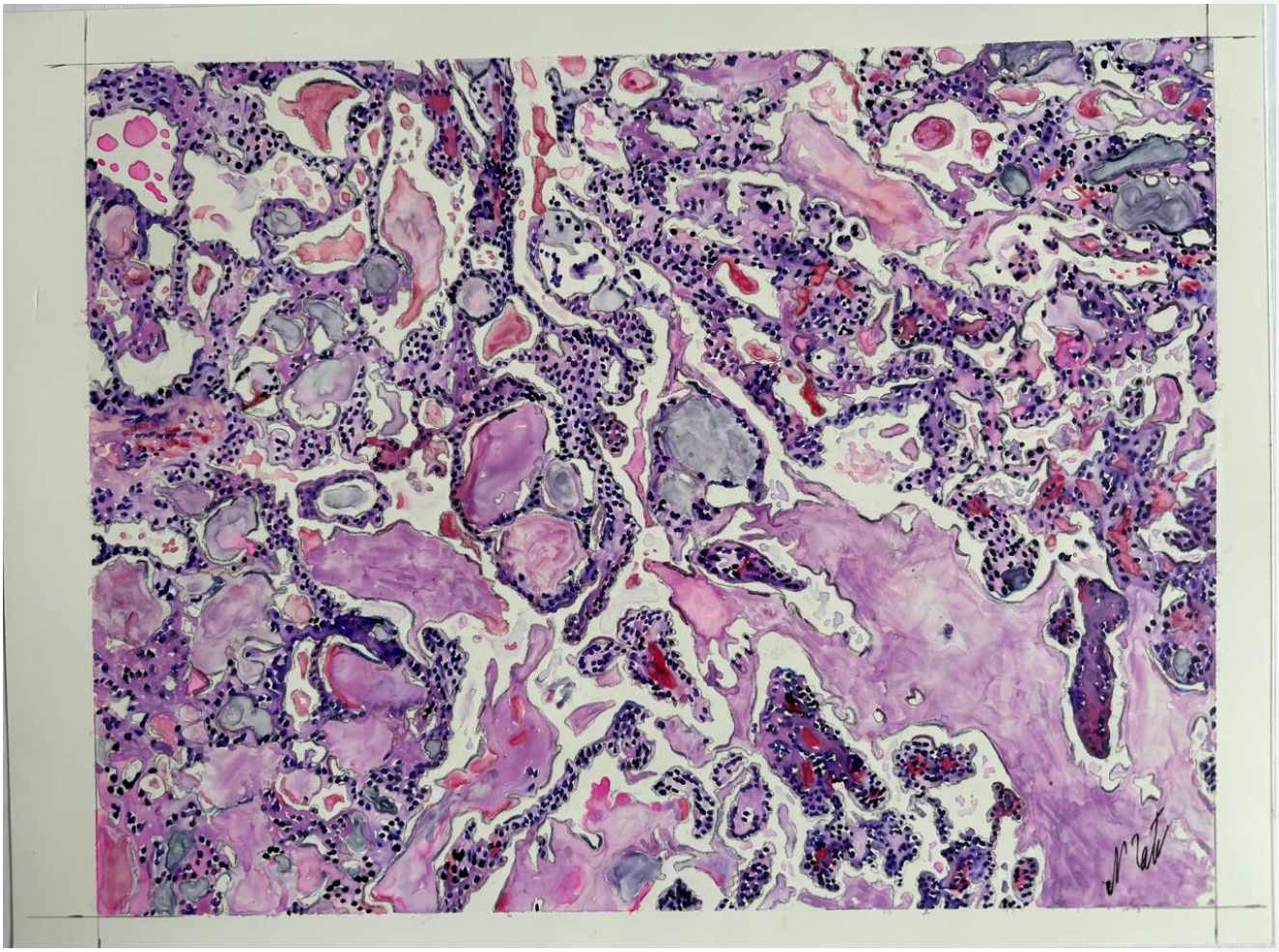
in mixed media, works reflects a deep interest in states of being, using a wide spectrum—from bright, vibrant palettes to raw, earthy elements—to express internal and external transformations. My pieces are often infused with mythological references and animist themes, evoking a timeless connection between nature, spirit, and self."

Theory of everything, *2025*
Mixed medium
65.5" x 66" x 1"
$1,200.00

Negin Vatanian

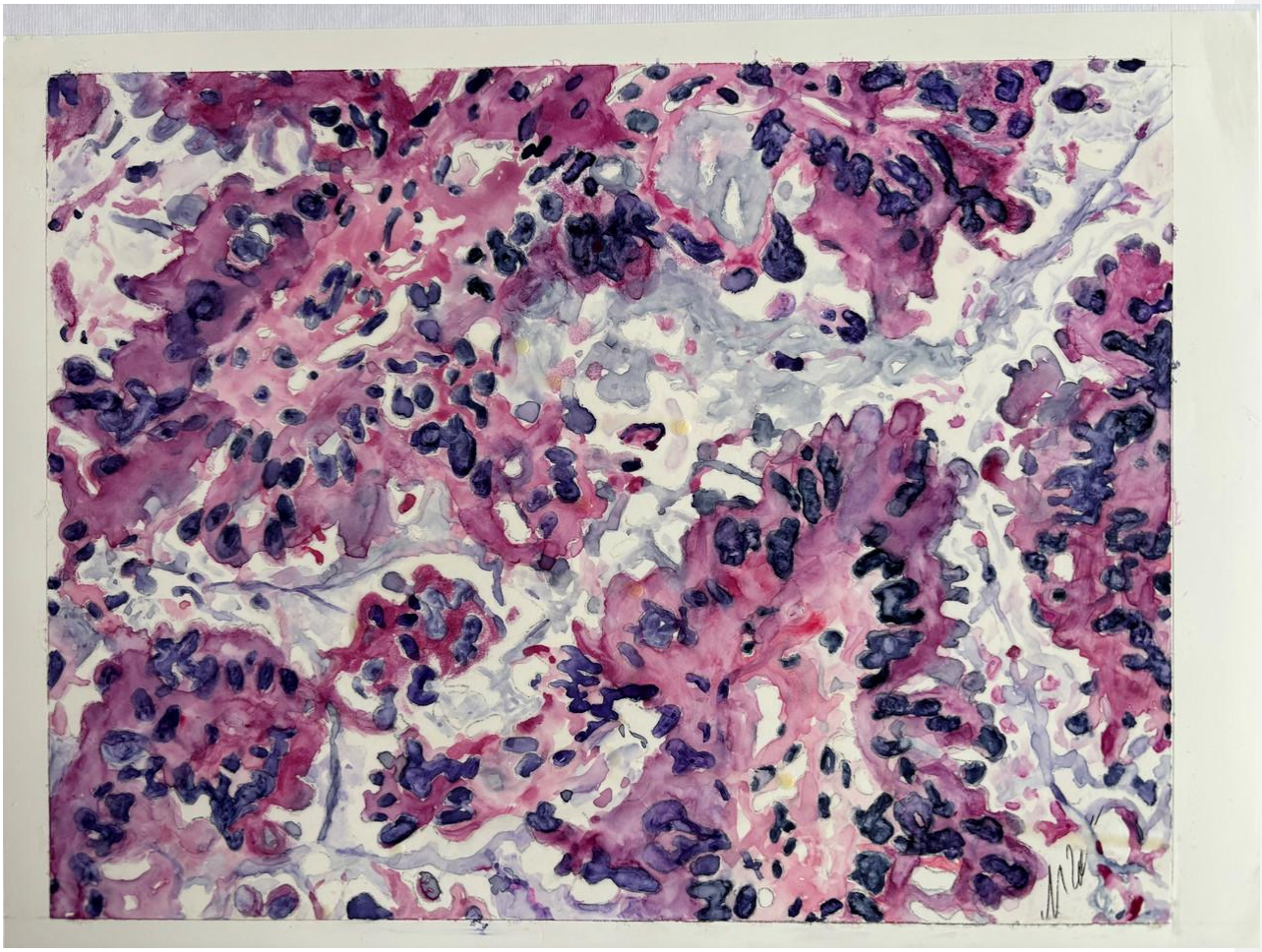
Born in Iran, and with degrees in Applied Chemistry, Pharmaceuctical Regulatory Affairs and Quality Operations, Biotechnology Sciences and Business Administration, Negin Vatanian's art is informed by years of work at FNLCR/ATRF and in the biotech field.

Utilizing microscopic imagery of cancer cells, Vatanian's work invites the viewer to see the beauty even in disorder, providing an opportunity for patients and a wider audience to understand the disease in a different way.



Microscopic anatomy of Salivary gland Cancer cells
watercolor on YUPO paper
8"X10.5"
$450

"Finding beauty in the pattern of cancer cells. Utilizing art as a form of narrative therapy, offering patients and their families a unique lens through which to view their illness in a different light."



Microscopic Anatomy of Brain Cancer Cells
watercolor on YUPO paper
8"X10.5"
$450

Richard Weiblinger

Richard Paul Weiblinger is an accomplished, award winning, and completely self-taught photographer. Richard is originally from Pittsburgh, Pennsylvania, and currently resides in suburban Maryland just outside of Washington DC. Prior to retiring and becoming a fine art photographer he was a biological scientist at the U.S. Food and Drug Administration. Color is a major focus of his work with many of his pieces exhibiting a chromatically strong theme.

inner sanctum
archival digital print
30 x 20
$400

Recently he has focused on long exposure minimalism, resulting in the creation of ethereal images. His attention has focused on simple elements, leading lines, and negative space. Over the last several years he has begun to exhibit his work and has found himself creating art not just documenting the world around him. Richard's photography portfolio is an accumulation of abstract, landscape, nature, wildlife, architecture and macro photography images. Richard's work has

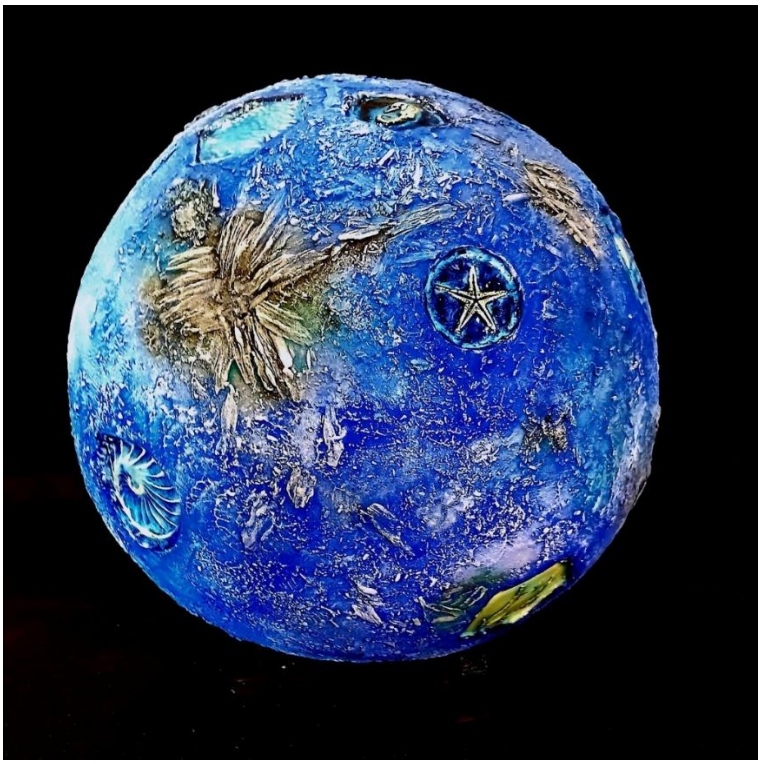
been exhibited in solo exhibitions, national juried exhibitions, galleries, and has been featured in numerous publications.

“I have had a varied career background in the biological sciences and most recently as a retired biological scientist formally with the FDA at the Center for Devices and Radiological Health. I appreciate how my scientific academic background and care [influences my work].”

organic geometry
archival digital print
30 x 20
$400

Robert Strasser

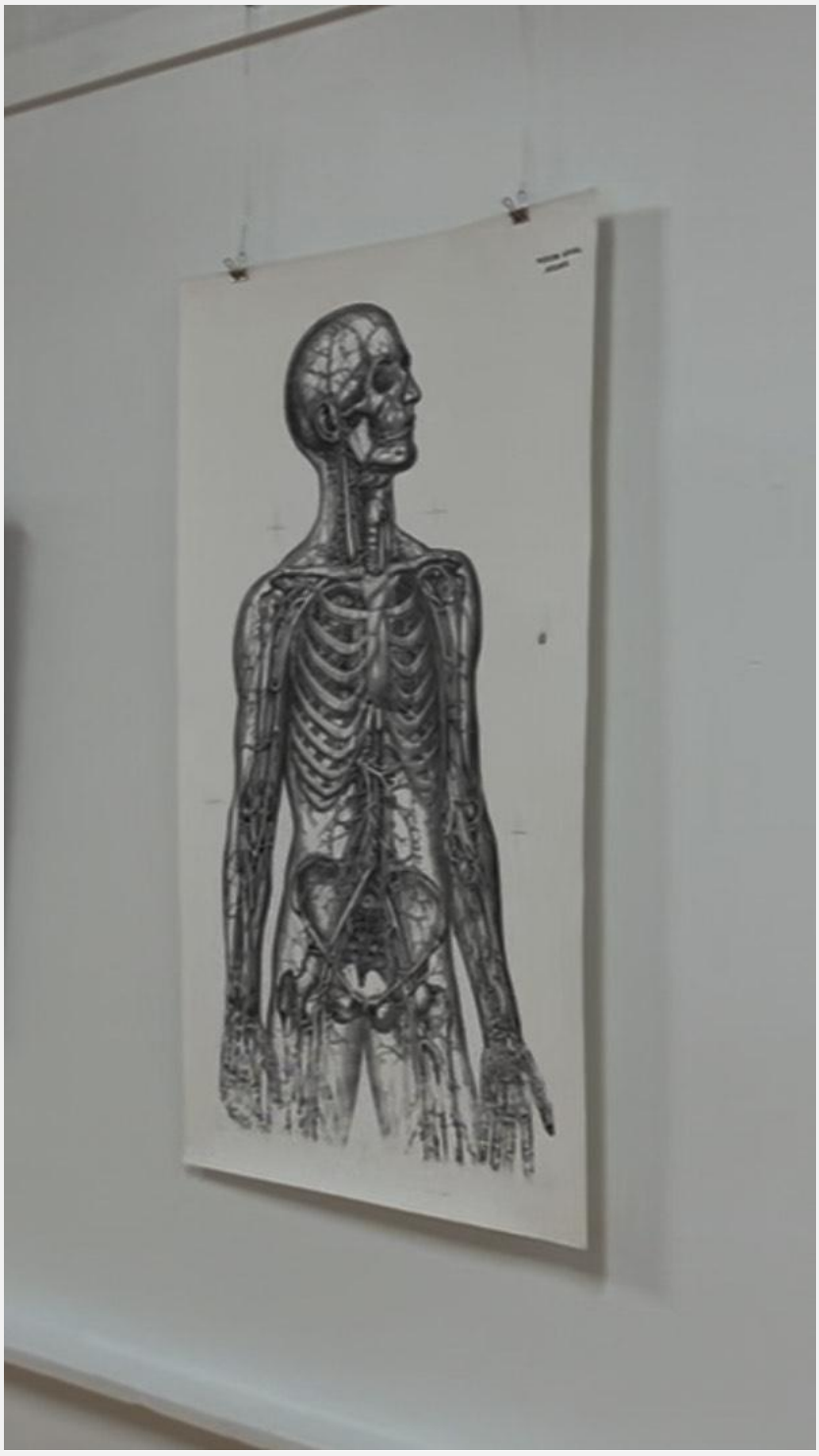
An inventive and innovative Frederick-area artist whose creative work bridges visual and musical arts and spans traditional and modern styles and techniques, and whose professional experience includes design, instruction, and performance in various private, academic and extracurricular settings. Has maintained a private studio practice specializing in ceramics and including various other visual, musical and written media since 1988.



Beneath the Ice
Ceramic, with glazes, underglazes, and embossed expressions of ice, sea creatures and sea plants
12" diameter
$895

"Biologically, photosynthetic and chemotropic microbes use light from the sun and energy from inorganic bonds to interact with organic molecules, creating life. On a macro level, stars emit light which falls on moons and planets, effecting change."

Anatomical Prints On Loan from the Frederick Book Arts Center



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