



NYU Langone Art Gallery

***Our Cosmic Brain***

**Opening Reception:** Thursday, January 11, 2018, 6 PM to 8 PM | Artists' Talk 7 PM

**On view** from January 11 to March 31, 2018

550 First Avenue, New York City

(Adjacent to the Joan and Joel Smilow Research Center)

The NYU Langone Art Gallery is pleased to present *Our Cosmic Brain*, featuring artworks by Julia Buntaine and Laura Jacobson, which celebrates the universe within our brain.

Comprised of billions of neurons, our brain resembles the cosmos. Its infinite connections control most of the activities of the body—motor, sensory, emotional, thought, memory. As the central organ of the nervous system, the brain serves as the primary receiver, processor, and distributor of information. It defines who we are, from the way we think to how we feel, see, move, act, and reason.

Buntaine presents two digitally generated bodies of work: *For Pollock* and *Territories*. *For Pollock*, she employed images of retinal neurons generated by a brain mapping game called Eyewire. This game allows players to track a retinal neuron's path; and with data, they are able to reconstruct 3D models of neurons. The final neuron maps are shared publicly to assist neuroscientists in recording the connectome, a comprehensive diagram of neural connections. Manipulating the images of mapped neurons that she found most striking, Buntaine composed the artwork with a total of 36 squares—in a way, generating a module-based system that alludes to the modularity of the brain. With the implied interchangeability and interconnectedness of these sections, the work speaks to the functions, flexibility, and multifaceted quality of our brain.

Like an abstract expressionist painter, Buntaine developed *For Pollock* in what at first glance seems a random and fast arrangement; but upon closer examination, the details reveal a careful, controlled, and calculated composition. Similar to Jackson Pollock's process, she carefully assigns a color to each form; and similar to his drawing in space, the varied intensity in hue resonates with this gesture. These strokes, in turn, echo the electrochemical signals transmitted between neurons for the dissemination and reception of information.

For her series *Territories*, Buntaine was inspired by the work of Santiago Ramón y Cajal, the father of modern neuroscience; as well as by Jorge Luis Borges' short story, entitled "On Exactitude in Science." She used images of microscopy slides illustrating an array of areas of the brain. Using Photoshop, Buntaine digitally manipulated the images to develop works oval in shape, reminiscent of world maps. Her additions, deletions, and changes in color yield to imagery resembling territories, which give the impression of a world partially being discovered and tempts the viewer to explore further. As Santiago Ramón y Cajal stated, "The brain is a world consisting of a number of unexplored continents and great stretches of unknown territory." The work's range in color to denote a variety of landscapes that speak to the diverse regions of the brain. The topography depicted is as complex as our brains, underscoring the tangible and the intangible, as well as the infinite that lies within what's not seen. The illustrated landscapes, like maps of a place, assist in defining the brain by omission as the information could be as infinite as the universe. This is what Borges alludes to in "On Exactitude in Science" bringing to light that cartography does not define place itself, because if every detail were to be drawn, then the map of a place would be as large as the place itself. Buntaine's aim with *Territories* is to highlight the challenges, and perhaps impossibility, of truly knowing the brain through our quest for mapping.

This exhibition presents a series of prints and ceramic sculpture by Laura Jacobson, whose work explores the intersection between neuroscience and culture. Jacobson's works on paper are from her *Into the Mind* series, which depicts neural mappings with multiple layers of data. Many of these markings symbolize the pattern, structure, and symmetry found in the anatomy of the brain. To produce these works, Jacobson utilizes printmaking techniques such as intaglio, relief, aquatint, and Chine-collé and often includes data from maps, math, music, and language. For instance, in *Filter : Perceive* Jacobson incorporates music, providing a palpable dialogue between the brain and culture. She adds visual sound through cymatics, which makes sound visible by employing an object such as metal plate coated with sand. The patterns recorded by the vibrations were incorporated into this monoprint along with a listing of radio stations, hexagonal fields, and a diagram of the visual system. Its honeycomb structure suggests the efficiency of the brain, since a hexagonal system uses the least space to create a lattice of cells. Having an x-shaped form, the optic chiasm, which is responsible for connecting the brain to the eyes, is also illustrated. With these patterns, her aim is to demonstrate the complexity and the role of the brain in sensory input.

In *Grid : Navigate NYC*, Jacobson prints a continuous line to denote the trajectory of a traveler in New York City. The map of the city is displayed with a grid pattern and images of the Purkinje neurons, which play a role in motor movement; and muscle fibers surround the composition. The larger circles reference the neuronal firing patterns while navigating. These images not only speak to the brain's role in movement, but also to the characteristics of the city, our relationship to it, and our perception of it. The composition brings to light the dialogue between the city and us as understood by the brain. Furthermore, this work uses Chine-collé (Chinese collage) which entails the adhesion of two separately printed papers side-by-side. With this process, *Grid : Navigate NYC* evokes how systems work side by side in the brain to translate signals.

To sculpt her ceramic series *Brain Scapes*, Jacobson studied several Magnetic Resonance Imaging scans (MRI) taken horizontally. Her shaping of these forms with clay is deliberate because the material's plasticity and malleability is synonymous with the characteristics of the brain—just as clay may be easily altered and molded, so may the brain. As Ramón y Cajal put it, “Any man could, if he were so inclined, be the sculptor of his own brain.” Jacobson also imprinted in the clay objects such as gears and binary code. These elements make reference to the function, data processing, and structure of the brain. The binary code may be further viewed as not only our brain functioning like a computer, but as an expression of philosophy, thought, and reality—the most complex aspects of reality may be represented as 1s and 0s, making what is real defined by our brains.

These sculptures, works on paper, and digital works celebrate the vastitude of the brain—with its boundless capacity and infinite connections, a universe living in our heads.

*Our Cosmic Brain* is curated by Katherine Meehan, manager of the NYU Langone Art Program and Collection.

The NYU Langone Art Program and Collection integrates artwork varying in subject and medium into the healing environments of our new and recently renovated facilities. Conceived by Vicki Match Suna, AIA, vice dean and senior vice president for Real Estate Development and Facilities, the program is built through acquisitions, commissions, exhibitions, and donations of art, as well as through other visual arts-related programming. The collection features a diverse portfolio of works: paintings, sculptures, installation art, and murals.

**Julia Buntaine** is a neuroscience-based visual artist, director of SciArt Center, and editor in chief of *SciArt Magazine*. Buntaine attained her BA in neuroscience and sculpture from Hampshire College, her post-baccalaureate certificate in Studio Art from Maryland Institute College of Art, and her MFA of Fine Arts from the School of Visual Arts. She has exhibited nationally and internationally including shows in Amherst, New York City, Baltimore, Seattle, Madison, Princeton, London, Toronto, Knokke, and others. Her work can be found in the permanent collection of Johns Hopkins University. She also teaches, consults, curates, and frequently writes about art, and is currently the Innovator-in-Residence at Rutgers University and a visiting artist at Lafayette College. Buntaine lives and works in New York City.

**Laura Jacobson** earned an MFA from the Rhode Island School of Design (2003) and a BA from Stanford University (1989). She worked as a journalist for San Francisco Bay Area newspapers before pursuing her lifelong passion for the visual arts. Her early explorations in ceramics and the human form grew to encompass a deeper query into the human brain and collisions between biology and culture. She recently completed a solo exhibition titled 'Into the Mind' for the McKnight Foundation in Minneapolis, MN. Her 2014 work 'Digital Sediment II' won Honorable Mention at the 'BRAIN-ART Initiative' show at the Beverley Art Center in Chicago, IL. A permanent installation of her 'Brain Scapes' is on display at Stanford University. Her works may be found in numerous

private collections in the United States and around the world. Laura Jacobson was born in 1967 in Palo Alto, CA, USA and raised in Los Altos Hills. She lives and works in Palo Alto.

For inquiries about the program or the artwork, please contact [katherine.meehan@nyumc.org](mailto:katherine.meehan@nyumc.org)

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Also on view: "The Beautiful Brain: The Drawings of Santiago Ramon y Cajal," exhibition at NYU's Grey Art Gallery, 100 Washington Square East, January 9-March 31, 2018. Information: [greyartgallery.nyu.edu](http://greyartgallery.nyu.edu).