

# Metric on a Torus

*Lei Chen*

*David Gabai*

*Maggie Miller*

*Vera Molnár*

*John Newman*

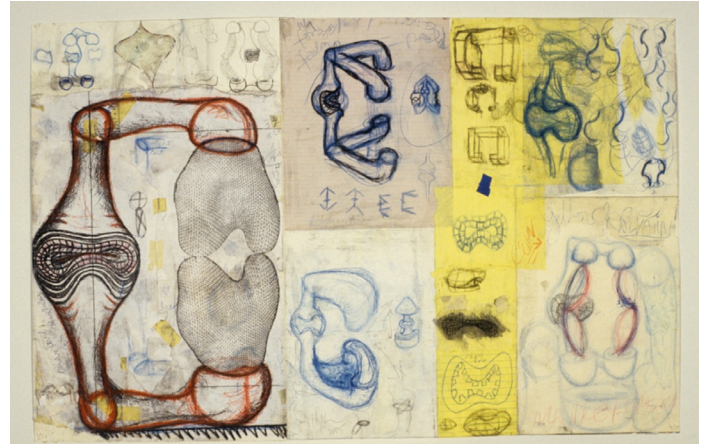
*Howardena Pindell*

*Richard Evan Schwartz*

*Melvin Way*

February 17 - March 25, 2023

OPENING RECEPTION: February 17, 2023 6-8 pm



**John Newman, *Before, during and after*  
YELLOW DIPPED HAWAIIAN, 2002/2005**  
various materials, 21 × 32 ¼ inches (53.34 × 81.92 cm)

Klaus von Nichtssagend is excited to present a show of works by artists and mathematicians creating a conversation between their respective creative fields. The show consists primarily of works on paper – the artists’ works framed on the walls, the mathematicians’ notes presented horizontally on a table. This dual presentation alludes to the differences in the “function” of the work, and to the ways in which artists and mathematicians use visual languages to their own ends.

In the field of topology, mathematicians’ sketches can be simple and doodle-like comprising, for example, a tubular form bent in a U shape with colorful lines intersecting. These drawings guide a math practice that is inextricable from thinking about shape and form, and is similar to the process artists go through when creating abstract art. Without knowing art or math, one could mistake a mathematician’s notes for an artist’s sketchbook – or vice versa. The two fields are considered separate today — housed in discrete rooms of schools and far flung buildings at universities. But do these two fields share more than we realize?

**Vera Molnár** has created work by writing computer algorithms to draw on a plotter; she would, at times, tweak the program creating multiple iterations of her drawings. **Richard Evan Schwartz**, working in geometry and dynamical systems, writes computer programs which help him discover new mathematical phenomena. The programs display their “thinking” in colorful geometric compositions. **Howardena Pindell** has recently produced work at the handmade paper studio, Dieu Donn . She alludes to geometric space by placing numbered circular disks inside a gridded shape.

Sculptor **John Newman** works with forms synthesizing ideas of the body and geometry. He often sketches throughout his process, drawing the piece before, during, and after the creation of a sculpture. Two topologists studying low dimensional manifolds, **David Gabai** and **Maggie Miller**, draw extensively in

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their notes, filling entire pages with roughly drawn sketches. They draw to discover new mathematical truths. Often setting out to prove a particular conjectural theorem. Their pictures may lead to other mathematical results. The proofs of their theorems are written in more formal mathematical prose, often illustrated to help the reader capture their ideas. Also studying low dimensional manifolds, **Lei Chen's** note pages include equations interspersed with line drawings. Artist **Melvin Way** has formed his own language using mathematical symbols and formulas. His drawn notes are on small pieces of paper that he carries with him daily before releasing them when they are ready to be seen by an audience.

**Lei Chen** (b. 1991) *Is a University of Maryland Assistant Professor of Mathematics. She received her Ph.D. in mathematics from University of Chicago; Benson Farb was her advisor. At Peking University working with Jiajun Wang she received her B.Sc.. Chen is a 2022 recipient of the Sloan Research Fellowship. She was a postdoctoral Fellow at Caltech 2018-2021 and at the Institute for Computational and Experimental Research in Mathematics at Brown University in 2022.*

**David Gabai** *is the Hughes-Rogers Professor of Mathematics at Princeton University, where he was department chair from 2012 to 2019. He received his Ph.D. from Princeton University in 1980 with William P. Thurston as his advisor and a B.S. from Massachusetts Institute of Technology in 1977. He was a Sloan Foundation Fellow in 1986. His research was recognized with the 2004 Veblen Prize and a 2009 Clay Research Award. Gabai has been invited to lecture at the 1990 and 2010 International Congress of Mathematicians. He became a Fellow of the American Mathematical Society in 2013. Gabai was elected to the National Academy of Sciences in 2011 and the American Academy of Arts and Sciences in 2014.*

**Maggie Miller** (b. 1993) *Visiting Clay Fellow and Stanford Science Fellow in the math department at Stanford University. This year she was granted the Maryam Mirzakhani New Frontiers Prize. Miller will start an assistant professorship at the University of Texas at Austin fall of 2023. She holds a Ph.D. in Mathematics, Princeton University with David Gabai as her advisor and a Bachelor of Science from University of Texas at Austin advised by Cameron Gordon.*

**Vera Molnár** (b.1924) *is a Hungarian artist living and working in France. She was one of the first artists to use computers in her work. Molnár was the subject of a retrospective at the Musée des Beaux-Arts, Rennes, in 2021. Recent solo exhibitions include Musée des Beaux-arts, Rouen (2007, 2012); Musée des Beaux-arts, Budapest (2010); Haus Konstruktiv, Zurich (2015); Musée des Beaux-Art de Caen, Caen (2018); Museum of Digital Art, Zurich (2019); and Museum Ritter, Waldenbuch (2020). She has also participated in group exhibitions at the Victoria & Albert Museum, London, The Museum of Modern Art, New York, Centre Pompidou, Paris (2021). In 2022, she was selected for inclusion in 'The Milk of Dreams' at the 59th Venice Biennale, 2022. Molnár received the first D.velop Digital Art Award in 2005, was appointed Chevalier of Arts and Letters in 2007, and won the outstanding merit award AWARE in 2018. Molnár's work is included in the collections of Bibliothèque Nationale, Paris, Centre Pompidou, Paris, Musée des Beaux-Arts, Rouen, Tate, London, Victoria & Albert Museum, London, Kunsthalle Bremen, Bremen, Sammlung Peter C. Ruppert, Würzburg, Staatliche Kunstsammlung Dresden, Dresden, Hungarian National Gallery, Budapest, Kassák Múzeum, Budapest, László Vass Collection, Budapest, Matzon Collection, Budapest, Museum of Fine Arts, Budapest, Paksi Városi Múzeum, Paks, National Library, Tokyo, Morgan Library & Museum, New York, NY, Museum of Fine Arts, Houston, TX, Museum of Modern Art, New York, NY, National Gallery of Art, Washington, D.C., among many others.*

**John Newman** (b. 1952) *is an artist living and working in New York. He earned his B.A. from Oberlin College and an M.F.A. from Yale School of Art. John Newman has had over fifty solo exhibitions and has participated in hundreds of group exhibitions. He has work in the collections of the Museum of Modern Art, the Whitney Museum of American*

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*Art, the Metropolitan Museum of Art, the Albertina Museum in Vienna and the Tate in London. He has received several grants and awards including the Rome Prize, the Guggenheim Fellowship, the American Academy of Arts and Letters, a Pollack-Krasner Foundation, the Gottlieb Foundation, the Joan Mitchell Foundation and the Tiffany Foundation as well as residencies at Chinati, MacDowell, Yaddo, the Civitella Ranieri Foundation in Umbria, Italy and was Artist-in-Residence at Dartmouth College.*

**Howardena Pindell** (b. 1943, Pennsylvania) lives and works in New York. She studied painting at Boston University and Yale University. Pindell's work has been featured in many museums, such as: Whitney Museum of American Art, P.S. 1 Contemporary Art Center, The Studio Museum in Harlem, New Museum of Contemporary Art, Spelman College Museum of Fine Art, Brooklyn Museum, New York), Museum of Contemporary Art, Los Angeles, Seattle Art Museum, Contemporary Arts Museum, Houston, Museum Brandhorst, Museum Moderner Kunst. Pindell's work is in the permanent collections of major museums internationally, including: the Brooklyn Museum; the Corcoran Gallery of Art; the Fogg Museum, Harvard University, Cambridge; the High Museum of Art, Atlanta; the Louisiana Museum of Modern Art, Copenhagen; the Metropolitan Museum of Art; the Museum of Contemporary Art, Chicago; the Museum of Modern Art; Museum of Fine Arts, Boston; Museum of Fine Arts, Houston; the National Gallery of Art, Washington, D.C.; Pennsylvania Academy of the Fine Arts, Philadelphia; the Philadelphia Museum of Art; The Studio Museum in Harlem; the Smithsonian Museum of American Art, Washington, D.C.; the Wadsworth Atheneum, Hartford; the Walker Art Center, Minneapolis; the Whitney Museum of American Art; and the Yale University Art Gallery, New Haven.

**Richard Evan Schwartz** (b. 1966) is the Chancellor's Professor of Mathematics at Brown University. He received his Ph.D. from Princeton University in 1991 with William P. Thurston as his advisor, and his Bachelor of Science degree in 1987 from UCLA. He was a Sloan Research Fellow in 1996-98, a Guggenheim Fellow in 2003, a Clay Research Scholar in 2009, a Simons Fellow in 2012-13, 2016-17, and 2020-21. Schwartz became a Fellow of the American Mathematical Society in 2017 and was an invited speaker at the International Congress of Mathematicians in 2002 and 2022. He published *The Plaid Model* in 2019, *Outer Billiards on Kites* in 2009, and *Spherical CR Geometry and Dehn Surgery* in 2007, all with Princeton University Press. He is also the author of a number of picture books, including, *You Can Count on Monsters*, *Man Versus Dog*, *Life on the Infinite Farm*, and *Really Big Numbers*.

**Melvin Way** (b. 1954) lives and works in South Carolina. His work has shown in exhibitions at *The FLAG Art Foundation* (2021), *American Folk Art Museum, New York* (2020, 2016, 2014, 2009), *White Columns* (2019), *Atlanta Contemporary* (2019), *Hayward Gallery, London* (2013), *Gregg Museum of Art and Design, Raleigh* (2013), among others. His work has been written about in publications such as the *New York Times*, and *Hyperallergic*. His work is in many public collections including *American Visionary Art Museum, Baltimore*, *Antoine de Galbert Collection, Paris*, *Centre Georges Pompidou, Paris, FR*, *Collection abcd, Montreuil*, *Collection de l'Art Brut, Lausanne*, *Museum of Modern Art, New York*, *Transformer, Washington, D.C.*, *Treger Saint Silvestre, Porto*, *Smithsonian American Art Museum, Washington, D.C.*

For images or more information please contact the gallery at [klaus@klausgallery.com](mailto:klaus@klausgallery.com) or call 212-777-7756

Gallery Hours: 11AM–6PM, Tuesday through Saturday

Subway Directions: 1 train at Franklin Street, 4 5 6, J M, N R Q W, and A C E at Canal Street