



Press release
Frankfurt am Main, May 20, 2021

Breaking Glass III – Virtual Space

Online Symposium, May 28–30, 2021

Information and access to the live stream (no registration required) via:
<https://breakingglass.staedelschule.de/>

Refik Anadol, Johan Bettum, Daniel Birnbaum Simon Denny, Elizabeth Diller, Vittorio Gallese, Dominique Gonzalez-Foerster, Yuk Hui, iheartblob, Peter Jäger, Sanford Kwinter, Michelle Kuo, Lundahl & Seidl, Thomas Metzinger, Yasmil Raymond, Rachel Rossin, Tomás Saraceno, Wolf Singer, Space Popular, Ben Vickers as well as students and alumni of the Städelschule

Breaking Glass III - Virtual Space is a three-day symposium organized by Städelschule and moderated by professors Johan Bettum and Daniel Birnbaum. This virtual event focuses on the role of augmented reality (AR) and virtual reality (VR) in architecture and art, and brings together speakers from various disciplines, including architecture, art, philosophy and neuroscience, who present their ideas, theories and work in the field of AR and VR. Critical practitioners and theorists from 13 different cities are invited: Basel, Berlin, Frankfurt, Hong Kong, London, Los Angeles, Mainz, New York, Paris, Parma, Seoul, Stockholm, and Vienna.

Breaking Glass III - Virtual Space is generously supported by Aventis Foundation with additional support by the Dr. Marschner Stiftung, Frankfurt. Additional support is provided by Hessisches Ministerium für Wissenschaft und Kunst.

Breaking Glass

In 2018, the Städelschule launched *Breaking Glass*, a three-part multidisciplinary symposium intended to present groundbreaking projects by artists and architects engaging with advanced new technologies.

Breaking Glass I (Städelschule, 2018) tackled the technologically driven processes of subjectification that produce us as individuals and collectives. With *Breaking Glass II* (Mousonturm, 2019), the central role of the virtual image for AR and VR was addressed. *Breaking Glass III* concludes by thematically engaging with the immersive and interactive qualities of the space that is engendered. Within a relatively short time, AR and VR have emerged center stage in architecture and art as novel means for exploring how their creative output is produced, mediated, and experienced. With AR and VR the experiencing subject is situated in a potentially interactive relation to a partly or fully simulated environment. Feeding the continuous experiential spectrum between the “fully real” and the “fully virtual,” the underlying technology of these media presents machine-generated sensorial input where to date the ocular dominates. With these inputs, corporeal experience sees the “virtual” thrown on the scale with the “real”

Virtual Reality and Perception

while the concepts and models in neuroscience for how we understand perceptual dynamics are shifting.

The questions pertaining to virtual space include how it accommodates and affects the human subject, and thus how our sense of reality is constructed within it. AR and VR bring the pictorial and the spatial together insofar as both are based on virtual, computer-generated imagery. AR merges this virtual image with an image of the real setting, whereas in VR the virtual imagery is the main element in the saturated, closed, and immersive environment.

The symposium is accompanied by the publication *Breaking Glass: Spatial Fabulations & Other Tales of Representation in Virtual Reality* (Spurbuchverlag, 2021).

The symposium will be held in English.

Program

Friday, May 28, 2021

5:00–5:30 pm, Welcome and Introduction

Yasmil Raymond, Frankfurt
Johan Bettum, Frankfurt and Daniel Birnbaum, London

5:30–8:00 pm, Panel 1: Art in the New Era. The Virtual Turn

Michelle Kuo, New York
Rachel Rossin, New York
Tomás Saraceno, Berlin with Peter Jäger, Mainz and Yasmil Raymond, Frankfurt
Dominique Gonzalez-Foerster, Paris

8:00–9:30 pm, Panel 2: Experiencing the Self: Space and the Virtual

Wolf Singer, Frankfurt
Lundahl & Seitzl, Stockholm
Yuk Hui, Hong Kong

Saturday, May 29, 2021

12:00–12:15 pm, Introduction

Johan Bettum, Frankfurt and Daniel Birnbaum, London

12:15–2:30 pm, Panel 3: Art and Architecture in Virtual Space

Space Popular, London
Vittorio Gallese, Parma
Ben Vickers, London

2:30–6:00 pm, Panel 4: Making Worlds Today

Elizabeth Diller, New York
Thomas Metzinger, Mainz
Sanford Kwinter, New York

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6:30–8:00 pm, Panel 5: Staging the Future

Simon Denny, Berlin
iheartblob, Vienna
Refik Anadol, Los Angeles

Sunday, May 30, 2021

6:00–6:15 pm, Introduction

Johan Bettum, Frankfurt and Daniel Birnbaum, London

6:15–9:00 pm, Panel 6, Projects and contexts by students and alumni of Städelschule

David Bachmann and Ben Livne-Weitzman (WAVA), Frankfurt; Yara Feghali, Los Angeles; Ainsley, Johnston, Basel; Yeon Joo Oh and Haewook Jeong, Seoul

Guest speakers

Refik Anadol is a media artist, director, and pioneer in the aesthetics of data and machine intelligence. His body of work locates creativity at the intersection of humans and machines. In taking the data that flows around us as the primary material and the neural network of a computerized mind as a collaborator, Anadol paints with a thinking brush, offering us radical visualizations of our digitized memories and expanding the possibilities of architecture, narrative, and the body in motion. Anadol's site-specific AI data sculptures, live audio/visual performances and immersive installations take many forms, while encouraging us to rethink our engagement with the physical world, its temporal and spatial dimensions, and the creative potential of machines.

Johan Bettum is professor of architecture at the Städelschule and head of the studio, *Architecture and Aesthetic Practice*, where architectural design is explored through an explicit engagement with the arts and contemporary design technology. Recent work in the studio has used virtual reality as a laboratory for spatial inquiries in relation to subjective experience, the construction of reality and the role of images in regimes of representation. Bettum has taught, lectured and been a critic at various schools in Europe and the USA and his writing has been published in edited books and journals.

Daniel Birnbaum is a philosopher, critic, curator, and professor at Städelschule. He is artistic director of *Acute Art* in London. From 2010 to 2018 he was the director of the Moderna Museet in Stockholm. He was the dean of Städelschule and director of Portikus from 2001 to 2010 and the director of the 53rd Venice Biennale in 2009. Birnbaum is the author of numerous books, amongst others: *Spacing Philosophy: Lyotard and the Idea of the Exhibition* (with Sven-Olov Wallenstein, Sternberg Press, 2019).

Simon Denny is a Berlin-based artist whose exhibitions unpack the social and political implications of the technology industry and the rise of social media, startup culture, blockchains and cryptocurrencies, using a variety of media including installation, sculpture, print and video. In 2016 he co-founded the artist mentoring program BPA//Berlin Program for Artists and has served as professor of Time-Based Media at the University of Fine Arts of Hamburg (HFBK) since 2018. Denny studied at the Elam School of Fine Arts, University of Auckland, graduating with a BFA in 2005, and at the Städelschule, Frankfurt, completing a Meisterschüler in 2009. Recent solo exhibitions include K21–Kunstsammlung Nordrhein-Westfalen, Düsseldorf (2020); the Museum of Old and New Art, Tasmania (2019); MOCA, Cleveland (2018); OCAT, Shenzhen (2017); Hammer Museum, Los Angeles (2017); Serpentine Galleries, London

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(2015); MoMA PS1, New York (2015); Portikus, Frankfurt (2014). He represented New Zealand at the 56th Venice Biennale in 2015. His works are represented in institutional collections worldwide.

Elizabeth Diller is a partner of *Diller Scofidio + Renfro* (DS+R). Alongside partner Ricardo Scofidio, Diller's cross-genre work has been distinguished with the first MacArthur Foundation fellowship awarded in the field of architecture, TIME's *100 Most Influential People* list and the Royal Academy Architecture Prize. Most recently, she led two cultural projects significant to New York: The Shed and the expansion of MoMA. Diller also co-created, -directed and -produced *The Mile-Long Opera* (2018) an immersive choral work staged on the High Line. Diller is a professor of Architectural Design at Princeton University.

Vittorio Gallese, MD and trained neurologist is professor of Psychobiology and Cognitive Neuroscience at the Department of Medicine & Surgery of the University of Parma, Adjunct Senior Research Scholar at the Department of Art History and Archaeology, Columbia University, and Honorary Fellow of the Institute of Philosophy of the School of Advanced Study of the University of London. As a cognitive neuroscientist, his research focuses on the relation between the sensorimotor system and cognition by investigating the neurobiological and bodily grounding of intersubjectivity, psychopathology, language, and aesthetics. His major scientific contribution is the discovery of mirror neurons, together with the colleagues of Parma, and the development of a new model of perception and imagination: Embodied Simulation Theory. He is the author of more than 300 scientific publications and three books.

Dominique Gonzalez-Foerster, an experimental artist, has been exploring since 1990 the different modalities of sensory and cognitive relationship between bodies and spaces, real or fictitious, up to the point of questioning the distance between organic life and work. Metabolizing literary, cinematographic, architectural, musical, scientific, popculture references, Gonzalez-Foerster creates "chambres", "interiors", "gardens", "attractions" and "planets" with respect to the multiple meanings that these terms take on in the works of Virginia Woolf, Nathaniel Hawthorne, the Brontë sisters, Thomas Pynchon, Joanna Russ or Philip K. Dick. This investigation of spaces extends to a questioning of the implicit neutrality of practices and exhibition spaces. Her "mises en espace", "anticipations" and "apparitions" seek to invade the sensory domain of the viewers in order to operate intentional changes in their memory and imagination. Haunted by history and future, Gonzalez-Foerster's works become containers where the artist incubates a form of subjectivity that does not yet exist. Through multiple international exhibitions, short films, productions, and concerts, Gonzalez-Foerster's mutant work contributes to the invention of new technologies of consciousness.

Yuk Hui is a philosopher of technology. Since 2010, he has been teaching in various institutions including Goldsmiths, University of London, Leuphana University, Lüneburg, Bauhaus University, Weimar, Strelka Institute Moscow, China Academy of Art, Hangzhou, and City University of Hong Kong. Hui is a member of the International Center of Simondon Studies (MSH Paris Nord) and has published widely on the philosophy of technology and media in periodicals such as *Metaphilosophy*, *Research in Phenomenology*, *Cahiers Simondon*, *Deleuze Studies*, *Techné*, and *Theory, Culture and Society*. Hui is the author of *The Question Concerning Technology in China: An Essay in Cosmotechnics* (MIT Press, 2017), *On the Existence of Digital Objects* (prefaced by Bernard Stiegler, University of Minnesota Press, 2016), and the co-editor of the anthology *30 Years after Les Immatériaux: Art, Science and Theory* (Mason Press, 2015). His forthcoming book is titled *Art and Cosmotechnics* (forthcoming in 2021).

iheartblob is an award-winning mixed reality architecture studio and research collective formed by Sasha Belitskaja, Ben James, and Shaun McCallum, currently based in Vienna and London. The studio has a strong focus on the architectural object and the role of emerging technologies within architecture. The work is meant to both enchant and reflect on the crisis of thought which runs through architecture

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today by investigating new and established ideas as though they were materials, engaging seriously with hard-hitting agendas, whilst remaining at a distance from full immersion. The studio has exhibited numerous provocative proposals across the globe including at the Storefront for Art and Architecture in New York City and the A+D Museum in Los Angeles; they have constructed a variety of mixed reality works as physical and digital pavilions for the Toronto Winter Stations Festival and Magazin Gallery in Vienna; and their research has been presented at the Architectural Association visiting school in China and in publications such as Archinect's Ed magazine. They have most recently released their book *iheartblob - Augmented Architectural Objects: A New Visual Language* (Birkhäuser Verlag, 2020).

Peter Jäger, a German arachnologist, wrote his PhD about Himalayan spiders. Since 2002 he is Head of Arachnology at the Senckenberg Research Institute and Nature Museum in Frankfurt. He published 240 scientific articles on spiders and co-authored the book *Spiders of the World – A Natural History* (Princeton University Press, 2020). He has described more than 420 new spider species, including *Heteropoda davidbowie*, and founded the Asian Society of Arachnology. Jäger made over 30 research trips to many countries in Asia to discover more undescribed spiders. From 2004 to 2010 he was president of the Arachnologische Gesellschaft and board member of the International Society of Arachnology. He is editorial board member of the World Spider Catalog, expert board member of Araneae, and editor of various scientific journals. Since 2010, Jäger collaborated with Tomás Saraceno on several exhibitions and other projects: *14 Billion-Working Title* (Frankfurt, 2012), *Spinnen* (Senckenberg Museum, Frankfurt, 2017); *World Science Festival* (New York, 2012), *Arachnid Orchestra Jam Sessions* (Singapore, 2015), *On Air* (Paris, 2018) and *Songs for the Air* (Darmstadt, 2020).

Sanford Kwinter is a Canadian-born, New York-based writer, architectural theorist, and a co-founder of *Zone Books* publishers. Kwinter currently serves as professor of theory and criticism at the Pratt Institute. He was professor of theory and history of architecture at the University of Applied Arts Vienna and formerly served as professor architectural theory and criticism at Harvard University, was associate professor at Rice University in Houston. In addition he has taught at MIT, Columbia University, Cornell University, the AA in London and the Berlage Institute amongst others. Kwinter was guest professor at Städelschule from 2007 to 2008. Over the past twenty years, his publications have pioneered new ideas in art, architecture, science, and the humanities. He has written widely on philosophical issues related to design, architecture, and urbanism and was involved in the series of conferences and publications convened by Anyone Cooperation between 1991 and 2000. Kwinter has a Ph.D. from Columbia University. His books include *ZONE 1/2: The Contemporary City* (MIT Press, 1986); *ZONE 6: Incorporations* (MIT Press, 1992); *Architectures of Time: Toward a Theory of the Event in Modernist Culture* (MIT Press, 2001); *Far from Equilibrium: Essays on Technology and Design Culture* (Actar Press, 2008); *Requiem: For the City at the End of the Millennium* (Actar Press, 2010).

Michelle Kuo is The Marlene Hess Curator of Painting and Sculpture at the Museum of Modern Art in New York. She has organized exhibitions including *New Order: Art and Technology in the Twenty-First Century* (2019), *The Shape of Shape: Amy Sillman* (2020) and *Signals: The Politics of Video* (2020); has written and lectured widely on modern and contemporary art and is co-editor of *More than Real: Art in the Digital Age* (Walther König, 2018). From 2010 to 2017 she was the Editor in Chief of Artforum International. Kuo received her Ph.D. from Harvard University and is currently working on a book about the postwar organization *Experiments in Art and Technology*.

Lundahl & Seidl is a Stockholm and London based artist duo formed in 2003. They perform, teach, and play with choreography, VR, architecture, and the exhibition format when creating anti-disciplinary artworks as experiences. With a background in visual arts (Christer Lundahl) and choreography (Martina Seidl), they discover immersive states as a philosophical tool to observe the boundaries and connections

artists in process

between the living, different objects, technologies, places, and environments. Their works and projects have been exhibited in museums and institutions such as the Gropius-Bau, Berlin / Berliner Festspiele (2016); Tate Britain, London; Royal Academy of Art, London (2014); 66th Avignon Festival (2012); Centre Pompidou Metz; 8th Momentum Biennale, Norway (2015); and the Kochi Muziris Biennale (2016).

Thomas Metzinger was full professor of Theoretical Philosophy at the Johannes Gutenberg-Universität Mainz until 2019. He is past president of the German Cognitive Science Society (2005-2007) and of the Association for the Scientific Study of Consciousness (2009-2011). As of 2011, he is an Adjunct Fellow at the Frankfurt Institute for Advanced Studies, a co-founder of the German Effective Altruism Foundation, president of the Barbara Wengeler Foundation, and on the advisory board of the Giordano Bruno Foundation. From 2008 to 2009 he served as a fellow at the Berlin Institute for Advanced Study; from 2014 to 2019 he was a fellow at the Gutenberg Research College; from 2019 to 2021 he was awarded a Senior-Forschungsprofessur by the Ministry of Science, Education and Culture. From 2018 to 2020 Metzinger worked as a member of the European Commission's High-Level Expert Group on Artificial Intelligence.

Yasmil Raymond is an author and curator and Rector of the Städelschule and Director of Portikus since 2020. She was Associate Curator in the Department of Painting and Sculpture at The Museum of Modern Art, New York, from 2015 to 2019. Prior to MoMA, Raymond served as Curator of the Dia Art Foundation for six years where she organized acclaimed exhibitions and projects, including *Allora & Calzadilla: Puerto Rican Light* (2015); *Thomas Hirschhorn: Gramsci Monument* (2013); and *Jean-Luc Moulène: Opus + One* (2011), among others. She was Associate Curator at the Walker Art Center, Minneapolis, from 2004 to 2009, and a Senior Critic in the Master of Fine Arts program at the University of Pennsylvania from 2009 to 2019. Raymond received a BFA from the School of the Art Institute of Chicago in 1999, and an MA from the Center for Curatorial Studies, Bard College, in 2004.

Rachel Rossin is a multidisciplinary artist who has gained recognition for her exhibitions that blend oil painting, sculpture, 3D animation and virtual reality. Rossin's practice acts on the metabolism between physical and digital exchange, investigating the ways information and sensory experience are transfigured by each. Her work has been exhibited with K11 Art Museum, Shanghai; Kiasma Museum of Contemporary Art, Helsinki; Museum of Contemporary Art Detroit; Art in General, New York; The Frist Art Museum, Nashville; The Akron Art Museum; San Jose Museum of Art; Signal Gallery, New York; The New Museum, New York; and the Zabłudowicz Collection, London. Her research and work have received recognition at Prix Ars Electronica (2020), The Sundance Film Festival (2017), Massachusetts Institute of Technology, Art21, ArtForum, The NYTimes and National Geographic. She has a solo exhibition at Magenta Plains in New York through the end of May 2021.

Tomás Saraceno's floating sculptures, artworks and interactive installations challenge ways of inhabiting and sensing the environment. From collaborations with the air to spider webs, he envisions renewed relationships with the terrestrial, atmospheric, and cosmic realms. Saraceno's community projects *Aerocene* and *Arachnophilia* furthermore invite all to deepen an understanding of environmental justice and interspecies cohabitation. Saraceno has most recently exhibited *Songs for the Air* at Hessischen Landesmuseum, Darmstadt (2020); *Moving Atmospheres* at Garage Museum, Moscow (2020); *Event Horizon* at Cisternene, Copenhagen (2020); *Aria*, Palazzo Strozzi, Florence (2020); as part of *May You Live In Interesting Time*, 58th Venice Biennale (2019), and *ON AIR*, Palais de Tokyo, Paris (2018). In the past two decades Saraceno has collaborated with the Massachusetts Institute of Technology, Max Planck Institute, the Nanyang Technological University in Singapore, the Imperial College London, and the Natural History Museum London.

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Wolf Singer is a neurophysiologist and director emeritus as well as scientific member at the Max Planck Institute for Brain Research in Frankfurt. He is the Founding Director of the Frankfurt Institute for Advanced Studies, the Ernst Strüngmann Forum and Ernst Strüngmann Institute in Frankfurt. Singer is also an honorary professor of physiology at the Goethe University Frankfurt and member of the Scientific Commission of Life Sciences of the German National Academy of Sciences Leopoldina. Singer has received many honours for his scientific work, including the Hessian Culture Award (1998), the Max Planck Prize for Public Science (2001), the Order of Merit (First Class) of the Federal Republic of Germany (2011) and the Cothenius Medal of the Leopoldina (2013). In 2011 Pope Benedict XVI appointed him as a member of the Pontifical Council for Culture. His research focuses on the analysis of neuronal processes in the case of so-called higher cognitive performance, such as in the case of visual perception, in memory, or in other ways of cognition.

Space Popular is directed by Lara Lesmes and Fredrik Hellberg, both graduates from the Architectural Association in London. They founded their practice in Bangkok (2013) and have been based in London since 2016. Space Popular creates spaces, objects, and events in both physical and virtual space, concentrating on how the two realms will blend together in the near future. The studio has completed buildings, exhibitions, public artworks, furniture collections, and interiors across Asia and Europe, as well as virtual architecture in the immersive internet. Clients, collaborators, and commissioners include international institutions such as The Swedish Centre for Architecture and Design (ArkDes), Stockholm, Sweden; Royal Institute of British Architects, London; National Museum of Modern and Contemporary Art, Seoul; as well as independent galleries such as MAGAZIN, Vienna, and Sto Werkstatt, London. Lesmes and Hellberg both have extensive academic experience having taught architectural design since 2011, first at International Program in Design and Architecture (INDA), Chulalongkorn University in Bangkok, and since 2016 at the Architectural Association. They also lecture and teach workshops and seminars in universities across the world. Their current MArch design and research unit at the Architectural Association investigates visions for civic architecture in the virtual realm.

Ben Vickers is a curator, writer, publisher, and technologist. He is Chief Strategist at large with the Serpentine Gallery in London, Co-Director of Ignota Books, and an initiator of the open-source monastic order unMonastery. He serves on the boards and advisory panels for Light Art Space, Berlin; Transmediale, Berlin; Auto Italia, London; Furtherfield, London; Complex Earth, SXSW Arts Programme, Austin; and the Warburg Institute in London.

SAC Journal 6

Breaking Glass: Spatial Fabulations & Other Tales of Representation in Virtual Reality

The SAC Journal is a periodical that documents and critically reviews projects and theoretical discussions within contemporary, architectural design culture. The sixth issue is published in conjunction with the conference Breaking Glass III - Virtual Space. The publication includes texts by Fabrizia Bandi, Martine Beugnet, Johan Bettum, Lara Lesmes and Fredrik Hellberg, Curtis Roth, Michael Young, and as well as conversations that Daniel Birnbaum respectively had with Sanford Kwinter and Sven-Olov Wallenstein. In addition, a series of visual portfolios will feature VR work by architects and artists. Finally, the publication presents the award-winning projects of Städelschule Architecture Class' AIV Master Thesis Prize 2019. The issue has been edited by Yara Feghali (Städelschule alumna and Architectural Designer and lecturer at UCLA) and the editorial team of Städelschule Architecture Class.

Städelschule

SAC Journal is published by the Städelschule Architecture Class and AADR – Art Architecture Design Research (Spurbuch Verlag, 2021) and is available [here](#).

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Download the press release, photos and bios of the guest speakers, and the publication (the pdf of the journal is for research only and is subject to a publication embargo) [here](#).

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