

EVA London 2021

Proceedings of EVA London 2021

BCS London
2021



Editors:
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Preface

The *Electronic Visualisation and the Arts* London 2021 Conference (EVA London 2021) is co-sponsored by the Computer Arts Society (CAS) and BCS, the Chartered Institute for IT, of which the CAS is a Specialist Group.

Of course, this is a difficult time for all conferences, with the Covid-19 pandemic. As a result, the EVA London 2021 Conference is an online conference, as it was in the previous year as well. We continue with publishing the proceedings, both online, with open access via ScienceOpen, and also in our traditional printed form.

Over recent decades, the EVA London Conference on *Electronic Visualisation and the Arts* has established itself as one of the United Kingdom's most innovative and interdisciplinary conferences. It brings together a wide range of research domains to celebrate a diverse set of interests, with a specialised focus on visualisation.

The long and short papers in this volume cover varied topics concerning the arts, visualisations, and IT, including 3D graphics, animation, artificial intelligence, creativity, culture, design, digital art, ethics, heritage, literature, museums, music, philosophy, politics, publishing, social media, and virtual reality, as well as other related interdisciplinary areas.

The EVA London 2021 proceedings presents a wide spectrum of papers, demonstrations, Research Workshop contributions, other workshops, and for the sixth year, the EVA London Symposium, in the form of an evening panel session with invited contributors. The conference includes a number of other associated online evening events including ones organised by the Computer Arts Society, Art in Flux, and the Lumen Prize.

A feature of EVA London, started in 2018, has been a *Research in Education Day*, immediately after the main conference, bringing together students and associated staff from universities in the London area to enable presentations and networking. In the circumstances, we now aim to hold this in conjunction with EVA London 2022.

As in previous years, there are Research Workshop contributions in this proceedings, aimed at encouraging participation by postgraduate students and early-career artists, accepted either through the peer-review process or directly by the Research Workshop chair. The Research Workshop contributors are offered bursaries to aid participation. In particular, EVA London liaises with Art in Flux, a London-based group of digital artists.

The EVA London 2021 proceedings includes long papers and short "poster" papers from international researchers inside and outside academia, from graduate artists, PhD students, industry professionals, established scholars, and senior researchers, who value EVA London for its interdisciplinary community. The conference also features keynote talks.

This publication has resulted from a selective peer review process, fitting as many excellent submissions as possible into the proceedings. This year, submission numbers were lower than previous years, mostly likely due to the pandemic forcing the conference online. It is still pleasing to have so many good proposals from which to select the papers that have been included.

EVA London is part of a larger network of EVA international conferences. EVA events have been held in Athens, Beijing, Berlin, Brussels, California, Cambridge (both UK and USA), Canberra, Copenhagen, Dallas, Delhi, Edinburgh, Florence, Gifu (Japan), Glasgow, Harvard, Jerusalem, Kiev, Laval, London, Madrid, Montreal, Moscow, New York, Paris, Prague, St Petersburg, Thessaloniki, and Warsaw. Further venues for EVA conferences are very much encouraged by the EVA community.

As noted earlier, this proceedings is a record of accepted submissions to EVA London 2021. We plan for associated online presentations to be recorded and made available online after the conference.

Acknowledgements

EVA London 2021 gratefully acknowledges:

- ❖ **BCS, The Chartered Institute for IT** for hosting EVA London online using Zoom, and the **BCS Computer Arts Society (CAS)** Specialist Group for providing bursaries. Special thanks go to Kerry Wear at the BCS, for help with budgeting, registration, and other organisational arrangements, as well as Becky Youe, Florence Leroy, and Ian Borthwick of the BCS Electronic Workshops in Computing (eWiC) series, for support with the printed and online conference proceedings.
- ❖ **The Anthill Social** and Tom Keene for website hosting and support.

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Thanks to all the contributors for making EVA London a continuing success.

Committee

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List of Reviewers

The people listed below reviewed submissions for the EVA London 2021 Conference and the Organising Committee is very grateful for their voluntary help in the selection process.

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Athanasios Velios
Jon Weinel
Ian Willcock
Ross Williams

Ron Yakir
Jing Zhou
Rehan Zia
Tobias Ziegler

Papers:

Keynotes & Symposium

Jonathan P. Bowen, Camille Baker, Ghislaine Boddington, Ernest Edmonds, Merel van Helsdingen & Terrence Masson EVA London 2021: Keynote summaries
<http://dx.doi.org/10.14236/ewic/EVA2021.1>

Jonathan P. Bowen, Tula Giannini, Rachel Falconer, Michael Takeo Magruder & Emanuele Marconi
Beyond Human: Arts and identity between reality and virtuality in a post-Covid-19 world
<http://dx.doi.org/10.14236/ewic/EVA2021.2>

Digital Culture and Museums

Jonathan P. Bowen & Tula Giannini Digitality: A reality check
<http://dx.doi.org/10.14236/ewic/EVA2021.3>

Ann Borda & Jonathan P. Bowen The Rise of Digital Citizenship and the Participatory Museum
<http://dx.doi.org/10.14236/ewic/EVA2021.4>

Aila Regina da Silva & Gabriele Mauany Ferreira Alencar Sharing Impressions: An investigation about participatory museums and UX design
<http://dx.doi.org/10.14236/ewic/EVA2021.5>

Alexandra Orlova Digitizing Art or How to Broaden the Viewer's Experience
<http://dx.doi.org/10.14236/ewic/EVA2021.6>

Claudio Germak, Andrea Di Salvo & Lorenza Abbate Augmented Reality Experience for Inaccessible Areas in Museums
<http://dx.doi.org/10.14236/ewic/EVA2021.7>

Digital Heritage

Dominik Lengyel & Catherine Toulouse Visual Mediation of Unique Construction and Access Principles of the Amphitheatre of Durrës
<http://dx.doi.org/10.14236/ewic/EVA2021.8>

Kristin Carlson, Lucy Gill, Zahra Irranezhad, Amal Abdalla, Annie Sungkajun, Sam Bruner & Ella Jahraus
Uncharted Territories: Developing digital experiences for anthropological and archaeological exploration
<http://dx.doi.org/10.14236/ewic/EVA2021.9>

Sophie Dixon Grace: A virtual recreation of the Grace Darling story
<http://dx.doi.org/10.14236/ewic/EVA2021.10>

Benjamin Seide & Benjamin Slater Performance Capture for Virtual Heritage: Virtual re-enactment for the lost film Pontianak
<http://dx.doi.org/10.14236/ewic/EVA2021.11>

Amalia Foka Computer Vision Applications for Art History: Reflections and paradigms for future research
<http://dx.doi.org/10.14236/ewic/EVA2021.12>

Oliver M. Gingrich, Eike Falk Anderson, Alain Renaud, Evgenia Emets, David Negrao & Deborah

Tchoudjinnoff New Heritage: New media art between cultural heritage experience and artefact
<http://dx.doi.org/10.14236/ewic/EVA2021.13>

Adventures in Sound and Image

Jonathan Weinel Worship the Penguin: Adventures with sprites, chiptunes, and lasers
<http://dx.doi.org/10.14236/ewic/EVA2021.14>

Anna Shvets & Samer Darkazanli Conditional GAN for Diatonic Harmonic Sequences
Generation in a VR Context <http://dx.doi.org/10.14236/ewic/EVA2021.15>

Kyoko Hidaka Ubiquitous Lighting: The Third Color Digital Art x Lighting Symposium and
Workshop <http://dx.doi.org/10.14236/ewic/EVA2021.16>

James Simpson Live and Life in Virtual Theatre: Adapting traditional theatre processes to engage
creatives in digital immersive technologies <http://dx.doi.org/10.14236/ewic/EVA2021.17>

Camille Baker, Maf'j Alvarez, Bushra Burge, Kat Austen & Sarah Büttner INTER/her: An immersive
journey inside the female body – VR experience demo
<http://dx.doi.org/10.14236/ewic/EVA2021.18>

Leslie Deere Experimental Affect: Gesture controlled audio-visual performance in VR
<http://dx.doi.org/10.14236/ewic/EVA2021.19>

Annie Sungkajun & Jinsil Huayoung Seo Though Miles Apart
<http://dx.doi.org/10.14236/ewic/EVA2021.20>

Ziwei Wu, Shuai Xu & Yingyi Wang Invisible War: An audio visual installation with laser light
and Twitter API data <http://dx.doi.org/10.14236/ewic/EVA2021.21>

Artistic Communities & Education

Bao Han & Jonathan P. Bowen The Weiguan Culture Phenomenon in Chinese Online Activism
<http://dx.doi.org/10.14236/ewic/EVA2021.22>

Sonja Pedell & Ann Borda Social Prescribing the Smart City
<http://dx.doi.org/10.14236/ewic/EVA2021.23>

Maureen Kendal, Fion Gunn, Nazia Parvez, Chen Mei-Tsen, Terri M. Broughton & Cleon Grant
The Evolving Collaboration – AMazed! The A-Maze artists investigate immersive technology
to create imagination and artifice <http://dx.doi.org/10.14236/ewic/EVA2021.24>

Oliver M. Gingrich GENDER*UCK: Reframing gender & media art
<http://dx.doi.org/10.14236/ewic/EVA2021.25>

Aphra Shemza & Stuart Faromarz Batchelor SHEMZA.DIGITAL: Participatory art as a catalyst
for social change <http://dx.doi.org/10.14236/ewic/EVA2021.26>

Olaoluwa Oyedokun, Kristin Carlson & Annie Sungkajun Embraced Separation: Exploring methods
of breath attunement in speculative infant swings
<http://dx.doi.org/10.14236/ewic/EVA2021.27>

Cristina Portugal, Mônica Moura & Márcio Guimaraes Design in Times of Pandemics: Accessible
literature to people with visual impairment <http://dx.doi.org/10.14236/ewic/EVA2021.28>

Sandra Woolley & Tim Collins Art for Computer Scientists: Processing as an open-source art medium for computer science Undergraduates <http://dx.doi.org/10.14236/ewic/EVA2021.29>

Carinna Parraman, Fabio D'Agnano & Wuon-Gean Ho The Craftsperson, Tacit Knowledge, and Digital Embodiment <http://dx.doi.org/10.14236/ewic/EVA2021.30>

Artificial Intelligence

Dongyuan Liu machinesMemory: Malleability of AI technique, the data generated by machine learning algorithms <http://dx.doi.org/10.14236/ewic/EVA2021.31>

Regula Valérie Burri, Merle Richter & Laura Sigrüner Artificial Futures: Imagining AI through art <http://dx.doi.org/10.14236/ewic/EVA2021.32>

Konstantina Karterouli & Yota Batsaki AI and Cultural Heritage Image Collections: Opportunities and challenges <http://dx.doi.org/10.14236/ewic/EVA2021.33>

Graham Wakefield & Haru Hyunkyung JiCreative Artificial Intelligence within the Artificial Life Installation "Infranet" <http://dx.doi.org/10.14236/ewic/EVA2021.34>

Ozan Yavuz Novel Paradigm of Cameraless Photography: Methodology of AI-generated photographs <http://dx.doi.org/10.14236/ewic/EVA2021.35>

Imaging and Data Visualisation

Megan L. Smith & Yujie Gao All The Stars We Cannot See: A deep look into real-time satellite traffic <http://dx.doi.org/10.14236/ewic/EVA2021.36>

Daniel Buzzo Art as Data Set, Data Set as Art: Training machine vision systems to see as artists <http://dx.doi.org/10.14236/ewic/EVA2021.37>

Ian Willcock Crowdsourcing: Using real-time social media data to repopulate the socially distanced world <http://dx.doi.org/10.14236/ewic/EVA2021.38>

Rehan Zia Documenting Digital Creative Practice <http://dx.doi.org/10.14236/ewic/EVA2021.39>

Ashley Buchanan & Ron SnyderPlant Humanities Lab: Planting the seeds for creative data visualisation <http://dx.doi.org/10.14236/ewic/EVA2021.40>

Digital Consciousness & Ecology

Terry Trickett New Media Art as a Vehicle for Research and Innovation <http://dx.doi.org/10.14236/ewic/EVA2021.41>

Lila Moore & Owen Fender Sentient: A social media environment as a conscious living system <http://dx.doi.org/10.14236/ewic/EVA2021.42>

Kenneth Feinstein The Uncanny As a Sense of Presence in MX <http://dx.doi.org/10.14236/ewic/EVA2021.43>

Carl Hayden Smith An Ecology for the Re-Enchantment of Life
<http://dx.doi.org/10.14236/ewic/EVA2021.44>

Batuhan Bintas Imaginatrix: School of Cyber Wizardry
<http://dx.doi.org/10.14236/ewic/EVA2021.45>

Research Workshop

Graham Diprose, Frances Liddell, Marco Pini, Sarah Vollmer & Racelar Ho Research
Workshop Collected Paper: Explorations in concepts and the visual arts
<http://dx.doi.org/10.14236/ewic/EVA2021.46>

Joskaudė Pakalkaitė Development of Noise-free Digital Interfaces: Hand-drawn interfaces for
consumer wellbeing <http://dx.doi.org/10.14236/ewic/EVA2021.47>

Anton Dragan Maslic & Eugenia S. Kim An Epistemological Misalignment of Cogs in the
AI-Art-Making Machine <http://dx.doi.org/10.14236/ewic/EVA2021.48>

Tyler H. McIntosh Exploring the Relationship Between Music and Emotions with Machine
Learning <http://dx.doi.org/10.14236/ewic/EVA2021.49>

Peirui Yang Archaeology and Contemporary Art: An experiment of virtual stratigraphy
<http://dx.doi.org/10.14236/ewic/EVA2021.50>

Workshops

Carl Hayden Smith, Daniel Buzzo & Eyal Gruss EVA London 2021 Workshops
<http://dx.doi.org/10.14236/ewic/EVA2021.51>

In a Space Out of Time

Sean Clark & Geoff Davis Revisiting and Re-presenting 1980s Micro Computer Art
<http://dx.doi.org/10.14236/ewic/EVA2021.52>

Luciana Haill & Nick Lambert Synthesis: Making magic with GenieMo
<http://dx.doi.org/10.14236/ewic/EVA2021.53>

Gretchen Andrew What if We Educated AI Based on the World We Want Instead of the World
We Have? <http://dx.doi.org/10.14236/ewic/EVA2021.54>

Carl Hayden Smith, Kenneth Shinozuka, Alex Zhao & Michael Ronen The Museum of
Consciousness: Interactive, audio-based exhibits for cultivating altered states of consciousness
<http://dx.doi.org/10.14236/ewic/EVA2021.55>