

EVA London 2018

EVA London
Electronic Visualisation and the Arts
www.eva-london.org



Proceedings of EVA London 2018

BCS London
9–13 July 2018

Editors:
Jonathan P. Bowen
Jon Weinel
Graham Diprose
Nick Lambert

www.bcs.org/ewic/eva2018

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The Computer Arts Society

Preface

The *Electronic Visualisation and the Arts* London 2018 Conference (EVA London 2018) is co-sponsored by the Computer Arts Society (CAS) and BCS, the Chartered Institute for IT, of which the CAS is a Specialist Group. 2018 marks the 50th anniversary of CAS, which is celebrated as part of EVA London 2018.

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

The EVA London 2018 Conference presents a wide spectrum of papers, presentations, demonstrations, a Research Workshop and a special one-day event for the third year, the EVA London Symposium (entitled "*States of Being: Art and Identity in Digital Space and Time*"), now integrated within the conference on 9 July 2018, with six invited speakers, sponsored by the Pratt Institute, New York.

This year, V&A Digital Futures have organised two EVA London 2018 Conference exhibition evenings of 9 and 12 July 2018, together with some exhibits during the EVA London 2018 Conference itself. On 10 July 2018, the CAS 50th anniversary was celebrated with an evening event.

A new feature of EVA London 2018 is a *Research in Education Day* on 13 July 2018, immediately after the main conference, bringing together students

and associated staff from eight universities in the London area to enable presentations and networking.

As in previous years, there is a Research Workshop running in parallel with other conference sessions, to encourage postgraduate student participation. Presenters at the Research Workshop are offered bursaries for free attendance on that day. Several other bursaries are also available to encourage attendance by those with no other source of funding (especially independent artists contributing to the conference). For example, this year EVA London is liaising with FLUX, a London-based group of artists.

EVA London 2018 presents papers and abstracts from international researchers inside and outside academia, from graduate artists, PhD students, seasoned industry professionals, established scholars, and senior researchers, who value EVA London for its interdisciplinary community. This year, the conference again features three keynote talks, one on each day of 10–12 July 2018.

This publication has resulted from a selective peer review process, fitting as many excellent submissions as possible into the limited timetable of the conference. This year, submission numbers were similar to the high number in 2017, with an excellent standard overall, so it is pleasing to have so many good proposals from which to select the programme.

EVA London is part of a larger network of EVA international conferences. In the past twenty years, EVA events have been held in Athens, Beijing, Berlin, Brussels, California, Cambridge (both UK and USA), Canberra, 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. The first EVA Copenhagen in Denmark was also held in May 2018.

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The people listed below reviewed submissions for the EVA London 2018 Conference and the Organising Committee is very grateful for their voluntary help in the selection process.

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