

**Kayla Anderson**

Kayla Anderson is an artist, writer, and organizer based in Chicago. Taking a playful approach to methods of excavation, her work engages with cultural artifacts of the past in order to propose parallel worlds. Her writing has been published by Leonardo/ISAST, the Royal College of Art, and MU TXT, and presented internationally. She curates exhibitions, lectures, and mentors students in the creation of artists' publications at the School of the Art Institute of Chicago.

**Stephanie Boluk**

Stephanie Boluk is an assistant professor in the Department of English and the Cinema and Digital Media program at University of California, Davis. She is co-editor of the *Electronic Literature Collection Volume 3*, co-director of the Alt-Ctrl lab, and her first book, *Metagaming: Videogames and the Practice of Play*, is forthcoming this year from University of Minnesota Press. For more information, see <stephanieboluk.com>.

**Alejandro Borsani**

Alejandro Borsani is an artist and educator who explores the intersection of natural and artificial systems by creating videos, installations, custom software, and electronics. His research is driven by a curiosity about physical phenomena and the exploration of emergent technologies. His work has been presented in solo and group exhibitions internationally. Borsani is assistant professor in the Experimental & Foundation Studies Division at Rhode Island School of Design.

**Garnet Hertz**

Garnet Hertz is Canada Research Chair in Design and Media Arts at Emily Carr University of Art + Design. His research explores DIY culture, electronic art, and critical design practices. He holds a PhD from the University of California, Irvine, and has exhibited his studio work in 17 countries. For more information, see <conceptlab.com/>.

**Varnelle Noel**

Vernelle Noel is a research scientist, computational designer, and architect who has worked in the United States, the Caribbean, India, and Singapore. Currently a PhD candidate in design computing at Penn State, she investigates craft, computational making, and technology in cultural design practices. Noel was also a presenter at TEDxPortofSpain in 2015, where she gave a talk entitled, "The Power of Making: Craft, Computation, and Carnival."

**Edward Shanken, Chair**

Edward Shanken writes and teaches about the entwinement of art, science, and technology with a focus on interdisciplinary practices involving new media. Recent work addresses systems theory, art-science collaboration, surveillance culture, sound art and the environment, and bridging the gap between new media and contemporary art. His books include *Systems* (2015), *Inventar el Futuro* (2013), *Art and Electronic Media* (2009), and *Telematic Embrace: Visionary Theories of Art, Technology and Consciousness* (2003).

**Ruth West**

Ruth West is both artist and researcher. Her background spans new media, design, virtual and augmented reality, molecular genetics, psychology, participatory mobile and social technologies, and data visualization and sonification. Her work envisions a future in which art and science integration opens new portals of imagination, creative expression, invention, knowledge, and communication across cultures. West directs the xREZ Art + Science Lab and is an associate professor at the University of North Texas.

**Jichen Zhu**

Jichen Zhu is assistant professor in Digital Media at Drexel University. Her research focuses on the intersection of artificial intelligence, human-computer interaction, creative expression, and critical theory. Her emphasis is on developing new forms of cultural artifacts afforded by intelligent systems, as well as innovating new AI techniques informed by expressive goals. Her current interests include interactive narrative, serious games, computational creativity, and digital humanities. She received a PhD in Digital Media from Georgia Tech.

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**Tertiary Reviewers**

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# Introduction

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SIGGRAPH 2016 and Leonardo/ISAST present the eighth joint publication of SIGGRAPH Art Papers. Art Papers investigates the roles of artists and the methods of art-making in an increasingly global, networked, and technologically mediated world. Art Papers contributes to our understanding of the history of art, informs contemporary artistic and critical practices, and anticipates and stimulates future trajectories. At the SIGGRAPH 2016 conference, authors present their papers, which, along with a digital supplement, appear in this special issue of *Leonardo*.

In addition to the core topics of digital and interactive arts, Art Papers highlights excellent practices in the field and addresses both artistic and technical audiences. This year, we especially encouraged papers that consider transdisciplinary research at the frontiers of art, design, science, and engineering; that expand the international and cultural breadth of SIGGRAPH discourses; and that dovetail with the 2016 Art Gallery theme of Data Materialities. An art paper might consist of a project description; a work of history, theory, or criticism; or an exposition of a novel method or technique. With one exception, the 2016 Art Papers consists of descriptions of new creative works, with particular emphasis on their historical and/or theoretical significance. The span of topics is very diverse, ranging from a visualization of Korean genealogy during the Choson dynasty to an appraisal of artist James Turrell's work in the context of computer-programmed perception.

The jurying process is intense. The Art Papers Committee takes primary responsibility for reviewing the submissions. As chair, I convened an eight-person committee, representing expertise in visualization, gaming, DIY, physical computing, interdisciplinary collaboration, architecture and design, history and theory, and other fields. Each submission was evaluated by at least two Committee members, plus two additional jurors selected by the Committee. Reviews included extensive written comments, which authors have reported are particularly valuable. SmithBucklin (the association management firm that supports SIGGRAPH) was instrumental to the organization of 2016 Art Papers.

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The jury evaluated each submission according to the following criteria:

- Scope and magnitude of its contribution to literature on digital arts, computer graphics, and/or interactive techniques
- Clarity of thesis and compelling exposition
- Quality and relevance of references to establish context and support the author's claims
- Quality and relevance of support media to reinforce the author's claims

After extensive virtual communications, the Committee gathered at Rhode Island School of Design, which hosted the in-person jury meeting in March. After a full day of deliberations, and taking into account feedback from the editorial team at *Leonardo*, the Committee selected what we deemed to be the best, most publishable papers. However, our work was not yet over. The selected papers required improvements specified by the jury before being accepted for presentation at SIGGRAPH and publication in *Leonardo*. To oversee this process, Committee members communicated required changes to the authors and “shepherded” the papers to final draft stage on a very tight deadline.

It must be highlighted that, aside from the professional organizational support, all of this work was done on a voluntary basis. For all of their hard work, commitment, and sharing of expertise and ideas, I would like to thank the members of the Art Papers Committee and the extended jury. We hope that our efforts have made a valuable contribution to SIGGRAPH, to *Leonardo*, and to discourse in the field in general.

Edward A. Shanken

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