ACM SIGGRAPH Distinguished Artist Award for Lifetime Achievement in Digital Art

Ernest A. Edmonds

Ernest A. Edmonds. (Photograph © Linda Candy)

The 2017 ACM SIGGRAPH Distinguished Artist Award for Lifetime Achievement in Digital Art is awarded to Ernest A. Edmonds, who is well known as a major contributor to the development of computational art and has contributed to the broader field of art history from the late 1960s to the present day.

His work represents an important landmark in the field of generative and interactive art. By applying color theory, computational logic, and programmed systems to his work, Edmonds brought together the structural research of Biederman and the Constructivists for the first time and took them to a new, previously unexplored level that encompasses notions of time, color, and structure, as explored in such video constructs such as *Fragment* (1985), *Jasper* (1988), and *Sydney* (1989). His interest in interaction developed even further in recent years, as demonstrated by his *Shaping Forms* series (2007–), a series of generative and computational works where images are constantly generated by a computer program that decides which colors, patterns, and timing the work should display at any given moment. The movement in front of each work is detected by a camera and produces changes in the image, shape and duration, so that the environment, the active spectator, and the work influence each other. Here, interaction is intended as an exploration of long-term influences rather than short-term reactions.

Ernest Edmonds is also an international expert on human-computer interaction specializing in creative technologies for creative uses. His record of achievement in the field of interdisciplinary research is long and distinguished particularly in fostering the development of HCI since 1970: in 1982, he founded the Human Computer Interface Research Unit (HCIRU) at Leicester Polytechnic and later, in 1986, the Loughborough University of Technology Computer Human Interaction (LUTCHI) Research Centre. In 2003, he established the Creativity and Cognition Studios (CCS) at the University of Technology Sydney, and continues to direct it in parallel with his directorship of the Institute of Creative Technologies (IOCT) in Leicester.

Digital technology has enhanced and stimulated Edmonds's creativity. By writing code to create his art since the 1960s, works such as *Fragment* and *Sydney* illustrate how the constructivist concepts developed through the use of video tape, creating a kind of computer-generated film; other works, such as *Rotterdam A* and *Rotterdam B* (1989), exemplify a kind of digital art that is more aggressively generative in nature, owing to digital technology and the possibility to run a program virtually indefinitely.
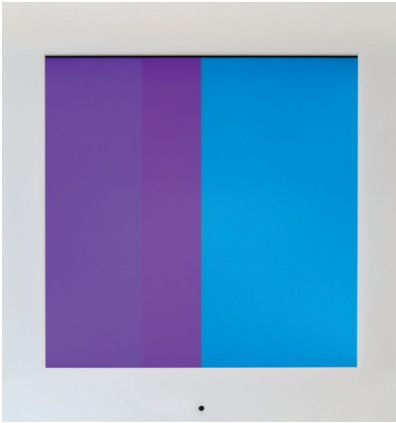
Figure 1. Ernest Edmonds, *Shaping Form 14/5/2007*, **2007. Museum no. E.294-2011. (© Victoria and Albert Museum, London/ Ernest Edmonds)**
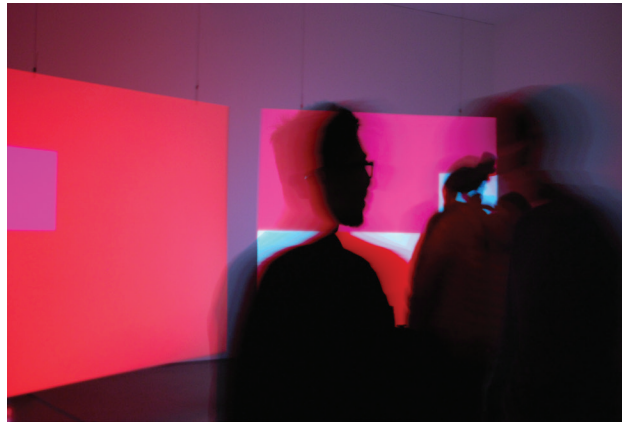

Figure 2. Ernest Edmonds, *Shaping Space*, **installation at Site Gallery, Sheffield, 2012. (© Francesca Franco)**

The "digital" gave generative art new possibilities and brought therefore new thoughts and opportunities to Edmonds's creativity, allowing him to generate a system through which the artwork has a life of its own where color is selected, manipulated, and changed with no restrictions of time. This represents an important step in the generative art field, the consequences of which are still being explored.

The advances in research and education to which Edmonds has contributed from the late 1960s to the present have offered great opportunities for interdisciplinary exchange and ideas that have had a profound impact in the international arena of digital art. They include his work in promoting practice-based research in the interactive arts. These dynamic ways of exploring creativity are a constant stimulus in Edmonds's work both as an artist and as an academic.

He was Editor of the Transactions, the fast track section of *Leonardo,* and an international Co-Editor of the journal. He is a member of the Editorial Board of Digital Creativity and Founding Editor of the international Elsevier journal *Knowledge-Based Systems*. His publications include more than 300 books and papers, including a monograph centered on his work, *Generative Systems Art*: *The Work of Ernest Edmonds* (Routledge, 2017) edited by art historian Francesca Franco.

His latest solo exhibition, Constructs, Colour, Code: Ernest Edmonds 1967–2017, was on view at The Gallery, De Montfort University, Leicester in 2017.

ACM SIGGRAPH is honored to recognize Ernest Edmonds as an important pioneer in human-computer interaction and in the practice of generative and interactive art.

Sue Gollifer

CHAIR
ACM SIGGRAPH DISTINGUISHED ARTIST AWARD FOR LIFETIME ACHIEVEMENT IN DIGITAL ART