



ERNEST EDMONDS

Light Logic

2012 | Site Gallery, Sheffield, UK; Conny Dietzschold Gallery, Sydney

What are the implications of the computer for the constructivist tradition?

In November 2012, the Site Gallery in Sheffield, UK, opened *Light Logic*, a solo-show of pioneering computer artist Ernest Edmonds. Emerging as part of the UK constructivist movement in the 1960s working under the mentorship of figures such as Kenneth Martin, Edmonds made his first algorithmic painting piece in 1968.

The title reflects the two enduring fields of investigation that have driven Edmonds' practice. The perception and production of light have been critical to the artist and the works stand alone as aesthetic investigations into colour.

The exhibition includes a selection of archival works. Projected light in relation to reflected light is a central concern, and linked sets of drawings, paintings and moving images are brought together. A newly commissioned generative light sculpture *Shaping Space* completes the exhibition. The installation records and responds to its environment. Speed, colour and shape are triggered by the movement of viewers' bodies and the work becomes a unique, autonomous, learning machine. The art of the Constructivists becomes simultaneously humanized and mechanized.

With early works in dialogue with recent pieces, the exhibition presents the critical interests of an artist whose work predicted developments in art and philosophy in an accelerated technological world.

Funded by the Arts Council of England, the Computer Arts Society and the Henry Moore Foundation. The formal evaluation of audience experience was presented at ISEA 2013 in Sydney when the exhibition toured to the Conny Dietzschold Gallery.

Shaping Space was also presented at the PAF (Přehlídka animovaného filmu) Festival of Film Animation Olomouc (Czech Republic) in 2013.

Installation 'Shaping Space



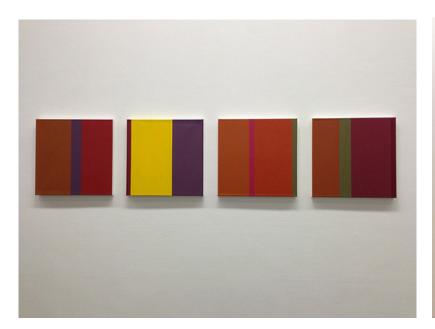
Paintings and related Generative Art (1980s)



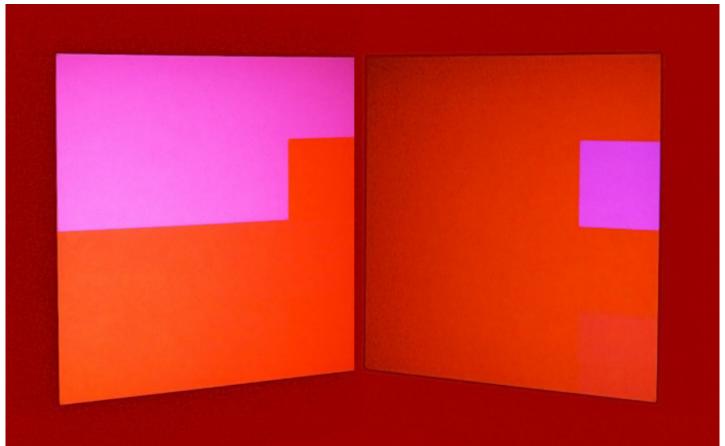




Exhibition view

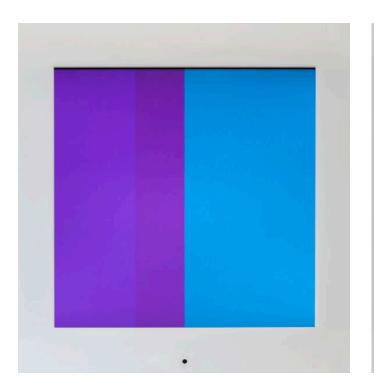


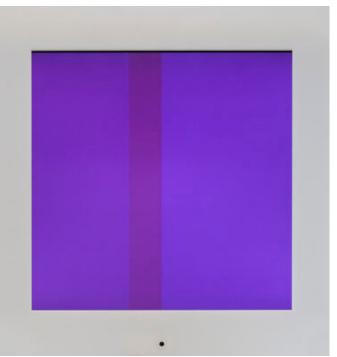






- 1. Exhibition view
- 2. Paintings and related Generative Art (2012)
- 3. Installation Shaping Space





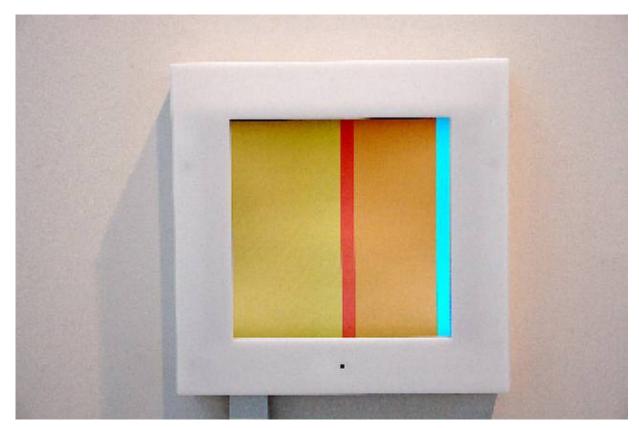


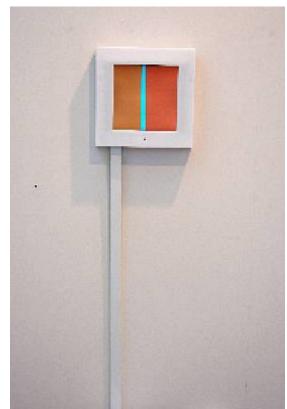




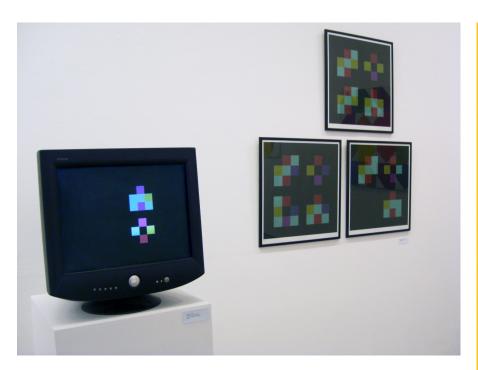
Shaping Form, digital views



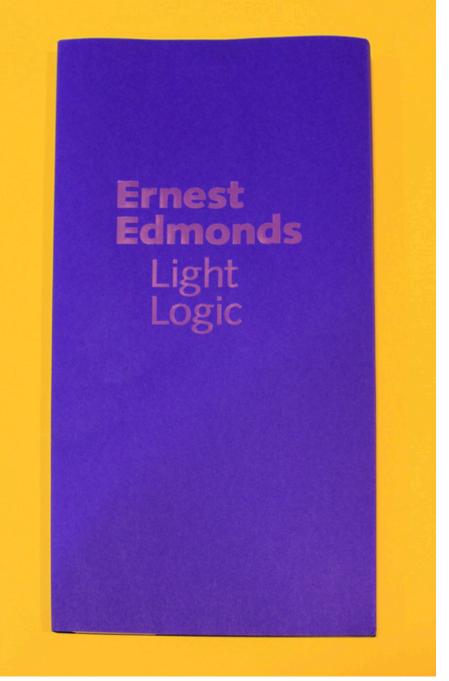




Installation views, detail









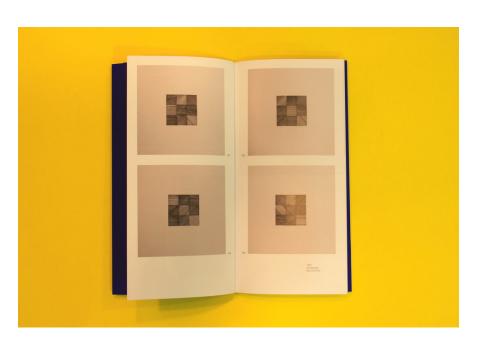
- 1. Paintings and related Generative Art (1990s)
- 2. Edmonds discusses documentation with pioneer Frieder Nake
- 3. Ernest Edmonds, Light Logic catalogue front cover







1.











Light Logic: Ernest Edmonds interviewed by Laura Sillars 2013, Youtube,

https://www.youtube.com/watch?v=WZK0CGYAM3k





EVALUATION IN PUBLIC ART: THE LIGHT LOGIC EXHIBITION

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Abstract

This paper discusses evaluation in the context of public art and specifically of interactive digital art. The study reported is of 'Light Logic', an exhibition of retrospective and current drawings, paintings and interactive digital works by the second author. The study was conducted by Site Gallery Sheffield in association with UK and Australian researchers. A survey of evaluation practice amongst artists and groups working in digital art is described briefly.

Keywords: Digital Art; Interactive Art: Participation: Evaluation

There are many dimensions to the question of what is evaluation in the context of public art, a term that we use to apply to art that can be freely viewed by the public. We are at an interesting point in the development of new forms of interactive art that has been accelerated by advances in computing technology. These new forms are having an impact on how we approach the difficult business of evaluating quality. For artists making interactive works, it is important to understand the kinds of audience or viewer experience that arise from the interaction with the work: "as behaviour is central to its very existence, the artist can hardly ignore audience engagement within the making process. Evaluation, in some sense, of an interactive system in action is the only way to understand its full dimensions," [1].

Background to Evaluation in Public Art and Interactive art

There is an increasing drive towards finding more systematic ways of embedding evaluation into institutional art programs and funded projects. Traditionally, evaluation has been associated with measuring impact often through simple quantitative measures such as footfall and visitor satisfaction indexes. Public policy and institutional approaches to evaluation have predominated and, until recently, there has been less attention to the role evaluation can play in the creative process of the artists themselves. The public art think tank, IXIA, funded by the Arts Council of England [2], was set up to promote and influence the development of art policies and strategies. In 2004, it commissioned OPENspace to carry out research into ways of evaluating public art [3] and produced a guide to evaluation that is useful for scoping the main issues that organizations and individuals need to take on board when contemplating evaluation. Nevertheless, there is a considerable gap between advice and actual practice: practice requires methods and methods need to be learnt and tested. Whilst the IXIA initiative is important and welcome, it nevertheless forms only one aspect of the evaluation requirements for public art. An important dimension of evaluation is the need for advice and methods that address the specific needs of creative practitioners undertaking novel and often high-risk types of art projects. This is especially so in the digital interactive art field where practitioners are often working in collaboration with academic researchers whose frame of reference for evaluation may arise from different value sets and concerns. The work may also involve risks that lead to dead ends, or outright failure to achieve the initial aims, and it is only through adopting an evaluation strategy that these kinds of experiences can be turned into positive learning. As the Wellcome Trust's advice to grant applicants indicates, it is important to anticipate the possibility of failure when striving for innovation and thereby to learn from it.

Digital Art Evaluation Survey

Evaluation involves mixed methods and many layers of richness and complexity in aims, motivations and scope. In order to establish a better understanding of the current situation with regard to the role of evaluation in public art, we have carried out a preliminary study of existing practices and the methods and documentation available to practitioners and institutions. We identified a range of methods used for gathering information of which the questionnaire survey format is the most common. Evaluation is done mainly through general questionnaires which helps to provide feedback for the curator and the artist to measure success in terms of audience attendance and general attitudes: for example the company, Thresholdstudios uses questionnaires, social media and reviews such as the ones made by students in the blog of their Frequency Festival [5]. The feedback from this information was used to evaluate audience responses to the work and to share some of this with the artists

It is important to distinguish between evaluation that functions mainly for institutional and policy purposes and that which functions for individual artists and groups. We noted a difference between what institutions require from evaluation and what artists do; for the latter, the emphasis is on collecting data about specific aspects of the work in order to inform practice. This varies according to the complexity and goals of the artwork. the exhibition, and the role of the audience. Some works use immediate feedback from the audience informing their work directly, such as the work Audience, created by rAndom International and Chris O'Shea, exhibited in the Victoria and Albert Museum's 'Decode' exhibition in 2009 [7]. Other works involve the audiences as participants in research processes, where they become co-creators of interactive artwork. In Day of the Figurines (Blast Theory), audiences are involved as performers of an experimental work crossing boundaries between the physical space of the gallery, the public street space, and the virtual space. The Blast Theory collective, whose works are hybrid forms of participatory interactive digital art, have used complex ways to evaluate the experience: for instance, to evaluate Day of the Figurines they carried out a public test over 24 days, the duration of the artwork. This involved testing interfaces. running trials of varied types of content, exploring narrative, critiquing the semiotics within the work and tracking the routes through the work in chronological order. Ethnographers from the Mixed Reality Lab, University of Nottingham, worked on the evaluation of this process which informed the project's development [8]. The artists claimed that this artwork shed light on several contemporary issues of HCI, as their goal was to understand how players interweave the experience of playing the game with patterns of their daily lives. Feedback. mixed with an analysis of log files of messages sent to and from the game, indicated to them: 'that the majority of players exhibit an episodic style of play, sometimes playing intensively and sometimes not playing at all for several days before returning again' [9].

Mixed methods for evaluation were needed to explore 'when and where people prefer to engage with a mobile experience'...to explore how people experience and engage in a narrative that is delivered and constructed through text messaging'; there were also technological issues such as the exploration of

set up to promote and influence the deinformally [6].

Cal issues such as the exploration of

Please reference as: [Author(s)-of-paper] (2013) [Title-of-paper] in Cleland, K., Fisher, L. & Harley, R. (Eds.) Proceedings of the 19th International

Symposium of Electronic Art, ISEA2013, Sydney. http://ses.library.usyd.edu.au/handle/2123/9475

Page numbering begins at 1 at the start of the paper.

'new techniques for making maximum use of the limited bandwidth of each text message by aggregating information about several events into a single SMS message' [9].

Other evaluation methods were used

to support interactive artworks in what can be understood as participatory work. This form of evaluation fits into the category known as 'formative', where the aim is to explore, generate on the fly understandings and develop the works as a result of that process. Theatre Sandbox, a national scheme for theatre makers to research and develop experimental pieces of performance that use pervasive media technologies, devised and delivered by iShed in Bristol, adopts a formative approach to evaluation by seeking to understand the value of this project as a developmental process. The evaluation explored 'the impact of the scheme on innovation in artistic practice, interdisciplinary collaborative working and the integration of digital technology and live theatre'. It focused on the process (rather than on individual performances) and used a mixture of qualitative and quantitative methods. Qualitative methods included semi-structured interviews with Theatre Sandbox participants such as 'artists, host venues, iShed and advisory group members'; 'documentary analysis of Theatre Sandbox Grants for the Arts proposal, applications to the scheme, selection interview notes websites blogs, Twitter feeds, videos and online workspaces'; 'observation of three salon workshops'; 'test performances, and Theatre Sandbox showcase'. Quantitative methods included: analysis of iShed's evaluation and monitoring forms, completed by participants in the five introductory workshops; 'follow up online survey of workshop participants six months later'. [10]

The IQ (Intelligent Questionnaire) system, originally developed to interact with job seekers, was designed to respond intelligently to answers given by respondents rather than just presenting a list of pre-existing, pre-ordered questions, in order to get a deeper level of feedback. Sophy Smith and Mario Gongora recognised its potential as an evaluative tool for arts organisations and in summer 2012 the IQ system was trialed at Phoenix digital media centre, Leicester, as a tool for obtaining a deeper-level of audience feedback about specific exhibitions. This system was also used by Ximena Alarcón to measure visitors' engagement when listening to her sound exhibition 'Migratory Dreams'; here

experimental evaluation was used to understand the experience of listeners who shared the experience of migration, focusing on evaluating connectivity rather than interactivity. For the artist, using this questionnaire helped her to imagine how, in the future, this evaluation could become the catalyst of audience's narratives, helping the user to reflect on the experience creatively, poetically and collectively. It also helped the artist find collective narratives that bring traces of the connections established in the virtual network of dreams.

A number of conclusions from these experiences have been identified. For institutions, evaluation focuses on general feedback from the audience measuring success of the exhibition. For artists, evaluation supports different aspects of their creation and research and is interdisciplinary and experimental. An interesting finding is the emphasis on mobile phones, as a technology that expands the museum experience, involves audiences as co-creators of content (Theatre Sandbox), and acts as performers in hybrid artworks (Day of Figurines). Also, sociological issues regarding the use of mobile phones are being evaluated through artworks, making it an interesting case of evaluation influencing artwork. On the other hand, evaluation tools that have been designed for other purposes, when used by an artist, acquire different connotations, and stimulate reflection about the purpose of evaluation and the creative use of collected data. Using social media has been shown to stimulate the exploration of technological aspects of the art practice. The evaluation experiences that have been identified have involved audiences in different roles (e.g. participants/cocreators/performers), expanded the reach

of the museum/gallery space, and with it, explored the innovative uses of technologies.

The survey of evaluation experience discussed here contributes to establishing

discussed here contributes to establishing an evaluation framework that involves institutional concerns, such as engaging audiences in artworks, and artists' intentions for the interactive artworks, understood as 'art systems', and the extensions that new communication technologies offer, either as part of the artwork or as supporting devices for evaluation.

The Light Logic Exhibition

We now move to an example of evaluation that focused upon the exhibition 'Light Logic' at Site Gallery Sheffield [11], which examined the nature of audience experience in a way that provides insights into the deeper levels of art experience. The main aim of the study of 'Light Logic' was to gather information about audience response to the artworks and installations exhibited in the Site Gallery, Sheffield during January 2013. The objectives were to:

- •To evaluate the curatorial design of the Light Logic exhibition
- •To evaluate the audience experience of the artworks and installations
- •To develop a framework for gallery and museum staff to facilitate the embedding of evaluation into curatorial practice.

Gathering and Analysing Audience Information

Light Logic' included paintings, drawings, time based work and interactive art. There were four main areas of focus that were represented in different areas of the gallery space as follows:

- •Documentation: the artist's development through time
- •The Art: the relationship between digital works, prints and paintings
- •Interactive Installation: the Shaping Space light sculpture
- •Interactive Artwork: ColourNet for influencing a Shaping Form artwork

The study included a range of aspects of the art and its exhibition including the audience experience of the work and being involved in research. It included the curatorial and artist perspective in the kinds of issues being explored. It used observation by video and person in combination with interviews for close attention to individual responses. The information gathered also included documented reflections by the gallery researchers that focused upon the experiences of learning new processes and acquiring new skills in evaluation methods. All members of the evaluation team were prepared for the study through trial runs of the procedures and methods. This involved conducting trial exercises during which each researcher played the participant visitor and observer at different times and the outcomes were then evaluated and the process refined. 25 participants were recruited by gal-

lery notices and from regular visitors on the basis of age range and gender, in order to have as diverse a range of participants that could, in a certain sense, be typical of a gallery visiting public. Inevitably, there were more people involved in creative works of some kind than, for example, office or service workers, so they cannot be considered to be fully representative of the public at large. All



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http://ses.library.usyd.edu.au//bitstream/2123/9653/1/evaluation-inpublic.pdf

participants were asked to give written consent to the gathering of data about their activities in the study environment including specific agreement to being video recorded. A statement regarding the anonymity of the data collected was also provided.

Information was collected by video recording whilst people freely explored the exhibition. This was followed by a semi-structured interview based on a set of pre-determined questions. Video cued recall was also used to remind the subiects of what they had just seen and done. In addition to the audience, other perspectives were included in the outcomes of the research, principally, the intentions of the creative curator and the voice of the artist. These voices in particular guided the questions that were asked in interview. The data consisted of interview transcripts and video data which was analyzed using keyword allocation and collation by two researchers acting separately. The audio and video data has provided a rich source of information about the responses and experiences of the participants.

The data analysis is ongoing and at this point the findings should be regarded as preliminary. Outcomes may be grouped as follows:

Curatorial Design

Most participants mentioned the following:

•the importance of an open airy and naturally lit space for appreciating the work •the value of digital and painted forms juxtaposed in a historically accurate way •the archival documentation for what it revealed about the artist's way of work-

The documentation archive consisted of the artist's working documents arranged by the curator to reveal a certain narrative. There was a timeline on a wall at the entrance to the exhibition that placed the work in relation to other developments from the 1960s onwards, which many participants commented on as being very helpful. One or two people wanted more 'explanation' but for this kind of work it was a surprisingly small number. The general attitude seemed to be - 'I want to look and judge for myself

There was an order implicit in the design of the spaces: main art room followed by documentation room and then hidden behind a curtain the dark interactive space. One person only opted to turn right into the documentation room before going into main open art space.

Audience Response

There was a distinction between audience response to the interactivity elements and experience of the whole exhibition itself. In a certain sense, the comments about interactivity arose from an attempt to analyze it. There is a clear contrast between the 'analytic' comments that denote thinking about the interactivity itself rather than being immersed in it, and the 'affective' descriptors denoting emotional and sensory responses. For example, here is a selection of the participants' descriptors:

Analytic:

- "Not obvious it was interactive"
- "Went behind the projector"
- "Did not realise it was interactive" "How did the interaction work?"
- "Had a sense of being in control"
- Affective:
- "Calming effect"
- "Mesmerised"
- "Scary"
- "Soaked it up-dangerous"
- "a womb space"

This suggests that a focus on the quality of interactivity by itself can be misleading especially where the audience is puzzled having had no prior experience of it. On the other hand, from the artists' perspective this puzzlement may be a very positive element that can be exploited in some way. By contrast the felt experience of an interactive artwork or installation can work in different dimensions as the widely contrasting responses to the work indicated

Therefore, if we only try to understand interactivity in terms of observations of what people do (their actions, movements, outward behavior) this is only a partial view of the way that interactive art engages audiences. Going further into the deeper aspects of audience response -and evaluation of interactive art in general, requires enquiry methods that are directly informed by audience experience. It means that what they experience can be elicited by observation complemented by conversations. This has implications for the way we conduct evaluation in museums and galleries and

Embedding of evaluation into practice

As can be seen from the survey, the embedding of evaluation, in some form, into curatorial and artistic practice is a growing trend. The 'Light Logic exhibition' case study points to the development of a framework that can be used to implement public art evaluation; in this

case, the development of a guide to evaluation is being carried out by the curatorial team in collaboration with the researchers. Whilst public funding bodies need to learn about matters that influence policy, it is also necessary for both curators and artists to learn about aspects of their practice that can inform their future work and also public policy. As with some of the examples from the survev, the Light Logic evaluation is leading to reflections that will have an impact on future practice.

The type of evaluation study described here is one in which evidence about the curatorial, artistic and audience dimensions of a public art exhibition is acquired and then used to establish the value of a particular artefact or experience. This kind of approach to evaluation lends itself to the creation of shared values based on agreed evidence because it involves an exploration of situational knowledge. The gathering of information about what takes place, how audiences respond to the art exhibition and what curators and artists learn from the designing, making and reflecting process contributes to an understanding of what makes a successful or otherwise exhibition of art in the public arena. From the analysis so far, the findings promise to contribute to establishing a framework that can be applied more widely in public art evaluation.

Acknowledgements

Site Gallery team led by Laura Sillars curated and installed the exhibition. The Arts Council of England and the Henry Moore Foundation provided valuable financial support. The evaluation depended greatly on the people who conducted it: Gill Hobson, Jane Faram, Kira Askaroff and Judith Harry.

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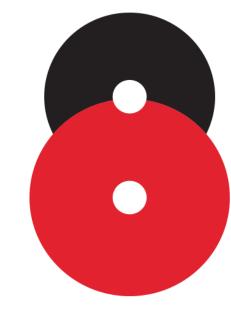
Fig. 1. Installation shots of Light Logic Exhibition © Ernest Edmonds



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http://ses.library.usyd.edu.au// bitstream/2123/9653/1/evaluationinpublic.pdf



Review: Ernest Edmonds - Light Logic, Site Gallery, Sheffield

Posted on November 27, 2012 by Bryony Bond

Online

Text by Lesley Guy

Works representing 40 years of Ernest Edmonds' practise have been selected to create an overview that shows an intense interest in research of aesthetics in light, and image making. They are not hung chronologically, which would make sense for an artist who goes back, revisits and reworks. As a result there is a bit of cross-referencing to do and as a viewer I am led back and forth eager to look and learn.

Originally a painter whose training comes from within the British Constructivist movement of the 1960s, Edmonds began using algorithms to help make aesthetic decisions, the first pieces dating from 1968.

Paintings were made in response to digital works but then the digital solutions eventually became the medium. For the artist this was a breakthrough, 'like the move from tempera to oil paint'. The work evolved into painting that is not about paint.

The first piece I encountered was in the entrance of the gallery, *Colour Net*, which is connected to the work projected on the window outside. The images we see on the screen are Edmond's, however, Sean Clark has designed an app that allows visitors to interact with and change the way the image appears on the screen. As a result it will be evolving throughout the show.

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There are a number of responsive works in the show. Below the screens a tiny camera feeds back movement to a programme. I am affecting it as I move in to examine the colour, it senses my movement- the image moves, flickers back, interrupting my view, it is looking back!

The most impressive of these is the specially commissioned light sculpture, *Shaping Space*, 2012, that fills the second gallery. Again, the cameras analyse audience movement, which subtly affect the pink and red shapes on the two screens. Events are set in motion, in time, not to be undone but will go on to influence the way the next set of events – movements are received/interpreted and used to create the light/colour shapes. Like a primitive eye reading the environment – this artwork flickers into live and lives. It is like a person storing up a lifetime of experience – taking every interaction with it. It is beautiful.

As a painter, I must confess that some of the work rubbed me up the wrong way just a bit. It reminded me of the first time I looked closely at a Mondrian and was disappointed by roughly painted edges. Jasper A and B illustrate the point made about needing a new medium. Looking at the awkward gaps between the painted forms, it is clear that paint just isn't working anymore. I can see the appeal of moving from static to time based work. The video work Jasper, 1988 delivers the same set of overlaid squares in motion with more success. The risks are greater though; if you don't programme well, the whole thing falls apart!

Looking around, I become aware of gaps in my art history knowledge, particularly around computer art and the British Constructivist movement of the 1960s. Why did I not know about this? As if aware of this gap, Site Gallery is seeking to put Edmonds' practice in context, make it known and appreciated in the scheme of tech developments and, most importantly, Contemporary art (see the very useful timeline on the wall).

It feels like an important work for the reason that digital technology is something we now take for granted. This show attempts to highlight these developments, from the code being punched out on cards and handed into an expert with a room sized computer—to anyone who has a smart phone, being able to create sound and image and getting it published in a matter of minutes.

On top of all this, it is a beautiful exhibition; the space is clean and bright emanating beauty, colour, light and order. Not to be missed!

Ernest Edmonds - Light Logic is on display at Site Gallery, Sheffield until 2 February 2013.

Lesley Guy is an artist, writer and curator based in Sheffield. She is Co-Director of Bloc Projects, an artist led contemporary art space and Content Curator for Axisweb.



ERNEST EDMONDS Light Logic

Review: Ernest Edmonds – Light Logic, Site Gallery, Sheffield, Lesley Guv.

http://www.corridor8.co.uk/online/review-ernest-edmonds-light-logic/

Ernest Edmonds, Manfred Mohr and Digital Aesthetic 3

MORGAN QUAINTANCE | Wed Dec 12th, 2012 9:44 a.m.

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When visionary engineer J.C.R. Licklider published Man-Computer Symbiosis in 1960 — a paper outlining how man's intellectual productivity can, and should be significantly increased when partnered with a computer — the creative problems of contemporary arists were perhaps furthest from his mind. But during the 1960s, a digital fever struck the art world. Large numbers of enthused European Alvorth American artists, curators, and theorists focussed their attention on the creative potential of computing. Software, systems, and concepts were tried and tested, and a decade's worth of activity culminated in two landmark exhibitions: Jasia Reichardt's Cybernetic Serendipity at London's ICA and Jack Burnham's Software: Information Technology at New York's Lewish Museum.

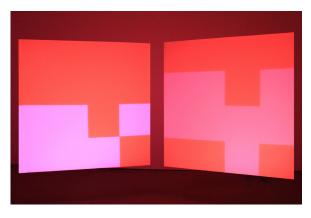
Two artists with retrospectives currently showing in the UK caught that initial wave of innovation: German born and New York-based Manfred Mohr, and British born, and still UK-based Ernest Edmonds.

Originally a painter with Constructivist sympathies, Edmonds turned to computer-aided algorithmic painting in 1968. Light Logic, his career-long retrospective at Site Gallery Sheffield, UK, combined early '70s works and original punch cards with a new motion sensitive installation and later video pieces. Edmonds' essential project is an investigation into the variant formal possibilities of a two-dimensional square. In each work the internal bounds of that shape are divided into sectors made visible by the distribution of colour, or the placement of a line. This is a process facilitated by programs designed to filter through combinatorial permutations, defined by Edmonds, until a subbe variation is found and then rendered by hand. A collection of numbered ink drawings from 1974 and 1975 capture the result of this procedure in the exhibition's only monochrome (black and white) works.



Shaping Forms, Ernest Edmonds, 20

The late '80s saw Edmonds move from canvas and paper to video. Here the algorithmic process unfolds in real time. What we see are the formal results of a continuous stream of values produced by a program running calculations Edmonds designed. Shaping Forms (2007) is a collection of three videos that brings Edmunds' data-centric concerns back into the environs of colour-field painting and Abstract Expressionism. Each of these works focuses on a distribution of color separating the screen into two sections divided by one or two vertical lines. The works resemble quantised, or snapped to grid, interpretations of Barnet Newman's Who's Afraid of Red, Yellow and Blue series. Shaping Space (2012) is a two-screen installation that runs through squared permutations in response to the movement of bodies within the gallery space. It is an affecting and immersive work that absorbs viewers and bathes the gallery in washes of deep red and amber.



Shaping Space, Ernest Edmonds, 201

Mohr's engagement with computing and generative processes began with nocturnal usage of the automated drawing machines (or plotters) of Paris' Meteorological Institute in 1969. Teaching himself the programming language FORTRAN IV Mohr set about creating algorithms that would result in a series of values the machines would render as forms. The results are delightfully complex images containing an internal logic and symmetry that is both mystifying and simultaneously intuitive, like complex contrapuntal music. In that sense looking at Mohr's plotter drawings is similar to listening to Bach's masterful variations on a single theme in the Musical Offering.



One and Zero installation view

One and Zero at Carroll/Fletcher gallery in London presented works from Mohr's early plotter drawings to recent video pieces, providing a compelling insight into the development of his singular art. The basement galleries presented an array of early plotter works like P-18 'Random Walk' (1969), a cat's cradle of zigzagging lines against a black background, and P-36g 'White Noise' (1971), a series of small angular forms arranged like a hieroglyphic alphabet. The most startlingly piece in this space is a 16mm film titled Cubic Limit (1973-74). In 1972, Mohr decided to focus his investigation on one geometrical form and chose the cube. Cubic Limit is an animation of a three-dimensional cube that is rotated, multiplied, divided, and abstracted for four minutes. There is something luminously supernatural about the film, capturing, as it does, a digital process transferred to an analogue broadcast medium. Whereas digital film often flattens what it depicts, celluloid has a tendency to round out, or materialise objects it projects. Watching the film unfold within the darkened gallery space there are moments when the use seems to hover as physical matter in air.



ERNEST EDMONDS Light Logic

Ernest Edmonds, Manfred Mohr and Digital Aesthetic 3, Morgan Quaintance,

http://rhizome.org/editorial/2012/dec/12/ernest-edmonds-manfred-mohr-and-digital-aesthetic-/?utm_source=pulsenews&utm_medium=referral&utm_campaign=Feed%3A+rhizome-



Cubic Limit, Manfred Mohr, 1974-74

002 Mohr begun to use color in his works. The ground floor provides an overview of this development from the five canvases P-709-B5 (2002), CD monitors showing slow-mo exploded views of cubes in pieces like P-1411c (2010) and P-777f (2004). A set of lacquered steel wall-based ptures are also displayed, and both P522d (1997) and P-511J (1996) are angular distortions of a cube that bare an affinity to what graffiti artists is for in ambitious abstracts and burners.

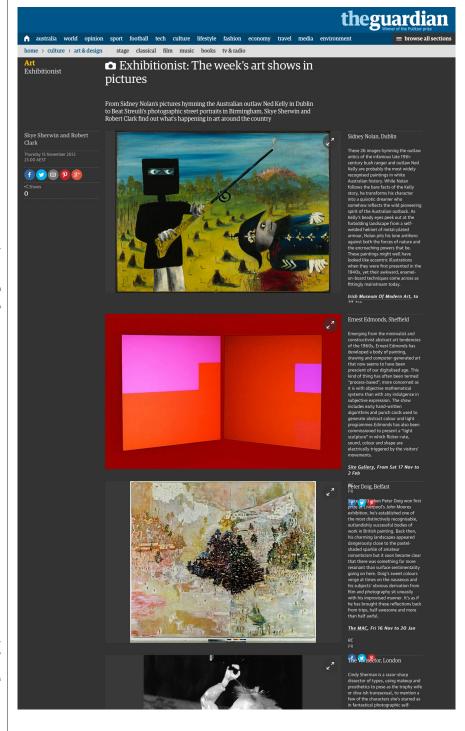
ight Logic, and One and Zero revealed man-computer symbiosis for early practitioners was a process of delegated number crunching, at the Han seum in Preston, UK, artists including Mark Amerikas, Sophie Calle, Korean Lee Yongback, and Japanese multimedia artist Takahiko Limura saled a more irreverent, ludic, and improvisatory contemporary relationship to digital technology. The curatorial process behind Digital Aesthetit the third and final in a series of exhibitions the museum organized in collaboration with the University of Central Lancashire, UK – began with premise, or rather the truism, that digital technologies have become a ubiquitous, essential, and inescapable feature of modern life in the eloped world. From this point of departure both established and emerging international artists who engaged with the digital were invited to take



A I U E O NN, Takahiko Limura, 1993/2012

erika's offering *The Museum of Glitch Aesthetics* (2012) made use of the museum's traditional mahogany frame and vitrine environment by ing small LCD video screens of glitched, stuttering footage and framed still images, similarly treated, amongst its permanent displays. Amerika' icet sought to represent the life and works of a fictional artist named "the artist 2.0". These interruptions to the museum's narrative functioned lil ances of noise within a fixed system, an attempt to glitch the collection. Other artists dealt with visual distortions. Limura's A IUEONN 33/2012) used multiple screens to display warped variations of his head pronouncing one of the Japanese vowels, whilst Mary Lucier's North vota Mandalas (2004) used processed film footage of four geographical locations to create a psychedelic installation of kaleidoscopic landscapes balance the artists within Digital Aesthetic 3 showed a playful engagement with the digital, and it was left to art-sleuth Sophie Calle to turn in a cer mediation on voyeurism with Unfinished (2005) a video work made from ATM security photographs and stolen surveillance tapes.

sely book-ending a historical narrative of digital art, Light Logic, One and Zero, and Digital Aesthetic 3 showed that artists' relationships with puters has evolved from delegated arithmetical tasks to today's collaborative engagement with software, apparatus, and the ever presence of tal media.





ERNEST EDMONDS Light Logic

1. Ernest Edmonds, Manfred Mohr and Digital Aesthetic 3, Morgan Quaintance,

http://rhizome.org/editorial/2012/dec/12/ernest-edmonds-manfred-mohr-and-digital-aesthetic-/?utm_source=pulsenews&utm_medium=referral&utm_campaign=Feed%3A+rhizome-

2. Exhibitionist: This week's art shows in pictures, The Guardian, http://www.theguardian.com/artanddesign/gallery/2012/nov/15/exhibitionist-art-shows#/?picture=39 9392211&index=4