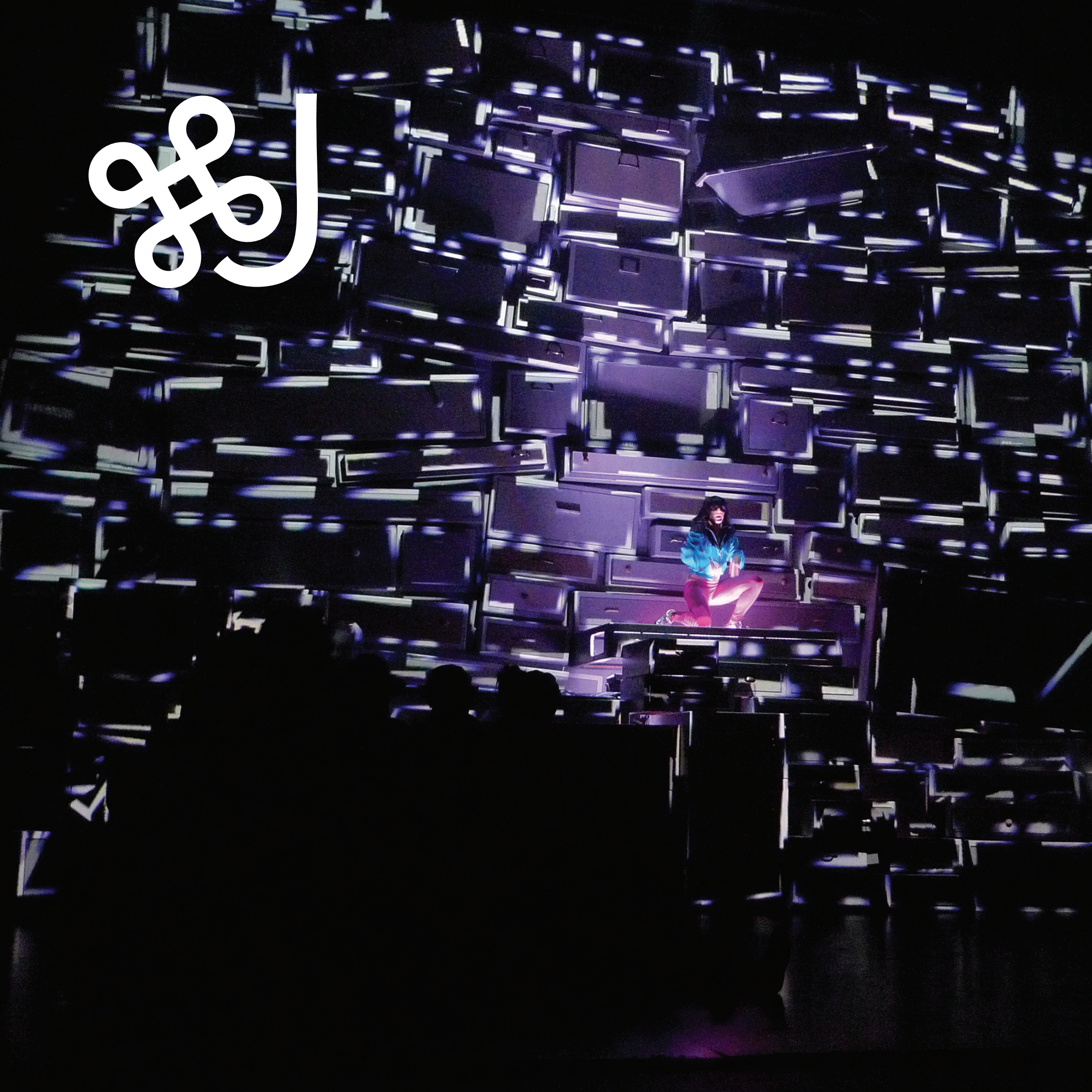
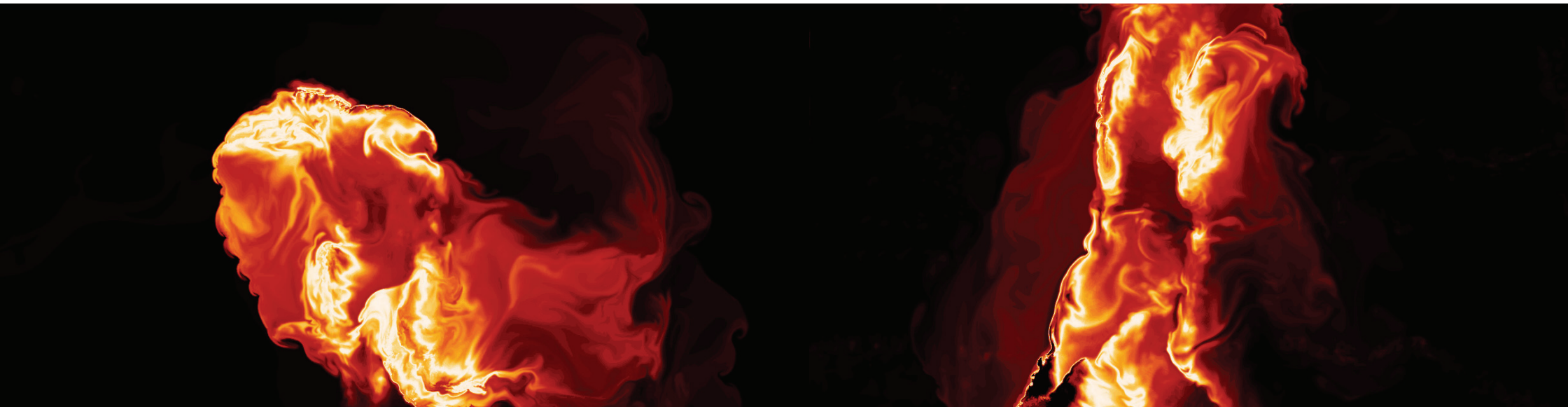


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Index



LETTER FROM THE EDITORS

7

CONFERENCE CALENDAR

8 - 9

BOOKS

10 - 11

FEATURE:

MEHMET (Memo) AKTEN

12-21

PORTFOLIO:

ALEX FISCHER

22 - 35

The background is a vibrant, abstract composition of colors including yellow, orange, blue, and red, with a grainy, painterly texture. In the foreground, a woman's silhouette is visible, her arms raised and hands near her head, as if in a state of artistic expression or dance. Her hair is dark and voluminous.

COMPUTATIONAL MEDIA DESIGN

36 - 53

NUCLEAR SWEET

54 - 63

CMD INTERVIEWS

64 - 97

REVIEWS:

POWER Electronics

98 - 101

Brian Eno

102 - 105

CONFERENCE REPORT

106 - 107



Journal of Computational Media Design



Laurel Johannesson

Editor

Contributing Photographer

Web Director

Marjan Eggermont

Editor

Contributing Photographer

Creative Director

Ellen Pearlman

Contributing Editor

Sheelagh Carpendale

Mehmet Memo Akten

Alex Fischer

Contributors

Cover images: Mehmet (Memo) Akten - Blaze (2010)

www.msavisuals.com/blaze_the_streetdance_show

More Mehmet Akten:

pp. 2-3: Reincarnation (2009)

www.msavisuals.com/reincarnation_iatrogenesis

pp. 4-5: Body Paint (2009) www.msavisuals.com/body_paint

Letter from the Editors



“If we do happen to step on a mine, Sir, what do we do?”

“Normal procedure, Lieutenant, is to jump 200 feet in the air and scatter oneself over a wide area.” - Blackadder

“Laurel, let’s start a magazine or a journal.” When Laurel replies breezily: “Sounds good”, you know you have the right co-editor. I question the sanity of that statement today, but here it is: the first of hopefully (many) more CMDJs.

In this issue we have an interview with Memo Akten, who we have both admired from afar. The beauty of this field - Computational Media Design (as we call it) - is the interactivity with the viewers, the audience, the customer, or even the consumer. Passive behavior is no longer allowed - you are in it, a part of it, a co-designer of the work - be it the art, the design, and/or the science. Alex Fischer is our featured portfolio artist. Discovered via the blog *todayandtomorrow*, Alex lives and works in Toronto and graciously sent us his beautiful work. The

work reminds me of childhood stories, books I have read, memory mash-ups that you might see just before you fall asleep looking for the quiet ‘black hole’ that signifies the end of the day (but perhaps that is just my routine?).

Sheelagh Carpendale, professor and Canada Research Chair in Information Visualization, describes the history and vision of the CMD program, trans-disciplinarity, and student empowerment.

We also have many contributions from the globe trotting and all-around multi-media wiz Ellen Pearlman. We look forward to many more articles and projects from her four corners of the earth.

A number of interesting and brilliant people are lined up to be interviewed for issue 2 including Daniel Shiffman.

Please submit conference deadlines, reviews, stories, articles, or anything you might think of that says: “It may not belong to any one discipline, it may be a no-man’s land, but this is where it all happens”.

Thank you for reading.

Laurel & Manjan

⌘



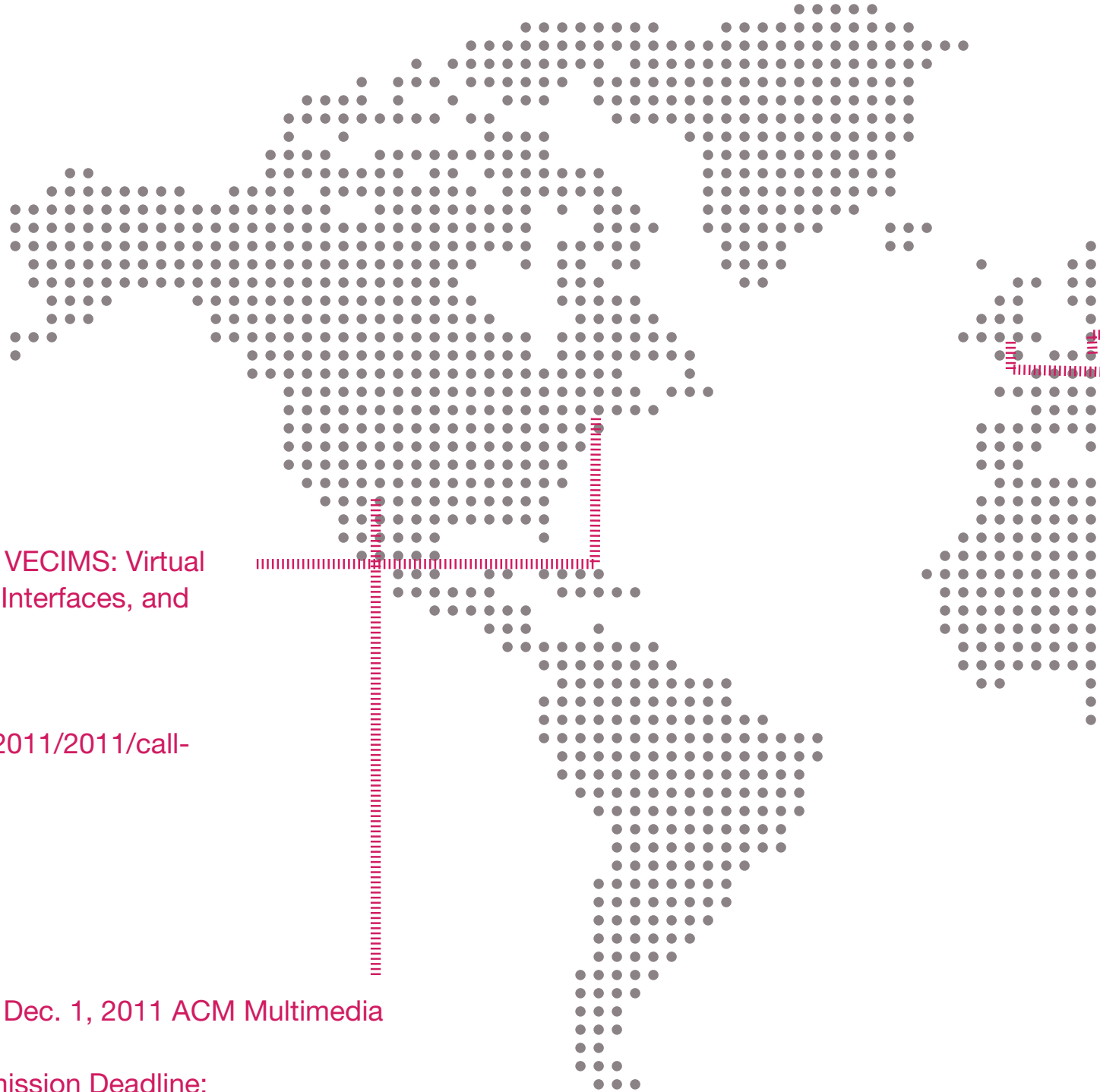
Sweden | November 28 - 30| **Ambiance '11**

...where art, technology and design meet

Papers submission:

April 1, 2011

www.ambiance11.se/



Ottawa | September 19 - 21 2011 **VECIMS: Virtual Environments, Human-Computer Interfaces, and Measurement Systems**

Abstract Submission Deadline:

April 15, 2011

vecims2011.ieee-ims.org/vecims2011/2011/call-papers

Scottsdale | Nov. 28 - Dec. 1, 2011 **ACM Multimedia 2011**

Full/Short paper Submission Deadline:

April 11, 2011

acmmm2011.utdallas.edu/page14.html

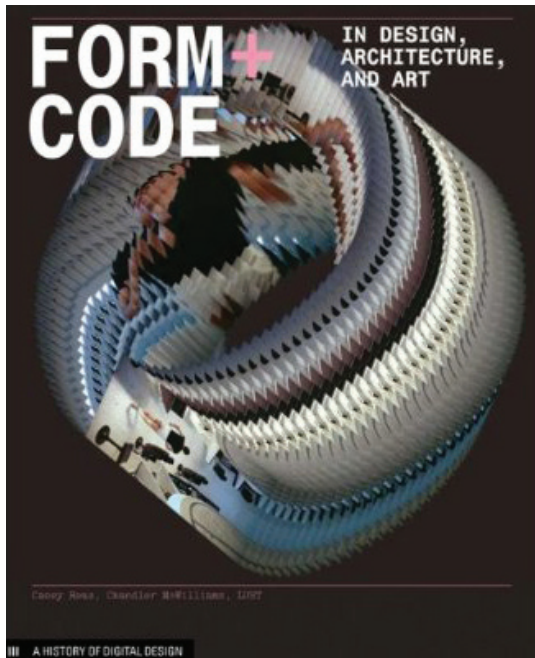
Conference Calendar



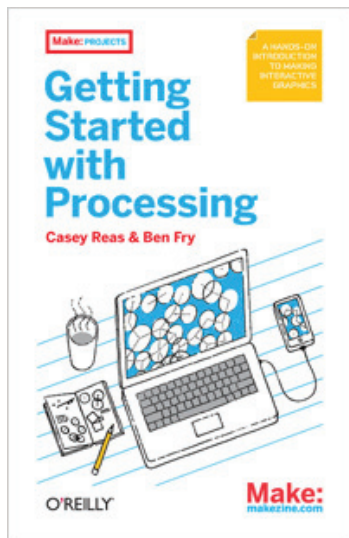
UK | July 4 - 8 Alt. HCI
Paper Submission Deadline:
February 28, 2011
hci2011.co.uk/site/alt-hci/

Turkey | May 12 - 13 | Design,
Technology and Experience
Abstract deadline:
February 15, 2011
designcalls.wordpress.com/

The Netherlands | September 14 - 17| Digma
Think, Design, Play
Abstract papers and alternative forms
submission:
February 21, 2011
gamesconference.hku.nl/



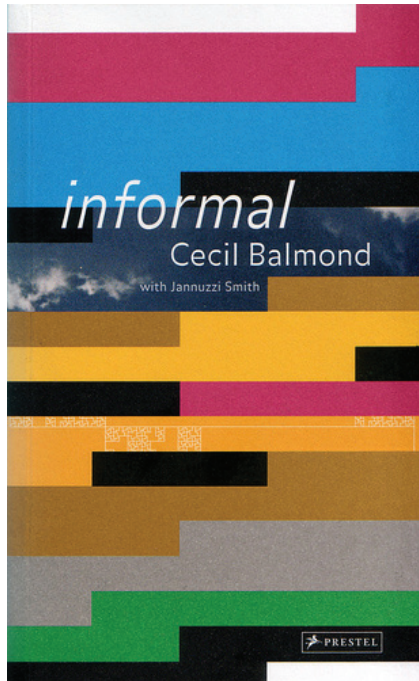
Form and Code: “Once the exclusive domain of programmers, code is now being used by a new generation of designers, artists, and architects eager to explore how software can enable innovative ways of generating form and translating ideas. Form+Code in Design, Art, and Architecture offers an in-depth look at the use of software in a wide range of creative disciplines. This visually stimulating survey introduces readers to over 250 significant works and undertakings of the past 60 years in the fields of fine and applied art, architecture, industrial design, digital fabrication, visual cinema, photography, typography, interactive media, gaming, artificial intelligence (AI), artificial life (a-life), and graphic design, including data mapping and visualizations, and all forms of new media and expression.” formandcode.com/



Getting started with Processing: “This book is a concise introduction to Processing and interactive computer graphics. Written by the founders of Processing, it takes you through the learning process one step at a time to help you grasp core programming concepts. You’ll learn how to sketch with code -- creating a program with a few lines of code, observing the result, and then adding to it. It was written to help the reader:

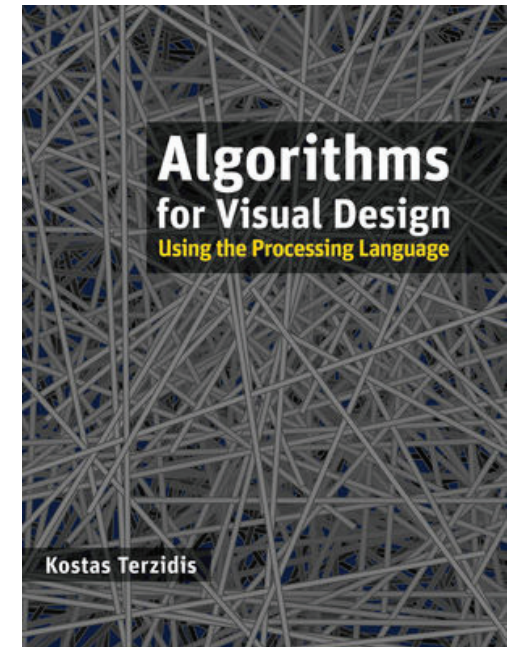
- Quickly learn programming basics, from variables to objects
- Understand the fundamentals of computer graphics
- Get acquainted with the Processing software development environment
- Create interactive graphics with easy-to-follow projects
- Use the Arduino open source prototyping platform to control your Processing graphics.” processing.org





Informal/Cecil Balmond: “The world is changing in social values and its institutions, there is also a breakdown in fixed ideologies – a more fluid and informal approach is called for. Hierarchies and dogma are being replaced by interdependence, self help and improvisation are concepts now proposed as new principles of organisation. informal anticipates this in the design of buildings. Ideas such as local, hybrid and juxtaposition are taken as providing start points for design in the interrogation of space, and architecture is viewed as a formative process arising out of a seminal structural logic. Instead of dumb skeleton there is network – a connective patch through pattern.”
jannuzzismith.com/informal/resources/presspack.pdf

Books



Algorithms for Visual Design/Kostas Terzidis: “As the first book to share the necessary algorithms for creating code to experiment with design problems in the processing language, this book offers a series of generic procedures that can function as building blocks and encourages you to then use those building blocks to experiment, explore, and channel your thoughts, ideas, and principles into potential solutions. The book covers such topics as structured shapes, solid geometry, networking and databases, physical computing, image processing, graphic user interfaces, and more.” ca.wiley.com



Media Histories/Oliver Grau: “Contributors trace the evolution of digital art, from thirteenth-century Islamic mechanical devices and eighteenth-century phantasmagoria, magic lanterns, and other multimedia illusions, to Marcel Duchamp’s inventions and 1960s kinetic and op art. They reexamine and redefine key media art theory terms—machine, media, exhibition—and consider the blurred dividing lines between art products and consumer products and between art images and science images. Finally, MediaArtHistories offers an approach for an interdisciplinary, expanded image science, which needs the “trained eye” of art history.”
mitpress.mit.edu/catalog

Memo to self

An interview with Mehmet (Memo) Akten



At the intersection of technology, art and design, Mehmet (aka Memo) Akten's work focuses on designing, developing and hijacking technology to create emotional and memorable experiences. A visual artist, musician and engineer, he is driven by the urge to make the seemingly impossible, possible; and awaken our childlike instincts to explore and discover new forms of interaction and expression. Also applying similar techniques to traditionally non-interactive media he explores new ways of creating and performing moving images and sound. Founder of The Mega Super Awesome Visuals Company, his work ranges from large-scale immersive interactive installations; live music/dance/theatre performances, music videos; to online works and mobile applications.

Recently his "Body Paint" installation has been shown at exhibitions across the world including the Victoria & Albert Museum as part of the "Decode" exhibition. The generative visuals he designed and developed for "My Secret Heart", a collaboration with Flat-e and Mira Calix,

has toured countless locations including the Royal Festival Hall in London, Edinburgh Film Festival, The Sydney Biennale, Paris, Tokyo and is now touring as part of The Creators Project in New York, Sao Paulo and Beijing. Various other works, performances and collaborations include the Science Museum, Ars Electronica, Mapping festival, Glastonbury festival, Aldeburgh Music, BBC Philharmonic, Depeche Mode and brands such as Apple, Google, Rolls-Royce, Samsung, Vodafone and Toyota. Also an open-source advocate, a lot of his source-code and experiments are documented on his blog www.memo.tv.

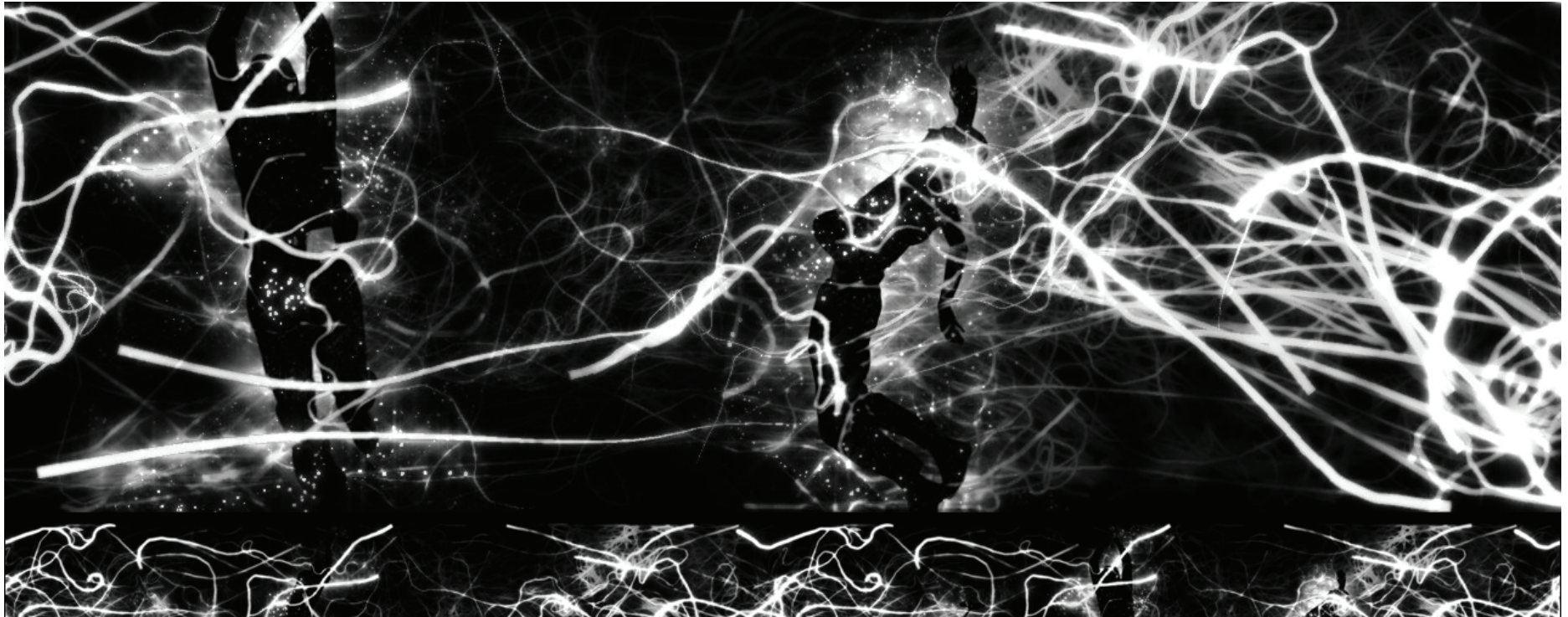
Memo was born and grew up in Istanbul, Turkey. Fascinated by the hacker demo-scene of the 1980s, he started programming music & graphics demos at an early age on the 8-bit computers of the era. In 1997, after completing a BSc in Civil Engineering, he moved to London where he worked in the video games industry as an artist, designer and programmer. Leaving the industry

Feature









in 2003 to pursue more immersive experiences, he now balances his time between personal work, collaborations, research and commercial projects with international brands.

- *What are you working on right now?*

I'm actually on holiday now, so no client work, hurrah! I have a huge list of personal projects I want to develop though, so I'm spending this month just going through them, prioritizing, planning the year etc.

- *Which work/exhibition/image have you seen recently that really excited you?*

I recently went to the "Gauguin: Maker of Myth" exhibition at the Tate Modern. It was very well curated. I usually take

a lot away from the exhibitions at Tate, they are really well curated with a strong narrative, especially when you take the audio commentary. They paint a very complete picture, beyond just looking at the artworks, they take you inside the artists head. The Gauguin exhibition at the Tate Modern really helped understand his motivations for leaving his wife, family and bourgeois lifestyle; his relationship with Van Gogh, disappointment with Christianized Tahiti etc. It helps make sense of his work as a whole and how it evolved into the eerie fantasy world that it did.

- *What is the last book you enjoyed?*

I'm currently reading "The Blind Watchmaker" by Richard Dawkins. I really enjoy reading Dawkins, this is the fourth



book of his I'm reading. I used to love fiction growing up, but I can't seem to find time for fiction anymore. Now I tend to only read non-fiction, usually popularized physics or maths (cosmology, string theory, quantum theory, chaos etc.) as opposed to fiction. Dawkins is of course a biologist and his books focus on evolution, but he makes the most amazing digressions into so many different fields of physics, maths, chemistry, philosophy, psychology, sociology etc. In his books, he is not only an author, but a curator of scientific writings as well, so I end up taking lots of notes on new books to read. Of course he went on to officially claim the title of "curator of scientific writings" when "The Oxford Book of Modern Science Writing" was released.

- *Who do you admire? Why...*

There are so many people, there really isn't any one single person who jumps out. All the great scientists who created revolutions in their fields spring to mind: Socrates, Plato, Aristotle, Copernicus, Galileo, Newton, Darwin, Bohr, Einstein, Schrödinger, Planck to name a few. They weren't just smart, but extremely bold and creative. They thought outside the box and presented views that were very radical for the time, and challenged the perception of the public and their peers.

- *What's your favorite motto or quote?*

It isn't really a motto, but I find "God loved the birds and invented trees. Man loved the birds and invented cages." by Jacques Deval quite a painfully truthful saying and a

very poetic reminder of our selfish nature.

For my work I try and adhere to the principle “Things should be made as simple as possible, but not simpler” as quoted by Einstein.

- *Your favorite art work of all time?*

Rodin’s The Kiss blew me away when I saw it for the first time. I generally like classical sculpture, but Rodin’s work takes it to another level. I find it amazing that you can get so much emotion out of a piece of rock. Just goes to show how important detail can be.

- *Which of the world’s great images mean the most to you?*

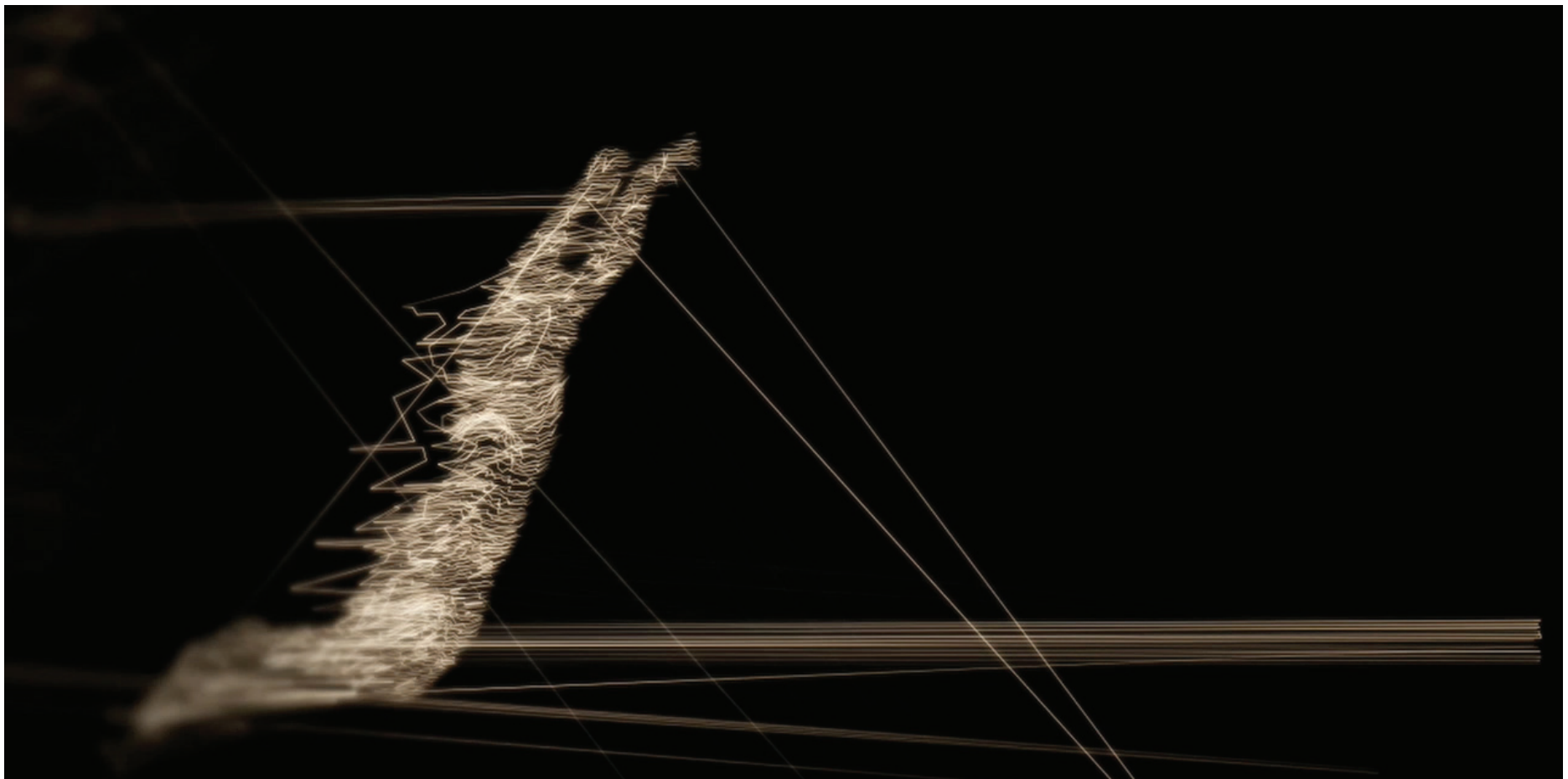
Not sure I understand this question.

- *What is your idea of perfect happiness?*

Perfect happiness, I have absolutely no idea. Does anyone? Probably not having anything to worry about. Is that a bit of a copout answer?

- *If not an artist/designer/computer scientist, who/what would you be?*

As a young kid I always wanted to be a deep sea diver and/or astronaut - as most boys probably do. Carl Sagan’s Cosmos and Jacques Cousteau’s programs were a huge influence on me, to the extent that even as I grew up and realized that going to space was a bit of a dream, I still seriously wanted to become a cosmologist / physicist or marine biologist. Still when I watch documentaries on Discovery etc. about an expedition that goes and sets sail



for a year or two, I get very envious. The common ground for all of these things is that of exploring the unknown, and in a weird way that is what I do today - instead of exploring the unknown physical world, I'm exploring the unknown virtual world.

That and I guess being a playboy photographer can't be a bad job either.

- *What/who is your greatest fear?*

I can't say that I have any 'special' fears. Like most people I'm not too fond of the idea of someone close to me dying a slow and painful death, but other than that fear isn't a big part of my life.

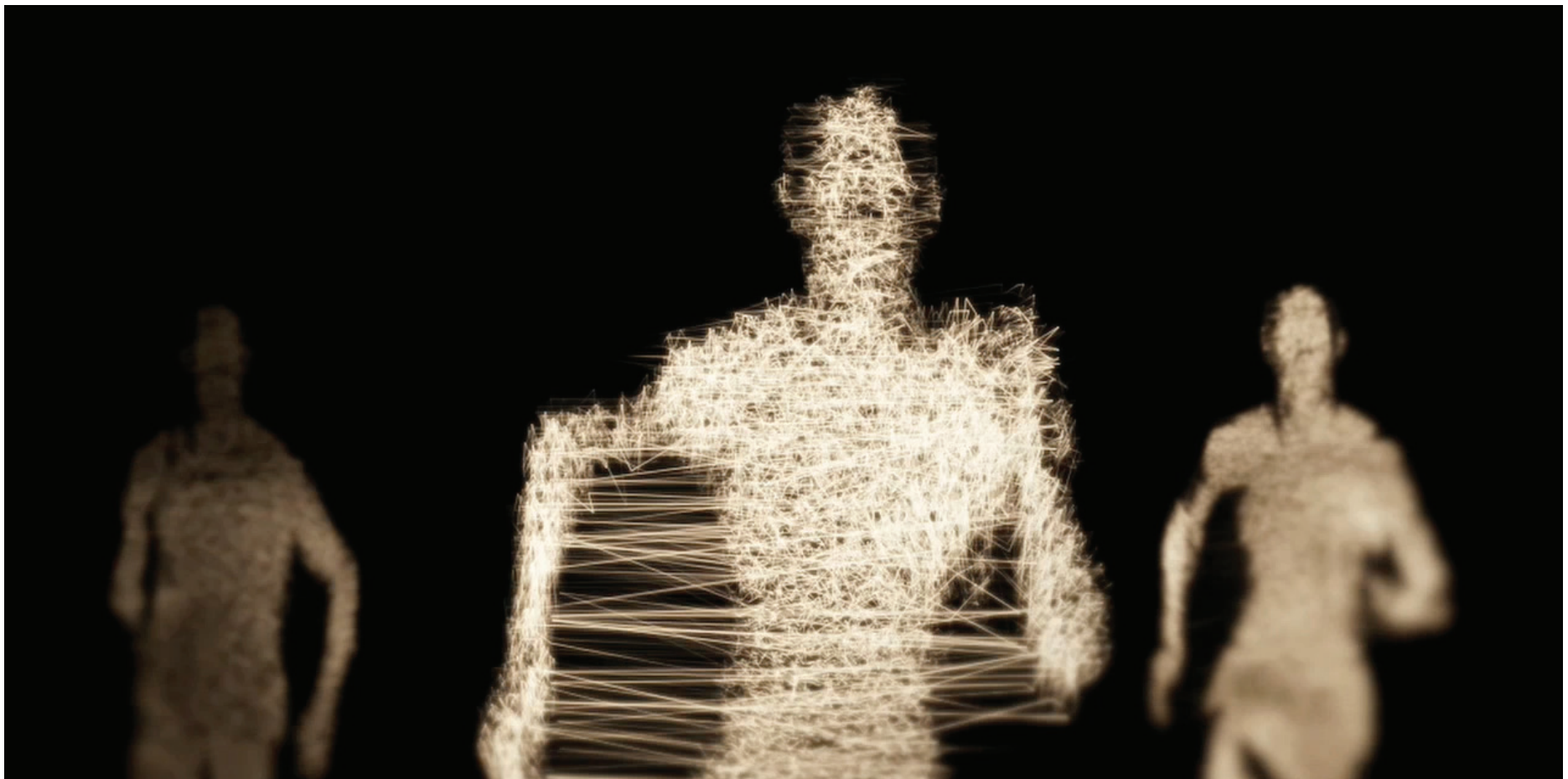
- *What is your most treasured possession?*

I can't think of anything that just jumps out as really special. I have a couple of guitars, a Gibson Les Paul, and a Gretsch 6120 that I really enjoy playing - and looking at!. I'm quite into photography, mainly wildlife / bird photography, and I have a few big lenses which make me happy. But if they were all to get stolen, I wouldn't be too upset as long as I received new ones from the insurance company - so I can't call them **treasured** possessions. I guess my most treasured possessions which cannot be repurchased are my hard disks - or to be precise, the data on the hard disks! I.e. photos, videos, emails, songs, writings etc. My whole past and memories stored on digital disks.

- *(And finally, the most important question:) What are you wearing?*

Hmmm, I'm actually writing this on my laptop in bed right now, so I'm not wearing anything!

⌘







Alex Fischer

New Work



Portfolio







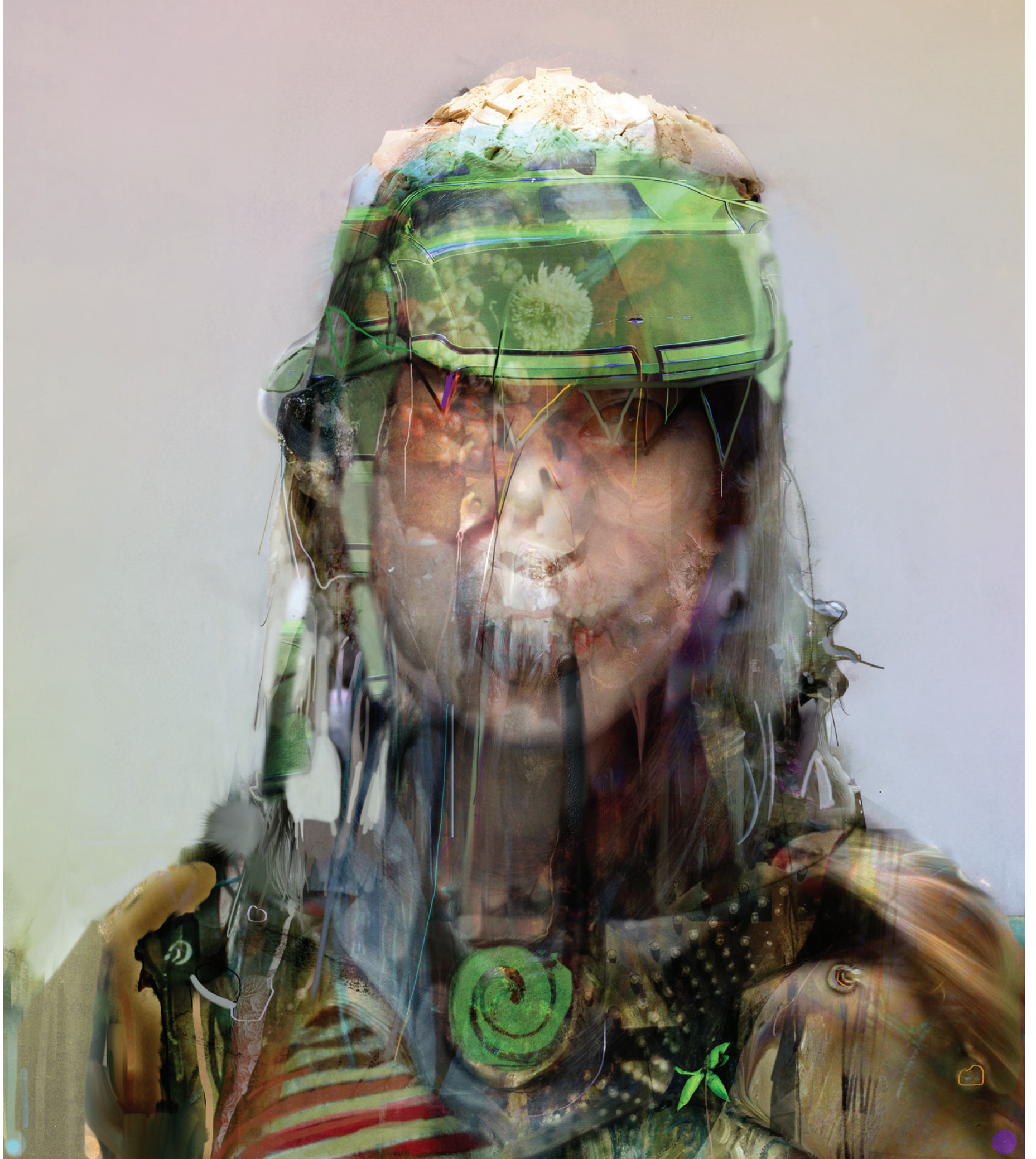


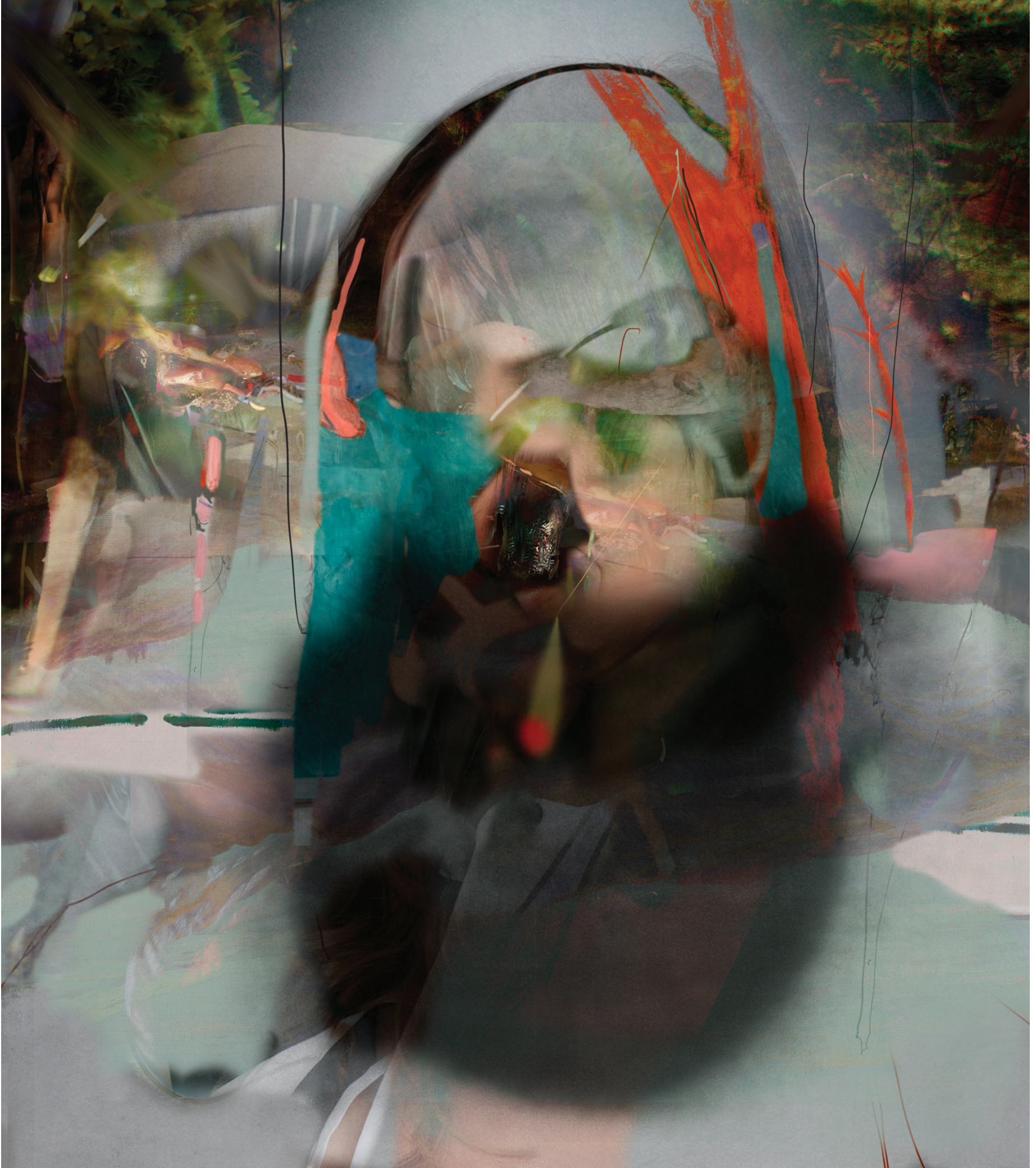
















p23: Bring Home the Bacon
6000 x 4500 pixels (20 x 15 inches)
digital image, 2010

p24: Figure Head
13680 x 13200 pixels (57 x 55 inches)
digital image, 2010

p25: Trouble on Volcano Sundae
3536 x 3840 pixels (14.7 x 16 inches)
digital image, 2010

p26: Untitled Greens
6000 x 4500 pixels (20 x 15 inches)
digital image, 2010

p27: Cooks Cape
25200 x 18000 pixels (84 x 60 inches)
digital image, 2010

p28: Fungus Philosopher
1891 x 2174 pixels (7.9 x 9.1 inches)
digital image, 2010

p29: Monster Mash
2362 x 2717 pixels (7.9 x 9.1 inches)
digital image, 2010

p30: Good Grief
3840 x 5280 pixels (16 x 22 inches)
digital image, 2010

p31: Teen Dream
2352 x 2712 pixels (9.8 x 11.3 inches)
digital image, 2010

p32: Dweller
5782 x 6667 pixels (9.8 x 11.3 inches)
digital image, 2010

p33: The Invisible Man Returns
7680 x 11486 pixels (32 x 47.9 inches)
digital image, 2010

p34: Artists Retreat
3536 x 3840 pixels (14.7 x 16 inches)
digital image, 2010

Computational Media Design

An Introduction



By Sheelagh Carpendale

The University of Calgary has a long history of offering their students innovative learning opportunities by constantly attempting to find new ways to establish collaboration. CMD draws on the excellence from the Faculty of Arts, the Department of Computer Science and the Faculty of Environmental Design. The real beneficiaries of this vision will be our students. In the expanding world of multimedia and design, there is an increasing need for these graduates, who can manage and direct complex projects that combine computing expertise with the creative energies of artists and designers. Numerous opportunities exist for our anticipated graduates in companies whose primary business is game development, film, TV, web design, simulation, networking, interactive media, and mobile and wearable computing, to name just a few.

CMD is commonly introduced as follows:

Computational Media Design (CMD) is a relatively new association between three faculties at the University of Calgary: the Department of Computer Science, Faculty of Science; the Departments of Art, Music, and Drama, Faculty of Arts and the Faculty of Environmental Design.

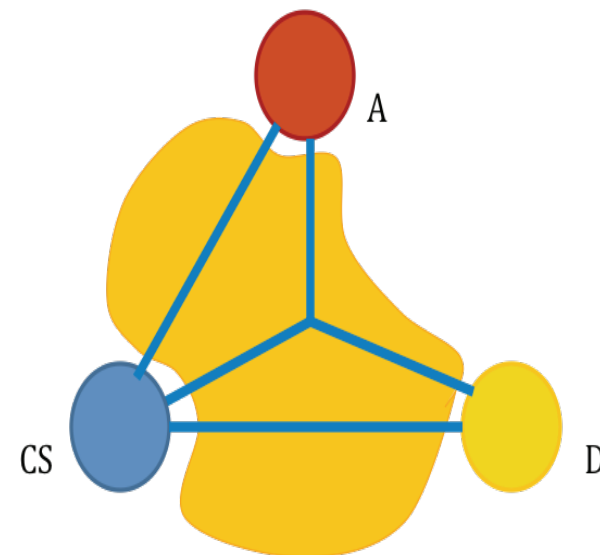
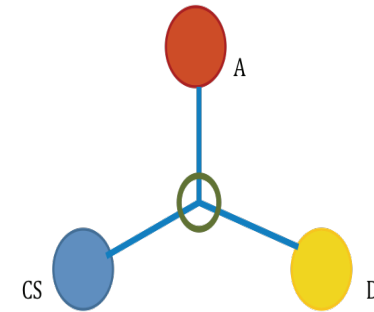
CMD operates as an interdisciplinary graduate group that enables graduate level practice- and/or research-based studies in Computational Media Design (CMD). Our focus is to enable students to conduct research at the intersection of the arts, design and computer science. Already in these relatively simple sentences there is much space for confusion. In fact, I think of CMD's focus more as a trans-disciplinary one.

First, let's consider the word interdisciplinary. This word is readily used to cover a wealth of types of endeavours that involve more than one discipline. However, in terms of CMD, I think that we can be a little more precise than that very wide ranging definition. As a contrast consider the word multi-disciplinary. The work of a multi-disciplinary team requires expertise from more than one discipline, but it is usually important that the boundaries separating these skill sets remain intact. There are many real world examples of situations where multi-disciplinary teams are essential. For example, in health care, the individual skills of team members, such as surgeons, nurses, and social workers, are distinct. While the roots of CMD started in multi-disciplinary work, and CMD still embraces

and encourages these types of practices, this is not our main focus.

Returning to the word interdisciplinary, it is usual that some blurring of the disciplines is implied. In fact, the phrase “at the intersection of art, design and computer science” goes further than blurring and implies that there may even be a precise point that exists midway between art, design and computer science. In this diagram an intersection point midway between three disciplines (A: Arts, D: Design, CS: Computer Science) is shown. However, in CMD, we are interested in a broader range of possibilities rather than only a midway intersection point. We are interested in the whole range of creative practice and/or research possibilities that exist between either between computer science and design or between computer science and the arts. For example, in this second simple diagram, the orange shows a range of possibilities that exist between two disciplines. Both the blue discipline and the yellow discipline fall outside the interdisciplinary range. In CMD, we have three disciplines, so the CMD range would appear more like the third diagram. Here, the orange range does not include pure computer science, pure art, or pure design. It is at least one step in from each discipline. While this range includes the spectrum between computer science and either the arts or design, or some blend of the three, it always includes computer science. Thus, CMD studies can range from computer science research that incorporates good practices from either the arts or design to improve, for instance, the interactive experience, to either art or design that utilizes computer science effectively in its realization, and all the variations in between.

CMD has its roots in a series of pilot interdisciplinary courses that were even more wide ranging – existing not just between three faculties, but also between three institutes: The Banff Centre, The Alberta College of Art and Design and the University of Calgary. In these pilot courses, the focus was much more on interdisciplinary



teamwork. These were a great success resulting in fantastic projects (see “i-works 2003”, p. 39 and “ASTecs 2006/07”, pp. 40 - 53), and proved to be rich learning experiences for both students and faculty. However, one of the lessons learned was that, while interdisciplinary teamwork was great in itself, the individual students were hungering for their own empowerment. Artists wanted to program for themselves, and computer scientists wanted to understand art and/or design methodologies. That is, they were looking for trans-disciplinary studies where they could study and practice the skills of another discipline. The CMD curriculum now requires some trans-disciplinary study.

Building on this past experience, we have designed CMD to be a graduate-level trans-disciplinary program. Our students investigate different modes of inquiry into creative practice and practice-led research at the intersection of the arts, design and computer science. CMD focuses on expanding the possibilities of our students’ research, design and/or artistic practice through studying and collaborating with someone from another discipline. We explore the combination of art, design and computer science to encourage new ways of seeing, thinking and creating in order to empower and inspire inventive, innovative and creative research, artistic and design practices.

Dr. Sheelagh Carpendale is professor in the Department of Computer Science at the University of Calgary. She holds a Canada Research Chair in Information Visualization, an NSERC/iCORE/SMART Industrial Research Chair in Interactive Technologies. Her research group, Innovations in Visualization (InnoVis), is part of ilab, which she co-directs with Drs. Greenberg and Sharlin. Her research focuses on the visualization, exploration and manipulation of information.

She is the recipient of several major awards including the Natural Sciences and Engineering Research Council University Faculty Award (UFA), the British Academy of Film and Television Arts Award (BAFTA) for Off-line Learning as well as academic and industrial grants from Natural Sciences and Engineering Research Council, Intel Inc., Canada Foundation for Innovation, and Forest Renewal British Columbia. She has also been involved with successful technology transfer to Idelix Software Inc. Previous experience includes: visualizing ecological dynamics for SEED (Simulating and Exploring Eco-system Dynamics), a Braunart’s project, Antarctic Waves that uses visualization to integrate scientific results and sounds from Antarctica to create a tool to inspire musical composition, visualizing uncertainty, and multi-touch and tabletop interaction. Though her current professional focus is computing science she has a background in both arts and sciences.

⌘ She left high school with science scholarships but instead initially opted for fine arts, attending Sheridan College, School of Design and Emily Carr, Institute of Art and Design. For ten years she worked professionally in the arts. During this time she taught at Humber College and was involved in establishing the Harbourfront Arts Centre at York Quay, in Toronto. Subsequently she has reconnected with her interests in math and science by studying computing science at Simon Fraser University. She has found the combined visual arts and computing science background invaluable in her information visualization research.

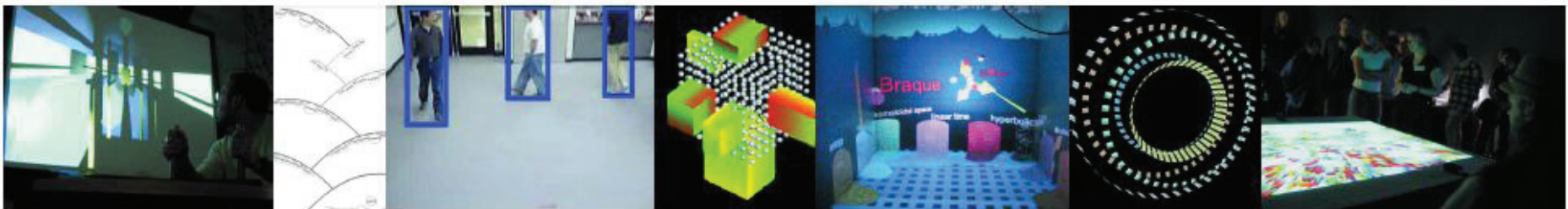
Media Arts & Digital Technologies Programme, Alberta College of Art and Design & Computing Science Department, University of Calgary

i - works

works from a collaboration between artists and scientists

September 1 - 13 2003

reception thursday 11th september 2003 6 pm



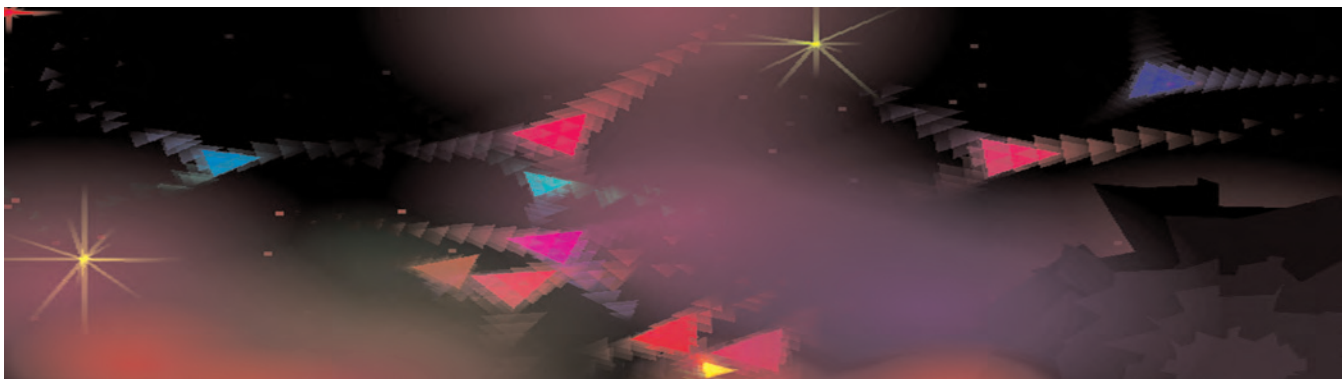
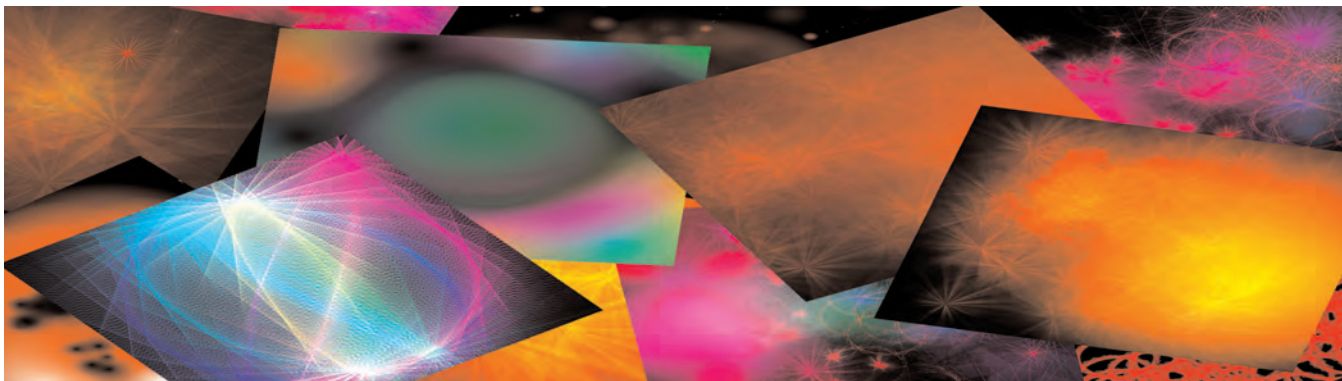
T H E N I C K L E A R T S M U S E U M

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Media Arts & Digital Technologies Programme, Alberta College of Art and Design & Computing Science Department, University of Calgary

c o s m o s i s

David Baumgart and Andrew Seniuk



Cosmosis is an immersive interactive media installation that engages viewers in an abstract, cosmic dance of creation. Body gestures are interpreted through computer vision to affect the audio/visual rendering of an evolving virtual ecosystem. To view Cosmosis one must interact with it in a denial of the traditional split between subject and object. The particular experience created by viewer's interaction is dynamic and always changing; in this sense, Cosmosis is like a meta art-object because the object of aesthetic contemplation is not the system itself, but created between the system and the viewer.

Our goal has been to create a novel and compelling experience without reliance on external symbols or narratives. This experience is guided but never completely controlled by viewers' body motion and gestures. The video generated and projected is intentionally two-dimensional (rather than that of a camera flying through a three-dimensional space) so that it is as little as possible a "window" to another world, but rather an omnipresence over the entire small world which exists on the plane projected in front of the viewer. The soundscape of Cosmosis involves deep

drones and throbbing, like the sounds of the body and the sounds of weather, the ocean, or the earth. The soundscape is intended to evoke a cyclic system that is ever-changing, waxing and waning.

A central principle of Cosmosis is the creation of systematic complexity, of waves of change and forces acting in patterns upon patterns. We strive to form complexity within the virtual ecosystem along lines similar to the principle of "Conway's Game of Life" by applying relatively simple rules to equally simple automata and allow the sum of interactions to form meta-agent patterns. Further, the movements of the viewer(s) create the content and movement of the virtual ecosystem, so the results of each viewer should be somehow personal to them.

Technology supporting this project includes computer vision, graphics, dynamics simulation, generative algorithms, and immersive audio. Thus far the science is applied in the support of art - new scientific enquiry has not begun per se, but with modification there is potential for empirical investigations into synesthetics and intentionality, as well as novel research in adaptive interfaces and A.I.

(eg. multi-agent systems, emergent behaviour, genetic programming).

In regard to applied interactive arts, our approach of using computer vision rather than physical interaction allows viewers to overcome the usual reluctance to interact with objects in art galleries. This hinderance to interactive arts may be due more to expectations of behaviour in a gallery than technological inadequacy itself, but our technological approach allows behavioural limitations to be overcome - because in fact, interaction is forced to occur as soon as a viewer enters the area and is "seen" by Cosmosis.

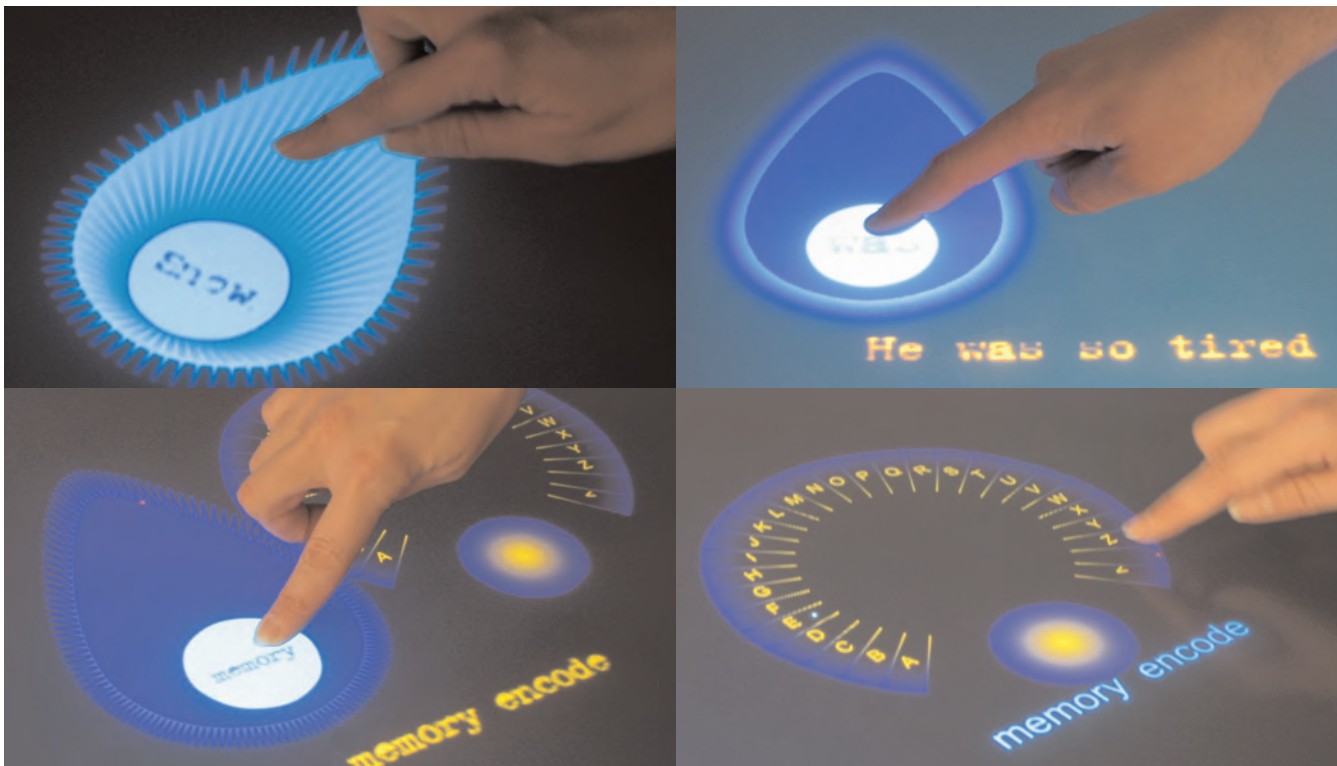
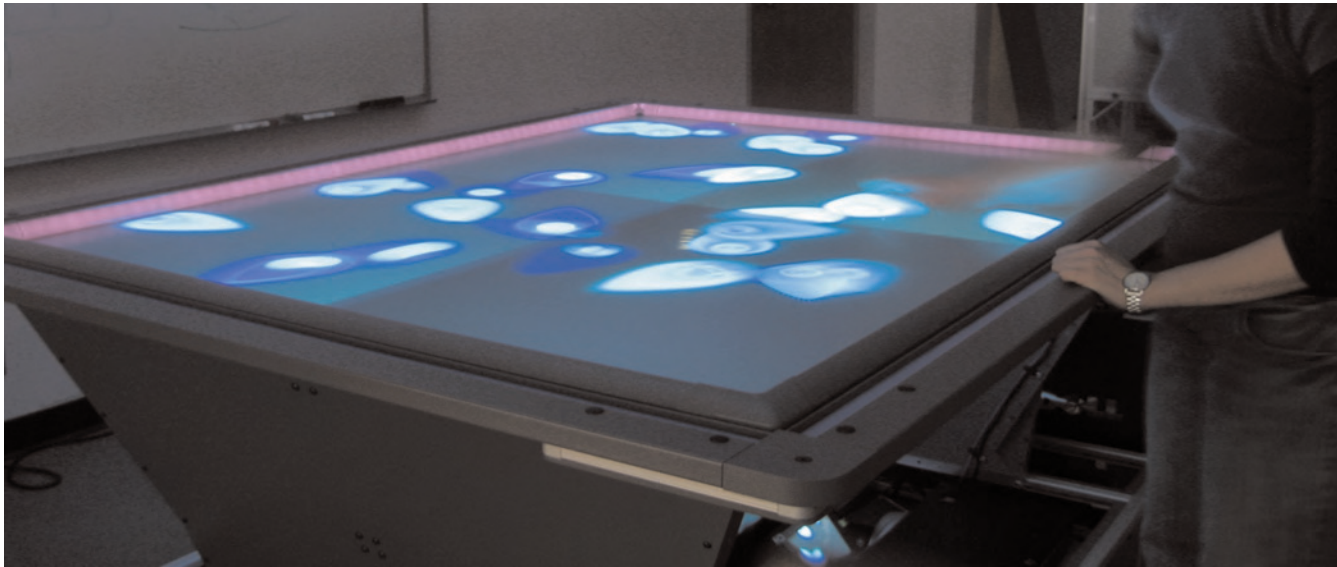
Some works which have influenced Cosmosis include Mark Hansen and Ben Rubin's audio/visually immersive "Listening Post", its content sampled from unknowing internet-chatters, the interactive multi-agent behaviour shown in the "Swarm Art" of Jacob et al, and, as mentioned, the fascinating simplicity and infinite possibilities of "Conway's Game of Life".

There are two strong currents pervading both the process of creating and the object itself of Cosmos: the technological/scientific context, which makes the work technically possible, and the artistic context which

places the work in a context of aesthetic and intellectual contemplation. With the Cosmosis project, we struggle with the technical and aesthetic difficulties of achieving a convincing and rewarding experience for the viewer while inquiring into questions of the aesthetic, sensorial, psychological and perhaps the teleological for at least one small cosmos.

m e m o r y [e n] c o d e

Uta Hinrichs and Holly Schmidt

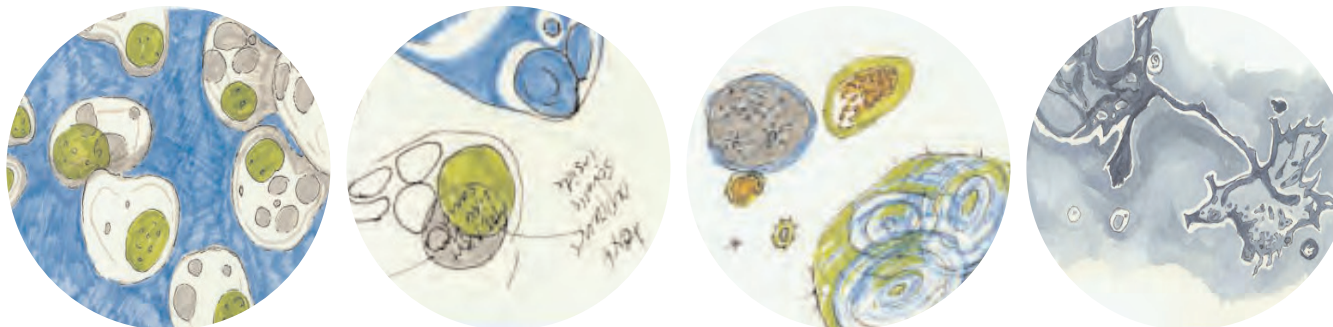


Memory [en]code began as an interdisciplinary exploration into memory. Our intention was neither to make advances in memory research nor to provide simulations of current memory theories. Rather we were interested in exploring a wide variety of concepts about memory in the disciplines of computer science, social science, cognitive psychology, neuroscience, and art. In *memory [en]code* our intention was to bring these interesting and at times disparate notions of memory together in a participatory tabletop installation where people can experience and explore them in a socially and culturally collaborative manner.

Through our explorations of memory in the various disciplines we discovered the infinite complexity of memory. Far from a simple storage-and-retrieval system, memory is dynamic and continually changing. Neuroscientists use the term *engram* to describe the “transient or enduring changes in our brains that results from encoding an experience (...) [T]he brain records an event by strengthening the connections between groups of neurons that participate in encoding experience.” [Sch96, p.58-59]. These connections depend on retrieval cues. In neural network models,

memory is a “unique pattern that emerges from the pooled contributions of the cue and the engram”; the present moment and the past [Sch96, p.71]. As neuroscientist, Antonio Damasio, suggests memories are sensory fragments that are constructed in the retrieval process [Sch96, p.66]. Memory is an act of construction and reconstruction.

In sharing memories we construct a narrative particular to that moment of recollection. We attempt to capture in language, in story, that unique pattern that emerges from cue and engram. As memories are communicated these narratives change. Collective memory like individual memory is also a dynamic process of construction and reconstruction. As philosopher Avishai Margalit comments in *The Ethics of Memory* [Mar02], shared memory involves a division of mnemonic labor. “[S]hared memory in a modern society travels from person to person through institutions, such as archives, and through communal mnemonic devices such as monuments and the names of streets.” [Mar02, p.54] And, as sociologist Anne Galloway [Gal06] suggests, through our machines. There is an ethical dimension to what is collectively



remembered and forgotten that is embedded in our design cultures and practices. Anne Galloway [Gal06] articulates an oppression of memory that comes from a relentless extension of our memories through the use of computers without human imprecision, without forgetting; suggesting instead that forgetting poses a kind of creative space that allows for the imagining of new futures.

Our project was driven by the desire to make memory as a shared act of construction and reconstruction visible, tangible, and explorative. In *memory [en]code* people find themselves in an immersive envi-

ronment composed of abstract video projections. A soundscape derived from whispers and water sounds draws them into the tabletop installation. Upon reaching the tabletop the sound fades and one discovers a tabletop interface with cellular forms comprised of a nucleus, membrane and plasma. These cells have a subtle blue coloration and varying degrees of pattern and transparency. Residing in a fluid-like environment the cells appear to glide as though self propelled. Each one of these cells can be pushed, pulled and tossed with a touch of the fingertips. The narrative contained within a cell is indicated by one word from the text that appears

in the nucleus. The interface becomes an array of words and shifting associations of memory. Touching a cell nucleus releases a text based memory narrative. This text hovers on the tabletop surface for a period of time and then fades.

People can contribute their own memories which will then appear as a cell using a typing device embedded in the tabletop interface. Cells can be fused together creating a cell that combines both the visual characteristics and memories of the “parent” cells. In this way the memories are always in a dynamic process of construction and reconstruction. Memory cells have a “lifespan” determined by the frequency of interaction with the cell. If a cell is not interacted with it will eventually disappear or be “forgotten”. The forgetting of some cells makes it possible for *memory [en]code* to accommodate new memories that are being entered on the interface.

Forgetting makes it possible to create new memories and associations; and thereby a creative potential. This aspect of forgetting is integral to the continuous construction and reconstruction of a collective memory. Eventually, *memory [en]code* will become a

kind of dynamic collective memory shaped by memories, interaction and the characteristics of *memory [en]code* itself.

[Gal06] GALLOWAY A.: *Collective remembering and the importance of forgetting: a critical design challenge*.

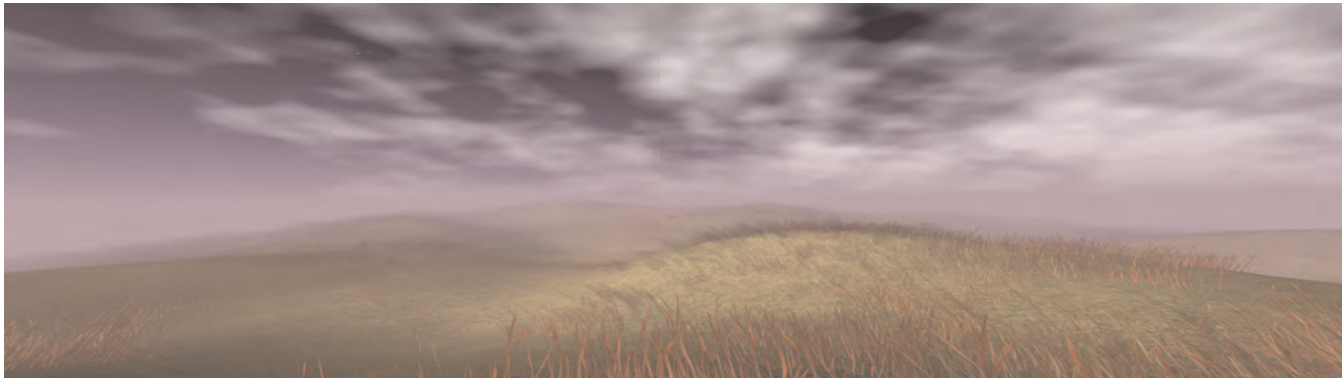
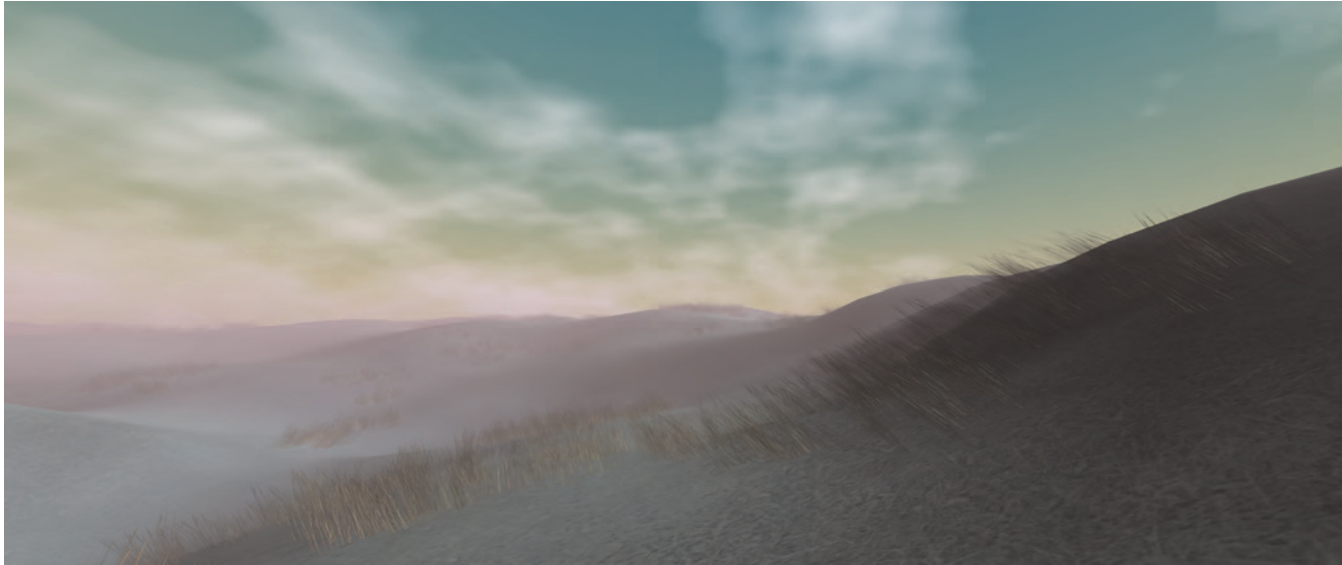
<http://www.purselipssquarejaw.org/2006/02/forget-me-knots.php.2001-2006>. Visited March 18, 2007.

[Mar02] MARGALIT A.: *The Ethics of Memory*. Harvard University Press, 2002.

[Sch96] SCHACTER D.: *Searching for Memory: the brain, the mind, and the past*. Basic Books, 1996.

e x p l o r e r

Helen He and David Osborn



Explorer is an interactive virtual world simulation. Emphasizing adventure, it provides an infinite naturalistic environment in which the user can roam. Although the system itself exists in software, it has been exhibited as a large screen projection with a control console positioned prominently in front. As the user mans the console, projecting themselves into the simulation space, they take on the role of the virtual explorer. They are given complete freedom of movement in a infinite but lonely world, haunted by the sounds of living creatures who can never be seen. As they pass over the distant land, the appearance of the world changes, ensuring a perpetually evolving experience.

The interactive character of the project is one of playful exploration. The user is free to roam around the virtual ecosystem, alone with their thoughts in a limitless pseudo-reality. It is also a place of adventure for us, the developers, as we leave the constraints of the physical world to be bound only by the capabilities of the computer and the depths of our imaginations. We began our research with a collection of scientific papers, mainly technical and graphics oriented, which described various methods for simulating natural

lated on multiple levels with global shifts and subtle variations. It is described by its author as a seasoning, an additive that intensifies the flavor of its base. We applied it to our simulation as one of a selection of persistent noise functions which are called whenever a dependent quantity is needed. It is used for determining such things as the height of the ground, the amount and character of the grass, the formation of the clouds, and the location of ambient sounds. Each of these attributes is dependent on a spacial or temporal position, and mutate in unexpected ways as the user passes through

spaces in real-time. Although most of these papers did not end up being implemented in their entirety, they did provide creative inspiration and a solid technical foundation on which to develop hybrid ideas. Additional inspiration came from video games, which share many of the interactive and simulative aspects of our project, as well as the use of OpenGL as a rendering platform. Although we deliberately moved away from any explicit association with games in the end, much of our initial work came from a game development perspective and our results were comparable to those of the same.

One of our original intentions was to algorithmically generate a naturalistic environment. A defining feature of nature is the subtle patterns that emerge from the complex interactions of self-directed agents and seemingly random events with an infinite range of detail. We needed an algorithm that could imbue our computer-generated world with life-like depth and the appearance of emergence.

Perlin noise, developed by Ken Perlin in 1983, is a pseudo-random function that exhibits these properties. It works by combining many frequencies of interpolated noise to generate a set of values that are interre-

lated on multiple levels with global shifts and subtle variations. It is described by its author as a seasoning, an additive that intensifies the flavor of its base. We applied it to our simulation as one of a selection of persistent noise functions which are called whenever a dependent quantity is needed. It is used for determining such things as the height of the ground, the amount and character of the grass, the formation of the clouds, and the location of ambient sounds. Each of these attributes is dependent on a spacial or temporal position, and mutate in unexpected ways as the user passes through

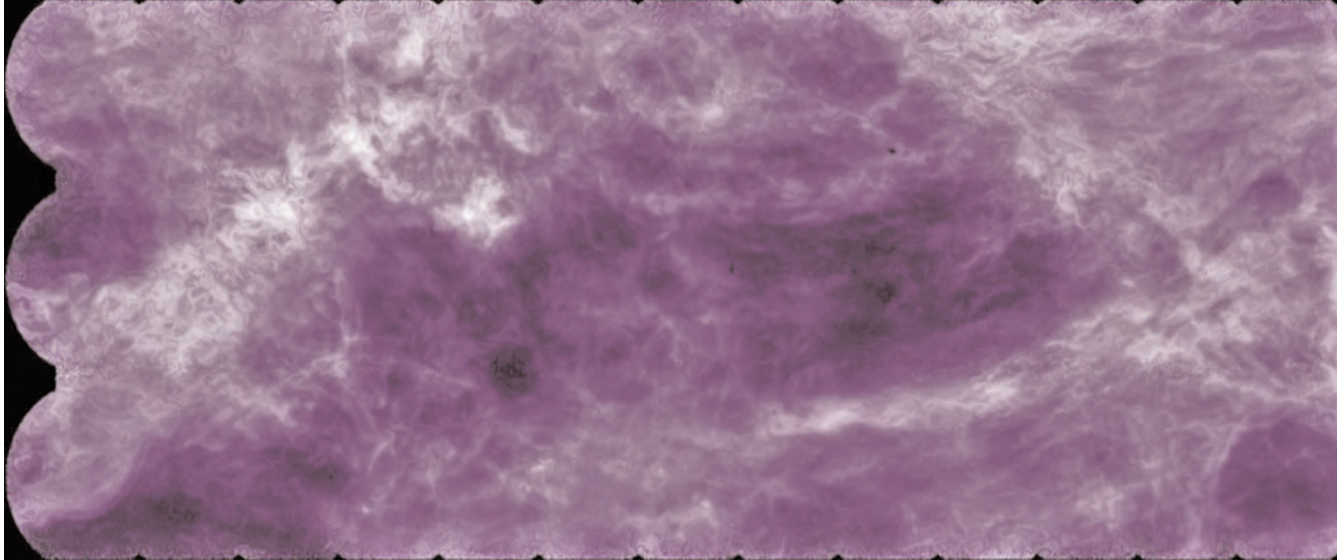
the world. Our work is deeply rooted in the interdisciplinary union of art and science. Although each of us was taught in the ways of a segregated discipline, both of us have dabbled in alternate, and perhaps traditionally opposing, spaces. The video game industry is one such example of a hybrid world, where artists work closely with computer scientists to produce a masterpiece of interactive fiction. Such interdisciplinary collaboration was the focus of the AStecs course through which our project was produced, and it had a pervasive influence



on all of the choices that we made. Throughout the productive process, we were forced to continually evaluate our focus to achieve a balance between art and science. As each of us grew accustomed to the opposing discipline, a hybrid language began to evolve, making it easier to communicate without binding our ideas to a distinct specialization. Indeed, the freedom to overcome the accepted divorce of art and science, exploring the world with a greater depth of vision, is mirrored metaphorically in our project as users are teleported into an imaginative and limitless extension of reality.

Representation of a Radio Astronomy Data Set through the
Equalized Hybridization of an Art and Science Collaboration

Amanada Henderson and Matthew Tobiasz



The work produced within this collaboration speaks directly to both individual's interests and creative intentions. Neither art nor science dominates the creation of work; instead a middle region between the disciplines is strictly adhered to and thus the work created is produced through an equalized hybridization of art and science.

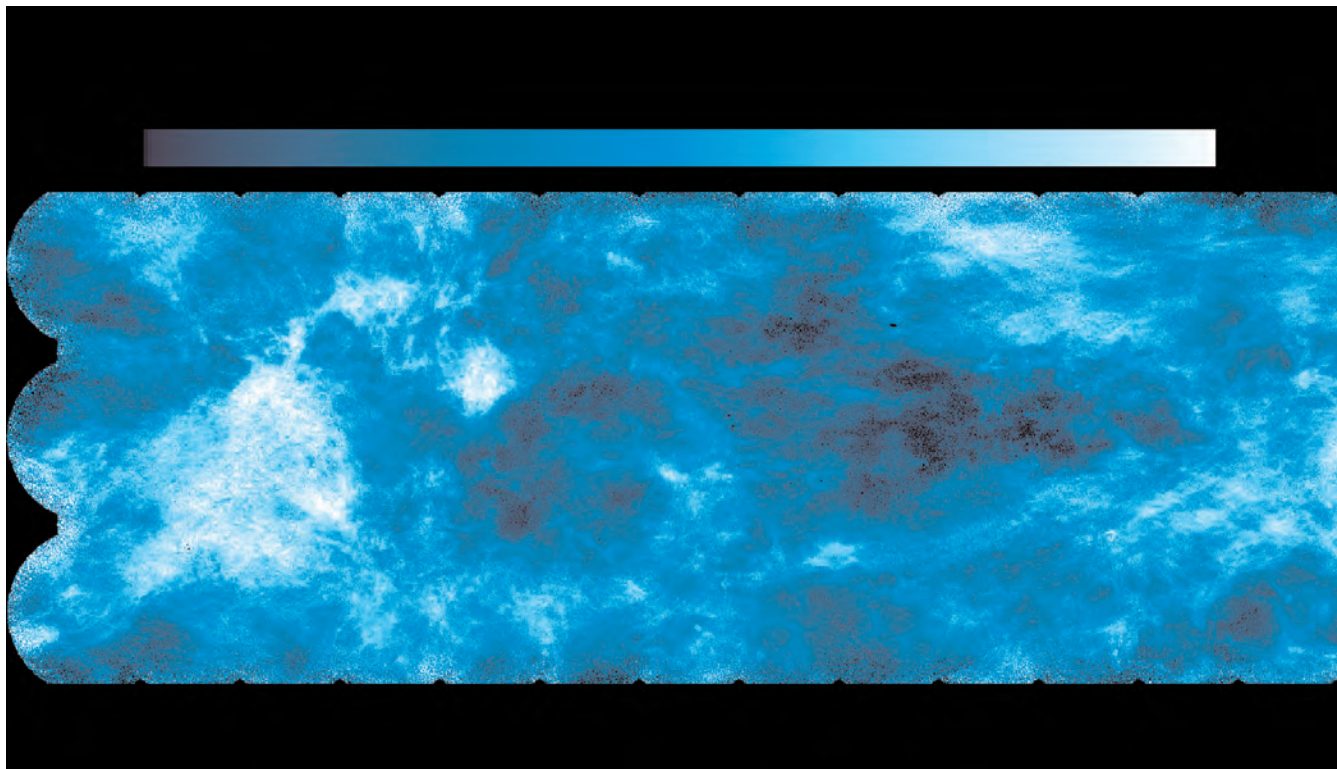
The process used to define our specific area of interest, our muse if you will, holds true to two specific projects. The first project is one of self reflection and can be classified as subjective. This subjective focus is one that involves analysis of the collaboration and its process. The second project is one of collaborative experimentation and can be classified as objective. The objective focus is attained by creating within the collaboration small works which deal with a specific topic, in our case the representation of Radio Astronomy data. Works have been created by manipulating concepts of visualization and sonification of the data set by means of restrictive theoretical foundations that both members of the collaboration have agreed on. Thus this project is objective in pursuit, as its success can be evaluated qualitatively.

The theoretical foundation that has been implemented is one of the idealized hybridization of an art and science collaboration. The purest form of collaboration was created by means of avoidance into the lapse of art in the service of science or visa versa. This formula was followed strictly and with minimal divergence thus implementing a solid base for the creation and experimentation that evolved within the collaborative pairing.

The technical components of the Radio Astronomy visualization and sonification which makes up the work can be assembled into four presentable projects; Book, Sound, Print, and Sky.

Book is an interactive visual piece that is both tactile and digital. The concept is one of a real world book that when interacted with by a viewer outputs digital information and images that are in correlation with the real world book. Furthermore, the physical book becomes the interaction medium which control of the digital realm is placed.

Sound is a sonification of the radio astronomy data set. This form of data experience is unusual and speaks directly to the collaboration in that it belongs



outside of the normal rounds of Radio Astronomy Science.

The enhanced and colored images that have been produced as large prints speak to the beauty and simplicity of the data set and how the scientists that work with this data view the information visually and imaginatively.

Sky is a literal visualization with a direct reference to the source of the radio astronomy data set, outer space. This is an animation that shows the progression through the astronomical data projected onto a large surface that is installed onto the ceiling.

All of the attempts of this collaborative group, including the four said projects, are part of a larger collaborative process that functions within tight restrictions as to the progression and creation of work.

The underlying concept behind all of the work created within this pairing is one of equal ownership to both members of the collaboration. All of the objects and theories created within the collaboration are influenced and reflected upon by both the artist and the scientist.

The objects created fit neither in the science

realm nor the art realm entirely. Instead each piece is of equal contribution to both artistic and scientific obligations to which a lack of identity occurs as each creation fits somewhere between art and science but does not fit entirely into one or the other.

A C y c l e o f P e r c e p t i o n s
An Interactive Sculptural Installation
Amy Inkster and Steven Jenkins



In a sense this piece is a blank slate. It is reactive. The piece is a vessel that contains the potential for a dialogue concerning interior thought and actions and exterior projection. The participant is implicated in the work simply by viewing the piece. As the participant moves toward the installation sensors receive input and begin to alter the state of the installation. The participant is rewarded for their curiosity if they move forward and begin to write on the wacom tablet that sits in the middle of the sculpture. To do this the participant must kneel in front of the installation. The participant becomes vulnerable and yet in control of the installation at the same time.

Once the participant begins to write gestures a projection of their gestures shines onto the fabric panels that hang in front of the sculpture. This causes the participant to be obscured from view granting them a sense of privacy with the understanding that their actions are being projected onto them. The participant is engaged in a type of performance piece. They project their thoughts and actions onto themselves and in doing so they are communicating to the audience on the outside of the work.

This work combines organic fabrics and shapes with sensors, sounds, fans, light and projected images to create responses to participants that interact with the installation:

The computer system that parses and facilitates the interaction between the participant and the sculpture is created in C# and runs in a Windows environment.

The system is broken into state machines that recognize symbols from tablet input and participant proximity to the sculpture.

The symbol and proximity recognizers call other state machines that handle light, sound, imaging and the “breathing” effect.

The symbol state machine takes the participants input from the tablet and normalizes the points so they can be compared with sets of known points. When the participant’s gesture matches known points, a combination of movement, images and sound is executed as a response from the installation.

To create a breathing effect, fans are placed in the frame of the sculpture and activated using a Phidget servo motor attached to a fan dimmer switch.

As the servo motor turns, the intensity of the fans responds, sending the fabric and flags surrounding the frame into frenzy.

A LED rope light is also regulated by the Phidget servo motor dimmer switch and the intensity of the glow changes with the speed of the fans.

The image state machine picks from a pool of images and outputs the chosen stream of images to the projector that shines the images against the flags.

Sounds and music were composed with GarageBand and are picked from a pool to fit with the images projected on the screen.

The images projected on the sculpture randomly change when no participant is detected for a period.

ASTecs: Art, Science and Technologies, is the second incarnation of an art and science collaboration begun in 2004 between students from the Media Arts & Digital technologies Programme at the Alberta College of Art and Design, and at the Art and Computer Science Departments at the University of Calgary, and the Banff Centre. It is an interdisciplinary course that draws upon such skills as representation, perception, and aesthetics to investigate different modes of inquiry into creative practice at the intersection of art and science.

ASTecs comprises:

Interdisciplinary studies in computer science for Computer Science students. This is a computer science, collaborative research project course that covered advanced topics in interaction design including visualization, sonification and embodied interactivity.

Interdisciplinary studies in computer science for Fine Arts students. The intent of this course is to empower fine arts students in interactive computer science disciplines. This course spans topics in human

computer interaction ranging from introductory to advanced and from conceptual to practical. The emphasis is on the development of practical skills leading to the realization of projects in visualization, sonification and embodied interactivity.

An interdisciplinary studies studio course for Fine Arts students, focused on expanding the possibilities of artistic practice through collaboration with another discipline. This course uses the intersection of art and computer science to encourage new ways of seeing, thinking and creating.

An interdisciplinary studio course in Fine Arts for Computer Science students. The intent of this course is to empower computer science students in artistic creative practices. This course spans topics in representation, aesthetics and perception, ranging from introductory to advanced and from conceptual to practical.

This catalogue documents the results of ASTecs students art and science collaborations undertaken between September 2006 and April 2007.

A S t e c s P a r t i c i p a n t s

S t u d e n t s

Amanda Henderson
Holly Schmidt
Amy Inkster
Andrew Seniuk
Helen He

Matthew Tobiasz
Uta Hinrichs
Steve Jenkins
David Baumgart
David Osborne

F a c u l t y

Professor Jeff Boyd
Professor Sheelagh Carpendale
Alan Dunning
Katy Etemad
Mary Scott
Professor Paul Woodrow

G u e s t s : Lori Shyba, Dr. Mario Costa Sousa

Alberta College of Art & Design University of Calgary

Nuclear Sweet



By Ellen Pearlman

“Nuclear Sweet” is a telematic work-in-progress that investigates both the technical and aesthetic issues inherent in new media arts practice. It was inspired by the 2005 San Francisco Opera’s production of John Adams and Peter Sellars opera “Dr. Atomic” (1) about J. Robert Oppenheimer, the Father of the Atomic bomb, and the Trinity Project at Los Alamos National Laboratory. I saw the restaged production in 2009, at the Metropolitan Opera in New York City.

The term “new media,” first employed in 2002 by the Spanish academic José Luis Brea was used to define network communities and practices employed by the new “media producers.” Before that, Rosalind Krauss, the famed art critic, Columbia University professor and co-founder of October Magazine wrote *A Voyage in the North Sea. Art in the Age of the Post-Medium Condition*³ where she discussed “post-medium” instead of “post-media,” musing on the descent of the Greenberghian concept of medium-specificity. This proves that early on there was a serious effort to include this developing art form within the dialectic of the art world, instead of on the periphery of art history as evinced by the more formalist discussions put

forth by James Elkins and his view of contemporary art as a panoply of stages of appropriated visual culture.

The technical issue in the work emerges from using newly released formerly classified videos of the U. S. Department of Energy nuclear explosions produced by a secret cadre of 270 Hollywood cinematographers and directors from 1941-1966 who were sworn to secrecy concerning their exploits. These horrific and gorgeous images and accompanying droll soundtracks and voice-overs are interspersed with my own contemporary images and musings on the mytho-poetic archetype of Kali, the Hindu goddess of destruction. A dancer specially trained for the camera, Jennifer Mahood responds to the projected images. Her movement is mapped using Isadora software developed by Mark Coniglio of Troika Ranch in New York. Those movements are turned into OSC (Open Sound Control) data that is sent over the Syneme Lab high speed 1G fiber optic network using the Jack OS to a special MAX/MSP granulator patch operated by Raj Gill. That sound travels over the network back to Isadora, and is fed into, and disrupts the pixilation and tempo of the projected visual image. A specially built touch slider within





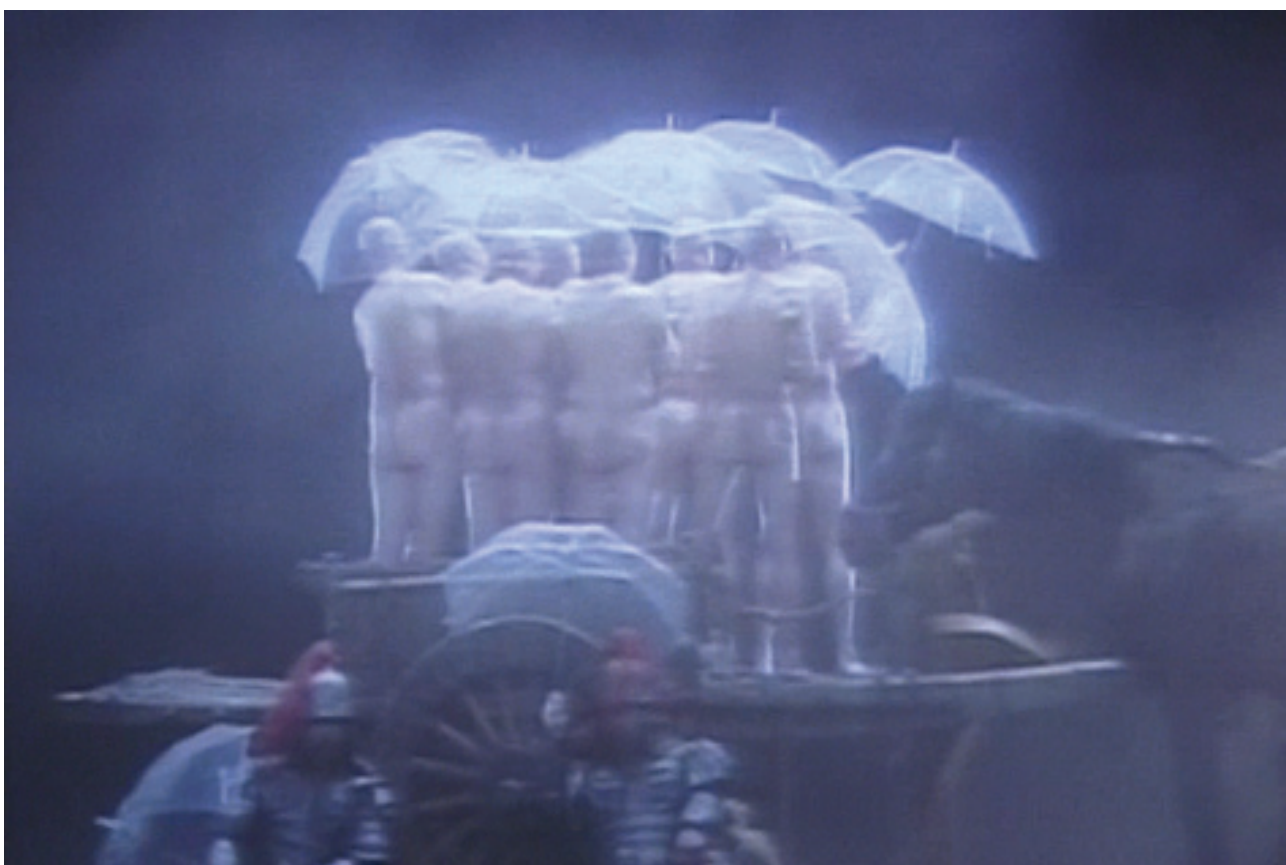
Isadora can control the amount of this disruption, and thus respond live-time to the environment. At different moments there will be musical compositions introduced by Dr. Scott Deal of the Tavel Arts Center, Indiana Purdue University, and Raj Gill, sent over the network.

The brilliant theorist and artist Lev Manovich (4) has noted this art form was developed initially from the new artistic languages of assemblage, Fluxus, happenings and installation, and grew with the introduction of photography, film and video. These mediums circumvented normal definitions of art practice because they had different modes of distribution. Despite that difference it is clear that new media art must be conversant with art history, otherwise it is destined to repeat itself and its designations of inquiry. Therein lies the second part of my research question that deals with the aesthetic implications of appropriation, speed, intra and interpolation of digitized synesthesia art forms, and the daunting questions of presence and remoteness. I also work with perceiving the body as colonized material in relation to the flawed belief of science and technology to solve all problems.

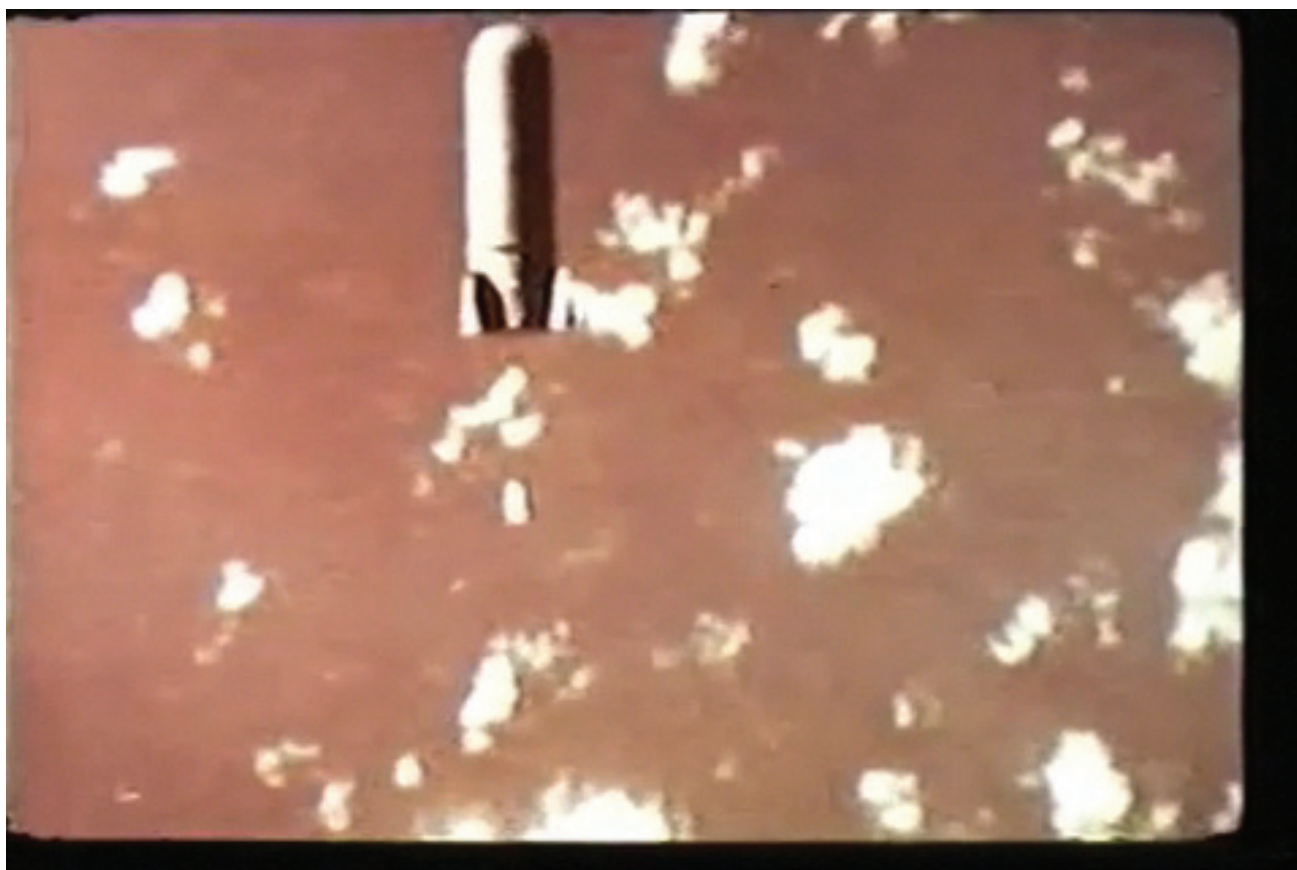
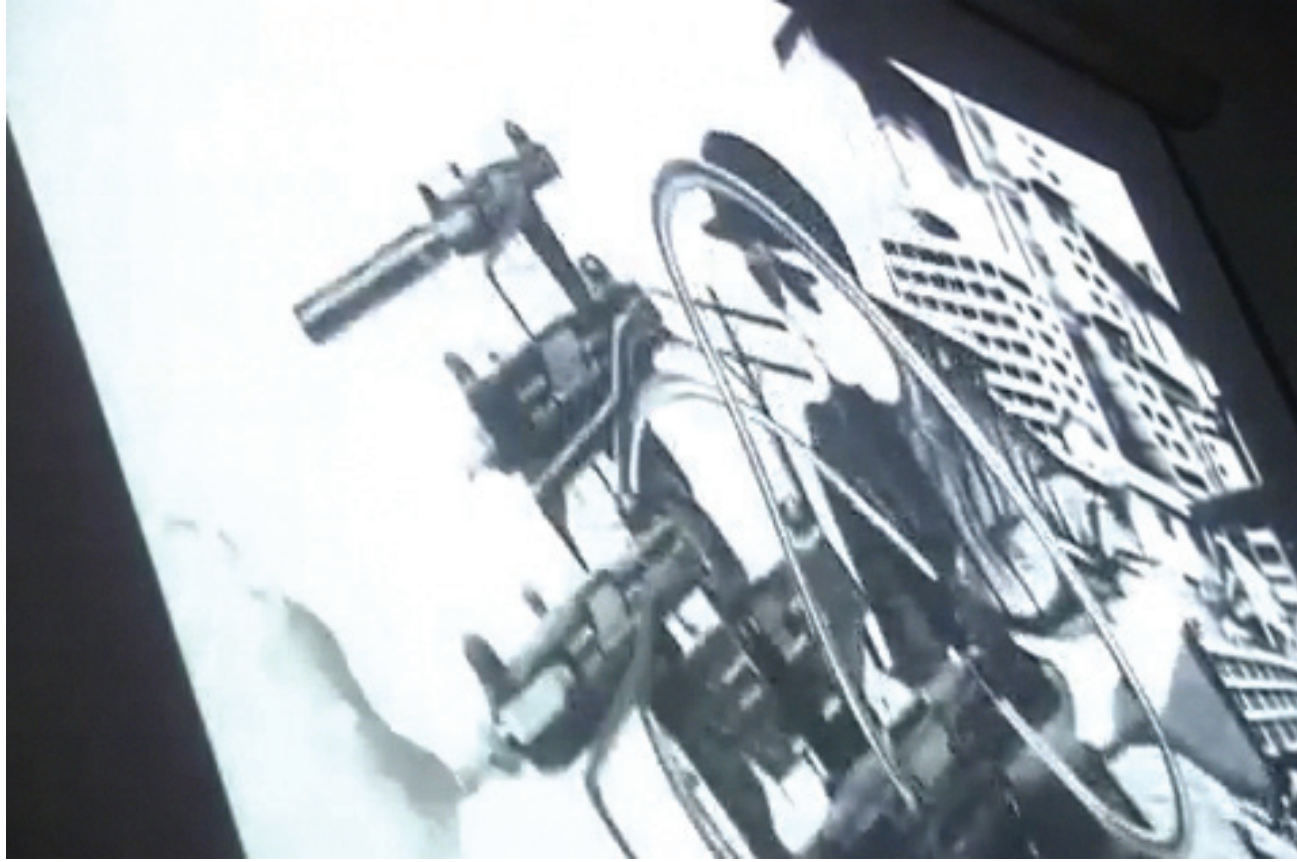
* Note: These photos are the raw images that are used in Nuclear Sweet and do not show the abrupt changes of digitization which are seen during live-time performance. As the performance will take place after this issue goes to press, these transformed images are not included herein.

1. www.brooklynrail.org/2008/12/music/mass-destruction-at-the-met
2. José Luis Brea, *La era postmedia. Acción comunicativa, prácticas (post) artísticas y dispositivos neomediales*, Consorcio Salamanca, Salamanca 2002.
3. Rosalind Krauss, *A Voyage in the North Sea. Art in the Age of the Post-Medium Condition*, Thames & Hudson, London 1999.
4. Lev Manovich, "Post-Media Aesthetics", sd (2000-) online at www.manovich.net/DOCS/Post_media_aesthetics1.doc







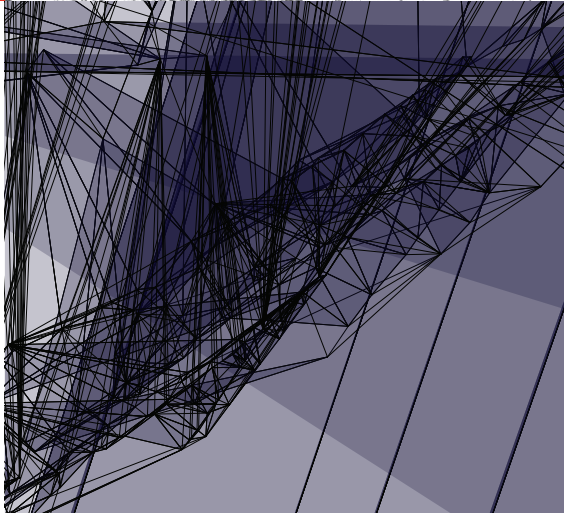
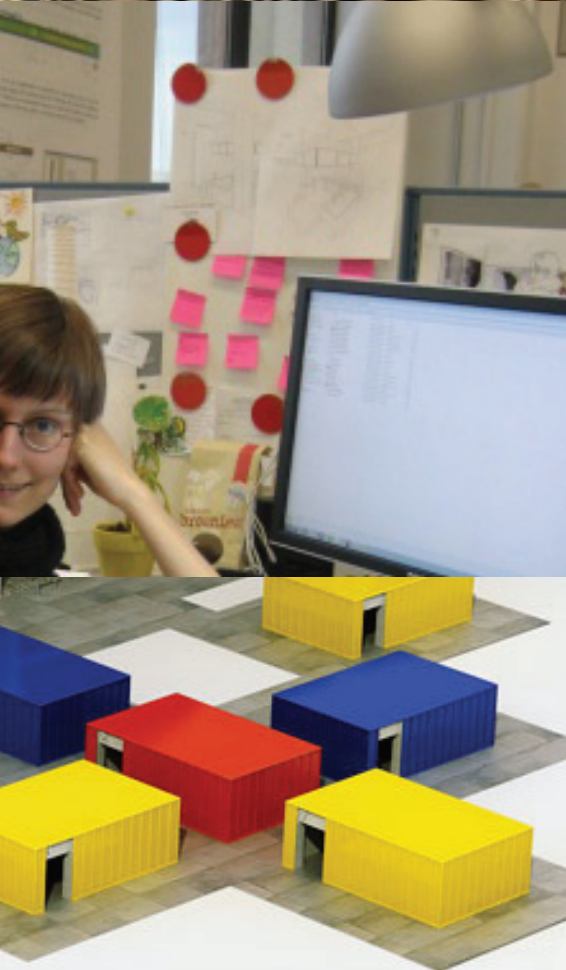
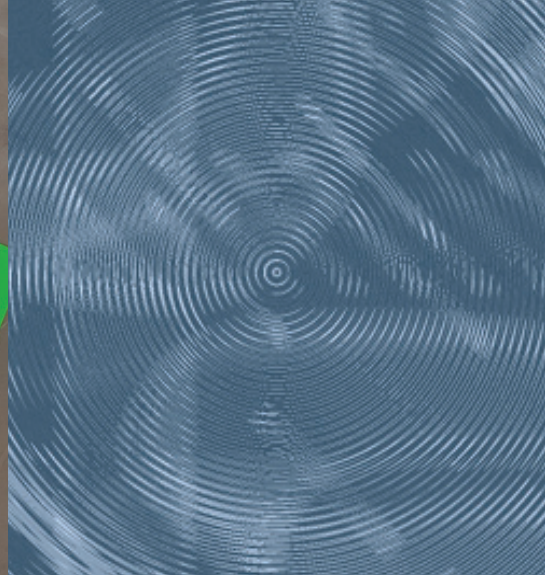
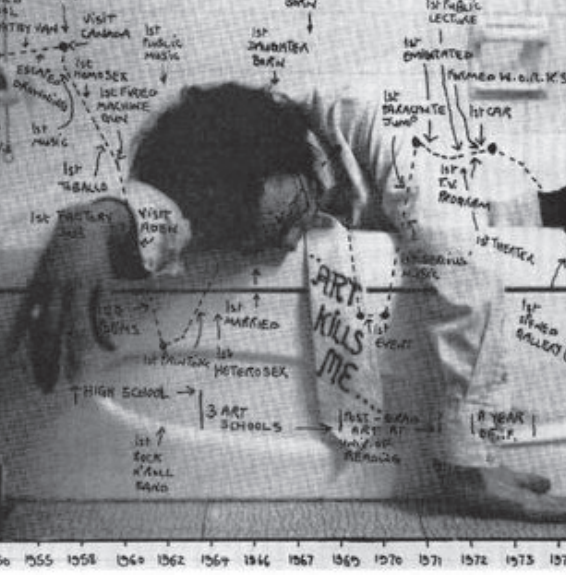






“Nuclear Sweet”

developed and directed by Ellen Pearlman, in association with Raj Gill, Jenifer Manhood, and Scott Deal



The Interviews*



Amira Abdrabo

Xiang Chen

Marjan Eggermont

Katayoon Etemad

Lawrence Fyfe

Laurel Johannesson

Uta Hinrichs

Lindsay MacDonald

Rozhen Mohammed-Amin

Liraz Mor

Kamaran Noori

Ellen Pearlman

Aura Pon

Keith Robinson

Rojin Salehi Vishkaie

Nathan Tremblay

Amira Abdrabo

Hi, my name is Amira Abdrabo. I am a designer, specializing in the field of theatre. I hold a Bachelor of Visual Art (theatre Design Major) from The Academy of Art, Cairo, Egypt with a Dean's Recommendation of Honors. I've had a multitude of experience, gaining my first design job at the Academy of Art as a teacher assistance since my graduation till now.

In January 2006, I moved from Egypt to Calgary to complete my study and start my Master as a graduate student at the university of Calgary, department of drama. I finished my Master in 2009 and now I am continuing my study as a PhD graduate student in CMD (computational media design) since January 2010.

I love to travel and listen to music.

• *What are you working on right now?*
I am working and learning "processing language" - image processing.

• *Which work/exhibition/image have you seen recently that really excited you?*

It was an exhibition in Art Center, SW Calgary, called "Then + Then Again", Practices within an artist-run culture, 1969-2006 was an archival retrospective exhibition curated by media artist and artist-run centre pioneer and theorist, Clive Robertson.

• *What is the last book you enjoyed?*
Care of the soul by Thomas Moore. It is very spiritual book. I loved it.

• *Who do you admire? Why...*
I highly respect and admire my mother so much. She is really wise woman. Some times I think that she is the source of wisdom on earth.

• *What's your favorite motto or quote?*
I have many favorite quotes; these are some of them
"When one door closes another door opens, but we so often look so long and so regretfully upon the closed

door, that we do not see the ones which open for us"

"Never regret. If it's good, it's wonderful. If it's bad, it's experience"
"When a person looks at his faults, he will accomplish perfection, but when a person looks at his perfection he will reap deficiency."

• *Your favorite art work of all time?*
All Claude Monet's and Rembrandt's work.

• *Which of the world's great images mean the most to you?*
I don't know exactly what do you mean by image. But for my self, if I could say that, the greatest image is the image of peace and tolerance of the world. People must learn to resolve conflicts by non-violent means, to be aware that 'other people' means each one of us. To practice tolerance is to renounce violence. I wish I could see some of this image before I die.

Xiang Chen

Xiang Chen (more commonly known as ‘Anthony’) is a currently a first-year master student in the Interaction Lab, under the supervision of Prof. Saul Greenberg and Prof. Richard Levy. His research interests include Computer-Supported Cooperative Work, Ubiquitous Computing and Information Visualization. Before he came to University of Calgary, he spent 6 months in Universidad Politécnica de Madrid in Spain as an exchanged research student. Prior to that, he was a student intern in the Media Computing Group in Microsoft Research Asia. He finished his Bachelor of Computer Science in Zhejiang University in China, which is also his home country.

• *What are you working on right now?*
Computer-Supported Cooperative Work, Ubiquitous Computing and

Information Visualization.

• *Which work/exhibition/image have you seen recently that really excited you?*

Shadow Art (www.graphics.stanford.edu/~niloy/research/shadowArt/shadowArt_sigA_09.html)

Last Clock
(angesleva.iki.fi/last/themes/last/images/last.pdf)

• *What is the last book you enjoyed?*
Han Han’s Party

• *Who do you admire? Why...*
People who (greatly) influence the other people’s behavior. (E.g. Steve Jobs created the ideology of Apple products.)

• *What’s your favorite motto or quote?*
Make the world different because of

you (paraphrased, originally said by Kai-Fu Lee).

• *What is your idea of perfect happiness?*

Having a cycle of happy-unhappy-happier.

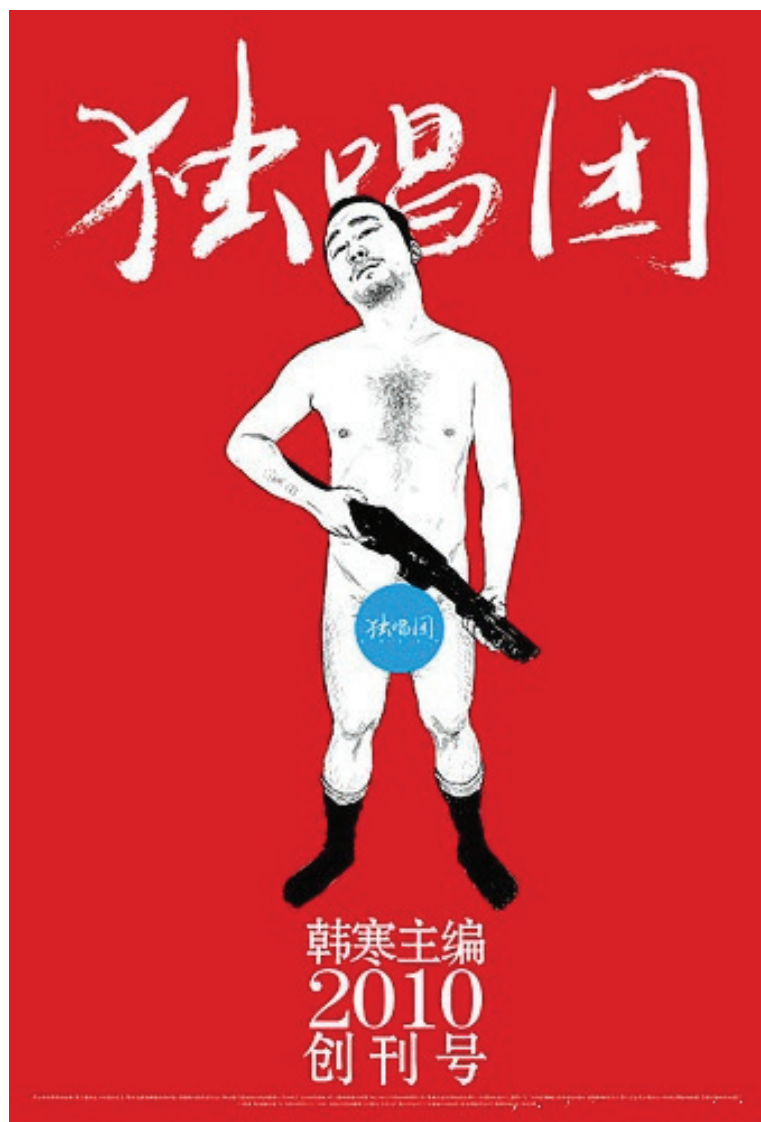
• *If not an artist/designer/computer scientist, who/what would you be?*
Farmer or forest ranger.

• *What/who is your greatest fear?*
Making no progress any more.

• *What is your most treasured possession?*
A healthy body, and mind

• *(And finally, the most important question:) What are you wearing?*
Whatever is in my wardrobe.

⌘



Marjan Eggermont



I grew up in The Netherlands and immigrated to Canada in the eighties. After a plethora of degrees from the University of Calgary: a BA in Military History, a BFA and MFA in Printmaking, I am currently working on a PhD in Computational Media

Design. I am also a faculty member at the University of Calgary in the Mechanical and Manufacturing department of the Schulich School of Engineering where I teach drawing, design, and visualization, technology and society, and biomimetics and bio-

inspiration for engineers.

I thought starting a magazine would be a good idea but can now only think of orphans, widows and gutters. I still have a lot to learn.

• *What are you working on right now?*

A commission for a new building. CMDJ. Teaching two courses: 260 and 10 students respectively. My candidacy proposal. My basement. Programming 130 conference papers into sessions everyone can live with. Two papers and a workshop. I just finished a show for my gallery a few months ago. My landscape pieces are becoming more and more abstract, perhaps because I have been away from home for almost 25 years.

• *Which work/exhibition/image have you seen recently that really excited you?*

PIG 05049 by Christien Meindertsma.

• *What is the last book you enjoyed?*

Anything Ian Rankin (helps me to better understand the Scots in my family, but I think they will always remain a mystery).

• *Who do you admire? Why...*

My parents for putting up with me, but also for being role models (see motto).

• *What's your favorite motto or quote?*

"Why go half-assed if you can go full-assed."

• *Your favorite art work of all time?*

"House" by Rachel Whiteread. I'm obsessed with concrete. I use it in my own work, but am troubled by the amount of CO₂ the production of concrete causes. A company in California is creating concrete by running CO₂ through seawater via a process of biomineralization. The company calls it "Mineralization via Aqueous Precipitation". Very exciting stuff.

• *Which of the world's great images mean the most to you?*

I had tears in my eyes at a Mirosław Balka exhibition once and that says a lot because the Dutch are taught never to show emotion. We're a bit German that way. I love art that uses

materials 'as is', raw and minimal.

• *What is your idea of perfect happiness?*

A glass of wine, a bowl of chips, two Jack Russels on my lap and a fluffy book at 5 p.m.

• *If not an artist/designer/computer scientist, who/what would you be?*

A marine biologist or a surfer. I hope to work with humpback whales one day.

• *What/who is your greatest fear?*

Mierenneukers.

• *What is your most treasured possession?*

Difficult to answer. Perhaps my Dutch nationality? Something you don't think about until you become an immigrant.

• *(And finally, the most important question:) What are you wearing?*

Two grooves in my forehead named after university colleagues.

⌘

Katayoon Etemad

Katayoon Etemad is currently a graduate student at the University of Calgary, in the Department of Computer Science.

She is working under the supervision of Dr. Sheelagh Carpendale as a member of Innovis group in Interactions Lab.

Katayoon finished her MSc in information visualization area from the Department of Computer Science at the University of Calgary in 2009.

Her PhD research problem relates to “Symmetry and its effects on information visualization”.

She graduated from Sharif University of Technology, the most prominent engineering and scientific university of Iran in 1993.

Katayoon has more than ten years of teaching and work experience in the area of programming, graphics

software and information visualization.

• *What are you working on right now?*
The effect of symmetry on Graph Drawing.

• *Which work/exhibition/image have you seen recently that really excited you?*
Double-Taker (Snout) 2008 | Golan Levin with Lawrence Hayhurst, Steven Benders and Fannie White
And these two videos:
vimeo.com/804787
vimeo.com/814808

• *What is the last book you enjoyed?*
Structure in nature is a strategy for design : Peter Pearce

• *Who do you admire? Why...*
Myself, because I have changed my life ...

• *What's your favorite motto or quote?*
Work to live don't live to work

• *Your favorite art work of all time?*
Naghsh-e-jahan square in Esfahan Iran.

• *What is your idea of perfect happiness?*
To feel happy

• *If not an artist/designer/computer scientist, who/what would you be?*
A potter!

• *What/who is your greatest fear?*
Waiting

• *What is your most treasured possession?*
My children

• *(And finally, the most important question:) What are you wearing?*
Jeans

⌘



Lawrence Fyfe



After spending young adulthood (in the 1990s) working at becoming a chemist, I found myself irresistibly attracted to technology (mostly because of the internet bubble). It turned out that technology was exciting but not in the context of an office job. This revelation led to much soul searching and an eventual decision to go back to graduate school in 2007. By 2008, I had a Master's degree from CCRMA (look it up, it's cool). After that, through an odd series of events, I ended up working on a CMD PhD (?) at the University of Calgary. Now, I really am excited about technology because I study the application of technology to art (mostly music).

- *What are you working on right now?* Diagrams for an upcoming paper submission.

- *Which work/exhibition/image have you seen recently that really excited you?*

Reading about Toshi Ichiyanagi's Distance. Just the description of the score inspired a piece that I'm currently working on.

- *What is the last book you enjoyed?* Experimental Music: Cage and Beyond by Michael Nyman. Officially, I'm supposed to read it for my PhD. But I enjoyed it anyway.

- *Who do you admire? Why...* Carl Sagan. Clear explanations are an underappreciated art form.

- *What's your favorite motto or quote?* In life, there are no rules. There are only consequences.

- *Your favorite art work of all time?* One of my favorites is The Sea of Ice by Caspar David Friedrich. Beautiful and dramatic.

- *Which of the world's great images mean the most to you?* Very hard to answer specifically.

Images that tell stories are always the most interesting to me. See the previous question for an example.

- *What is your idea of perfect happiness?*

Not trying to be happy.

- *If not an artist/designer/computer scientist, who/what would you be?* Professional ramblin' man.

- *What/who is your greatest fear?* Dementia: the fear of losing one's dimensions.

- *What is your most treasured possession?*

My laptop! It seems like my life (or at least my work) lives in that thing. Perhaps losing it should be my greatest fear.

- *(And finally, the most important question:) What are you wearing?* Something comfortable and boring. ☹

Laurel Johannesson

Always on the hunt for bodies of water in exotic locales, Laurel has been an invited Artist in Residence in a number of locations including: the Association of Icelandic Visual Artists in her ancestral homeland of Reykjavik, Iceland, the Skopelos Foundation for the Arts in Greece, and the Apothiki Art Centre on the Greek island of Paros.

She was an invited Fellow at the Bau Institute in Italy and an Artist in Residence at AIR Vallauris in the Côte d'Azur. Recently she has been a Visiting Artist at the American Academy in Rome and Spiazzi in Venice. In 2008 she was the subject of a television documentary entitled *In Residence: Laurel Johannesson*.

Laurel is a faculty member at the Alberta College of Art + Design where she has also held posts as Assistant Dean and Program Head. She has a BA, BFA, and MFA and is currently pursuing a PhD in Computational Media Design.

• *What are you working on right now?*
An interactive image and sound work

called *The Narkissos Project*.

• *Which work/exhibition/image have you seen recently that really excited you?*

The luxurious and super colossal 360° HD video and sound installation, *The Feast of Trimalchio* by AES+F.

• *What is the last book you enjoyed?*
The Plato Papers by Peter Ackroyd.

• *Who do you admire? Why...*
Emma Peel. She was a master of martial arts and a formidable fencer. A certified genius, she specialized in chemistry and other sciences and was often engaged in some sort of artistic pursuit. Dressed in a leather catsuit she could regularly be found tied to a train track but she always managed to escape just in time ...with style and ease.

• *What's your favorite motto or quote?*
"Beware of diabolical masterminds."

• *Your favorite art work of all time?*
Bill Viola's "The Fall Into Paradise".

• *Which of the world's great images*

mean the most to you?

I can't answer that. I'm too fickle.

• *What is your idea of perfect happiness?*

There are moments when travel is felt most absolutely...when time, space, history, language + emotion exert a force on the body + the mind...and the distances you are traveling inside are as great as the distances you have traveled outside. Those moments are perfect happiness.

• *If not an artist/designer/computer scientist, who/what would you be?*
Bored. Well ... maybe a dentist. I do have an unusual fascination with teeth.

• *What/who is your greatest fear?*
Sharks (see previously mentioned fascination with teeth).

• *What is your most treasured possession?*
My passport.

• *(And finally, the most important question:) What are you wearing?*
A catsuit.





Uta Hinrichs

I am a PhD candidate in Computational Media Design in the InnoVis Group at the University of Calgary in Canada, supervised by Dr. Sheelagh Carpendale.

I finished my Diplom in Computational Visualistics at the University of Magdeburg, Germany, in 2006. My research focuses on interfaces for large displays in public exhibition spaces such as museums or art galleries to support lightweight and playful information exploration.

I have designed and studied several large display installations in such public settings, trying to find a balance between interaction/information design practice and research.

I am trying to absorb and integrate methods from Computer Science, Art, Design, and Social Sciences into my work.

• *What are you working on right now?*

A research paper and some new ideas for an installation.

• *Which work/exhibition/image have you seen recently that really excited you?*

“I love you” exhibition at ARos Kunstmuseum in Aarhus Denmark.

• *What is the last book you enjoyed?*
“How to Be an Explorer of the World”
by Keri Smith.

• *Who do you admire? Why...*
Fernanda Viégas for her innovative and
beautiful information visualizations and
art installations. [fernandaviegas.com/
projects.html](http://fernandaviegas.com/projects.html)

• *What’s your favorite motto or quote?*
“I have come to the frightening
conclusion that I am the decisive
element. It is my personal approach
that creates the climate. It is my
daily mood that makes the weather. I
possess tremendous power to make
life miserable or joyous. I can be a
tool of torture or an instrument of
inspiration, I can humiliate or humor,
hurt or heal. In all situations, it is my
response that decides whether a crisis
is escalated or de-escalated, and a
person is humanized or de-humanized.
If we treat people as they are, we make
them worse. If we treat people as they
ought to be, we help them become
what they are capable of becoming.”
(Johann Wolfgang von Goethe)

• *Your favorite art work of all time?*
I cannot decide ...

• *Which of the world’s great images
mean the most to you?*
Can you provide a list?

• *What is your idea of perfect
happiness?*
Walking barefoot on the beach.

• *If not an artist/designer/computer
scientist, who/what would you be?*
Not an artist/designer/computer
scientist.

• *What/who is your greatest fear?*
Dependence.

• *What is your most treasured
possession?*
My passport because it allows me to
travel.

• *(And finally, the most important
question:) What are you wearing?*
Socks that rock.

⌘

Lindsay MacDonald



Lindsay MacDonald was born and raised in Calgary by an engineer and a public health doctor, so of course, she went to art school. She has BFAs from both the University of Calgary and NSCAD University, has worked at the Banff New Media Institute, and is currently an MFA student at the University of Calgary, specializing in Computational Media Design.

Her research is positioned between the worlds of art, design and computer science, which sometimes gives her an identity crisis.

She loves embed interactive art pieces into everyday objects, like diner booths and Microsoft Outlook. Her favourite art pieces involve active viewer participation, and she therefore strives to make this a priority in her own work.

She is often heard saying things like, if an art piece falls in the gallery and no one is there to see it, does it still make a sound?

• *What are you working on right now?*
I'm working hard on finishing my thesis show. It's going to be an elevator with peek holes punched in the doors, and the images of people inside will respond to how you are looking at them. The working title is "A Delicate Agreement".

• *Which work/exhibition/image have*

you seen recently that really excited you?

This past summer I saw a video piece called "A Journey That Wasn't" by Pierre Huyghe at the National Gallery in Ottawa. At one point he tries to re-enact the power of an Antarctic storm using an orchestra in Central Park in NYC. I had goosebumps.

• *What is the last book you enjoyed?*
I'm becoming a fan of magical realism. I recently read "One Hundred Years of Solitude" by Gabriel García Márquez and it was amazing.

• *Who do you admire? Why...*
Generally, I admire anyone who is succeeding in doing something that they are passionate about.

• *What's your favorite motto or quote?*
Sometimes, it helps to ask yourself, what would Björk do? Because Jesus doesn't always have the best answers.

• *Your favorite art work of all time?*
I'd have to say "The Voice of Fire" by Barnett Newman. I saw it for the first time when I was eight years old and that was the first time that a piece of art ever gave me goosebumps, in a good way, and really, it is what got me interested in studying art.

• *Which of the world's great images mean the most to you?*
I'm not sure what these are considered to be... Right now I

really like this photo from 1936 of the Golden Gate Bridge under construction, shot from Baker Beach. I see it as an inspiring metaphor for getting my thesis done.

• *What is your idea of perfect happiness?*

A coffee and croissant at an outdoor café in an interesting city, watching the world go by.

• *If not an artist/designer/computer scientist, who/what would you be?*
I think I'd probably be a chef. I love food.

• *What/who is your greatest fear?*
My greatest fear is, to be unremarkable.

• *What is your most treasured possession?*
I would like to say something cool like, my grandfather's old brownie camera, but that wouldn't be honest. I was just thinking today about what kind of withdrawal I would go through if I didn't have access to my laptop, or any sort of computery thing... I don't really want to admit that my laptop is my most treasured possession, but it pretty much is.

• *(And finally, the most important question:) What are you wearing?*
My latest guilty pleasure is skinny jeans and John Fluevog boots.

⌘

Rozhen Mohammed-Amin

I am Rozhen Kamal Mohammed-Amin, an architect from Kurdistan of Iraq. I got my Bachelor's degree in Architecture from the University of Sulaimani. Since my graduation, I designed, co-designed, and supervised a numerous architectural projects in Kurdistan. After two years of practicing, I returned to academic life and started my master's studying at UofC. I recently finished my master's degree and became the first graduate of the new EVDS/ CMD program. Currently, I am a PhD student in the same program.

Intrigued by the continuous advancement of ICT and its increasing integration with architectural and

urban spaces, I dedicated my master's and PhD researches to investigate Augmented Reality (AR) technology's influence on architecture and built environment.

As a CMD student I have the opportunity to explore the confluence of design and computer science, my area of interest. In fact this interest has been there since an early age of my life when I first learned BASIC language for visualization in grade 9. In addition to design, I find my passion in writing short stories. I published my first short story in grade 5, and since then I wrote and published a numerous short stories.

• *What are you working on right now?*

My PhD research proposal which is about Augmented Reality.

• *Which work/exhibition/image have you seen recently that really excited you?*

Red and Blue: a Light and Sound Performance that was projected on Castel dell'Ovo for Monumedia Borgo Light & Vision festival in Naples, Italy, 2009.

• *What is the last book you enjoyed?*
Disappearing Architecture: From Real to Virtual to Quantum, edited by Georg Flachbart and Peter Weibel.

• *Who do you admire? Why...*
Leonardo De Vinci for his power of

observation, extraordinary mind, and creative inventions.

- *What's your favorite motto or quote?*
“Learning never exhausts the mind”
by Leonardo De Vinci

- *Your favorite art work of all time?*
Salvador Dali's paintings, especially
“Figure at a window” and “The
Persistence of Memory”.

- *Which of the world's great images
mean the most to you?*
Looking at earth from space.

- *What is your idea of perfect
happiness?*
Living happily among my loved ones



while striving for excellence and achieving my goals.

- *If not an artist/designer/computer scientist, who/what would you be?*
If I am not an architect, I would be an astronaut or archaeologist.

- *What/who is your greatest fear?*
Losing loved ones.

- *What is your most treasured possession?*
My notebooks that have my ideas.

- *(And finally, the most important question:) What are you wearing?*
A grey T-shirt and black Capris, if that answers the question!

⌘

Liraz Mor



I was born and raised in Israel. I've learned my undergraduate in the Art and Digital Media program at the Kibbutzim College of Education. I gained experience in both the digital and classical arts (art history, drawing, painting, sculpture).

I came to the University of Calgary is to develop my expertise in digital media and especially to pursue my interests in AR, interface design, educational experience and cognition.

My studies at the University of Calgary are a direct continuation of my previous works. In my previous work, I have confronted issues of Disorientation, the connection between the physical and virtual world, and specifically, how do we perceive what is real and what is computer generated.

• *What are you working on right now?*
An augmented reality installation with the purpose of providing a unique

educational experience for people

• *Which work/exhibition/image have you seen recently that really excited you?*

Royal Tyrrell museum at Drumerheller

• *What is the last book you enjoyed?*

Son of the Hammas

• *Who do you admire? Why...*

My English teacher from my 8th grade, for showing me that to teach is to find yourself in another.

• *What's your favorite motto or quote?*

"Our world is how we define it"

• *Your favorite art work of all time?*

Nature, especially in New Zealand.

• *Which of the world's great images mean the most to you?*

"Sunrise over the mountains".

Because no matter how far you go, there is always something more to find.

• *What is your idea of perfect happiness?*

To own an organic diner on a remote county side, have a breakfast there and go to a trip.

• *If not an artist/designer/computer scientist, who/what would you be?*

Happy :D

• *What/who is your greatest fear?*

Reptiles (baaa)

• *What is your most treasured possession?*

Myself (and my Mac)

• *(And finally, the most important question:) What are you wearing?*

Nice clothing most of the time, but it depend on the hour.

⌘

Kamaran Noori

My name is Kamaran Noori. I am a registered architect from Kurdistan. I will join my PhD in CMD program soon. I finished my architectural degree from the University of Salahaddin and was one of the top three graduates of my department. Soon after my graduation, I won an architectural design competition which was held by UNESCO for designing an educational building in Kurdistan of Iraq in 2003. Since then, I designed and supervised different types of buildings and a number of them have been already constructed in my home country. As a practicing architect, I have had an opportunity to closely observe the significant growing role of computer and

technology in architecture profession. Today, computer softwares are



used for more than drafting but also for generating design ideas and

exploring geometries.

For this purpose, in my PhD I plan to explore the new emerging approach in architecture called BIM (Building Information Modeling).

- *What are you working on right now?*
I work on preparing a conceptual design for a commercial building in Kurdistan.

- *Which work/exhibition/image have you seen recently that really excited you?*

The images from the mini Big Bang experiment along the Swiss-French border, to re-create the beginning of universe on smaller scale.

• *What is the last book you enjoyed?*
The selfish gene By Richard Dawkins

• *Who do you admire? Why...*
Friedrich Wilhelm Nietzsche,
a German philosopher for his
affirmation of life and questioning
every dogma and idols.

• *What's your favorite motto or quote?*
The ability to be small. - One has
still to be as close to the flowers,
the grass and the butterflies as is
a child, who is not so very much
bigger than they are. We adults, on
the other hand, have grown up high
above them and have to condescend
to them; I believe the grass hates us
when we confess our love for it. - He

who wants to partake of all good
things must know how to be small at
times.

Friedrich Nietzsche

• *Your favorite art work of all time?*
The Darwin monkey (Ape with Skull)
by sculptor Wolfgang Hugo Rheinhold

• *Which of the world's great images
mean the most to you?*
Image of Supernova - a stellar
explosion are extremely luminous and
cause a burst of radiation that often
briefly outshines an entire galaxy

• *What is your idea of perfect
happiness?*
If there were in the world today any

large number of people who desired
their own happiness more than they
desired the unhappiness of others, we
could have a paradise in a few years.
Bertrand Russell

• *If not an artist/designer/computer
scientist, who/what would you be?*
If I am not an architect I will be
physicist.

• *What/who is your greatest fear?*
Meaninglessness

• *What is your most treasured
possession?*
My memories

• *(And finally, the most important
question:) What are you wearing?*
I am wearing a smile. One size fits all.

⌘

Ellen Pearlman

Visual media artist, writer, art critic, curator, habitué of Ulan Bator, Beijing, Hong Kong, New York, Asian Cultural Council Grantee, Banff Mountain Culture Award, Banff Fellow, Andy Warhol Foundation Publication Grant, Prince Claus Trust grantee, Hong Kong ACO Residency, Breadloaf Writer's Conference Non-Fiction Scholar, Vermont Studio Center President's Fellow, taught Information Systems at Columbia University, the MA Program Digital Design, Parsons School of Design, NY, and New School University for 13 years, former Director of Research, Basex Technology Analyst firm, NY, lecturer on new media at Communications & Animation University and Central Academy of Fine Arts, Beijing, Tianjin & Wuhan University, China, Academy of Fine Arts, Ulan Bator, Mongolia and Hong Kong City University.

Published four books, over 200 articles on technology and arts.

• *What are you working on right now?*
“Nuclear Sweet,” an interactive telematic suite with a live dancer, video capture, sound integration and footage from formerly classified U.S. Department of Energy secret nuclear tests.

• *Which work/exhibition/image have you seen recently that really excited you?*

Marina Abramovic, “The Artist Is Present” at MOMA NY, “YouTube Play” at the Guggenheim, NY, JayZ, Swizz Beatz “On To The Next One” on YouTube, Vito Acconci's early videos on UBU Web, Allora and Calzadilla's piano piece “Ode to Joy” at MOMA NY, “POWER” at ACAD.

• *What is the last book you enjoyed?*
“Chinese Contemporary Art” by Wu Hung, published by MOMA, NY.

• *Who do you admire? Why...*

The many artists I know who risk imprisonment, political exile and death threats to continue to express their unique creative voices including Ai Wei Wei, Huang Rui and the Gao Brothers from China, Saira Waism from Pakistan, Taina Brugera from Cuba, and Ngwang Choephal from Tibet, among others.

• *What's your favorite motto or quote?*

As applies to specifically to CMD, “What Doesn't Kill You Makes You Stronger” – also a favorite quote of Post-Soviet artists from the ateliers off Andresky Uv in Kiev, Ukraine, another of my former haunts.

• *Your favorite art work of all time?*

See – idea of perfect happiness?

• *Which of the world's great images mean the most to you?*

I live so much inside of James Elkins definition of “visual culture” this is unanswerable.

• *What is your idea of perfect happiness?*

“Impossible, she said” – last line of Phillip Glass, Robert Wilson's opera, “Einstein On the Beach.”

• *If not an artist/designer/computer scientist, who/what would you be?*

Gut rehab specialist, guerrilla renovator.

• *What/who is your greatest fear?*

I have extreme sensitivity to vertigo, so it is high edges, not height.

• *What is your most treasured possession?*

I live between four cities so it has to be my computer.

• *(And finally, the most important question:) What are you wearing?*

A silk Japanese early fall kimono with a flame orange, tangerine, black white and gray floral pattern.

⌘



Ellen at Philippe Stark's LAN Club in Beijing, photo by Jing Jing Lin

Aura Pon

I am passionate about exploring a wide array of disciplines and the shared principles underlying them. I happily compose and perform as an oboist throughout Alberta and BC and love exploring the many facets of music.

When not on stage, I maintain a career as a naval officer in the Canadian Naval Reserve, and have sailed on both coasts to places like Alaska and Ireland.

I have a passion for philosophy, particularly understanding ethics and aesthetics, and am always in the mood for a heated debate about ideas.

Love of innovative and inspired architecture led me and my husband Joseph to live in a geodesic dome house from the '70s, from the era when homebuilders were inspired by Buckminster Fuller's Expo '67 dome. My other hobbies and interests include Wing Tsun kung fu, origami, hiking and backpacking, reading, traveling, and space exploration.

- *What are you working on right now?* Composing a piece for bassoon and string orchestra, developing my visual music interface, planning a naval exercise and writing two papers for conferences.

- *Which work/exhibition/image have*

you seen recently that really excited you?

I really enjoyed the exhibition on Einstein at the Telus World of Science.

- *What is the last book you enjoyed?*

Free Play: Improvisation in Life and Art, by Stephen Nachmanovitch

- *Who do you admire? Why...*

There's too many to name them all ... Ayn Rand for her genius, commitment to her ideals and uplifting view of life; my parents and husband for their integrity and strength; Debussy, Dvorak, Ravel, Vaughan Williams, and Sibelius for the intense emotions and colours they achieved in their music.

• *What's your favorite motto or quote?*
“Do not let your fire go out, spark by irreplaceable spark in the hopeless swaps of the not-quite, the not-yet, and the not-at-all. Do not let the hero in your soul perish in lonely frustration for the life you deserved and have never been able to reach. The world you desire can be won. It exists.. it is real.. it is possible.. it's yours.”
— Ayn Rand (Atlas Shrugged)

• *Your favorite art work of all time?*
Again, too many to nameDvorak's Wind Serenade, Debussy's La Mer, Vaughan William's Fantasia on a Theme by Thomas Tallis, Quent Cordair's paintings Molly's Swing or Lunch Break, Joss Whedon's Firefly ...

• *Which of the world's great images mean the most to you?*
I'm not sure what is considered the “world's great images” but I am very inspired by some great architecture and associated geometric patterns, such as Frank Lloyd Wright's Taliesin West or his Hollyhock house stained glass.

• *What is your idea of perfect happiness?*
Knowing that I am always growing and evolving, and being surrounded by people I value and inspiring great art.

• *If not an artist/designer/computer scientist, who/what would you be?*
An architect or space pioneer or

science fiction writer. Or maybe a pirate.

• *What/who is your greatest fear?*
Growing up.

• *What is your most treasured possession?*
Other than my cats and husband, my oboe.

• *(And finally, the most important question:) What are you wearing?*
Too many hats and a pair of shoes that are a bit too big.

⌘

A piece of amazing geometric origami by Stephen Watson!
south-ribble.co.uk/pages/gallery/gallery.htm



Keith Robinson

I've recently arrived at CMD (Fall 2010) along a long and winding educational road, with prior stopovers in electrical engineering, biomedical engineering and architecture. So – what's a person with engineering and architectural training doing in CMD? I realized that the research problems that interest me really don't fit into one specific field, but relate to a number of specialties (architecture, engineering and psychology) and the CMD degree program lets me integrate elements from all of these fields into my research project.

• *What are you working on right now?*
Finishing my degree course requirements, and hoping to start on my research project in the coming term.

• *Which work/exhibition/image have you seen recently that really excited you?*
Architecture: 'Home Delivery' – a 2008 MOMA exhibition on how digital

design techniques and fabrication technology can inform home design.

Technology: 'Big Screens' at ITP (itp.nyu.edu/bigscreens2009/)

Photography: Early (ca 1900-1910) color photography of rural Russian life by Prokudin-Gorsky

• *What is the last book you enjoyed?*
Doron Swade's "The Difference Engine", on Charles Babbage's quest to build his Difference and Analytical Engines between 1830-1845. Both Engines were mechanical calculation devices, which were designed by Babbage, but never fully implemented until the British Museum built a working replica of the Difference Engine in the early 1990's.

• *Which of the world's great images mean the most to you?*
I'm a photography/history buff, so any photography that captures people and

the places they live/work/play catches my eye.

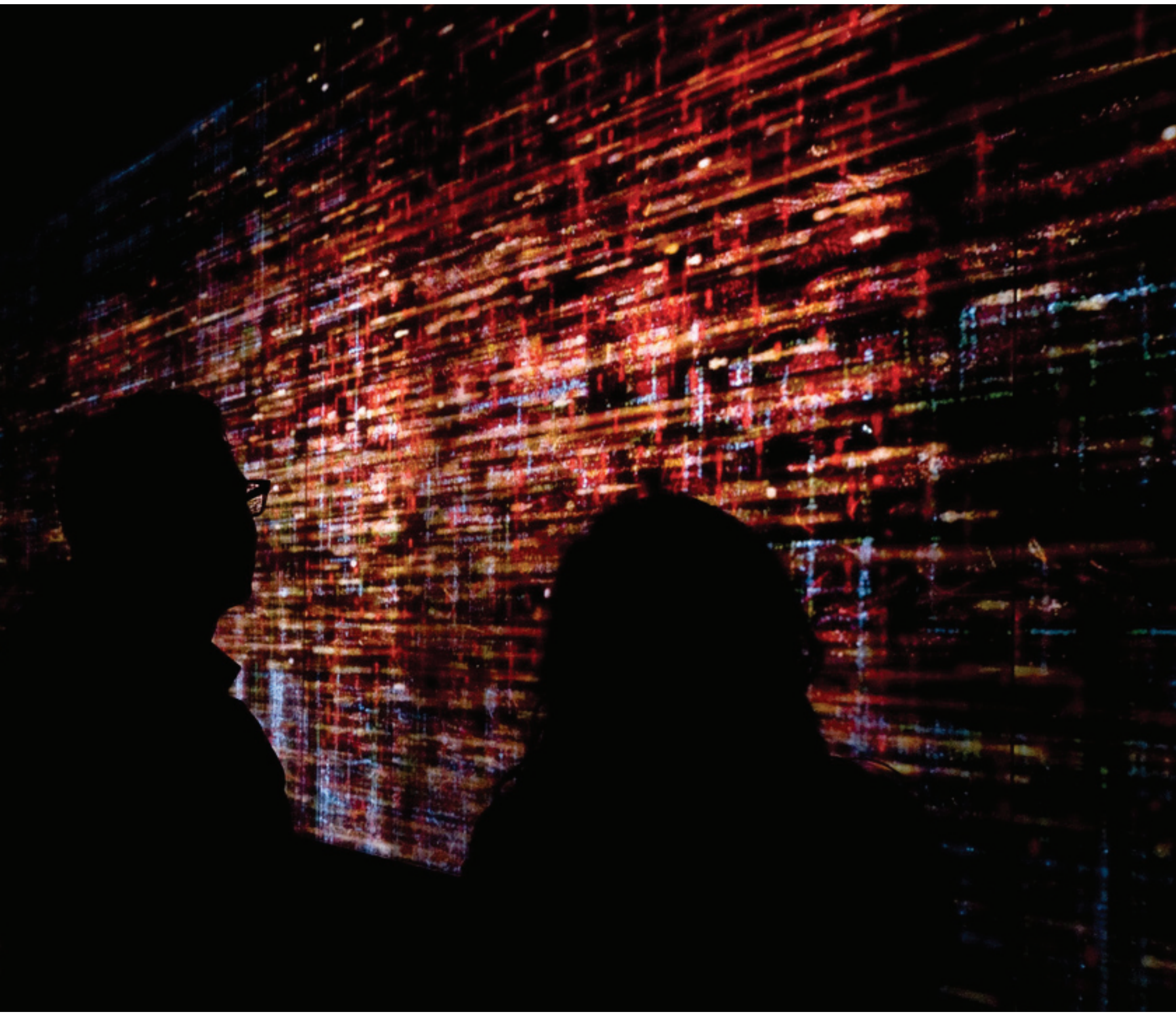
• *What is your idea of perfect happiness?*
Eventual graduation?

• *If not an artist/designer/computer scientist, who/what would you be?*
Depressed.

• *What/who is your greatest fear?*
Eventual graduation?

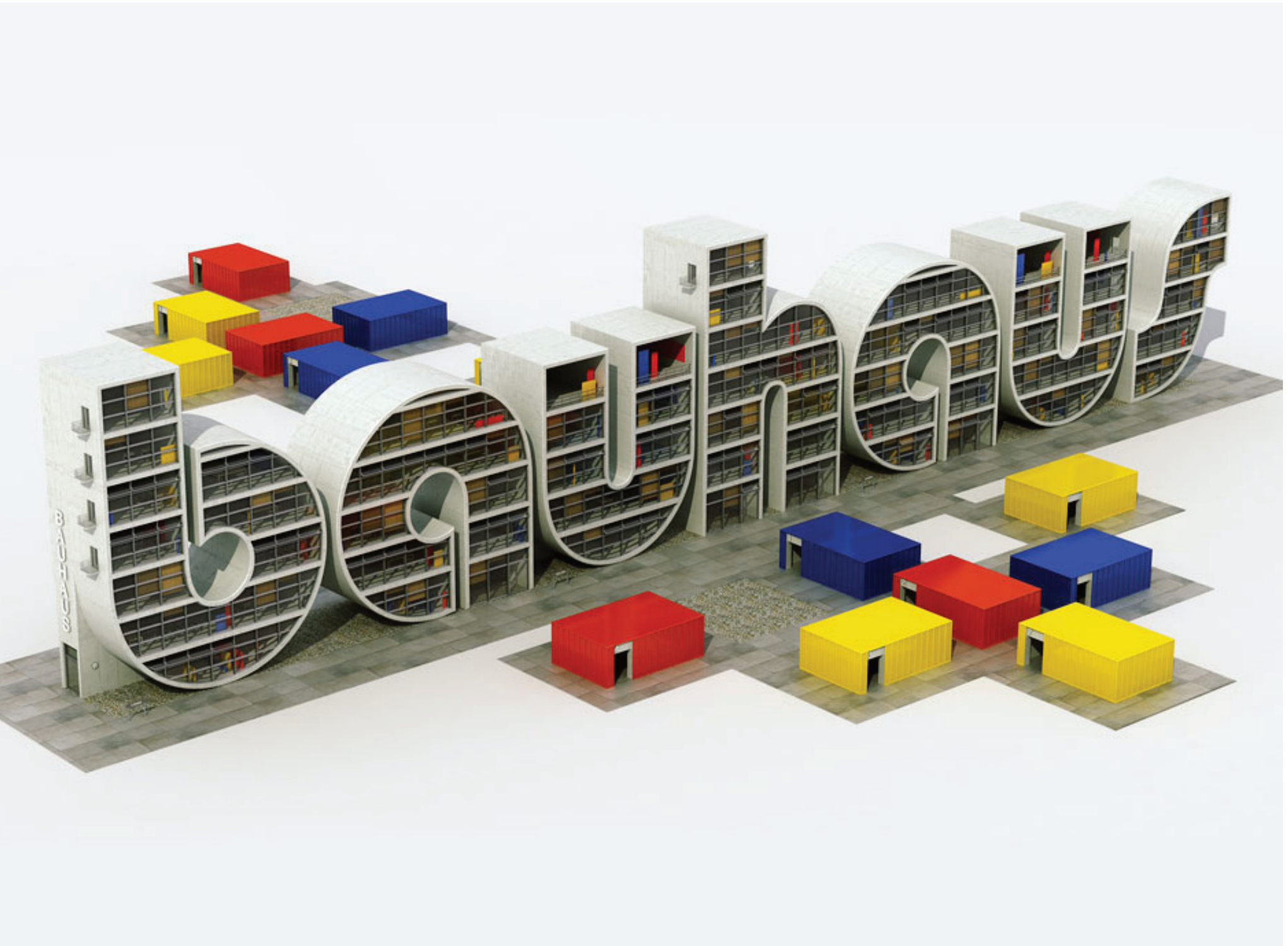
• *What is your most treasured possession?*
I never throw anything away, so I guess I'll say: "everything I own".

• *(And finally, the most important question:) What are you wearing?*
I'm wearing thin – I think my attempts at droll humor are wearing thin ☼



Untitled by Sunghun Kim | Photo by Rob Ryan (with permission from Daniel Shiffman)
www.shiffman.net/2009/03/03/big-screens-2008/

Rojin Salehi Vishkaie



I am currently undertaking a multidisciplinary Ph.D. program with the specialization in Computational Media Design particularly within the area of Sustainable and Energy Efficient Development and Design; Eco-efficient Product/ Process Design; Life Cycle Energy Analysis/ Life Cycle Assessment/ Life Cycle Cost of Product systems. I also completed my Bachelor's degree in Industrial Design, and Master's degree in Industrial Product Design at Coventry University, UK, 2009. My MSc final research topic is 'Reducing Whiplash Injuries in Car Accidents, Anti-Whiplash Product'.

- *What are you working on right now?*
Taking courses, and doing research
- *Which work/exhibition/image have*

you seen recently that really excited you?
Audi e-tron.

- *What is the last book you enjoyed?*
Truth and Method.
- *Who do you admire? Why?*
My mother and piano teacher, because they are interesting and strong characters. I also admire Beethoven and Mozart, because they are genius.
- *What's your favorite motto or quote?*
I took a test in Existentialism. I left all the answers blank and got 100.
- *Your favorite art work of all time?*
Mozart requiem, Beethoven symphonies.
- *Which of the world's great images*

mean the most to you?
Maybe Philip Starck's works

- *What is your idea of perfect happiness?*
Contentment.
- *If not an artist/designer/computer scientist, who/what would you be?*
I would have liked to be Beethoven or Mozart.
- *What/who is your greatest fear?*
Making the same mistake twice.
- *What is your most treasured possession?*
Determination and consistency.
- *(And finally, the most important question:) What are you wearing?*
I wear something which shows my true character.

⌘

Nathan Tremblay MFA-CMD, BDES, BFA.

Nathan Tremblay MFA-CMD, BDES, BFA. I am one of three Directors / Designers for Palette Industries a multi disciplinary design firm located in Calgary, AB. I have a fascination with language or text for which is fueling my research for my present graduate program.

• *What are you working on right now?*

I am working on justifying an algorithm so that I can concretely say that it is executing exactly what it should be doing and allow me to move forward 100 percent in the creation of objects designed from the exported files of the program.

• *Which work/exhibition/image have you seen recently that really excited you?*

The work of Martí Guixé, poetically beautiful.

• *What is the last book you enjoyed?*

Gilles Deleuze, was recommended for my research so right now I am enjoying trying to wrap my head around his theory.

• *Who do you admire? Why...*

Anyone who is true to themselves and leaves the 'BS' at home.

• *What's your favorite motto or quote?*

Stand Forget Acknowledge Observe, Buddha.

• *Your favorite art work of all time?*

One and Three Chairs (1965), Joseph Kosuth.

• *Which of the world's great images mean the most to you?*

Life is the greatest image, it never gets old.

• *What is your idea of perfect happiness?*

Spending time with my wife and daughter.

• *If not an artist/designer/computer scientist, who/what would you be?*

Traditional Craftsman

• *What/who is your greatest fear?*

Losing the ability to build things.

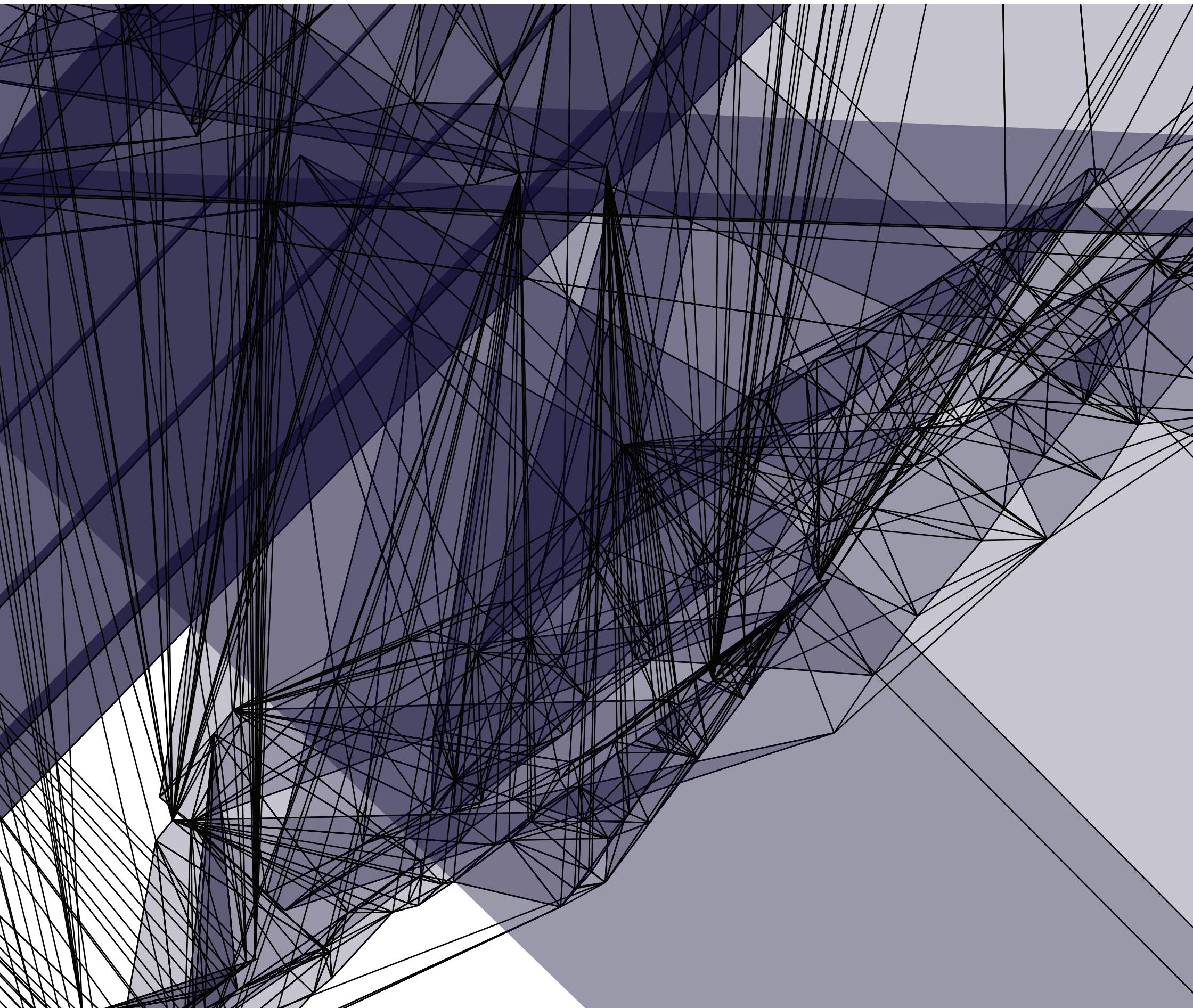
• *What is your most treasured possession?*

My health.

• *(And finally, the most important question:) What are you wearing?*

Hairunderneath jeans and a t-shirt.

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POWER: Electronics

Absorbing into The Air



By Ellen Pearlman

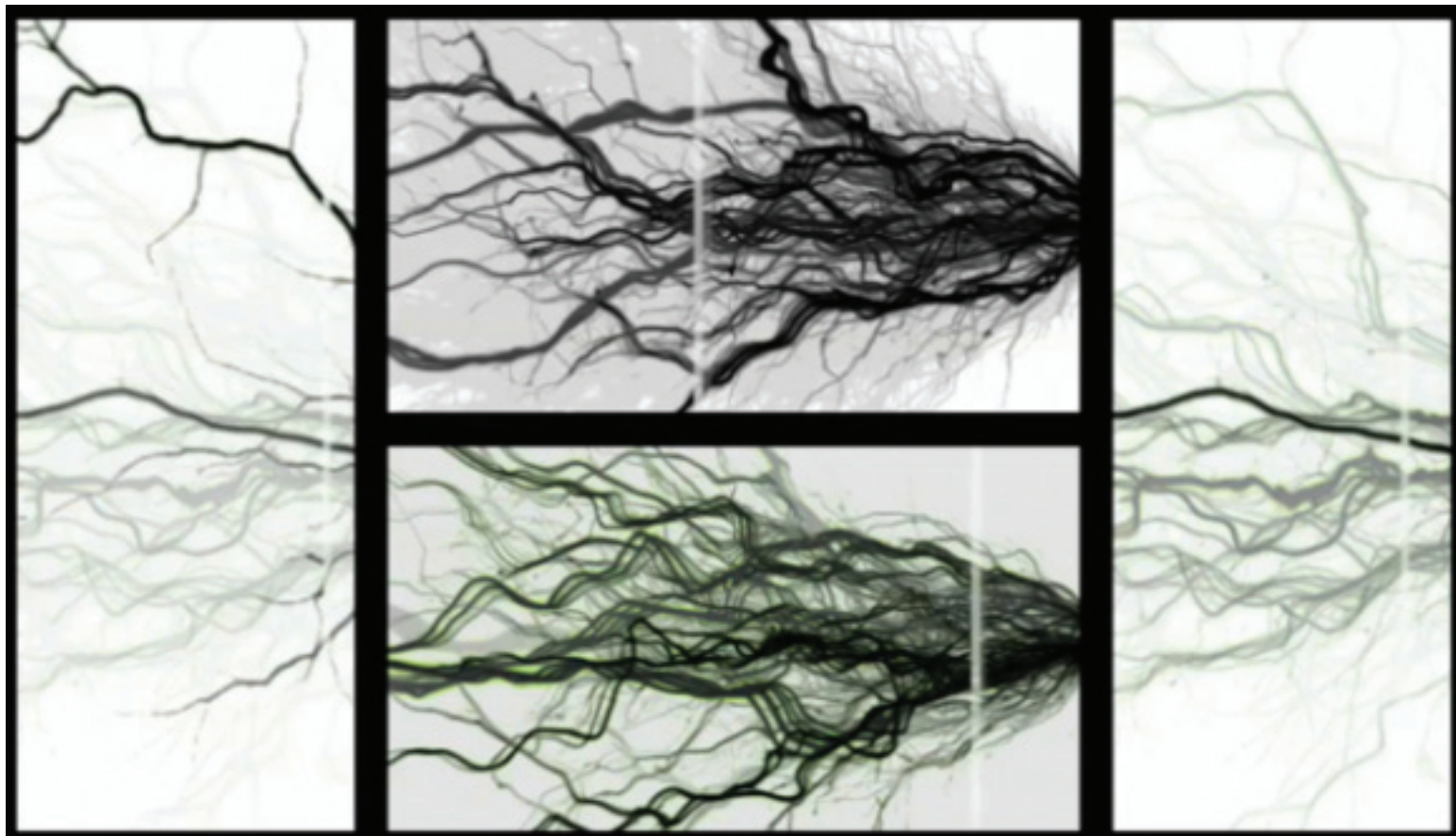
“We are absorbed by the beauty of electronics absorbing into the air,” is how Burton and Roy described their literally electrifying, and often frightening forty-five minute audiovisual performance of high-voltage electromagnetic disturbances. The event necessitated everyone present turning off their cell phones, i-whatever’s, and cameras to avoid provoking 800,000 volts of raw Frankenstein-like crackling electricity from throwing out a surprise lightning bolt and zapping an unsuspecting audience member. POWER’s instrument is an audio-modulated Tesla Coil with its own “boutique” ground that resembles a stripped down tuba with lots of copper colored coils. A bent over piece of metal culls the tail end of the generated electricity so it can be captured by a high-speed camera, and processed and re-purposed. Both Burton and Roy, who trained in contemporary classical music training in composition and electro-acoustics at the University of Montreal added, “We like noise so we try not to do melody, except at the end.”

The piece is raw and alive, and no photograph or video can substitute for sitting in the line of fire of a sparking raw electrical feed. It smells tangy and metallic; a by-product of its ozone inducing properties and you can practically

taste the microscopic particulate matter its hybrid frisson generates on your tongue. The sheer shock of its taser-like impact up close and personal is mesmerizing and anesthetizing but its actual menace doesn’t lie in its extreme voltage, but in its electrical amps, which is the charge that actually goes through you. “If the amp is low it just goes onto your skin, but if the amp is high you can die,” the artists sanguinely informed the audience in a Q&A after the performance. They also explained it took six months to come up with the idea, and another six months to make the piece not explode.

The creator’s studio site Artificiel.org says they are interested in “the desubjectification of sound and image materials, R&D creativity as the consequence of artistic research and the building of a genuine digital performance practice.” This idea is coupled with an astute technical know-how. To capture such an electrifying event the camera runs in a special “forever mode” that can be wiped clean at their discretion. The electromagnetic arc produced by the Tesla coils lasts for just a few very bright nanoseconds, so using a mechanical shutter is impractical. The ISO, dampened down to 50, allows a baseline

Reviews



A performance by Alexandre Burton and Julien Roy Alberta College of Art and Design (ACAD), Calgary, Canada, November 11, 2010



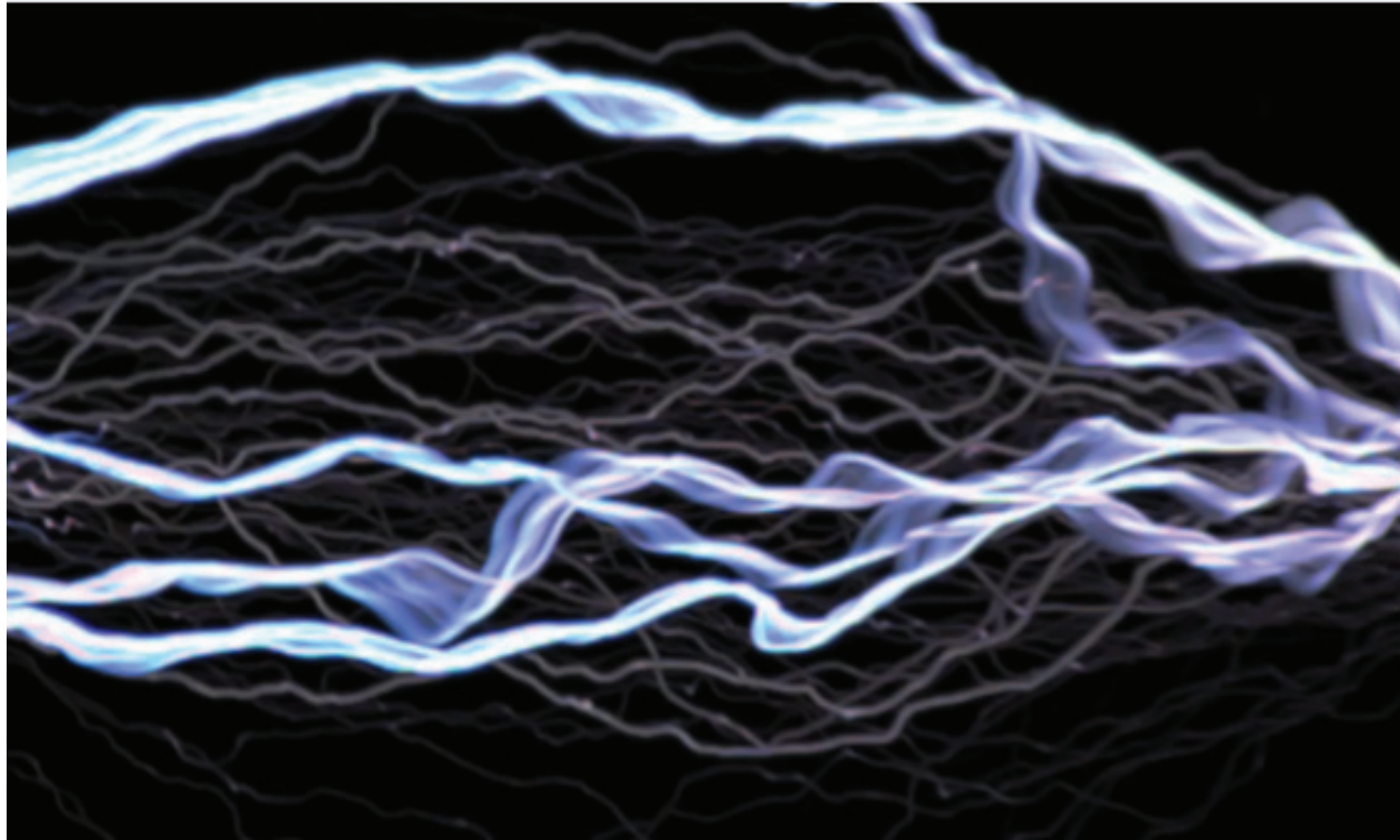
sensitivity to actually capture the image.

Once captured, the images are transferred to the computer via a high-speed uncompressed connection, where recording, filtering and geometric adjustments are made. The visual data is handled as sound, allowing quick and precise images to be processed on the fly. “It is also a very intuitive approach to “synesthesia,” Burton said as the software abstracts both sound and visuals in the same way. Logic Pro and MAX/MSP/Jitter manipulate duration, signal, timbre, and resonance live time as technology and

geekiness combine with a dash of old style showbiz razzle dazzle to produce a truly hair raising show. ⌘

Images are excerpts from a performance in Québec city 2010

View video of Alexandre Burton’s and Julien Roy’s live performance here:
vimeo.com/9816953



Brian Eno

77 Million Paintings



By Ellen Pearlman

*Glenbow Museum
January 6–March 20, 2011*

Brian Eno hovered over me in a darkened room as I squatted writing notes about his “77 Million Paintings” on a crumpled up piece of paper. Though I knew he couldn’t see what I was scribbling, its not often one gets the chance to come face-to-face, or rather back-to-face in situ with the flesh and blood incarnation of one’s investigations. He had slipped into the viewing room at the Glenbow Museum unobtrusively because he likes to watch – the audience as well as his “paintings,” and therein lays his strategy and appeal. In a lecture he gave that night at the Museum auditorium he described, in magnificent pantomime, the reactions one has when entering the viewing space of his exhibit:

looking around, furtively glancing at the work

walking further into the space, looking around, glancing at the work

leaning against the wall, glancing at the work

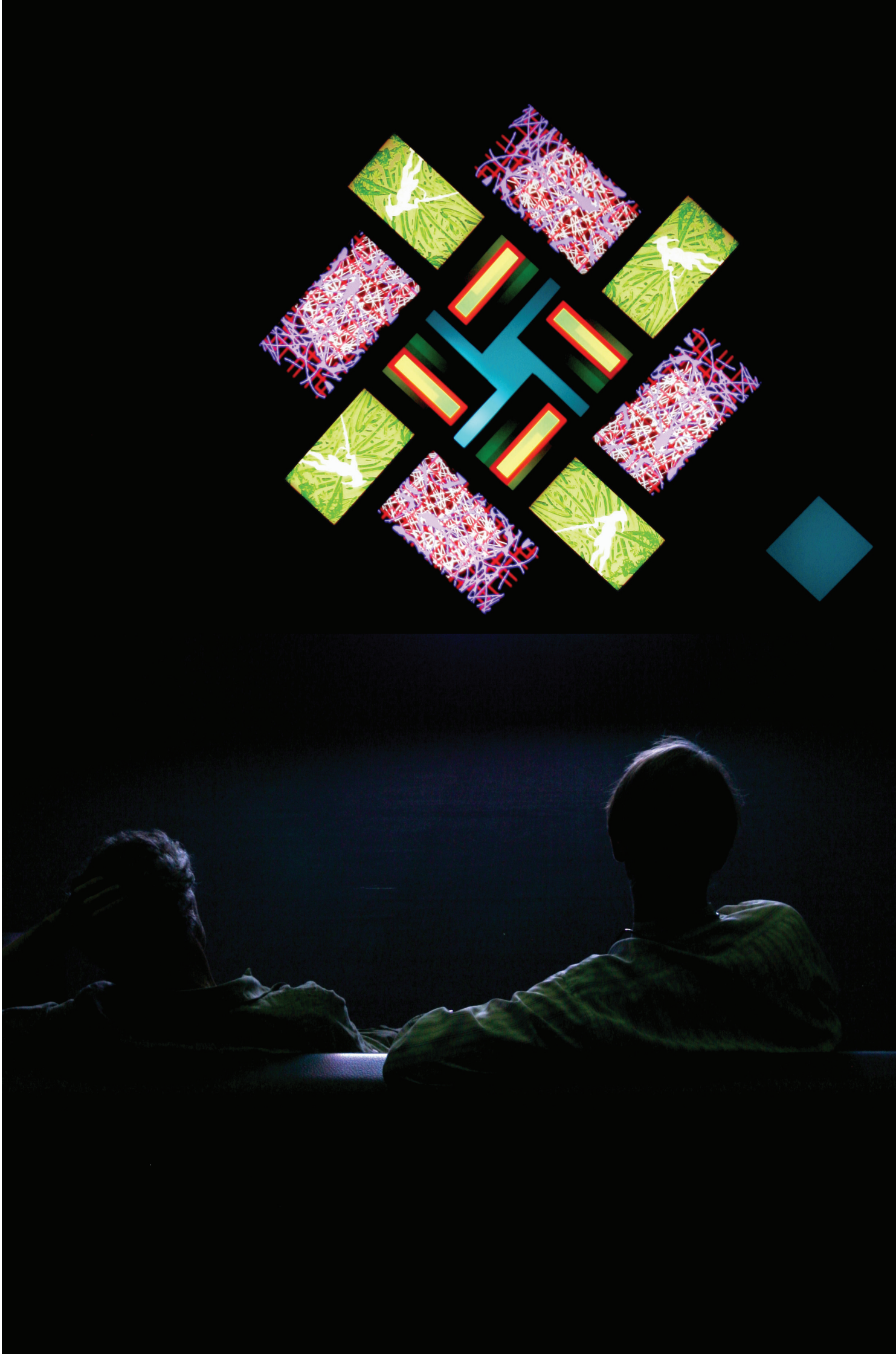
squatting, glancing at the work

sitting down, glancing at the work

focusing on the work, lying down on the floor mesmerized by the work

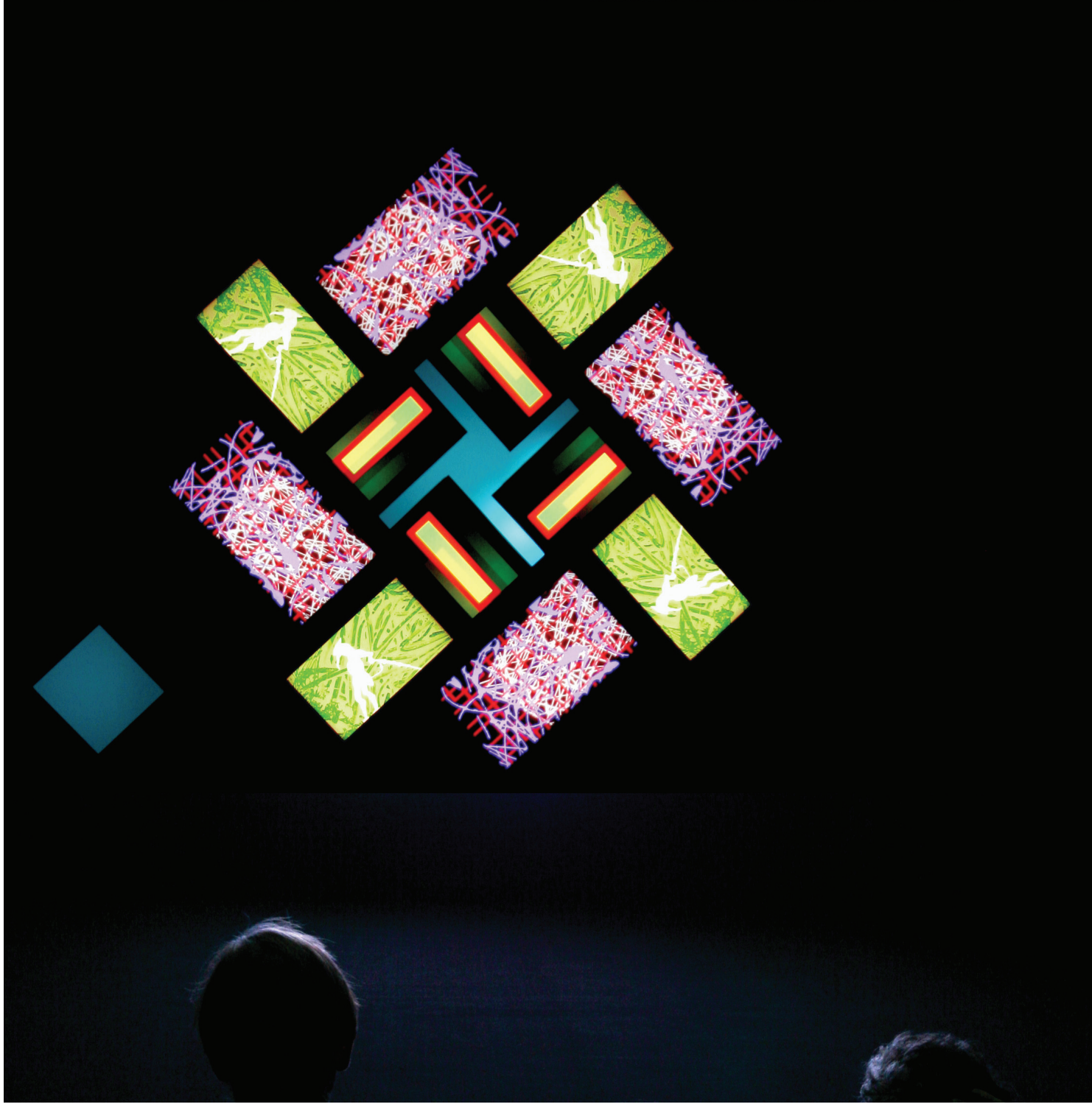
unable to tear oneself away from the work

“77 Million Paintings” contains 550 paintings Eno created over a span of 22 years. Since 2006 the exhibit has toured all over the world including Tokyo, Sydney and St. Petersburg before landing in Calgary. The digital projection is a “generative” work in that the ambient music for which Eno is better known, and the combination of images are generated and combined in an endless mandala-like array by a computer. Nine screens project a diamond shape with eight inserted “paintings” and one solid colored square on the lower right hand side serves as a control for the other eight. There are four black leather couches for people to zone out on while enveloped by his signature ambient sounds – and they are packed to capacity as the audience warms and hunkers down to the slow experience.



77 Million Paintings by Brian Eno, Museo Anahuacalli, Mexico City, May 2010, © Lumen London Ltd.

77 Million Paintings by Brian Eno, Museo Anahuacalli, Mexico City, May 2010, © Lumen London Ltd.



Originally conceived for in-home viewing, the show seems to change your brain waves from Alpha to Beta to Theta and the experience is pure occipital enjoyment. The cross-fades in the banks of images creep up as the landscape subtly changes as blue morphs into green, and triangles expand into circles. As Eno says, “We’re not seeing a film. There’s no beginning, there’s no progression, there’s no end, there’s no narrative, there’s no drama. In fact everything is missing that would normally be called art or entertainment.”

Eno As Professorial

Eno’s lecture at the Glenbow Auditorium could have continued all night but for the protestations of those with day jobs. He began explaining the radical impact Copernicus had in 1543 had when he revealed man was no longer the center of the universe, as earth orbited around a system with some 400 million stars. Darwin came along in 1859, and pointed to the phylogenetic tree stating there were 20 billion species besides humans. “We are amazingly minute in this picture,” Eno mused. After Darwin it was Cybernetics, which introduced the notion of feedback as a way to think about complex systems. We cannot control these systems, only set them up to control themselves, and that notion became part of his vocabulary of how things organize themselves.

Starting with royal Kings and the Church, man organized himself in hierarchies from the top down that includes the structure of the 18th Century orchestra, still extant

today. Sixty or seventy years ago this would show up in the shape of a top-down pyramid, but the world now functions more as a feedback loop, not a hierarchy. Eno explained when he was growing up his uncle slipped him a book on the artist Mondrian. He found the pictures magical, economical, and transparent. They contained “no subterfuge of technique.” Attending art school at Windsor College, part of a music school in England, his forward thinking art professors invited the composers John Cage, Christian Wolf and Morton Feldman to lecture. Not one musician or music student on campus came to hear them.

He described listening to Terry Riley’s minimalist music composition “In C,” as “life changing.” That piece contains 53 short, numbered musical phrases lasting from half a beat to 32 beats repeated an arbitrary number of times. He also mentioned Steve Reich’s “It’s Gonna Rain,” where Reich recorded Brother William, a Pentecostal preacher and “sought to maintain the fascination of the speech content while intensifying its meaning and melody through rhythm.” This piece Eno admitted, “is the basis of most of my career.” He said one’s ears function differently than one’s eyes. Eyes scan all the time. If they don’t scan, they habituate and don’t see anything. If you have a repetitive event the eyes cease to see, and what he focuses on is the uncommon information, “the out of phase collision of the loops.” This approach makes your brain do the composing. As this he says, has led him to his work ethos, “doing as much as I can with as little as possible.” ☼

ACM MULTIMEDIA 2010

October 25 - 29, 2010



By Laurel Johannesson

Laurel Johannesson, CMDJ's co-editor, presented a paper at the ACM MULTIMEDIA 2010 conference held in Firenze, Italy from October 25-29th. She was so impressed with the event that she decided to ask the General Chair for the conference, Professor Alberto Del Bimbo, just what it took to reach such a high level of quality in every respect. From the keynote speakers, art exhibits, and program sessions to the dinner parties and even the registration goody bag ... it was a classy affair.

Professor Del Bimbo remarked: "We were committed to a very high quality event. But we believe that quality is not simply a matter of setting hard thresholds of acceptance rates. In fact, especially with large events, reviewing can sometimes be a fuzzy process and hard thresholds can

make that process even more fuzzy. Quality is instead more related to the whole organization and selection process rather than to acceptance rate figures. We implemented quality first of all in the selection of the Program Chairs. They were selected not only from the "same names" list but from a larger list of active and worldwide qualified researchers after careful reasoning. The same was done for the TPC Members and Meta-TPC Members. Each paper was subjected to a blind three-tier reviewing process. Paper pre-filtering was performed by senior reviewers to check that the submissions fit the scope of the Conference. Hence a first round review was managed by the Program Chairs with three reviews per paper. Meta-reviewing was then applied to papers that had conflicting reviews. In the Technical Program



Alberto Del Bimbo

Conference report

Committee meeting that was held in Amsterdam in June 2010, the TPC Members were requested to defend each meta-review and define the final Conference program. To ensure that good quality papers submitted as full papers and nevertheless not accepted for oral presentation were not excluded from the program, the top ranked non-accepted full papers were invited by the Chairs for short paper presentation. In turn, the top ranked non-accepted short papers were invited to move to the appropriate workshop associated with the main Conference under the Workshop Chair assessment. In the very end we accepted 61 full papers out of 357 and 157 short papers out of 490 received, and 257 papers in the 21 Workshop programs.

In total, 56 Program Chairs coordinated the ACM MULTIMEDIA 2010 Conference program selection process with a total number of 214 TPC members and 48 Meta-TPC members involved. Myself (Alberto Del Bimbo) and Shih-Fu Chang were the General Chairs, with Arnold Smeulders acting as Program Coordinator. Managing such a huge number of colleagues was a matter of strict organization and good management. But it was surely helped by the high quality of the people selected. We established simple and clear rules from the beginning and asked for serious commitments and timely receptiveness and maintained a continuous and firm control on any activity. Marco Bertini who managed the correspondence related to technical organization logged 5719 e-mail messages since November 2008. The three Chairs exchanged a similar or higher number of messages for organization and management issues. Publicity was very important. Making a good mailing

list, setting a reasonable calendar of recall messages and having active and responsive Publicity Chairs were the keys of success of this program.

Together with the Conference we also organized as a companion event the Multimedia Art Exhibition where we had 12 exhibits of artists working with new media. The success and quality of the Art Exhibit was assured by the careful selection of the invitees, the location and the exhibit settings. Interaction with the artist community posed additional challenges and stimuli to our job. Although scientific relations are the first motivation for attending a Conference, nevertheless the accompanying social events such as the Welcome and Gala Dinner, are an important factor of satisfaction. We had the Gala Dinner in the astonishing setting of the Salone dei Cinquecento in Palazzo Vecchio. You can have a look at the pictures of this event on the ACMMM 2010 website and get an idea of it.

I have been requested to tell you what I found to be the most satisfying aspect of ACM MULTIMEDIA 2010. I would say the great friendship and cooperation between the General Chairs, and the intense collaboration of the Program Chairs that day by day were more and more committed to build a great and unique event. And the touching devotion of the young researchers of the Media Integration and Communication Center that gave their intelligence, effort and time to provide all the rest that makes quality.”

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