

Ben Shedd

Director/Producer/Designer/Professor



Academy Award winning filmmaker Ben Shedd has directed and produced 33 films and videos, including 4 IMAX® movies. He received the 1978 Academy Award® Oscar® for Best Documentary Short Subject for THE FLIGHT OF THE GOSSAMER CONDOR, about history's successful human-powered airplane. Ben shares a Peabody Award for the Public Broadcasting System NOVA® science series. His films have received 40 international awards.

In parallel with his production work, Ben has taught 67 film and digital production classes at 7 colleges and universities including his alma mater, the University of Southern California's School of Cinematic Arts, and at the California Institute of the Arts, Art Center College of Design, the University of New Mexico, Princeton University, and Boise State University. Ben is Professor, Digital Filmmaking at the School of Art, Design and Media at Nanyang Technological University.

Ben Shedd - Digital Teacher/Mentor



Early Adopter/Digital Film Tools - In 1973 while working on his USC Master Thesis film *MARS MINUS MYTH* at the California Institute of Technology and NASA's Jet Propulsion Laboratory, Ben Shedd used early digital images from Mars. Ben has been using digital technology in his productions & teaching since 1984 starting with his first Macintosh computer. Ben's team used digital motion control and digital animation in 1985-1987 for his first IMAX production *SEASONS*, using a Commodore 64 and Silicon Graphics' first animation computer. Ben was the first filmmaker featured in MacWorld Magazine, Winter 1986, and continues using the most current digital hardware and software in his teaching and productions. Ben's PowerPoint/Keynote presentations are mini movies.

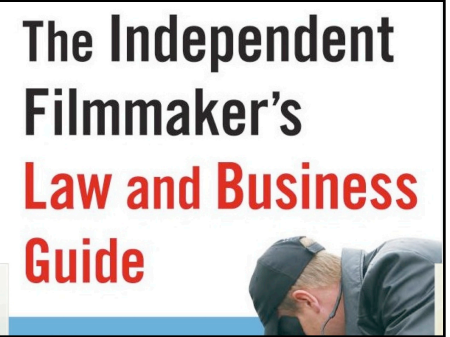
16mm to Digital



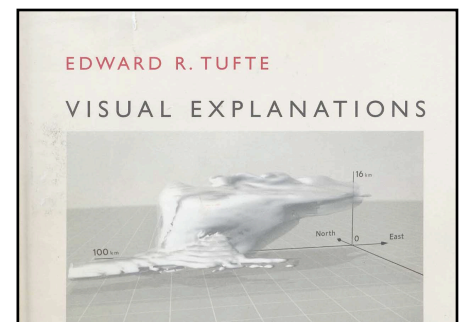
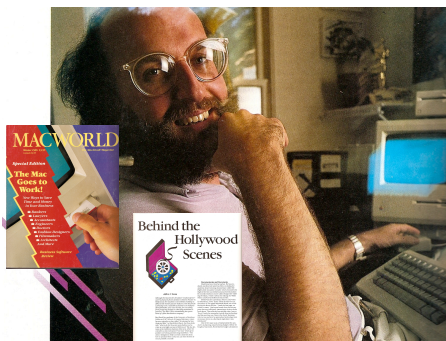
-Teaching Statement-

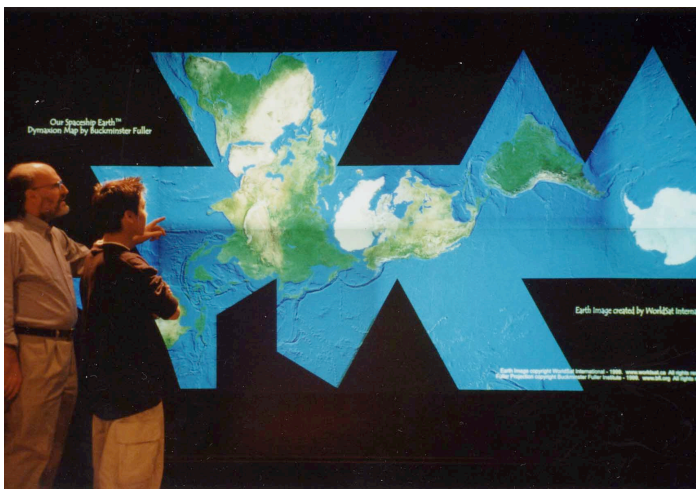


Key Textbooks



Ben Shedd Teaching Statement: All of my teaching is studio-based, workshop format, whether the class is a hands-on production class or a writing or producing class creating scripts or proposals for funding. My goal is to set in motion workable projects which teach by doing. The results in 67 classes taught through the decades have confirmed this methodology. I find a great similarity between using my on-set directing and producing skills leading groups to accomplish creative results and university teaching in studio-based classes leading groups of students in expanding their learning and skills.





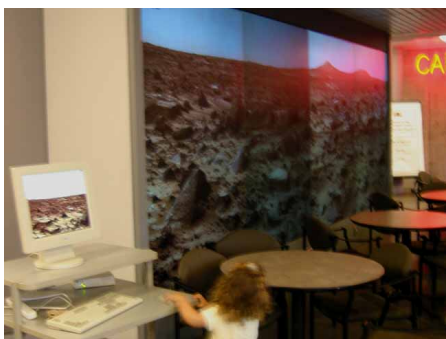
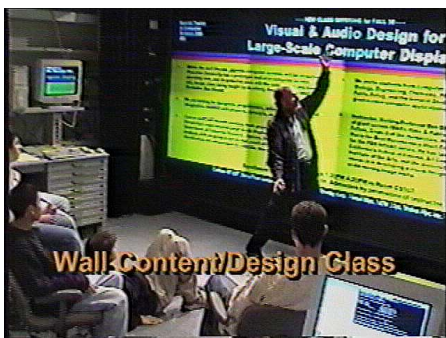
Princeton University - Dept. of Computer Science Digital Display Wall

Senior Research Scholar & Lecturer 6 yrs
Digital Display Wall for PC cluster research project, funded by Intel Corporation, the USA Department of Energy, and the USA National Science Foundation. The high resolution screen is made from 8 images, each running from it's own PC, blended together in one seamless wall display, with stereo sound. Using this hardware, Ben Shedd developed a "frameless image" course called VISUAL & AUDIO DESIGN FOR LARGE-SCALE COMPUTER DISPLAYS.

Wall-size 2m x 5.5m

Digital Display Screens

Images: 4Kx1.5K pixels



Ben Shedd has taught 63 college and university courses since 1979. These courses include Introduction and Advanced Film/Video Narrative and Documentary Production, Documentary Writing, Editing, Master Class Production, The Film Producer's Role & Independent Film Business and Graphic Design for Giant Screens.



Ben's research on effective image and sequence design for giant "frameless screens" has been used in production, design, and interface courses, as well as in professional productions. EXPLODING THE FRAME is a theme both for production and class content.



Ben Shedd - Faculty Appointments

2014–present: Professor, School of Art Design and Media, Nanyang Technological University, Singapore, teaching Production and Immersive Design

2010–2013: Adjunct Faculty/Visiting Filmmaker, teaching new course THE FILM PRODUCER'S ROLE required for the new Certificate in Cinema and Digital Media Studies at Boise State University. Based on class originated at USC's School of Cinematic Arts with co-teacher Mitchell Block*

2005: Visiting Filmmaker, Advanced Video Production, Master Class in Video Production, Department of Communications, Boise State University

2004: Artist-in-Residence with Painter Nancy Manter, Atelier Program created by Toni Morrison, Visual Arts Program, Princeton University

2000–2004: Senior Research Scholar and Lecturer, Department of Computer Science, Princeton University

1998–2000: Visiting Senior Research Scholar and Lecturer, Intel Fellow, Department of Computer Science, Princeton University

1997–1998: Visiting Fellow, Council of the Humanities, Princeton University

1989–1990: PNM Foundation Endowed Chair Professor of Media Arts, School of Fine Arts, University of New Mexico - Originated 6 courses in writing, production, and post-production

1984–1989: Adjunct Faculty, California Institute of the Art: *Originated course on Producing the Non-theatrical Film & Video with Mitchell Block.

1979–1989: Adjunct Associate Professor, University of Southern California's School of Cinema/Television: *Originated course on Producing the Non-theatrical Film & Video with Mitchell Block. Taught Documentary Writing course.

1979: Adjunct Faculty, Production course, Art Center College of Design

1979 to present: Numerous lectures on film producing, directing, and production management throughout the world, including at MIT, Princeton, Humbolt State College, Sundance Film Festival, San Francisco State University, Northwest Film Center, Giant Screen Cinema Association Annual Meetings, SIGGRAPH.

Ben Shedd

Academics Undergraduate/Graduate

Ben Shedd holds a Master of Arts Degree [1973] from the University of Southern California's School of Cinematic Arts and a Bachelor of Arts Degree [1968] in Radio/Television/Film from San Francisco State University. Ben was awarded a Summer Residential Fellowship from the Alden B. Dow Creativity Center at Northwood University to pursue his "Exploding The Frame" research in giant screen media.

Ben Shedd received Distinguished Alumni Awards in 1979 from both San Francisco State University's Alumni Association and USC's Cinema Circulus Division of Cinema/Television Alumni Association within a few months after receiving the Academy Award for Best Documentary Short Subject for his first independent film THE FLIGHT OF THE GOSSAMER CONDOR.

Since receiving his degrees and with his many professional accomplishments, Ben has held appointments as Adjunct Faculty at six colleges and universities, including at his alma mater, the University of Southern California's School of Cinematic Arts, and at the Art Center College of Design, the California Institute of the Arts, the University of New Mexico's School of Fine Arts, Princeton University's Department of Computer Science, and Boise State University's Department of Communication.

Below are the Distinguished Alumni Award and Alumni Award of Merit from the Alumni Associations of USC Cinema and SF State.



Ben Shedd

Academics - University Alumni Recognition

Featured on the San Francisco State University's Film HOT SHOTS Alumni web page
and on the USC Cinematic Arts' Award-Winning Faculty web page.

<http://www.sfsu.edu/~hotshots/film.html>

<http://cinema.usc.edu/faculty/awardfaculty.cfm>

www.sfsu.edu/~hotshots/film.html

San Francisco State University

Alumni Hot Shots (University Communications)

Hot Shots Home

Click on listed categories*:

- Activism
- Art
- Broadcasting & Journalism
- Business
- Education
- Film & Television
- Literature
- Music
- Public Service
- Science & Technology
- Sports
- Theatre

Complete List

Know an SF State HOT SHOT?

* Categories reflect fields in which alumni have excelled, not necessarily their major(s) at SF State.

Film & Television

Ben Shedd
Filmmaker
Jacqueline Phillips Shedd
Producer/lawyer
After switching from acting to directing at SF State, Ben teamed with Jacqueline on their first independent film, "The Flight of the Gossamer Condor." The film received the 1978 Oscar for Documentary Short Subject.

Lisanne Skyler
Writer/director
Receiving both support and criticism from Professors Pat Ferrero, Karen Holmes and Bob Lewis helped this cinema student hone her skills. Her first feature film, "Getting to Know You," played in the 1999 Sundance Film Festival Dramatic Competition and received rave reviews.

Hot Shots Reflect

How did SF State play a role in the success of some of its most notable alumni? Some "Hot Shots" share their thoughts. Click here for the Alumni Reflect video.

Related Links

- SF State Magazine
- Points of Pride
- Alumni Association

Contact

University Communications
E-mail: pubcom@sfsu.edu
Phone: (415) 338-1665

Last Update: 10-27-11_dr

Search SF State Hot Shots

See SF State News on:

cinema.usc.edu/faculty/awardfaculty.cfm

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Endowed Chairs

Diversity

Faculty members at the School of Cinematic Arts have achieved a remarkable level of worldwide acclaim, winning a variety of prestigious awards, including the Oscar, Emmy, Peabody and Golden Globe. Many have had their work recognized at major film festivals, including Cannes, Sundance, and Venice. In addition, many play prominent roles in professional organizations, such as the American Society of Cinematographers, the American Film Institute, and the Film Critics Association.

Ben Shedd, Director, Co-Producer
Adjunct Professor/Lecturer (1979-1989)

- Academy Award - 1978
The Flight of the Gossamer Condor
Best Documentary, Short Subjects

Willbur T. Blume's 1955 Oscar for *The Face of Lincoln*.

Ben Shedd - Former students

I have held Visiting and Adjunct Faculty appointments at 6 universities and colleges, including the University of Southern California's School of Cinematic Arts, California Institute for the Arts, Art Center College of Design, University of New Mexico's School of Fine Arts, Princeton University's Department of Computer Science, Boise State University's Department of Communications and currently as Professor at the School of Art, Design and Media, Nanyang Technological University. The courses I have taught in Producing, Production/Writing and Immersive Design are open to undergraduate and graduate students.

Numerous students from my classes have gone on to highly successful careers in the motion picture and television industries, and in the computer software business.

Former students from USC School of Cinematic Arts include:

Emmy Award winning Feature Film and Television Director Jay Roach

[*Austin Powers* movies, *Meet The Parents* movies, *Recount*, *Trumbo*]

Academy Award nominated Feature Film Director/Screenwriter John Singleton

[*Boys in the Hood*, *Shaft*, *2Fast 2Furious*]

Academy Award nominated & Emmy Award winning Documentary Director/Producer Bob Weide

[*The Marx Brothers in a Nutshell*, *American Masters Woody Allen Special*, and *Curb Your Enthusiasm*]

Award winning Music Video Director/Producer Bud Schaetzle

[*The Manhattan Transfer*, *Bobby McFerrin*, *Garth Brooks*]

Feature Film Screenwriting Partners Scott Alexander and Larry Karaszewski

[*Ed Wood*, *The People Vs. Larry Flynt*, *Problem Child*]

Documentary Director/Cinematographer Larry Herbst [*X Prize Cars: Accelerating The Future*]

Academy Award nominated Documentary Director/Producer Tom Neff

[*Red Grooms*, created *The Documentary Channel* on cable television]

Academy Award winning and Nominated Feature Documentary Editor/ Doug Blush

[*20 Feet from Stardom*, *The Invisible War*]

USC Cinema Alums Stephen Greenfield and Chris Huntley developed and created the Academy Technical Award winning industry standard software for movies and television, including Movie Magic Screenwriter 6, Dramatica, Movie Magic Budgeting and Scheduling. Their original software program Scriptor, for script formatting, was one of the very first pieces of motion picture software for individuals using the first PCs and Mac computers in 1982-1984.

Former Princeton University students include:

Music Video Director/Editor Jerry Chan [*K-Town*, *Doobie Brothers*, *Fast Money*]

Music Video Producer Morrow Pettigrew [*K-Town*, *Twia Savage*]

Clay Bavor and Jessie Levinson, inventors of the software AirPlay as undergraduates, with the patent granted to Apple Computer, now featured on every Apple iMac and MacBook Computer. Clay Bavor VP of Special Projects, including Google Cardboard, Google.

Former Boise State University students include:

Director/Producer Zack Voss, RetroscopeMedia Production Company [Owner]

[BSU Opening Events Film, i48 two time top winner, Production grants from Department of Commerce Idaho Film Office and Boise City Department of the Arts]

Director of Photography Ryan Morgan Feature Film Cinematographer

Feature Film Producer Laura Mehlhaff w/ Heather Rae [*An Unkindness of Ravens*, *First Circle*]



Ben Shedd Production Bio

Director/Producer/Designer/Teacher
Aerial Cameraman/Editor/Researcher

Ben Shedd was a working magician from the time he was 10 years old and an actor in numerous high school plays and movies. He edited his first dramatic movie when he was 12.

Ben switched from acting to directing while studying film & television at San Francisco State University. At USC's School of Cinematic Arts graduate program, Ben's Master Thesis film MARS MINUS MYTH received several awards, including Best

Science Film in the World from the Australian and New Zealand Association for the Advancement of Science.

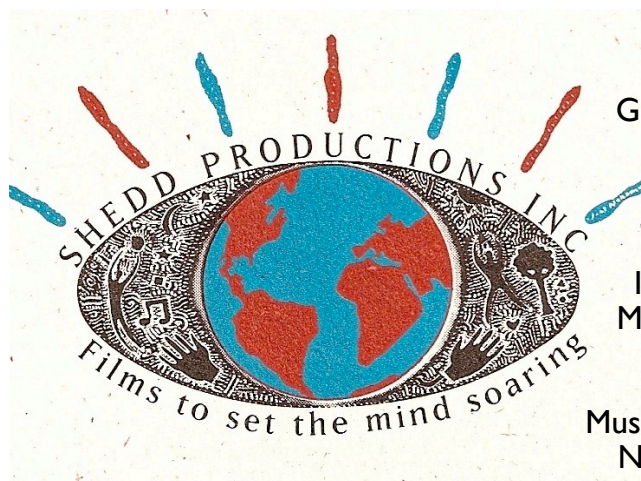
Ben's first independent film, the Academy Award winning documentary short THE FLIGHT OF THE GOSSAMER CONDOR, was produced through his production company Shedd Productions, Inc. This classic documentary was restored by the Academy Film Archives and re-mastered in HD for the 30th Anniversary DVD and is now required in the PROJECT THE LEAD THE WAY national high school engineering curriculum across the United States. GREEN IS THE COLOR OF MONEY, the HD DVD documentary about building one of the world's most energy efficient, high performance buildings - the USGBC LEED CS Platinum rated Banner Bank Building in downtown Boise, Idaho, was Ben's 30th directing project.

Ben Shedd's documentaries are well-crafted illusions of reality, which sweep the viewers into the stories and the places. Ben is a long-time Documentary member of the Academy of Motion Picture Arts & Sciences.

Some production awards for Ben Shedd - Academy Award winner

THE FLIGHT OF THE GOSSAMER CONDOR - BEST DOCUMENTARY SHORT SUBJECT 1978

Academy Award® winning filmmaker Ben Shedd has been a professional film and video director, producer, and writer since 1970. Ben has directed and produced 33 films. Ben Shedd's films, including two IMAX® movies, have received numerous international awards and grant support. Ben shares a 1974 Peabody Award® for the Public Television NOVA® science.



Select Awards
Orbit Award-Best Science Film
in the World-1973
George C. Peabody Award-1974
Academy Award-1978
Cine Golden Eagle-1979
Selected Film Young Adults
American Library Assoc.-1981
Infinite Wish Award of the Year
Make-A-Wish Foundation -2009
Selected Screenings
WGBH-TV National PBS
Museum of Modern Art, New York
National Air & Space Museum &
Smithsonian Institution, USA

IMAX on Location

Filming TROPICAL RAINFOREST in Australia



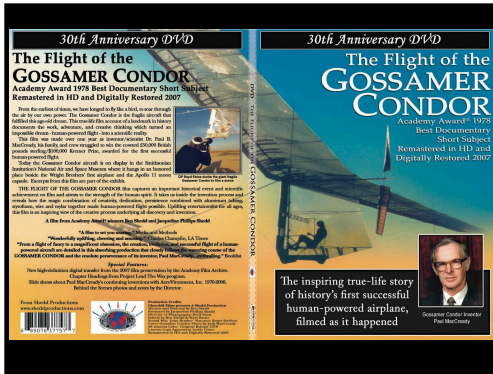
Director/Producer Ben Shedd with Director of Photography Timothy C. Housel

The IMAX Dome film RAINFOREST was filmed in new world and old world tropics, including the oldest rainforests in the world in Queensland, Australia. Location filming was done for 8 weeks on three different trips. Five hours of 65MM film was shot for the 38-minute final film. The film's main title fills the IMAX Dome screen translated into 32 languages of the world.



Ben Shedd Production Portfolio

THE FLIGHT OF THE GOSSAMER CONDOR - Shedd Productions, Inc.

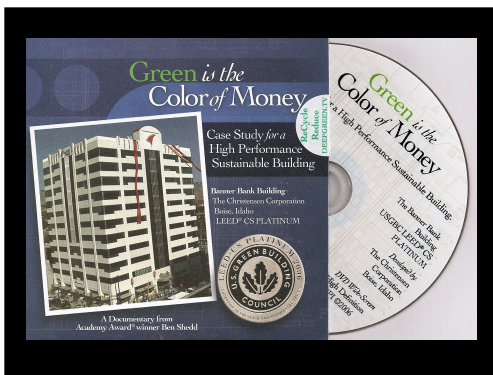


1978 Academy Award, Best Documentary Short Subject
Numerous other International Awards

Online Information & Preview at:

www.gossamercondor.com

30th Anniversary DVD, Restored and Remastered by the
Academy Film Archives - DVD Available on Request

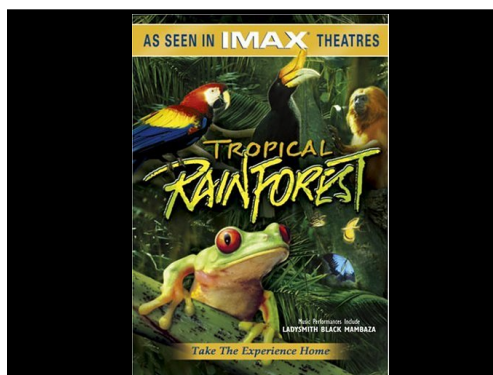


GREEN IS THE COLOR OF MONEY - Shedd Productions, Inc.

Accolade Award Best in Show, contemporary issues
“The production illustrates the power of a documentary to foster technological change.” 2007

Online Information & Preview at: www.deepgreen.tv

DVD Available on Request



TROPICAL RAINFOREST - Shedd Productions, Inc. - IMAX Dome

Originally Produced in IMAX Dome 70MM film in 1992, the TROPICAL RAINFOREST film is available on a recently released Blu-Ray DVD and on Hulu.com.

Online Information at: <http://www.smm.org/omni/rainforest>

Ben Shedd

Production Portfolio

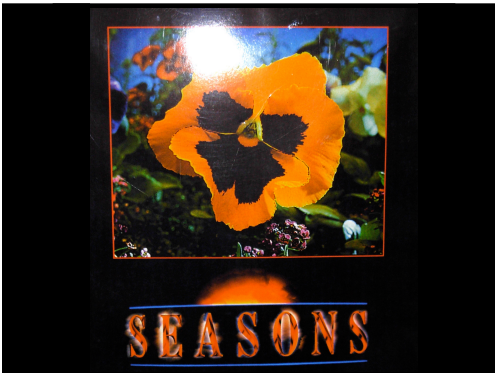
STAR WAITERS - Make-A-Wish Foundation of Idaho



THE INFINITE WISH AWARD 2009, from the National Make-A-Wish Foundation of America, chosen from 13,200 wishes granted in 2009 “for Bringing A Community Together To Grant A Child’s Wish.” All Pro Bono Project.

View STAR WAITERS and Behind The Scenes Doc on Youtube at: <http://www.youtube.com/watch?v=tdWC7JjeBTA>

SEASONS - Graphic Films - Format: IMAX Dome



Director/Producer/Co-Writer/Co-Editor

Narrated by William Shatner

FOUR SEASONS by Antonio Vivaldi

Performed by the St. Paul Chamber Orchestra
1987

Online Information at: <http://www.smm.org/omni/seasons>
DVD Available on Requests

NOVA series PBS - WGBH TV, Boston



Ben Shedd was hired in 1973 at WGBH-TV, Boston as Associate Producer on NOVA Production Team #1 for the very first NOVA production - WHERE DID THE COLORADO GO? - and on production #4 during NOVA’s Season #1. In NOVA Seasons #2 & #3, Ben produced and directed four NOVA programs. Ben shares a 1974 George Foster Peabody Award for NOVA Season #2. As NOVA heads towards its 40th season on PBS, early sample videos are rare, but available. [At NOVA...](#)

Ben Shedd-External Grant Funding

Grant Funding Support for Ben Shedd's Science and Humanities Film Productions and Research in Exploding The Frame, developing a visual design language for production of large-scale moving image media, with an additional emphasis in creating effective science literacy and lifelong learning.

NOVA PBS Science Television series Funded by Grants from the Polaroid Corporation, Corporation for Public Broadcasting, and the US National Science Foundation. First three seasons. [\$?]

THE HOMEFRONT US National Endowment for the Humanities Film Production Grant. NEH-funded documentary about the social and economic impact of World War II on this country (1985) \$215,000

TROPICAL RAINFOREST IMAX Science Film made possible by grants from the John D. and Catherine T. MacArthur Foundation Production Grant \$450,000 and the US National Science Foundation Informal Science Education Production Grant \$506,672 to the Science Museum of Minnesota. With additional funding from the Science Museum of Minnesota Revolving Production Fund \$1,143,328 and the Jostens Foundation.

GIANT SCREEN FILMS AND LIFELONG LEARNING SYMPOSIUM US National Science Foundation Informal Science Education Conference Grant Co-Principle Investigator \$38,960

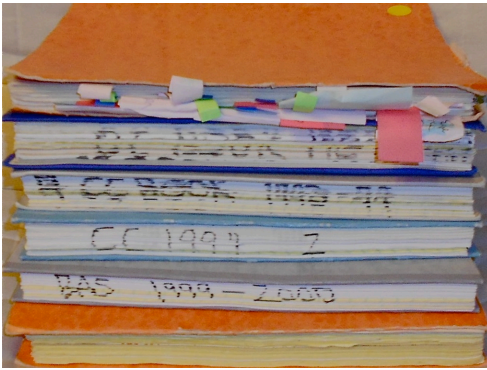
ALDEN B. DOW RESIDENTIAL CREATIVITY FELLOWSHIP - Summer 10 week Residency at Northwood University. Research on aesthetic similarities and differences between small screen productions and giant screen production design. Also supported by a research grant from the Science Museum of Minnesota. Total ~\$20,000

SENIOR RESEARCH SCHOLAR & LECTURER Princeton University Intel Fellow [1 year] and faculty funded research and teaching from the SHRIMP (Scalable High-performance Really Inexpensive Multi-Processor) project research grants from the US National Science Foundation, the US Department of Energy, and Intel Foundation [5 years ~\$300,000]

WHITE PAPER Potentials for Expanding Scientific Literacy through Giant Screen Films, made possible by a grant from the office of Emlyn Koster PhD, President and CEO of the President, Liberty Science Center, Jersey City, New Jersey \$7,500

EXPLODING THE FRAME Research by Ben Shedd

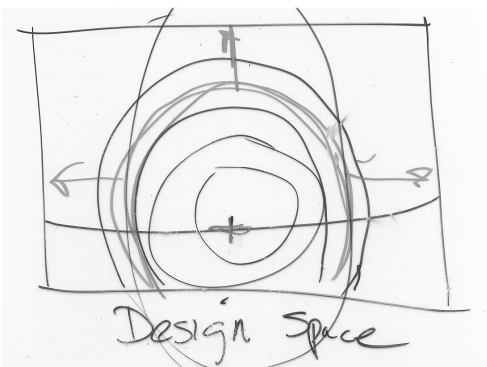
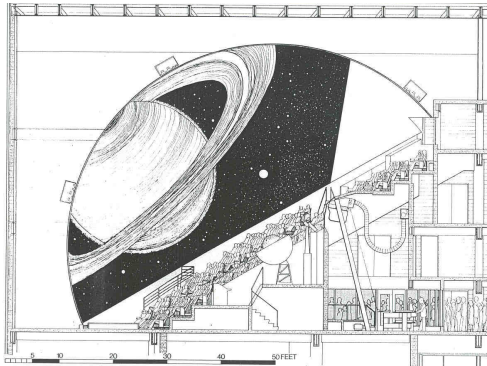
Research Area: Filmic language design for high-resolution, large-scale, large-size digital & cinematic screens and making accurate, effective science media, including on digital display walls taller than 6feet/2meters, IMAX/IMAX Dome scale screens Full Dome Digital Planetariums, or any dome projection where the outer frame of the image is outside the viewer's point-of-view.



The initial concept is set forth in my 1989 paper/presentation **EXPLODING THE FRAME: Seeking a New Cinematic Language**. This first paper states my research problem in its opening two paragraphs:

“In cinema as we know it, there is a language of filmmaking which has developed (wide shot, close-up, over the shoulder, stage line, moving shots, static shots, effective edit points, sound cuts, music cuts, etc.) which we all use, even as we bring our own individual styles to making films. As far as I can tell, all of these working rules are dependent on the image being shown within a frame. It is the common frame of reference for all of our work in film or television.

The new 70mm gigantic screen film, with projection screens 60 to 80 or 90 feet wide and 3 to 5 or 6 stories tall, and with film frames 5 to 10 times the area of 35mm film format, has created cinema projections where we can't see the edges of the frame. The whole group of giant screen film formats [*and all the new high-resolution, large size digital screens and domes - note added in 2012*] have one thing in common: the gigantic images extend the edges of the projected film image to the edge of our peripheral vision or even beyond it. I believe we are not just talking about bigger films here, but a new cinematic world. It is a frameless view, an unframed moving image medium. I think the language of the gigantic screen cinema is still being invented, and I believe it is different from what we, both filmmakers and audiences, have come to know and understand.”



This research grew directly from my producing and directing an IMAX Dome film called **SEASONS** and realizing early on that my extensive experience producing and directing movies and television needed rethinking. A full summer residential Creativity Fellowship provided the support to do the first level of deep analysis. The full paper at: <http://tinyurl.com/dx2ke2m> spells out ways to work with this new “frameless cinema” and

I have successfully used and expanded this esthetic in making IMAX Dome films and large scale digital displays. I have also given numerous talks and presentations about **EXPLODING THE FRAME** and used it as the basis for six years as a Senior Research Scholar & Lecturer at Princeton University teaching and experimenting with two wall-size digital high-resolution screens.

EXPLODING THE FRAME Research by Ben Shedd

Research work and materials to date include:

- 10 week Residential Fellowship from the Alden B. Dow Creativity Center at Northwood University and grant support from the Science Museum of Minnesota for research and testing/using my “Exploding The Frame” cinema language;
- Extensive original written, drawn, and photographed concepts and solutions;
- Production of 4 giant screen IMAX/OMNIMAX dome films shown worldwide, supported by production grants from the John D. and Catherine T. MacArthur Foundation and the USA National Science Foundation;
- Extensive endnote resources;
- Extended correspondence with gestalt psychologist and Professor Emeritus Rudolf Arnheim, author of noted books such as *Film As Art*, *The Power of the Center* and *Visual Thinking*;
- Discussions with author/designer Edward Tufte and teaching using his design books, including *Visual Explanations*
- Numerous public technical presentations and publications about Exploding The Frame, including at the Giant Screen Cinema Association [GSCA - the international association for IMAX and IMAX Dome filmmaking], a SMPTE Annual Meeting [Society of Motion Picture Technicians and Engineers], a SIGGRAPH Annual Conference course [*Principles of Immersive Imagery*], IEEE Graphics Conference, Mitre Corporation, and an IMERSA Full Dome Summit;
- National Science Foundation sponsored GSCA Symposium [*Designing Effective Giant Screen Films*];
- Extended research and 6 years teaching with 6.5ft/2m by 18ft/5.5m high-resolution [6.3 million pixels and 17.1 million pixels] experimental digital display walls at Princeton University’s Department of Computer Science;
- Several Exploding The Frame themed essays available online <http://tinyurl.com/d5owxxv>;
- Original *Exploding The Frame: Seeking a new cinematic language* paper, updated and published in the LF [Large Format] Examiner, April 2012.

Exploding The Frame in the near future: I’ve recently been asked by several leaders in the giant screen field to publish my work, for professional use and for several academic programs beginning to teach this field of study.

I have recognized I need a base for publishing my research into workable text and digital apps and, with my 33 years teaching adjunct courses at several universities while producing films/videos, I now seek a full-time professorship at a major university to teach production and publish my research.

EXPLODING THE FRAME Research by Ben Shedd

Research Sample - Making Useful Science and Technology Media.

I wrote the following paper in 1998 for a presentation at an International Space Theater Consortium [ISTC] Annual Meeting. This organization is comprised of IMAX/Giant Screen Filmmakers, Distributors, and Exhibitors from around the world. At that time, IMAX/Giant Screen theaters were primarily film-based theaters in Science Centers and Natural History Museums. Several of us were asked to consider this media industry 7 years into the future. While a few of the details in this paper refer to specific events from that time, the overarching ideas speak directly to ways to effectively present science content through moving image media - and they remain vital and useful now in 2012. Among the changes that have happened in the past 14 years, the ISTC is now named the Giant Screen Theater Consortium [GSCA]. As I wrote near the conclusion about making effective science and technology media: "Movies, and especially giant screen films, leave deep residual impacts, deep memories. Making those memories useful for prolonging our lives will create great value."

[There is a one page condensed summary of this 2.5 page paper on the last page of this document.]

VISION 2005

by Ben Shedd ©1998 *Online Corrections: 02/06/08*

While preparing for this talk, I gathered together some data about growth curves being projected by 2005 which will create deep cultural changes. The population of our planet is increasing at 1.8% growth per year, growing by 250,000 people everyday, 90,000,000 people a year. In seven years, there will be an additional 630 million people on our planet, a 10% increase over today's population.

By 2004, the goal is for computer calculating power to reach speeds of 100 terraflops of calculations per second. The metaphor I read to understand that number is to imagine one person using a hand calculator for 3,000,000 years. That much calculating power every second. I recall learning that putting humans on the moon was a project with a million steps in ten years. Imagine what kinds of problems we will solve with that kind of computational capacity.

It goes without saying, but this is a discussion to say these things: Internet usage will be pervasive. Worldwide wireless constant connectivity will be pervasive. Computer assisted thinking will be pervasive. Moving images will be everywhere. It's within that framework of our probable future that I appreciate the opportunity to offer my views in this forum.

I am thinking about how the giant screen industry has been a global community since its inception. These ISTC meetings have been our interconnection, our Internet for two decades, a worldwide community sliding around the surface of the planet every year in a continuing international dialogue. The idea of telling stories for the entire world is not something that we have to learn or will be new to us in 2005. Recognizing this uniqueness will provide a competitive advantage in the marketplace.

[continued]

By next year, high definition television - HDTV - with its ultra sharp imagery and variable frame rates will be spreading everywhere and will be setting the standard for moving image media. Sports events will be broadcast on HDTV at up to 60 frames per second, a screen refresh rate that will make action seem quite life-like. One way for the giant screen format to stay competitive is to reinvent ourselves one more time by upgrading to a higher frame rate of 48 frames per second, providing higher refresh rates and smooth movements, especially in images of humans. Anyone who has seen the film Momentum or the IMAX HD Ride film running at 48 frames per second or any slow motion image appearing virtually jitterless on a giant screen will recognize this upcoming change in a flash. Humans come alive on the giant screen at 48 frames per second.

With all of the interactive formats everywhere, the giant screen film technology will offer a unique experience just from the fact that we can't turn off the projector once a film starts running. Any long linear chunk of time spent on one idea, such as watching a giant screen film, will be unique and treasured and valuable, and will provide a market opportunity.

For the last 20 years, computer technology has been doubling in chip density every two years while keeping costs the same while display technology has only doubled in capacity every decade. But now its possible to create real-time computer imagery with the same amount of pixel density as giant screen film images. Relative costs for giant screen computer displays will be an inhibiting factor for only a few more years. Giant screen moving images will soon be all around us. This organization will be larger in 2005 by the inclusion of giant computer screens as well as giant film screens. I am excited by how we will have moved beyond the big technology as the attraction and we will be face to face with the core question of what's the content?

The giant screen cameras have been as far as film cameras will go, on journeys all over the planet and in the near atmosphere. If any group collectively deserves the T-shirt reading "Been There, Done That", its this group. Of course how we wear that T-shirt with its 2000 armholes is at the very heart of this discussion. With the great library of all those places already on film, now we have the vast space of our minds, the ideas we've created, to explore and travel through.

This discussion today occurs just when the imagery we can create through digital manipulation can produce the appearance of anything we like. We make social decisions sometimes based on what we see in movies and media. The ideas in a giant screen film are replicated tens of millions of times as audiences' watch and listen. Perhaps the biggest challenge to our industry will be developing and holding credibility and trust in our audiences that what we present is authentic and adds to our lives.

[continued]

I am imagining that someday - soon perhaps - an audience member will make a genuine scientific discovery while watching a giant screen film, a discovery based on seeing something new from the very fact of the huge magnifying capability of the projection system. Already US and Russian engineers have used the giant screen images produced by the IMAX team taken on MIR to study its operations, using the vast screen to see all the details.

Our best films tell us what it is to be human, they become a mirror for us to consider ourselves in, and they are profoundly affecting. The vast screen space we work in can display our human activities on the global scale, easily showing a crowd of 60,000 or views of our planet's surface seen from space. That is unique and is nothing that any other media can do. This large scale is appropriately matched to the scale and impact of human activities, which we will want to understand as we make decisions about our future.

I am looking at all the 20 to 25 year old students in my University classes and recognizing that it is their voices - wise, literate, worldly - which will be creating major giant screen statements in 7 years. Many of them were born just when the ISTC began and have had giant film screens as part of their experience for their whole lives. These young adults were born a generation after the discovery of DNA and a decade after humans walked on the moon, and the world just comes that way for them. One thing I am sure of. In 2005, the ISTC will be older than some of its members who will be making the giant screen programs.

In the motion picture business, big box office success is measured by repeat business, by making films which people return to time and time again. For continued growth and success, giant screen films will want to follow this model and be so great, so well-crafted with such care, so moving, that people leave the theater saying "I've got to bring my friends back to see this movie." Not just "That was great." or even "I learned something." but "I've got to tell my friends, and I've got to bring them back to see this movie - and I can't wait to get the video or DVD or download it digitally on the Internet."

Movies, and especially giant screen films, leave deep residual impacts, deep memories. Making those memories useful for prolonging our lives will create great value. Films which point toward a healthy sense of community. Films which are cognitively accurate with real world actions. Films which model self worth. Films which provide ideas and insights that make life more secure.

With an audience of over 65 million giant screen viewers a year, this industry is right now reaching one percent of the earth's population. Imagine the opportunities for growth. I believe the central issue for the future will be "who has credibility as a provider of real data?" In a world awash in visual imagery, the advantage will go to those who have demonstrated reliability in providing useful, inspiring, life-enhancing, life-prolonging information.

Thank you for considering my ideas. VISION 2005 Online at: <http://tinyurl.com/pnrxuzm>

EXPLODING THE FRAME Research by Ben Shedd

VISION 2005 - One Page Condensed Summary Excerpt

by Ben Shedd ©1998 [Written 1998 - Online Corrections: 02/06/08 - Summary 08/19/12]

While preparing for this talk, I gathered together some data about growth curves being projected by 2005 which will create deep cultural changes. The population of our planet is increasing at 1.8% growth per year, growing by 250,000 people everyday, 90,000,000 people a year. In seven years, there will be an additional 630 million people on our planet ...

By 2004, the goal is for computer calculating power to reach speeds of 100 terraflops of calculations per second. The metaphor I read to understand that number is to imagine one person using a hand calculator for 3,000,000 years. That much calculating power every second. I recall learning that putting humans on the moon was a project with a million steps in ten years. Imagine what kinds of problems we will solve with that kind of computational capacity.

It goes without saying, but this is a discussion to say these things: Internet usage will be pervasive. Worldwide wireless constant connectivity will be pervasive. Computer assisted thinking will be pervasive. Moving images will be everywhere. It's within that framework of our probable future that I appreciate the opportunity to offer my views in this forum. ...

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