

W. Bradford Paley
Background Information
Updated September 20, 2002

Biography

W. Bradford Paley is a recognized innovator in the fields of interface design, scientific visualization, and information presentation.

Mr. Paley started doing computer animation for advertising in 1982. Finding production tools almost non-existent he began writing his own, soon realizing that building a comfortable tool was more challenging and interesting than doing the animation itself. Building computer interfaces became his career. He founded Digital Image Design Incorporated in 1982, and devoted it to the task of creating comfortable, clear user interfaces and visual interpretations of data.

In 1994 he was the founder of, and lead designer in, the most technologically advanced and successful Financial Data Visualization group on Wall Street, still operating at J.P. Morgan; as well as founder of the first significant commercial Financial Data Visualization team, at Lehman Bros. (in 1989). He developed the first commercially available non-immersive Virtual Reality: *inScope*, and then invented and manufactured a physical interface tool to use with it: the ID Magazine award winning 3D mouse: *the Cricket*. In 1995 he invented and manufactured the industry award winning animation input device: *the Monkey*, sold to over 100 animation and research facilities worldwide.

His company developed the Tide Clothesline Web site, winner of dozens of industry awards. He was the lead designer of a groundbreaking interface for a wireless handheld device for the New York Stock Exchange—now in use by all Goldman Sachs brokers—then applied similar “Illustrative Interface” techniques to equities trading as a founding member of Financial Workbench, a seed-funded startup company. He is currently applying these techniques for the New York Stock Exchange and other major financial institutions. Most recently he designed and developed TextArc, a visual analysis tool for arbitrary text files.

Education

University of California at Berkeley, Bachelor of Arts in Economics, 1981
Unofficial minor: Computer Science; Phi Beta Kappa;
GPA in major 4.0/4.0, overall 3.86/4.0

Publications

- W. Bradford Paley, *Head-tracking stereo display: experiments and applications*
Proc. SPIE, Vol. 1669, June 1992, pp. 84-89
- W. Bradford Paley, *Immersion or Desktop Virtual Reality?*
Virtual Reality Systems Magazine, Vol.1 No.1, 1993, pp. 18-20.
- W. Bradford Paley, *Why Use a Cricket 3D Interaction Tool?*
Virtual Reality Systems Magazine, Vol.1 No.2, 1993, pp. 18-20
- Chris Esposito, W. Bradford Paley, JueyChong Ong, *Of Mice and Monkeys: A Specialized Input Device for Virtual Body Animation*,
ACM 1995 Symposium on Interactive 3D Graphics, pp. 109-114, 213
- W. Bradford Paley, *Designing Special-Purpose Input Devices*
Computer Graphics, Vol.32 No.4, November 1998, pp. 55-59, 101

Juried Presentations

- 1995 Good Design Exhibition, the Chicago Athenaeum; October 10, 1995;
Cricket 3D Interface Device, with Eric Chan
- SIGGRAPH '99 Sketches and Applications talk; April 6, 1999
Handheld Interactions: Tailoring Interfaces for Single-purpose Devices
- Second International Symposium on Handheld and Ubiquitous Computing, Sept. 2000
Demo and talk about Goldman Sachs handheld wireless device interaction design

Museum of Modern Art, New York: Workspheres exhibition, February 8 - April 22, 2001
MindSpace: interactive information design
SIGGRAPH 2002 Working Artist Installation, SIGGRAPH Art Gallery, July 21-26, 2002
TextArc prints, live printmaking, and interactive touch-screen plasma displays
IEEE Symposium on Information Visualization 2002 (InfoVis 2002), October 28-29, 2002
Interactive Poster: *TextArc: Showing Word Frequency and Distribution in Text*
IEEE Symposium on Information Visualization 2002 (InfoVis 2002), October 28-29, 2002
Interactive Poster: *Illuminated Diagrams: Using Light and Print to Comparative Advantage*

Informal Presentations

Merrill Lynch Technology Expo 2000; New York, NY; November 29, 2000
Financial data visualization and interaction design
UIST 2002: The 14th Annual ACM Symposium on User Interface Software and
Technology; Orlando FL; November 11-14, 2001
TextMap demonstration (later became TextArc)

Invited Talks

AIGA Collision, American Institute of Graphics Arts; New York, NY; April 14, 2000
Invisible Computing Conference, SIGGRAPH NY/Digital Image Design; New York,
NY; February 18, 2000
MIT Media Lab, Colloquium; Massachusetts Institute of Technology; Cambridge, MA;
February 21, 2001
Smart Graphics 2001; Hawthorn, NY; March 21, 2001
NYU'S 5th Annual All University Conference on Self-Employment, Business
Ownership, and Entrepreneurship, New York University; New York, NY; April 21, 2001
Mitsubishi Electric Research Labs (MERL Cambridge Research); Cambridge, MA;
June 7, 2001
Illustrative Interface Design, Guest lecture in User Interface Design (CS W4170),
Dept. of Computer Science, Columbia University; New York, NY; Nov. 27, 2001
NYU'S 6th Annual All University Conference on Self-Employment, Business
Ownership, and Entrepreneurship; New York, NY; April 20, 2002
The Humanities and Social Sciences Federation of Canada, Congress of the Social
Sciences and Humanities, Humanities Computing and Emerging Mind Technologies;
Toronto, Ontario, Canada; May 27, 2002
Banff Centre for the Arts, Banff New Media Institute: Quintessence; Presentation of Wall Street
design work, TextArc, CodeProfiles; Banff, Alberta Canada; September 14, 2002
New York Public Library; New York, NY; Cam forum lecture, November 2002

Panels

Dance and New Media (Panelist), host Jennifer Dunning, New York Times; the Foreign
Press Center, New York; June, 1995
SIGGRAPH '98: The Sorcerer's Apprentice: Invoking Ubiquitous Computing for Computer
Graphics (Panel Chair), SIGGRAPH; Orlando, FL; July 22, 1998
Convergence and Knowledge Management Conference (Panelist), The Basex Institute;
New York, NY; June 7, 2000
Edgewise '00: New Interaction Design Strategies (Panelist), Edgewise; New York, NY;
October 5, 2000
Masters in Industrial Design Final Critique, (Invited committee member) University of
the Arts; Philadelphia, PA; May 15, 2002
Database Cultures (Panelist), Lower Manhattan Cultural Council; New York, NY;
May 23, 2002

Conferences Organized

Invisible Computing Conference, Co-organized with SIGGRAPH NY (Program Chair);
New York, NY; February 18, 2000

Conference and Program Committees

Smart Graphics 2000, Smart Graphics (Program Committee); Stanford, CA;
March 20-22 2000

Living with the Genie (Conference Committee), Center for Science, Policy, and
Outcomes, Columbia University; New York, NY; March 5-7 2002

Smart Graphics 2002, Smart Graphics (Program Committee); Hawthorn NY; June 11-13

Patents/Applications

Three-dimensional mouse with tactile feedback

US Patent number 5,506,605

Method for Visual Analysis of Word Frequency and Distribution in a Text

Patent pending

System and Method for Verifying an Individual's Identity

Patent Pending

Selected Art Exhibitions

Amazon; Worms: an installation of behavioral animation on Atari computer; New York,
NY; June, 1985

5.1: Six Evenings of Experimental Surround-Sound, Tonic; Ripples and Sparks: two flat
panel interactive "toys"; New York, NY; January 10-14, 2001

Museum of Modern Art; Commission for Workspheres exhibition: Mind'Space,
interactive information design; New York, NY; February 8 - April 22, 2001

Banff Centre for the Arts, Banff New Media Institute: Unforgiving Memory Summit;

First presentation of TextMap (now TextArc); Banff, Alberta Canada; August 23, 2001

Living with the Genie; Center for Science, Policy, and Outcomes, Funders Working Group
on Technology, Columbia University; First major installation of TextArc: 8 prints,
2 projected images, 2 plasma panels; New York, NY; March 5-7, 2002

TextArc Web site launched; <http://textarc.org>; April 15, 2002

Whitney Museum of American Art; Commission for CODEDOC exhibition: an exhibition
in the Artport online gallery (<http://artport.whitney.org>); New York, NY, September 16, 2002

New York Public Library; TextArc Plasma Panel: a 41" touch-screen TextArc tuned for
collaborative exploration and teaching; New York, NY; November, 2002

Grants and Awards

1994 40th Annual Design Review: Equipment, Design Distinction Award
(for the Cricket); I.D. Magazine

1994 Editors' Choice Award (for the Monkey); Computer Graphics World

1996 Technical Innovation Award (for the Monkey 2); Computer Graphics World

2002 New York State Council for the Arts Individual Artist Grant; for TextArc Plasma Panel
Edition 1 prototype

Popular Press

June, 2000; I. D. The International Design Magazine (four-page article with images of the
Goldman Sachs handheld wireless device interaction design)

February 9, 2001; Newsweek Magazine (image and caption of Mind'Scape)

February 19, 2001; The New York Times (description: information design, Mind'Scape)

April 15, 2002; The New York Times (1400-word illustrated article on TextArc)

September 16, 2002; the New York Times ("[some of] the most remarkable work" in CODEDOC
exhibition online at the Whitney Museum of American Art)

Other Interests

Art history, experimental (structuralist) film, hiking and camping, canoeing, in-line skating,
perceptual psychophysics, cognitive psychology, jazz, modern classical music