THOMAS M. WILCOX
DESIGNER, PRODUCER
Selected Projects, 1988 to 2006
tmwilcox@gmail.com

TABLE OF CONTENTS

Games and Children's Education Products

Title: : **Colonial Williamsburg Electronic Fieldtrips: The April Conspiracy** – Educational rich-media Internet program. Developed by Wilcox Media, Petaluma, California. Published by The Colonial Williamsburg Foundation, Williamsburg, Virginia, 2001.

Credit: : Design, Programming, Producer

Contribution: : Developed an interactive learning object on the American Revolutionary War to augment a PBS television simulcast. Created an experiential learning environment encouraging exploration and contextual learning. Contents included a mediated communication component allowing teachers to ask questions and deliver instructions to students during the simulcast. Additional components included interactive units on economics, primary sources, plus an animated events timetable. Designed the product's look and feel for extensibility over a series of Electronic Fieldtrip products. Prepared the product to accommodate future integration of streaming video. Prepared the main program and organized content files for cross-media publication on the Web and CD/DVD-ROM. Worked closely with the Director and staff of the Colonial Williamsburg Foundation's media development arm. Instructed staff in the fundamentals of interactive multimedia product design and development for the consumer marketplace. Instructed the video and sound studios on techniques for capturing and organizing digital content for efficient cross-media publication. Gained the staff's trust and support during on-site design and development meetings while leading them toward a more robust, educational multimedia development capability.

Special Features: : Customizable application allowed non-technical staff to update e-mail addresses and HTTP and SMTP server information with a text editor. Interface design accommodated

touch-screen input. Director-Shockwave development environment accommodated potential distribution of the product without modification on CD/DVD-ROM.

Title: **Mindforge Fractions** – Educational CD-ROM for IBM PC and Macintosh computers. Developed and published by Mindforge, Inc., Burlington, North Carolina, 1998.

Credit: Director, Producer

Contribution: Created the product prototype used in a research study on the effects of animation on learning conducted at the University of North Carolina at Chapel Hill. Secured funding to launch an educational software startup to develop and publish the product for the consumer and education marketplaces. The company of eight employees included 2D and 3D artists, a programmer, sound designer, marketing manager, and a web server engineer and database developer. Served as general manager, designer, director, and producer. Directed the programming, graphical interface design, audio design, original music development and recording, 3D character design and animation, product documentation and packaging efforts. Supervised the development and maintenance of a content driven, e-commerce web site. Directed the grass-roots public relations and marketing campaigns. Interfaced with investors providing analysis of current and future product development, and the overall health and viability of the company during peak years of the dot-com bubble from 1996 to 1999. The company disbanded at the end of that period despite critical acclaim for this flagship product. *Mindforge Fractions was identified by educational software critics as an early example of interactive design built upon contemporary theories in educational and cognitive psychology. The product received a Doctor Toy Award in the category Top 100 Products of 1998.*

Special Features: First to fourth grade students are required to perform at a minimum 80% mastery level before moving automatically to the next level of representation, (icons, words, and symbols), and before moving to the next topic of instruction (parts of a whole, relative size, parts of a set). The software checks for topic mastery and retention by continuous response-data analysis and by revisiting material from previously mastered levels of representation at a frequency relative to the student's overall performance. Students chose one of five 3D animated instructors, each with their own idiosyncratic behavior, variable voice track sequenced at run-time, and theme song.

Title: **Gail E. Haley's Bearlie Believable** – Storytelling CD-ROM for IBM PC and Macintosh computers. Developed and published by Mindforge, Inc., Burlington, North Carolina, 1997.

Credit: Director, Producer

Contribution: Researched and identified North Carolina authors of children's storybooks. Selected and signed the top-selling, internationally acclaimed author within that region. Negotiated the author's publishing contract. Attended to the author's requirements and comfort while living and working on-site at the company's studio. Employed state-of-the-art digital and traditional photography to capture the author's studio performances with hand-made miniature stage sets, props, and story characters. Directed and produced the original music sound track. *At investor's request, redesigned the product bypassing stop-motion animation sequences called for in the original design in an effort to accelerate the release schedule.*

Special Features: A web site developed in tandem with the CD-ROM presented teaser versions of the complete stories in a weekly series using scaled-down imagery and no audio track. The CD-ROM doubled as a children's music and story album for audio CD players.

Title: **The Pagemaster** – Entertainment CD-ROM for IBM PC computers. Developed by Mammoth Micro Productions, Golden, Colorado, in cooperation with Fox Films, Los Angeles, California. Published by Turner Interactive, Atlanta, Georgia, 1995.

Credit: (Withdrawn on request and later reintroduced by the publisher)

Contribution: Recruited by the developer to promote the product concept to Turner Publishing executives in Atlanta, GA. Hired as the Producer and given responsibility for all phases of product development. Developed concepts for game challenges, user interface design, and for a proprietary game level editor. Developed an animation production technique for digitizing original cels from the traditionally animated motion picture. Cooperated with the animation studio in Burbank, CA to establish a work-flow for retrieving game content without impinging the movie production schedule. Established a routine for capturing alternate game story dialog from the movie actors. Directed the conceptual design and development of navigable 3D environments. Developed concepts and wrote specifications for a game engine that could extrapolate unique story sequences in real-time. Toward that end, worked closely with the lead engineer to evaluate the potential and to describe the implementation of an inference engine and fuzzy logic algorithms. Identified, signed, and directed a motion picture screen writer in the creation of additional dialog and back-story for the non-linear medium. *Resigned from the company in response to investor's demand for a traditional motion picture producer. The product shipped without the majority of interactive, environment-driven game challenges and variable story sequences called for in the original design. Screen and box credits were withdrawn.*

Title: **Max Magic** – Entertainment CD-ROM for Pillips CD-I. Developed by P.F.Magic, San Francisco, California. Published by Phillips Interactive Media, Los Angeles, CA, 1994.

Credit: Designer

Contribution: Introduced to the production one year after conceptual design and prototyping had begun. Provided an alternative perspective on product design and market positioning in view of a widely misunderstood set-top-box hardware platform. Garnered the support and trust of the development team including software engineers, graphic artists, a screen writer, acting and voice talent, an audio engineer, and the creative director. Prepared hand-drawn conceptual sketches and storyboards for revised screen layouts and interface design. Developed interactive prototypes demonstrating milestone achievements to the publisher and investors. Analyzed video tapes of focus groups to identify problem areas in user interface flow-of-control, pacing of exposition and interaction, and the product's overall look and feel as perceived by the target age group. Consulted with the content expert, a celebrity magician and mentalist, to identify key areas of his stage performances for adaptation to an interactive computer medium. Proposed and developed a character animation technique using a computer-numeric-controlled mannequin for harvesting hundreds of facial feature and head position graphics in absolute registration. Proposed and developed a technique for assembly and display of the head and face bitmaps at run-time triggered by markers inserted into the voice track. This advanced the production schedule by avoiding the laborious lip-syncing of myriad voice and facial feature combinations. Proposed additional heuristics governing the character's moods and emotions, resulting in a lively, un scripted appearance. *Max Magic was recognized as an early example of a convincing performance by a "synthespian", winning an International European Multimedia Award (EMMA) for Best General Interest Title of 1994.*

Special Features: A game training simulation providing formatted, public performance rehearsal opportunities for kids. This removed a key impediment to product acceptance by the target age group revealed in early focus testing.

Title: **<u>Where In The World Is Carmen Sandiego? Deluxe Edition</u>** – Entertainment and Education CD-ROM for IBM PC and Macintosh computers. Developed and published by Broderbund Software, Inc., San Rafael, California, 1990.

Credit: Design Team

Contribution: After eleven months with the company, selected by corporate leadership to work with a team of in-house developers on this confidential, "skunk works" project. The leading microcomputer hardware manufacturer proposed that the company develop and publish the first ever CD-ROM game for their as yet unreleased Multimedia PC under the original MPC-1 Specification. Developed techniques for high-resolution scanning and processing of photography licensed from the leading cultural and geographic journal of photography. Researched manufacturers of 35 mm film scanners that included image processing software suitable to a large-scale production environment. Cooperated with the scanner software engineers to develop additional functionality to benefit the production. *This image processing software was later sold to Adobe, Inc., and was renamed Photoshop.* Proposed and developed a technique for enhancement and multi-resolution archiving of digitized photography. Proposed and developed a method of representing the video display characteristics of several hardware platforms on a single computer. To that end, identified and cooperated with a manufacturer of video overlay boards to produce custom drivers running on the first color Macintosh II allowing run-time switching of video modes to emulate IBM and Amiga displays. Documented the procedure, wrote training guides, and instructed Art Department personnel how to use the system to produce platform ports of the product's graphical assets. Worked closely with the original game designers to redesign the product interface and visual content to take advantage of the new high-resolution video modes, stereo sound, and optical storage capabilities of the target platform. Provided hand-drawn sketches and storyboards, plus computer-graphic layouts representing multiple design concepts and production methods. Proposed and developed a technique for demonstrating to the production team how the final product would look and sound. To that end, identified a publisher of animation software who had recently added a scripting language to their product for interactive presentations and animation. Cooperated with the developers during beta testing to employ their product as an interface design and prototyping tool. *This animation software was the 1.0 version of Macromind Director, renamed Macromedia Director, and later published by Adobe, Inc.* Organized and directed the development of prototype content assets created by staff artists, animators, and sound designers. The result was identified as an early example of a multimedia software prototype representing the look and feel of a complex, interactive product, providing a concrete model to development teams, management, and investors. *Carmen Deluxe went on to win every major award in its class, including Outstanding Product of the Year by the Software Publishers Association.*

Special Features: A custom filter or convolution matrix imparted an unusual, painterly appearance to licensed photographs. This fulfilled a requirement by the copyright holder to make obvious alterations to photographs that had previously appeared in their popular, monthly magazine.

Title:	**Shufflepuck Cafe** – Arcade game for Amiga computers. Developed and published by Broderbund Software, Inc., San Rafael, California, 1989.
Credit:	Additional Graphic Design
Contribution:	Re-designed the game's original 1 bit black-and-white graphics to take advantage of Amiga color displays. Employed early versions of commercial and proprietary 16 and 24-bit paint software on the Macintosh II to emulate the color capabilities of the Amiga; the first desktop platform to provide native, true-color graphics. Worked closely with the engineering team in Paris, France, providing direction on the upgraded product's look-and-feel. Developed a methodology and provided instruction to Art Department personnel.
Special Features:	A total makeover of the game's appearance including characters and environments that referenced the oil painting used in the original product packaging as a style guide. Seventeen years after it was first published the product's appearance was receiving critical recognition by enthusiasts and collectors of classic computer games.

Title:	**Centauri Alliance** – Fantasy role-playing game for Apple II and Amiga computers. Developed and published by Broderbund Software, Inc., San Rafael, California, 1988.
Credit:	Graphics and Animation
Contribution:	Hired by the company to create a comic book-like appearance for a follow-up product to the game designer's previous hit roll playing game. Studied the practices and techniques of comic book illustrators. Developed hand-drawn sketches and storyboards. Employed an arcane, proprietary graphics and animation tool for the Apple II and IIe computers. Worked within the constraints of a limited graphic display and game screen layout to provide compelling illustrations and animation of game characters, environments, and level graphics.
Special Features:	Unusual, hexagonal-shape box that was criticized by retailers when the game was released, had become a collector's item eighteen years later by classic computer game enthusiasts.

Adult Training and Education Products

Title:	**The Bureau of National Affairs Sales Training And Reference Guide** – Adult education and reference program for the Internet and CD-ROM. Developed by Wilcox Instructional Media, Chapel Hill, North Carolina, for The Bureau of National Affairs, Inc., Washington, DC, 2000.
Credit:	Design, Programming, Producer
Contribution:	Proposed and developed a rich-media, interactive sales education and reference program for the leading legal and regulatory information publishing company. Implemented an intuitive interface enabling the product to double as a reference tool and programmed instruction. *Published for internal use by BNA Sales and Marketing personnel world-wide.*
Special Features:	The product included embedded, interactive quizzes, plus a secure, self-administered final examination that automatically tabulated and distributed trainee performance information to corporate management via e-mail.

Title:	**<u>Autodesk Project Path</u>** – Adult education and reference program for the Internet. Developed by Wilcox Media, Petaluma, California, for Autodesk, Inc., San Rafael, California, 2002 - 2003.
Credit:	Design, Programming, Producer
Contribution:	Proposed and developed a rich-media, interactive education and reference program for a project management makeover in Autodesk's Global Operations Division. Implemented a combination of technologies to organize hundreds of pages of documentation and instruction. Worked closely with a team of project management experts and an educational psychologist to hone the product interface and flow-of-control characteristics for a hyper-critical audience. *Published for internal use by Autodesk Product Managers world-wide.*
Special Features:	Engineered the program to allow non-technical staff to edit any component of the program content with a simple text editor.

Independently Developed Products

Title:	**<u>WilcoxMedia</u>** – Rapid Instructional Design and prototyping tool for the Internet and CD/DVD-ROM, Beta Version .9b. Developed and published by WMAD (Wilcox Media Art & Design), Harrisonburg, Virginia, 2004.
Credit:	Design, Programming
Contribution:	Developed a multimedia publishing environment originally intended as a Rapid Instructional Design tool. Designed the application to enable streamlined development of rich media, interactive web sites and CD-ROMs in the Adobe Director-Shockwave format. Since 2002, the product continues to grow and evolve and is currently in use as a platform for the development of college courseware.
Special Features:	Supports a range of digital media file formats for video, sound, graphics, and animation. Outputs plain text publication files accessible via HTTP in a web browser, and in a stand-alone application and run-time engine. Open architecture allows for extended functions via external Shockwave objects. Unique interface requires no external viewer or compiler to view publications during development.

Title:	**<u>Untitled Work-In-Progress</u>** – Developed by WMAD (Wilcox Media Art & Design), Harrisonburg, Virginia, 2006.
Credit:	Design, Programming
Contribution:	The product addresses the need and marketplace for Internet applications and desktop tools to augment the distribution, copyright security, and display of high-resolution digital images produced by drum and flatbed scanners and digital cameras. Current development track and design calls for a stand-alone, cross-platform application for download, an application with sample content distributed as boxed software on DVD-ROM, and a browser-based application demo with the File-Save function disabled.
Special Features:	Supports major digital image file formats. Includes a training function employing unique, animated interface elements illustrating the product's primary function.