

ANIMATED PAGES: THE VIRTUAL (R)EVOLUTION OF THE BOOK

By Deborah Cornell

ABOUT THE AUTHOR

Deborah Cornell is Chair of Printmaking at Boston University. This paper was based on a public lecture delivered for Pyramid Atlantic Book Arts Fair, November 2010.

THE CONCEPTS OF "BOOK" AND "PAGE" ARE ON THE MOVE, and are being reinvented in new forms. As electronic methodologies develop, established qualities of book and page more fully capture both time and space. This paper will expand the idea of the book and investigate its extended connection with various electronic media, specifically certain approaches to works in video and virtual reality. I used Johanna Drucker's characterization of a "book" as a working premise for this article. She defines something as a book "when it functions as a book, when it provides a reading or viewing experience sequenced into a finite space of text or images."1

Sequenced experiential space is a key element in this view of the book and as this element relates to time-based media, it often becomes virtual or dematerialized. The experiential space of a book depends heavily on progression and the concept of the page; thus one can use these terms to focus the book-like elements in the "non-book" works of six very different artists. This paper will refer to lively video and still works by Patricia Lobos Echeverria, Christiane Baumgartner, the Indonesian collaborative Tromarama, William Kentridge, and Edward Bernstein. It ends/concludes with one of my works in virtual reality. This is a varied menu, but quite amazingly all these works maintain a strong dialogue with Drucker's description of the book, and especially with time-based concepts of the page. These artists will be introduced by an example of an artist's book that closely embodies their book-like ideas.

Animated pages are exemplified in popular film by the moving pages often seen in Harry Potter movies. These video-like planes have become a metaphor for the absorbing effects of time-and-narrative based experience. Their fascination stems from our embedded "knowledge" of the printed page—mixed with a dose of technological imagination—and combined with the temporal progressions and narrative development we have come to expect from a book of pages.

Animation may seem like an unconventional place to find page-like characteristics. Nevertheless, six separate aspects of the page lend themselves to this expanded view, and are worth mentioning at the outset.

- The page represents a sort of internal parsed architecture that determines the form of the book's experience (Fig. 3).
- The page represents a division or interval of experience into a visually expressed series (Fig. 1).
- Sequenced pages create the space of a staged, imaginary narrative where their proximity is a key issue (Fig. 4).
- The page can accelerate in time to create a new form through transformation (Fig. 5).
- The page is a collector or repository of superimposed meanings. It is a place where juxtaposed or overlaid meanings can configure outward to become a larger narrative or whole (Fig. 6).
- Finally, the page can be a place where narrative is sometimes not related to order but to spatial experience. In this case, the association of meaning results from a total experience as opposed to a progression (Fig. 7).

THE PAGE AS A PARSED ARCHITECTURE

Elements of the folded book in Star Poems by Karen Hanmer parallel many of the book-like elements in the work of Patricia Villalobos Echeverria. For both artists, imagery



Fig. 2. Images of moving pages from Harry Potter films.

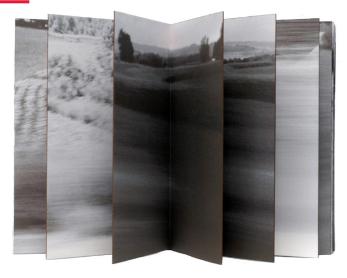


Fig. 3. Karen Hanmer Mirage 2009. 5.25 x 7 in. 16 pages.



Fig. 4. Frans Masereel Die Sonne 1927. Illustrated with 63 black and white woodcuts.

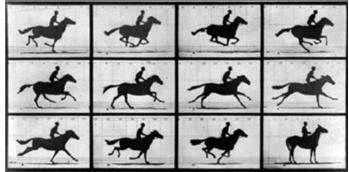


Fig. 5. Edward Muybridge The Horse In Motion $1878.\,Automatic\,\,electro-photographs.$



Fig. 6. Marcel Duchamp The Green Box 1934. 13 x 11 x 1 in.



depends on the fold, where the pages employ disjuncture, and where the internal parsing of the image determines the actual form of the book's experience.

Patricia Villalobos Echeverria is an American artist with Nicaraguan ties, who currently directs the School of Art at Western Michigan University. Her work concerns migration and displacement within cultures. Her installations tend toward book-like forms. For example, Echeverria's actual book, Convergencia, is linked conceptually to video installations that use elements of visual collapse and expansion, revelation and cutting-off, as their primary methodology of both delivering and effecting content.

Hoverings from 2005 is one of several installations that inform the images in Convergencia. It uses video projected on foam, with images of a body in water. Echeverria's architectural installation Aquasmalas (Blackwaters) from 2008 especially speaks to her book. It is a double video projection onto EPS foam objects suspended in space and flows continuously over the room's wall surfaces and corners.

The original six-minute video loop for Aquasmalas (www.patriciavillalobos.com/PVE/ aguasmalasvideo.html) gives a succinct picture of Echeverria's imagery. The installation's projections emphasize forward movement, but are divided by architectural elements, seeming to fold around corners as the motion of the video emphasizes visual connection and simultaneous disjunction.

Convergencia itself is an accordion fold book (7 inches high by 36 inches wide) with the paper pages printed on both sides. Its ten individual pages also function as a continuous page. One side depicts an unbroken image of a torso floating in the Pacific near Nicaragua. The other side emphasizes disjunction with individual images sequenced onto pages, each divided by a fold—a torso floating, a body on the beach, and suggestions of water and earth.

Echeverria writes, "I'm intrigued by the folding nature of cultural sites, within the context of globalization and a transnational economy . . . and how these have transformed the way that the body, the community, and nations function. There is a constant system of exchange between the margin and the center in a post-capitalist economy. This transcultural condition has become more universal due to the expanded nature of ourselves into virtualness and our multiple entrances and exits to various spheres. . . . "2

Echeverria refers to her combination of water, culture, and the body as an exchange that is "mutually contaminating." This contamination extends as a formal element into the various structures in her work. Ideas of division and continuity are found throughout her media, as interdependent expressions of her perception. The visual architecture of both



Fig. 8. Karen Hanmer Star Poems 2008. Edition of 30, 6.75 x 5.75 x .75 in. 36 pages. Pigment inkjet prints.

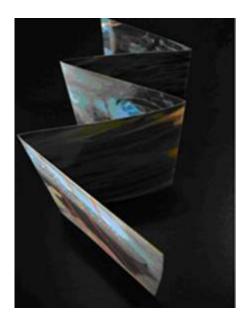


Fig. 9. Patricia Villalobos Echeverria Convergencia 2008. Edition of 5, 7 x 7 in. 10 pages.

^{2 (}Echeverria 2010)

³ Ibid.



Fig. 10. Patricia Villalobos Echeverria Hoverings 2005. Double video projection onto EPS foam. Installation view at Artist Image Resource.



Fig. 11. Patricia Villalobos Echeverria Aquasmalas (Blackwaters) 2008. Double $video\ projection\ onto\ EPS\ foam.\ Installation\ view\ at\ Media Noche\ NY.$



Fig. 12. Patricia Villalobos Echeverria Aquasmalas (Black Waters) 2008. Double video projection onto EPS foam. Installation view at MediaNoche NY.



Fig. 13. Patricia Villalobos Echeverria Convergencia 2008. Edition of 5, 7×7 in. 10 pages.

installation and book have a close relationship to the internal and external functions of connected concertina pages.

THE PAGE AS A MEASURED EXPERIENCE

In a great many book forms, the page divides experience into regular, visually generated, continuous time sequences. Similarly, in a book-like sequence by Rimer Cardillo, observation becomes a divided narrative. In this series, Cardillo photographed an owl he collected that had been hit by a car. He used six of these digital photographs, and projected them in a sequence of digital light boxes. He shaped the progression of wings in flight, transforming the single still animal into a series, so that the images attained the transformative function of sequenced pages.4

Likewise, Christiane Baumgartner's sequenced series are strongly tied to this idea of staged pagination. Baumgartner lives and works in Leipzig, Germany. She was a Masterscholar at the Leipzig Academy of Visual Arts where she learned printmaking, and then worked at the Royal College of Art in London, where she later adopted the video camera.⁵

Tryptichon is a sequence of large woodcuts from 2005 taken from a passage of video. Like Cardillo, Baumgartner is inspired by the visual play of projected sequenced images, but her interest is in the temporal transformation that occurs within the electronic signals of moving media. She sequences images to develop minute changes of position that differentiate moments of perception and movement, in staged presentation.

Baumgartner had the idea to combine the oldest technique of reproduction with the newest. She takes video of speedy and seemingly mundane situations, slows them down and divides them into page-like stages. Early on, she experimented with the rate of information density in both film and video stills (72 dots per inch at 25 frames per second), and with how low resolution of an image can go before the eye sees no image. (According to Baumgartner, 3 dots per inch can create an image at a distance.)6

In Eine Sekunde, from 2004, Baumgartner used video footage taken from a moving vehicle. Since the human eye sees more than the brain can quickly perceive, the whole is



Fig. 14. Rimer Cardillo The Barred Owl 2007. Six digital photographs mounted in black light boxes.



Fig. 15. Christiane Baumgartner Tryptichon 2005. Three woodcuts.

more than its perceived parts. She isolated one second of material into its separate 25

^{4 (}Cardillo n.d.)

^{5 (}Merritt n.d.)

⁶ Ibid.



Fig. 16. Christiane Baumgartner Installation view of Fahrt II, 2004. Series of 8 woodcuts on Kozo paper; 57 x 73 inches each.



Fig. 17. Christiane Baumgartner Eine Secunde detail 2004. Woodcut.



Fig. 18. Christiane Baumgartner Eine Sekunde 2004. 25 woodcuts.

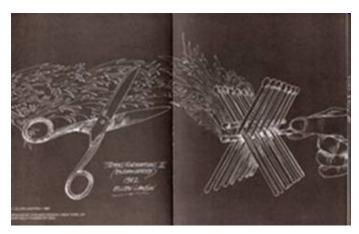


Fig. 19. Ellen Lanyon Transformations Π (Extinction) 1977. Printed in Italy by Grafiche G.V. Milano. Top image is the cover illustration.



Fig. 20. William Kentridge Cyclopedia of Drawing 2004. Edition of 100.

frames and then made one independent woodcut from each (total 25 prints) creating a regularly divided device for depicting time.

The images are low-grade and sequentially degenerated. Generalized, familiar images of woodland suggest the increasing speed of fragmentary glimpses. The composite creates a complete whole, in the same way that pages of a book inform the mind in pieces and by the moment.

PAGE AS A TRANSFORMATIVE NARRATIVE

The page thus provides a mechanism for temporal experience, but it also provides narrative in a changing, transformative process. An example of this in a traditional book is Transformations II (Endangered) by Ellen Lanyon from 1982, printed by Chicago Books, New York. The pages are about 8 inches wide by 10 inches high and form an accordion style book. On each of the 16 pages a central hand-drawn image blends into the central image on the following page, thus converting the image to story.

William Kentridge is especially interested in such transformations. He also parses drawing into narrative, extending this approach to multiple forms of expression. Born in 1955

in Johannesburg, Kentridge studied politics, African studies, art, and theatre. His exhibitions have been displayed in the Hirshorn, the New Museum, MoMA in New York, and the Serpentine Gallery, London. In 2010, he staged and directed the opera "The Nose" at the Metropolitan Opera in New York.

Kentridge's animations use a continually revised charcoal drawing, recorded in stopmotion. He says: "I cast a wide net . . . Some of my works start as videos, turn into drawings, then film and back to video to projection, to photographs, to photogravures."7 Drawings and the book page are closely related for Kentridge, as is seen in his book project Cyclopedia of Drawing, from 2004.

Kentridge's insistence on the imperative of time de-materializes the act of drawing and re-actualizes it as the result of a trajectory of moments of equal value.8 His temporal

Fig. 21. William Kentridge Still image from the film Stereoscope 1999.

sequences use the trace of the hand as the page-like indication of interval.

Modifying the page between shots, Kentridge uses stop-motion photography to sequence his charcoal drawings into narrative videos. Erasure and reworking evoke the passing

^{7 (}Sterling 2002)

^{8 (}Tone n.d.)



Fig. 22. William Kentridge in studio.

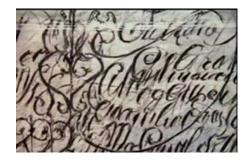


Fig. 23. William Kentridge still from the film Automatic Writing 2003.



Fig. 24. Julia Featheringill flip books.

of time. Each image thus represents the current stage in a succession of marks like a narrative. As quoted by Charlie Gere, the literary scholar Andreas Huyssen notes: "Our obsession with memory functions as a reaction formation (sic) against the accelerating technical processes . . . [Memory] represents the attempt to slow down information processing, to resist the dissolution of time . . . to recover a mode of contemplation outside the universe of simulation, and fast-speed information and cable networks. . . . "9

Speaking of immaterial works of art Oliver Grau states, "Fixed artworks preserve ideas and concepts, becoming statements of individuals and epochs. Open artworks depend on interaction with a contemporary present audience, which changes the methodology by which they can be historical memory."10 Books function as fixed cultural artifacts but the narrative transformations achieved by animatronics are more fluid and depend on the transient present. Kentridge fuses these ways of delineating time in his animations.

Kentridge's one-to-the-next approach of page-like sequence can be seen in the 2003 film Automatic Writing. (An excerpt of Kentridge's film Automatic Writing is typical and can be viewed at http://vodpod.com/watch/2234231-automatic-writing-william-kentridge.) It is a lyrical animated story about the intersection of language and yearning. In it, letters extend to lines which connect with (and then obscure) the object of desire—time is evoked in the memory and trace of what went before. The recurring motifs of calligraphy, man and woman, word and line, create a story of both tactility and removal.

PAGES AS ACCELERATING TRANSFORMATION

Transformation, the essence of the sequenced page, is especially emphasized in the flip book, where compounded images become one unbroken experience. Figure 24 shows flip books by Julia Featheringill. (Animated clips can be seen at http://www.uncertaintyprinciple.com/julia/.)

Flip books are tightly sequenced sets of progressively related visual images, meant to be seen quickly. Usually in the small scale of a notebook—originally stapled, but mostly bound today—the pages flip over with the thumb. The rolling sequence divides time into equal segments, where each separate image becomes indistinguishable and a continuous whole results in an unbroken movement. The pace of metamorphosis changes with the speed of the flip. Originally termed "pocket cinema," the flip book links the page, and the animated picture frame, the ancestor of the cinematograph.¹¹

Contemporary video often alludes to the flip-book structure as the stepped frame-like image accelerates to create new transformations. An especially interesting case is the music video SERIGALA MILITIA from 2006. (The video may be seen at http://universesin-universe.org/eng/nafas/articles/2008/tromarama/photos/11.) It was created by an Indonesian design collaborative called Tromarama, founded in 2004, and consisting of Febie Babyrose, Ruddy Hatumena, and Herbert Hans. The stop-motion activity of carving

^{9 (}Gere 2004)

^{10 (}Grau 2003, 2007)

^{11 (}Fouche 2011)

woodcuts combines with the stop-motion framing of animation, suggesting the stopmotion of the flip book.

According to Joselina Cruz, former curator of the Singapore Art Museum, and co-curator if the 2008 Singapore Biennial, "Their video was produced for a thrash metal band from Jakarta, Seringai (which means 'grin' in Bahasa Indonesia). Their music—heavy, noisy and gritty—is a sub-genre of heavy metal music." Tromarama's video for Seringai used 450 carved woodcuts for the animation.

In the Singapore Biennial, the woodblocks and the video were installed together, and "the whole room became the storyboard for the video."13 This physical presentation of what can be considered the "pages" of the video unfolds its sequences for the viewer. Because of Tromarama's display of multiple sequenced objects, their work extends beyond being an electronic flip book, and the blocks collapse back into a tactile, physical page-like system where the visual flipping can occur in any direction. In the video, the woodcuts can only be experienced in a single cascading order—the video format provides the "binding" in the same way that staples in a flip book control the sequence.

THE PAGE AS COLLECTED MEANING

In the flip book, the simple motion of the image creates the meaning. In a traditional book, the surfaces and the sequences can be amplified to include overlay and depth, so that the pages can be configured in a more complex way. The cut book Your House, by the installation artist Olafur Eliasson, is a traditional codex book, an example of the extension of overlaid meanings that can re-form into a larger whole.

The lasercuts follow the angularity of the architecture of the house, adding a layer of visual meaning by foregrounding edge and sharpness. In the codex, the parts are never seen all at once, but the experience is an accumulation of slivers of time and discovery, where motifs are introduced, built, and recur. Physical overlay creates the deepening layers in Eliasson's book. Since images can be made to layer within a work, association and shape are built through proximity. The collection of pages becomes a repository of meanings that creates a deeper space than any one image would. Meanings thus configure outward in the temporal experience.

Edward Bernstein's video work relates to this aspect of the codex. Bernstein is a professor of printmaking at Indiana University in Bloomington, with works in the collections of Museum Nacional de Belas Artes (Brazil), Pushkin Museum (Russia), and National Art Museum (China). Prints are the center of Bernstein's practice, but his recent work in digital video mines interests combined from other forms. In his 8 ½ minute video Chiaroscuro, Bernstein relies on both experience and imagination as he reflects on the effect of current events in human lives. (URL of full video under construction.) Chiaroscuro collects many threads from his other works and binds them in a temporal experience, the way a book



Fig. 25. Tromarama still from SERIGALA MILITIA 2006.

Fig. 26. Tromarama SERIGALA MILITIA. Stop motion animation with 402 wood cut plywood 4 min. 22 sec. 2006. Photo courtesy of Mori Art Museum, Tokyo.



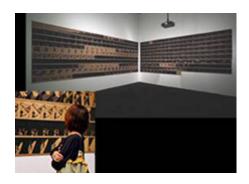


Fig. 27. Tromarama SERIGALA MILITIA. Stop motion animation with 402 wood cut plywood. 4 min. 22 sec. 2006. Photo courtesy of Mori Art Museum, Tokyo.

^{12 (}Cruz 2008)

¹³ Ibid.

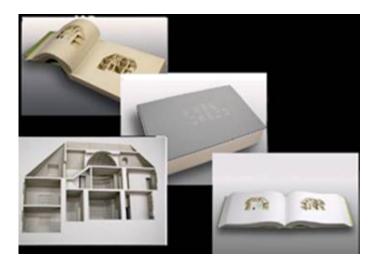


Fig. 28. Olafur Eliasson Your House 2006. Lasercut book 908 pages.

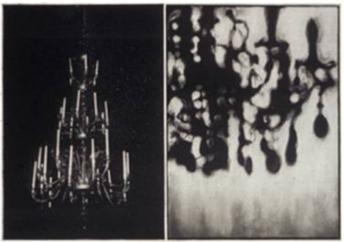


Fig. 29. Edward Bernstein Memoria 2002. Etching and photogravure diptych 8.75 x 12 in.

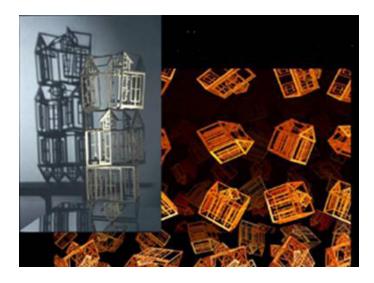
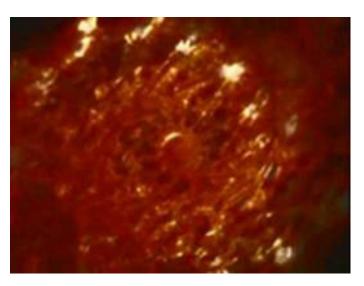


Fig. 30. Edward Bernstein wire sculpture and still from the video Chiaroscuro.





Figs. 31 and 31a. Edward Bernstein wire sculpture and still from the video Chiaroscuro.

holds its pages as a sequential unit. Memoria is a source work in intaglio that provides content for the "pages" of the video. This diptych was part of a body of work created in the aftermath of 9/11 from material collected in Italy of traditional glass and chandeliers, which are commonly found there. It has become a symbol for the idea of home or refuge, a contrast of warmth and darkness, safety and risk. Besides image references, Bernstein also built tactile objects for the work, such as a small wire sculpture of a house.

In the video, this image is multiplied and relates to other Bernstein images, creating meanings and relationships well beyond the objective existence of the small frame house. Bernstein's wire sculptures of houses and chairs and his images evoking the warmth of focused light of chandeliers and flames build an experience that is then interrupted by the flashing, jutting choreography of Talia Pura, his collaborator, in a dance that suggests violence.14

Unlike the flowing progression of Kentridge's sequences, the elements used by Bernstein are jarringly combined from disparate unconnected sources. The video orders them in a determined array. In the same way as a bound object, the video postulates their relationship through their proximity and pacing. The video speaks to book syntax through its arranged succession, whereby irresolvable differences are joined together to form a cohesive (though challenging) construction.

THE PAGE AS THE SPACE OF EXTENDED EXPERIENCE

The bound book thus generally fixes a sequence of experience. However, many nonbound books use random arrangement as a device to amplify experience. Johanna Drucker claims, "The farthest extreme of a codex can be termed an accumulation of non-uniform pages in an unfixed sequence."15 The page can thus become a place where the narrative is sometimes not related to order, but rather to an unsystematic but continuous spatial experience. In Rauschenberg's Shades, the set of six Plexiglas pages are set into random slots by the viewer. The slots act as the cover, or container, that unifies experience no matter how revised the sequence of panels becomes.

My own work in prints, installation and virtual reality constructions references the concept of an unfixed sequence of pages, where an idea exists as if it were a binding, the connector for the ideas in the works holding the images together. This containment is not visible or articulated, but results from the accumulation of contents.

In my virtual reality pieces, the content becomes episodic within a larger space. Segmented experience unfolds in spatial proximity and over time. This page-like character of temporal and spatial experience speaks to the possibilities of electronically creating 3D works in a virtual space. (http://www.deborahcornell.com/Tracer_video.html)

Tracer is a virtual environment using 3D animation and computing. It was created for the ImmersaDesk, a scientific visualization device at Boston University's Computer Graphics

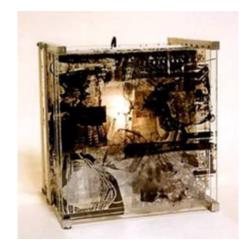


Fig. 32. Robert Rauschenberg Shades 1964. Six lithographs on Plexiglas panels: one permanent and five interchangeable, with light, in a slotted aluminum frame. 14 x 14 in. Published by Universal Limited Art Editions.

¹⁴ The sound is a composition by William Pura, a Canadian composer.

^{15 (}Drucker 1995, 123)

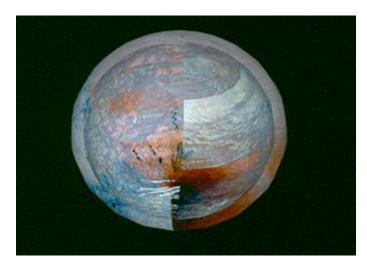


Fig. 33. Deborah Cornell Tracer 2003. Still from virtual reality work.

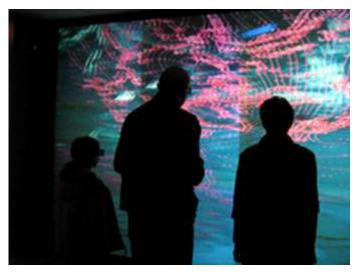


Fig. 34. Deborah Cornell Surge 2007. Viewers navigating virtual reality.

Lab. The display differed from a video because the images were constantly being recomputed in real time.¹⁶

Specific views from Tracer suggest page-like elements in space in an electronically generated environment; a floating matrix of information not linked by story strings or sequence, but by affinity. Tracer is about lines and symbols, writing and drawing, archeology, and the traces of time on human culture and environment.¹⁷

The planes of text in Fig. 35 hold antiquated, unreadable languages. The snake images on the right are extrapolated from the shape of the Great Snake Mound in Ohio. These images are a stand-in for human culture within the piece. The sources for the floating figures in Fig. 36 were certain ancient aboriginal wall paintings in Australia.

Tracer's visual relationships to the page are sustained by the visual thinness of the objects. And, like a printed object, the projection relies on a matrix of saved information to be recast multiple times. In *Tracer*, narrative is random. It is not related to order but rather to episodes of experience that populate the space of an overarching environment. The experience unfolds as an accumulation of moves from one surface to another rather than in any particular image sequence. In this environment, the viewer can assume both internal and external positions, traveling inside and outside the space of the images. This is the defined environment of "within and without" that parallels the space of a traditional book.

¹⁶ The display responded to the viewer's position with relation to the objects so each person's experience was unique. The entire environment was projected in stereo; viewers wore 3D glasses. Navigation was with a simple gaming device, and resembled flying.

¹⁷ Tracer has a sound environment that was created by my collaborator-composer, Richard Cornell. The sound was originally electronic, but Boston Musica Viva subsequently commissioned an adaptation of the work for video and chamber players. Presented in this way, Tracer is staged as a 20-foot video image, with a live performance by five players. It has been performed thus in Boston, New York, and Taipei.

CONCLUSION

Though neither Tracer, Aguasmalas, Automatic Writing, Chiaroscuro, nor SERIGALA MILITIA can even remotely be termed books, they nevertheless contain the language of the animated page, and thus share important attributes with the book form. By animating the page, electronic media are creating new configurations from book elements, expanding the definition of the book as we know it. Though not tactile books, these dematerialized forms of the book generate an exciting cross-disciplinary dynamic for artists. This dynamic migrates among tactile and nonmaterial page forms, and creates an evocative conversation that extends and enriches the current territory of both book and animation. ■



Fig. 36. Deborah Cornell Tracer. Files for texture map.





Fig. 35. Deborah Cornell Tracer 2003. Stills from virtual reality work.

BIBLIOGRAPHY

Bernstein, Edward. Email correspondence. February 18, 2008.

Cardillo, Rimer. "Exhibitions." proyectoace.com.ar. http://www.proyectoace.com.ar/ en_expobostonrimercardillo.htm. Accessed April 15, 2011.

Castleman, Riva. 1994. A Century of Artists Books. New York: The Museum of Modern Art.

Cruz, Joselina. 2008. "Tromarama: Serigala Militia." universes-in-universe.org. http://universes-in-universe.org/eng/nafas/articles/2008/tromarama. Accessed April 5, 2010.

Drucker, Johanna. 1995. The Century of Artists' Books. New York: Granary Books.

Echeverria, Patricia Villalobos. October 9, 2010.

Fouche, Pascal. "History." flipbook.info. April 8, 2011.

http://www.flipbook.info/history.php.

Gere, Charles. 2004. "New Media Art and the Gallery in the Digital Age." Tate Papers, Autumn (2004). http://www.tate.org.uk/research/tateresearch/tatepapers/04autumn/gere. htm. Accessed December 26, 2010.

Grau, Oliver. 2003. Virtual Art: From Illusion To Immersion. Translated by Gloria Custance. Cambridge, MA: MIT Press.

Merritt, Anita. "Printmaker Christiane Baumgartner (interview)." whatsontorbay.co.uk. http://www.whatsontorbay.co.uk/article.php?id=16816. Accessed October 12, 2010.

Pfeffinger, Eric. "Impressing Memory." indiana.edu. http://www.indiana.edu/~rcapub/ v27n2/memory.shtml. Accessed October 11, 2010.

Prince, Nigel. 2005. Christiane Baumgartner. Edited by Nigel Prince. Birmingham: Ikon.

Roca, Jose. "Interview: Christiane Baumgartner." philagrafika.blogspot.com. http://philagrafika.blogspot.com/2009/05/interview-christiane-baumgartner.html. Accessed April 5, 2011.

Smith, Keith. 2005. Structure of the Visual Book. Rochester, NY: Keith Smith.

Sterling, Kristen. "Drawing, Filmmaking, Theatre Are All Artist-in-Residence William Kentridge's Specialties." Columbia News. December 5, 2002. http://www.columbia.edu/cu/ news/02/12/WilliamKentridge.html. Accessed December 26, 2010.

Tone, Lilian. "William Kentridge: Stereoscope." artarchives.net. http://artarchives.net/ artarchives/liliantone/tonekentridge.html. Accessed December 26, 2010.

Trigg, David. "Christiane Baumgartner: Solaris." thefreelibrary.com. http://www.thefree library.com/Christiane + Baumgartner % 3 A + Solaris. - a 0193344091.Accessed March 5, 2010.