What Is a Digital Artists' Book Anyway?

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Introduction

In 2012, the College Book Art Association organized its annual conference around the theme, *Time, Sequence and Technology: Book Art in the 21st Century*. Held at Mills College in the Bay Area, this conference included a panel entitled *Electronic Innovations In the Artists' Book*. As one of three presentations on this panel, *What Is a Digital Artists' Book Anyway?* briefly contextualized digital media in the history of the book, then introduced three possible configurations for digital artists' books, and concluded with rhetorical questions related to both how we artists' book-makers might engage with digital media within book arts programs and also how we might have a hand in the direction and manner in which digital media develops in the 21st century.

Context and History

In *The Century of Artists' Books*, Johanna Drucker writes that "If all the various elements or activities which contribute to artists' books as a field are described what emerges is a space made by their intersection, one which is a zone of activity, rather than a category into which to place works by evaluating whether they meet or fail to meet certain rigid criteria."[1] She goes on to write that, "neither the methods nor the quality of production can be used in themselves as criteria for determining a book's identity as an artist's book. Artists use what they have access to and knowledge of."[2] In this spirit, I would like to consider the evolution of the technologies that historically have defined books' evolution and also consider newer technologies that within this historical flow might be appreciated in a manner more in keeping with the activities of artists' books than is commonly the case.

In a fascinating account from *Paper Before Print: The History and Impact of Paper In the Islamic World*[3], Jonathan M. Bloom credits Islamic papermakers with introducing paper mills to the European continent in the 11th and 12th centuries. While these Islamic roots were in time forgotten by Europeans and therefore generally left out of history books, they nevertheless hugely influenced the technological development of books, for it was the imported paper mills, not the native parchment tradition, that enabled the printing press to take off in Europe later in the 15th century. And this technology of course proved a huge breakthrough for both the production and distribution of books. Later in the industrial revolution the steam press and then later still the offset press furthered technological advancements. More recently, the development of digital media has made typesetting, layout, and printing all possible from home computers. Furthermore, screen-based media has become an important conveyor of the written word and of visual media. Within the course of technological developments in the evolution of the book, there seems to be an obvious flow

from individual parchment to typeset prints to the increasingly mobile screen.   At each step of the way there have been revolutionary changes in social institutions and this has consistently occurred through the ways that people who previously did not have access to the written word gain and make use of it through new technologies.

Digital Artists' Book, Configuration One: Digital Production

In considering the possible configurations for digital books, I would like to begin by first exploring artists' books that involve digital production. As examples, the artists' books *Wires*[4] and *Street*[5] from my Unseen Press are each representative of a particular mode of digital production. *Wires* is a physical book in which the layout, typeset, images, and printing are all digital. The book's content itself also directly addresses digital communications, in particular the way spam email permeates global society and infiltrates email accounts by employing narrative bits to foil spam filters. *Wires'* cover is made of the body of one such email in which a block of unrelated words in a conglomeration of languages, including gibberish, form an illegible block, with the words "click here" at the top in blue. The title page is made from the subject line of the email, and the content is comprised of photographic images of cable lines from Europe, the Middle East, and the United States which formally serve to connect the recto and verso pages. They also act as a metaphor for our communications-saturated landscape. The diverse emails superimposed over the photographs interrupt the landscapes to form a totally nonsensical narrative threading throughout the work.

In contrast, the artists' book *Street* took the form of an interactive screen-based book for both desktop computers and mobile devices. This image sequence is made up of street art that employs text, images, and other diverse visual media which I interweave to form a reading experience by turns heart-warming and troubling, amusing and inciting.   The sequence of images challenges the traditional hierarchy of the art institution through examining anonymous public street works. At the same time it affirms the human spirit and in particular a young generation coming up in a media-saturated consumer culture. Because with this sequence of images I make extensive use of the rhythm of the images' movement from recto to verso to full spread bleeds, it demanded a maquette I could use to physically experience these dynamics, rather than simply looking at images laid out on a table. With the images already digital, resizing them for the web and taking advantage of the Spanish codebox.es *PDF to Flash Page Flipper*[6] I was able to almost immediately create an online version of *Street* that allowed me to interact with the images and go back and make changes dynamically without ever printing anything or being bound to a particular physical layout of the pages. Furthermore, I could instantly email links to people or use whatever social networking site, blog, or website to send for and receive pre-press feedback before going to print. All this for the cost of the electricity –no ink, no paper, no transportation, no mail, and in considerably less time.

Do these two works represent innovations taking advantage of the formal possibilities of the technology? Do they stretch the boundaries of their form? Not particularly. On the contrary, these books are very close to their more traditional analog analogues, they were simply executed with digital tools, albeit tools which allow a significantly different workflow. I would argue that a truly digital artists' book must use the technology not for convenience alone, but for a new "reader" experience.

Digital Artists' Book, Configuration Two: Digital Hybrid

The next configuration of digital artists' books I refer to as the digital hybrid. Of the two digital hybrids I would like to analyze (*Between Page and Screen*[7] by Amaranth Borsuk with programming from Brad Bouse, and *Ethereal Landscapes* by Christian Faur and myself) Christine Wilks—digital artist and e-poet from the UK—wrote:

> "The creators of these works augment their digital art and electronic poetry with print, employing a delightful topsy-turvy kind of transliteracy, whereby the printed matter becomes a device for reading the digital, rather than the usual way remediation goes when texts originated for print are digitized. Reading these works, you wonder, where is the poem, where is the story? The poem, the art is powerfully and clearly present, but you're aware that it doesn't exist in the computer and it doesn't exist on the page – it's between these realms, slipping and sliding along the virtuality continuum – or perhaps it's the reader who is transliterately sliding around in mixed reality?"[8]

Between Page and Screen is a "digital pop-up book" which integrates an artists' book and e-poetry traditions to examine the conventions by which we know an object as a book. The pages of the book contain no text, only square markers that, when displayed before the reader's webcam, activate a series of animations mapped to the surface of the page. Because the animations move with the book, they appear to inhabit "real" three-dimensional space. However, the resulting poems do not exist on either page or screen, but rather in an augmented reality where the user sees herself holding, and interacting with, the text. Originally produced as a limited-edition hand-bound and letterpress-printed artists' book, *Between Page and Screen* is now published by Siglio Press and is widely available.[9]

Ethereal Landscapes is an interactive computer artwork that employs language in the form of barcodes as the interface between a physical object and a virtual space. The user is immersed in a generative video and audio database synchronized in real-time through scanning the barcodes on each page of the

photographic artists' book. This collaborative piece challenges traditional notions of the book-object (as static and non-aural), and of video/audio (as passive and linear) by integrating the interactivity of turning a book's pages with projected moving images and sound. Mirroring the interconnectedness of the formal level, *Ethereal Landscapes* investigates the relations between life as seen on a biological level and our quotidian human experience. The images from the book are referenced throughout the video; their combination with found and created sounds entwine together in a poetic arc around the processes of life, the passage of time and our un-deniable mortality.[10]

Both of these works use a physical book that interfaces with digital media for a wholly new reading experience. In the first case, the book and the code which the computer deciphers in order to present a digital rendering, are interdependent, and in the second, the book and the digital counterpart each stand independently and then together create a third experience.

Digital Artists' Book, Configuration Three: Digitally Born

This brings us to the final grouping, the digitally born. While books have been with us from our earliest memories, digital technologies for many of us have been conflated with mass communications and increasingly with the straightforward tools of advertising. In comparison with the familiar form of the book, computers may present an intimidating face due to their vast system of processes and their many practical purposes, equal parts alien and confounding and simply boring.

The four pieces I will analyze next were selected to illuminate the creative threads of a digital art movement which began as soon as people went online and saw the creative potential that code presented. In the end, this multimedia work is not so strange after all: similar to reading a book, these bookish works offer an intimate one-on-one reader experience, they involve interactivity similar at times to turning pages, and they distinctly possess the potential to move the imagination, intellect, and emotions in profound and powerful ways. That is, if we allow the pieces the chance to work on us. I strongly encourage the reader to look beyond the images that appear here to the online works themselves so as to fully engage with them.

Oooxxxooo[11] was created in 1997 as a very early personal exploration of non-linear fiction by Juliet Martin (painter, performer, writer, digital artist and programmer). Intrigued by the possibilities of the hyperlink to create a story which could be entered and exited at any point, *oooxxxooo* begins with a stem of "yes" and "no" statements which serve as entry points to any number of narratives. Many of these narratives employ the formal, browser-based element

of scrolling in innovative ways to create a sense of movement and to realize the notion of a journey, albeit a recursive one that continually loops back on itself. The ensuing sense of frustration on the part of the reader mirrors the subject of the work, namely the artist/protagonist's apparently desperate need for the computer to alleviate her loneliness.[12] Employing exclusively the very basic language of the Web (HTML code) for a kind of visual concrete poetry, Martin subverts the early internet font, Courier, by using a simple black, white, and gray color scheme together with classic blue links to suggest that even the crudest visual elements—like ASCII text—can be used to create something very beautiful.

Peter Horvath is a photographer who was exploring the narrative and poetic possibilities of the photographic image on the Internet at a very early date, in particular on his website 6168.org. Horvath's *Life is Like Water*[13] (2002) begins with a black screen and an eerie ambient soundscape. Suddenly a small black window opens in which a series of questions appear and disappear, triggering a state of doubt ("Are you real?" "Have we met before?" "Dreaming or awake?"). The window then disappears and consecutively more windows open and close, seemingly of their own accord. Sometimes the windows appear large and singly, sometimes they are carefully choreographed as a string or grid of small 2x2-inch windows with slow-motion videos, each window displaying a single word for its title, which together read as "life is like water". The out-of-focus imagery and the shifting textures and degrees of transparency quickly transport us into an oneiric, ethereal, and poetic world that stands in stark contrast to the world of unbridled consumption and constant interactivity familiar to web servers.[14] Horvath plays with our expectations by controlling the timing of events and scripting all of the movement, including the and appearance/disappearance of the windows with their fragmentary and imprecise subjects. The use of multiple windows over which we have no control has the effect of intertwining simultaneous narrative fragments. And the screens that come to the surface and disappear are like little drawers opening up to reveal secrets, thoughts, dreams, and memories buried within the memory of an inner world.[15] Horvath's work makes explicit use of the formal element of the browser window, including the window title as an area for content, and highly sophisticated JavaScript to enable a full use of the multiple browser windows' potential which this creative space affords.

A third innovative piece is Alan Bigelow's *This Is Not A Poem*[16] (2010). Bigelow writes digital stories for the web using the Flash programming environment in which he includes text, images, audio, and video. *This is Not a Poem* takes the familiar poem "trees" by Joyce Kilmer and transcribes it onto a "scratchable" disc making it into a toy, a game, and a language engine.[17] Once the disc is engaged, it begins to spin while a voice recites the poem visually rotating in the center. As the user moves the mouse over the words (accidentally or with intention) a second voice reads each word encountered by the mouse while the

visual word changes from black to green and spins out of the stanza to an outer "docking" rim of the disc. This continues until the last visual word has been met by the mouse and is thereby removed from the center field. Meanwhile as the first voice continues it's recitation, it reduces the poem to those words that remain in the center. The game aspect comes into play towards the end when only a few small words remain, requiring coordination and strategy to position the mouse to intersect with. The deconstruction of the poem both visually and aurally culminates conceptually once the last word is removed. At this point the center area where the poem initially resided fades out and is replaced by a looping video of a forest machine that clenches a tree trunk, and with multiple rotating blades, saws through the trunk and then removes the tree in one fluid movement.   It is at this point that the formal strategy of the rotating disc suddenly takes on cryptic significance in mirroring the blades of the tree-removing machine and the endless repetitive movement which continues to clear so much of earth's forested surface. This distinguishes itself from the mere playfulness of the "turntable disc" we experience initially (which can even be spun backwards to create dj "scratch" sounds). *This Is Not a Poem* is a powerful experience that starkly contrasts the romantic valuation of nature and poetry with the contemporary reality of deforestation and deconstructive literary theory.   And it does so by taking full advantage of a thoroughly interactive multimedia browser experience.

The last digitally born work I would like to consider is my own photo- text- and sound-based work, *Passing Through*[18] (2011). *Passing Through* entails a linear nocturnal amble that juxtaposes still images with sounds of movement, unpopulated city locations with overheard conversations. Through the juxtaposition of media there is a critique of societal norms –whether of an institutional nature or pertaining to individual dis/engagement– as well as a celebration of the beauty of both the natural and man-made worlds.   *Passing Through's* color images are often accompanied by texts that appear to be written in real time using my own handwriting. Each image has an area that subtly glows when the user mouses over it, indicating a link to move on to the next scene. The sounds were processed to create an atmosphere that is at once ambient and also unreal. While the interactivity and the experience of *Passing Through* is decidedly simple and straightforward, the browser-specific code enables for the customization of the text, the timing of the image-fades, and the dynamically re-sizing view of *Passing Through* so it automatically fits the size and shape of whatever browser window it appears in. The goal is thus for the code to support the content without calling attention to itself in order to create an immersive visual and aural reader experience.

These four works point towards new criteria for defining what can perhaps be called an extended digital artists' book, including the use of formal elements of screen media, such as the scrollbar, generative text, dynamic browser windows, multimedia, interactivity, non-linearity, and coding for psychologically immersive

user experiences. Should these works be considered as standing outside the tradition of artists' books because they are digitally born? Does it make sense to distinguish between transliterary works and artists' books?   Again turning to Johanna Drucker, "First, the artists' book has to be understood as a highly mutable form, one which cannot be definitively pinned down by formal characteristics." Rather, as she goes on to say, "The book form is always under investigation by artists who reach into the various traditions, as well as into new realms of material expression and creative form.[19]"

New Technologies

In 1968 at the Xerox Palo Alto Research Center, Alan Kay invented a design for what he called the Dynabook, a "dynamic medium for creative thought" which was to enable people to discover and express their creativity.

> "Imagine having your own self-contained knowledge manipulator in a portable package the size and shape of an ordinary notebook. Suppose it had enough power to outrace your senses of sight and hearing, enough capacity to store for later retrieval thousands of page-equivalents of reference materials, poems, letters, recipes, records drawings, animations, musical scores, waveforms, dynamic simulations, and anything else you would like to remember and change"[20]

38 years in advance of the current iPad, Alan Kay's design was intended to give free reign to the intuitive mechanisms of the mind. Today, we have the Nook, the Kindle, and the iPad that together outsold hardcover books in the United States for the first time in the first quarter of 2012.[21] I do not mean to conflate ebooks and artists' books, but instead to state unequivocally that digital books will increasingly be a part of contemporary society, regardless of whether we artists' bookmakers choose to engage with them or not. The question is, if we aren't the ones who define what a digital artists' book is or can be, who will define it?

The iPad is at last coming close to realizing Alan Kay's dream of the Dynabook, but how will we book artists contribute to the direction the technology takes if we aren't actively exploring it ourselves? Can an electronic device over whose form we have no control (iPad) be an artists' book? And if not, can only hybrid books be digital artists' books?   Whether or not we prescribe to Apple's iUniverse, we must acknowledge that technology through hand-held devices is becoming more bookish in nature, and for perhaps the first time is presenting itself in a form that mirrors the book (in so far as a touchscreen device being a vehicle for a sequential work of text/images viewable by a single intimate reader might qualify as book's mirror image.) At a 2010 Electronic Literature Organization conference held at Brown University in Providence, Rhode Island, Terry Harpold delivered a lecture entitled *His Master's Voice: E-Books, Illusionism, and the Future of Electronic Reading.* From the perspective of the

ELO, Harpold reasoned that the iPad fails to deliver because it puts its energies into futily trying to be a book rather than taking advantage of the technology to do what it can do (as exemplified by the four digitally born pieces sited above). How might those of us who are pioneers in what an artists' book can do and can be, contribute to the design of touchscreen devices for the future?

In the fall of 2012, Chicago's Columbia College Center for Book and Paper Arts received an Arts in Media grant from the National Endowment for the Arts in support of a new electronic publishing initiative, Expanded Artists' Books. "These [new artworks for the iPad] will have physical counterparts that intersect, modulate, or inform the digital components of the artwork.[22]" This initiative represents to me a kind of weather vane in the area of exploration that seems integral to the spirit of artists' books and a fine example of an Interdisciplinary Arts program that can afford for the kinds of forays into both innovative digital art *and* book and paper arts.

Currently we educators stand at a juncture where we knowingly or unknowingly shape the relationships that our students in the book arts have with technology. Isn't an investigation into the possibilities of digital artists' books in keeping with the experimental nature of the artists' book? And mightn't we begin to plant seeds for the future by introducing code to our students through our curricula so that they can knowledgeably innovate in directions that we may perhaps be hesitant to move in? Is it possible for us as a community, rather than to shy away from the digital, to affirm it and participate in its further direction? Assuming physical books have secured a particular permanent place (where physicality, smell, and the other senses are vital), where will digital artists' books belong?

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