

Understanding the Impact of the New Aesthetics and New Media Works on Future Curatorial Resource Responsibilities for Research Collections

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Abstract—The author examines the emerging impact of the works of the “New Aesthetic,” along with other works that have their genesis in the rapid technological changes of the last fifty-plus years. Consideration is given to the history of digital audio/visual works that will eventually be held by repositories of cultural heritage and how this history has, or has not, been documented. These creations have developed out of an environment of networked, shared, re-usable and re-purposed data. The article briefly examines how these works are utilized while looking at the future impact of the growing creation and use of complex, compound multimedia digital research and cultural collections as evidenced by augmented and virtual reality environments such as smartphone apps and Second Life.

INTRODUCTION

We need not destroy the past. It is gone.¹

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[A]ll our metaphors are broken. The network is not a space (notional, cyber or otherwise) and it's not time (while it is embedded in it at an odd angle) it is some other kind of dimension entirely . . . BUT meaning is emergent in the network, it is the apophatic silence at the heart of everything, that-which-can-be-pointed-

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1. John Cage, “Lecture on Nothing,” 1949, <http://seanstorm.files.wordpress.com/2012/09/john-cage-lecture-on-nothing.pdf>.

to. And that is what the New Aesthetic, in part, is an attempt to do, maybe, possibly, contingently, to point at these things and go but what does it mean?²

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The increasingly digital nature of emergent modern culture is creating a greater need for literacy and fluency by the consumers and stewards of this culture. This rise is driven by its own technologies of instantiation and apprehension, seemingly at the cost of analog material culture. Historically, the growth of new technologies has always stimulated new art and art forms, as well as new mechanisms and venues for discourse and critique. This can be tracked through the literature of art history, art criticism, and art documentation. Indeed, it is very much the “stuff” of art history. Starting with Vasari’s *Lives of the Most Excellent Painters, Sculptors, and Architects*, discussions of artists’ techniques and technologies have always been present and have been an issue of concern for those charged with stewardship responsibilities. The conservation and preservation of cultural materials are dependent upon a thorough understanding of the means and methods of their production, whether they are websites, wall hangings, canvas, or steel.

The first section of this article addresses what are best described as “cultural disruptors” and the provision of some definition of them. These forms of art have been characterized in traditional terms as being “new media,” but even that may not be the best term for them.³ For the sake of this discussion, new media will continue to be used, but one should consider that its continued usage may cease to be relevant. These new forms have emerged from new technologies whose nature is complicating and often disrupting our abilities to effectively document our cultural heritage. Where these disruptions are taking place—and equally importantly, where they are not occurring—will be considered as well as a definition of what some of these disruptors are.

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The following section steps back to consider the historical traditions that have led to the current state. The development of the disruptors is rooted in developments of new media of the mid-twentieth century, works whose origins go further while still being grounded in the intersections and interplay of technology, science, art, and society. Documented examples go back as far as the Renaissance in Western Europe and continue to the present. Examples representative of the aforementioned New Aesthetic and the various new “realities” are considered, along with objects whose origins cross and blur the boundaries between the traditional and the truly *au courant*.

The final section attempts to avoid prognostication while considering the deeper impacts these works are having upon cultural heritage institutions that are grappling with how to understand and preserve these works for future generations. It revisits the question of location of the disruptors in a socio-cultural context with consideration being given to current initiatives underway by a handful of organizations to establish sustainable means of preserving these works.

2. James Bridle, “#sxaesthetic,” *booktwo.org* (blog), March 15, 2012, <http://booktwo.org/notebook/sxaesthetic/>.

3. Nora Almeida, “Dismantling the Monolith: Post-Media Art and the Culture of Instability,” *Art Documentation* 31, no. 1 (Spring 2012): 2–11. This recent work considers the nomenclature of the previously labeled “new media” and suggests that the term’s use is problematic at best, quoting Lev Manovich’s usage of “Post Media Aesthetics” in 2001.

CULTURAL DISRUPTORS

New art forms based on newer and emergent technologies are disrupting the documentation of our cultural heritage. One of the problems when considering new media is that the term itself changes daily and encompasses a decidedly different realm than previously described. Unfortunately, writing about new media, and especially the New Aesthetic, is like trying to nail the proverbial Jello. One speaks of the “new” new media or the “old” new media in perfectly un-ironic terms. The “old” new media, as discussed by Lucy R. Lippard in *Six Years: The Dematerialization of the Art Object from 1966–1972*,⁴ have been accepted not as “new,” but as mainstream. Instead, one must consider the materials examined by Sarah Cook and others in the recent book *A Brief History of Curating New Media Art: Conversations with Curators*.⁵ We have reached a critical mass in terms of output that mandates the cessation of considering video as emerging media. The truly emergent and new media are undeniably digital, trans-modal, often network-based, and founded in an almost pedestrian ubiquity. While possibly dated—yet oft-discussed—Lippard’s work is still crucial to a critical understanding of the social and historical environments and larger processes that have made it possible to embrace the “new” new media work, especially given the “dematerialization” of which she speaks in her work’s title. The discussion has moved quickly out of the traditional arena of debate and into new territories that are possible through the evolution of computer-mediated communication and collaborative social practices, many of which are as dematerialized as the works of Lippard’s focus.

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Significant change has occurred in the language and metaphors used in the “new” new media. One could say that they have become increasingly visual insofar as the integration of the underlying technologies are very much tied to the visual realm while incorporating non-visual modalities of apprehension, even as these works cross between the virtual and the physical. This shift in creation and apprehension of the works has approached the paradigmatic, invoking pronunciations of the greater society entering new ages of existence, much the way that society was said to be living in an Industrial Age or a Post Post-Modernist period. Because of the technologies involved, appreciating the works requires the use of the visual realm in ways not previously utilized but foreshadowed by the emergence of forms in the “old” new media work.

We are in the midst of an emerging aesthetic—the New Aesthetic—unfolding around us at, appropriately enough, Internet speed. For example, the video, conceptual, performance, and other “idea” works of which Lippard speaks—created roughly from 1966 to 1972—were the seeds for the computer-monitor-as-canvas works, as well as web- or Internet-based art.⁶ This aesthetic builds upon the preceding works that came into existence from networked computers and telecommunication systems

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4. Lucy R. Lippard, ed., *Six Years: The Dematerialization of the Art Object from 1966–1972: A Cross-Reference Book of Information on Some Esthetic Boundaries: Consisting of a Bibliography into Which Are Inserted a Fragmented Text, Art Works, Documents, Interviews, and Symposia, Arranged Chronologically and Focused on So-called Conceptual or Information or Idea Art with Mentions of Such Vaguely Designated Areas as Minimal, Anti-form, Systems, Earth, of Process Art, Occurring Now in the Americas, Europe, England, Australia, and Asia (with Occasional Political Overtones)* (New York: Praeger, 1973).

5. Sarah Cook, ed., *A Brief History of Curating New Media Art: Conversations with Curators* (Berlin: Green Box, 2010).

6. Indeed, the very processes of the “dematerialization of the art object” she describes and addresses are certainly a significant part of the New Aesthetic works.

and combines them with the increasing sophistication of “computer vision” to utilize both human and machine input in the creation of new work. It carries the seeds of Manovich’s earlier “Post Media Aesthetics”⁷ within it. Combined with changes in the status of audio and how it is used, we are seeing immersive qualities in augmented reality and virtual environments. Such works are representative of an emergent new media, especially as we consider the network as media.

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These dematerialized, Internet-based, or networked works are disruptors of the older order. Their locations of creation and appreciation are global in nature, and thus ubiquitous, for they may literally exist everywhere and nowhere simultaneously due to their distributed and digital nature. Both the Walker Art Center and the Whitney Museum of American Art have pioneered a collection of such work, but “physical location” remains a soft concept when the works can exist on global networks, capable of allowing exhibitions that can simultaneously coincide in distributed shared spaces and times via the web. This serves only to distribute the disruption more widely.

Previously, art movements had geographically based loci, some to greater or lesser extents than others. Abundant references to the “art scene” of various cities are easily found. To speak of impressionism almost implicitly refers to France, though the movement itself had practitioners elsewhere in Europe and America. Yet with the emergence of rapid global communication, this idea of a single locus began to fragment and disperse. Indeed, by the time Lippard had written her work, the “scene” in New York City was no longer hegemonic, having dispersed to locations in Japan, Switzerland, Australia, and even west Texas.

Some of this dispersion can certainly be attributed to politics, as she suggests, but the dematerialization made possible through technological developments must also be considered. The idea that an art work, lacking strict physicality and capable of increasingly affordable replication, was able to be created and shared with complete disregard to political and physical boundaries was certainly revolutionary at the time, but it is now second nature in large parts of the world.

This disrupts traditional collection building and exhibition, as the technical means of display continue to be increasingly affordable. In turn, technology helps disperse the work itself and broadens the understanding of how new works can be created. For example, among these new works and formats, there are forms such as augmented realities and virtual realities. Both of these rely heavily upon digital means of production, instantiation, and distribution. Here, “instantiation” can be taken to mean the occurrence of the work in a form apprehensible by the physical senses, though that may be expanded to appeal to hybrid modalities of sensation. While not normally capable of perceiving certain phenomena beyond our normal perceptions, there are artists working in areas of body modification to allow the sensing of magnetic fields and the perception of infrared or ultraviolet ranges of light, for example. Such works are certainly “augmentative” to our normal reality. A more mundane understanding of that term might best be achieved by considering the smartphone and its universe of apps.

7. Lev Manovich, “Post-media Aesthetics,” http://manovich.net/DOCS/Post_media_aesthetics1.doc.

HISTORICAL ROOTS TO PRESENT: NEW REALITIES AND THE NEW AESTHETIC

One of the core themes of the New Aesthetic has been our collaboration with technology, whether that's bots, digital cameras or satellites (and whether that collaboration is conscious or unconscious), and a useful visual shorthand for that collaboration has been glitchy and pixelated imagery, a way of seeing that seems to reveal a blurring between "the real" and "the digital," the physical and the virtual, the human and the machine. It should also be clear that this "look" is a metaphor for understanding and communicating the experience of a world in which the New Aesthetic is increasingly pervasive.⁸

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With the development of television at the end of the nineteenth and beginning of the twentieth centuries, new technologies were available for experimentation. The earliest works in video appear in the late 1950s (Wolf Vostell's *Cycle Black Room* from 1958—part of the collection of the Berlinische Galerie—along with several others over the next ten years that utilized television sets) and began to emerge quickly through the 1960s with the works of Nam June Paik, Fred Forest, Steina and Woody Vasulka, and others. Not coincidentally, this efflorescence occurred with shifts in the means of production. In particular, the Sony Portapak, being a self-contained, battery-operated, portable analog video tape recording system, was capable of being carried by one person, though often used by a two-person crew. Paik and Forest were among the earliest adopters of the technology. Its use in the development of a new genre was immediate with both the capture of content and its display being manipulated in real-time and in post-capture.

The cathode ray used in the development of television and video art was also employed for visual displays in computer technology. With more sophisticated display technology based on these earlier cathode ray monitors, computers began to be used by both graphic and fine artists as tools for production and experimentation. The earliest works utilizing computers date from a period that closely overlaps with the first appearance of video art. Since output devices that could capture computer-generated works were limited, early works were captured on film, either through still photography or motion pictures. As other output-capture technologies (both hardware and software) became available, film's importance decreased. Artists began exploring the manipulative qualities of computer display graphics. This led to algorithm developments that determined a computer's output and display behavior. Likewise, artists were becoming aware of the need to code software.

Because the computer allowed the creation, manipulation, and output of multiple modalities (visual, aural, and tactile), the definition of computer art quickly become complicated. This complexity only increased as network technologies improved. Several historical events in the evolution of computer communications networks—most specifically the development of inter-computer communications protocols, the expansion of access to ARPANET and other networks, the development of networks of

8. Bridle, "#sxaesthetic."

networks (CSNET, NSFNET), and the emergence of commercial providers of Internet services—made it possible for “network” art to be considered.⁹ Coupled with the parallel growth of cellular phone networks and technology, collaboration was no longer bound by physical limitations. The dissolution of the physical object—or as Lippard termed it, its dematerialization—meant that a work could be atemporal, both synchronous or asynchronous, and a-corporeal. The rise of the networked computer as media, vehicle, and exhibition space had arrived.

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AUGMENTED REALITY

The rapid acceptance and proliferation of the smartphone and the tablet greatly facilitated the development of augmented reality (AR) apps. This type of software is often dependent upon layering of content upon the devices’ visual displays, enhancing or augmenting what one normally sees through the lens or on the screen in real time. Augmented reality offers significant advertising possibilities which help to proliferate the technology; historically, there has been something of an uneasy relationship between artist and commerce.

Miniaturization technologies have resulted in the creation of smartphones and tablet devices rivaling the processing power of some desktop computers. As a result, these devices are a rich new territory of creation. The combination of networked computers, powerful handheld devices with cameras, and the unintended consequences of artists finding new areas for investigation, has led to a blurring and blending of reality, the so-called blended realities. These can be designed to be highly locative—utilizing the GPS sensors or other GIS-related techniques—and can incorporate non-visual elements such as audio or haptic feedback. Because of the increased level of capability of “machine” vision resulting from the increasingly high resolution of the devices’ cameras, one significant aspect of the New Aesthetic has been to incorporate these elements in new and exciting ways.

The ubiquity of the smartphone has resulted in an almost insidious embrace of the use of AR. Advertisers have quickly recognized its novelty and impact, especially through the use of QR codes, readable by smartphones and other devices. At the time of this writing, augmented reality applications have been used for advertising campaigns (automotive, clothing, and others), major political elections by the Green Party in Germany, bureaucratic functionalities, architectural planning, and major art installations.

Currently an exhibit of public art is underway through the auspices of the city of Chattanooga, Tennessee. Public Art Chattanooga (PAC) recently embraced augmented reality in a significant way. In early 2012, PAC announced—by way of a call to artists—an initiative entitled *Site Unseen*, an augmented reality outdoor exhibition

9. Some demystification of the plethora of acronyms is needed when one starts to discuss any topic related to computing. ARPANET is the Advanced Research Projects Agency Network that became the basis for what we understand as the Internet. CSNET and NSFNET are the Computers and Science Network and the National Science Foundation NETWORK, developed by the National Science Foundation. In brief, the Internet is a network of networks, these two representing the earliest and fundamental networks.

uniting technology, art, and design.¹⁰ *Site Unseen* featured a temporary exhibition of three-dimensional sculpture and two-dimensional model images placed in a geo-located and visually based augmented layer throughout Chattanooga. This inaugural exhibit was planned in conjunction with the HATCH Arts Festival, a ten-day showcase of all facets of creative culture in Chattanooga.¹¹ Earlier work had been done to develop an audience and infrastructure in support of this idea. In September 2011, the international software company Layar and the local company Second | Site LLC partnered to “augment” public art, as well as other cultural and popular features, around Chattanooga.¹² This effort was based on the work done by Second | Site with their ART360 Chattanooga app. The app is downloadable using a QR code on the appropriate device, as well as the PubArt Chattanooga app that provides additional information about one hundred permanent and more than forty temporary public works in greater Chattanooga, again via augmented reality.¹³

Some earlier augmented reality initiatives include a commission by Architecture OMI of nine architects and artists to create virtual sculpture installations for the Fields Sculpture Park in upstate New York during the summer of 2011¹⁴ and a striking series of videos by Harvard Graduate School of Design 2011 Thesis Prize Winner Greg Tran that demonstrate just how extensive the use of augmented reality in architecture has become.¹⁵ The PAC project may be one of the earliest “legitimate” campaigns to popularize the use of augmented reality artworks in and of themselves, but it is definitely not the first effort to facilitate the creation of such works. Museums, of course, have been heavily invested in the use of AR for their exhibits, but other efforts to create works have also come from “the streets.” Augmented reality works often emerge from a socio-political protest milieu.¹⁶ The relatively low cost of the hardware and software has proven highly attractive to artists who are far removed from gallery radar screens.

This situation is in flux, but it will be an educational process for all, and digital preservation will play an increasingly significant role.¹⁷ Cultural heritage stewards who are encountering these objects in their more pedestrian guises, such as games on their smartphones and tablets or guides to museum collections, are quickly accepting them in larger contexts as artworks in their own right.

10. “Request for Proposals (RFP): Site Unseen | International Augmented Reality Public Art Competition,” *Public Art Chattanooga*, http://www.publicartchattanooga.com/PDFs/CallstoArtists/Site_Unseen_RFP.pdf.

11. “A Mobile Guide for the Public Art of Chattanooga,” *Public Art Chattanooga*, <http://publicartchattanooga.secondsitelc.com/home.html>.

12. “Augmented Reality (AR) Coming to a Work of Art Near You,” *Chattanooga Parent Magazine*, September 7, 2011, <http://chattanoogaparentmagazine.com/2011/09/augmented-reality-ar-coming-to-a-work-of-art-near-you/>.

13. “A Mobile Guide for the Public Art of Chattanooga.”

14. Samuel Medina, “Architects Do Augmented-Reality,” *Architizer Blog*, 2011, http://www.architizer.com/en_us/blog/dyn/24498/architects-do-augmented-reality/. Video is available at the link, demonstrating the works in question.

15. “Mediating Mediums—The Digital 3d [Short Version] on Vimeo,” 2011, <http://vimeo.com/26047677>.

16. “Times Square Ads Overtaken with Augmented Reality Art | Gadgets, Science & Technology,” *Gajitz*, 2011, <http://gajitz.com/times-square-ads-overtaken-with-augmented-reality-art/>.

17. Katerina Kkoutziouli, “Curating in a New Media Age,” *Curating.info* (blog), January 2, 2012, <http://www.curating.info/archives/366-Curating-in-a-new-media-age.html>.

VIRTUAL REALITY

These new creative environments carry their own shades of distinction that have an impact on their preservation. One such distinction is “virtual reality.” The concept of virtual reality is not new; allegedly Antonin Artaud’s reference to the theater as “la réalite virtuelle: a reality that is both illusory and purely fictitious” dates from 1938.¹⁸ This rather succinctly describes what is known as virtual reality today and the world of Second Life, in particular.

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The rich environment that virtual realities such as Second Life offer to artists has not gone unnoticed; likewise, other sectors of society have gotten involved with considerable exploration to develop the means of commercializing these virtual spaces. While their previous hype has diminished, they remain home to significant amounts of creative work. However, video games and their evolution into online, networked game environments have recently received more attention.

The Preserving Virtual Worlds project began as an attempt to explore how best to preserve digital games and interactive fiction.¹⁹ In the quest to preserve interactive multi-player game environments, project participants chose to include the virtual environment of Second Life. The difficulty with their definitions quickly became apparent with the release of their first report in September 2010. The distinction between digital games and virtual worlds that greatly complicated efforts to develop effective strategies for preservation of content can be explained briefly as follows. Second Life is a virtual world, as opposed to a game. Within the environment of the Second Life world, it is possible to have actual games. An important difference here is the concept of “persistent user-created content”—that is, content that persists and is available to other users whether the user who created the content is actively online in the environment or not. Further, a game is conceived as having a narrative arc, which may or may not be open-ended. There are goals to the game, whether abstract or concrete, whereas a “world” has no such goal though it very well may have a narrative or backstory to explain other parameters for participants’ behaviors. A world can always have a game inside, but a game will always be a game, even when it approaches a world—this is especially true in the case of World of Warcraft or Everquest, both of which certainly have the essential world-trait of persistent user-created content but are clearly intended as games with full, rich narrative arcs.

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The “world-ness” of environments has been of interest to artists as an area for exploration. One of the early strengths of Second Life was that the basic accounts were free; the real price of admission was the hardware and bandwidth to run the software client needed to participate. With the requisite imagination and coding skill, one could create all manner of things. Serious art was built inside of Second Life, art that began to enjoy a real market with real cash being spent on the virtual objects. In some cases, virtual works in this virtual environment were selling for five figures in US dollars. The idea that video art could be sold must have been a radical thought when people like Paik and Forest began their work, but these works are only viewable within the virtual environment of Second Life. Long-term preservation of these works is

18. Antonin Artaud, *The Theater and its Double*, trans. Mary Caroline Richards (New York: Grove Press, 1958), 49.

19. “How Will We Preserve Virtual Worlds?,” *Preserving Virtual Worlds*, <http://pvw.illinois.edu/pvw/>.

fraught with difficulty, not the least of which is the proprietary nature of the environment of their creation and presentation. According to the terms of service under which Linden Lab operates Second Life, the “owner” of a work may actually be constrained from removing the work even if it were possible to emulate or migrate the work to another environment. This latter point is significant, as there are other virtual worlds vying for attention that are attempting to allow the easy transfer of such assets.

Of course, those are simply the issues that surround works that might be described as sculptural in nature. What of performance works or those of a decidedly interactive nature? American artist DC Spensley, appearing in Second Life as DanCoyote Antonelli,²⁰ is noted for both his sculptural works and his performance work that involves utilizing massive sculptural structures that are worn like costumes by avatars in dance-like settings, highly orchestrated and highly demanding from the technical and logistical standpoint of working with people operating their avatars scattered over ten different time zones. How does one document work such as this? These works are just as legitimate as physical works of performance art, but the issues of documenting them are daunting, if not approaching the impossible.²¹ As the researchers of the Preserving Virtual Worlds project discovered, the preservation of content in Second Life still lacks an adequate solution.

One suggested approach is a combination of the theoretical and the practical. Because many of the works in Second Life are produced and shown in the context of a community, using an ethnographical approach by way of in-world video has the potential for being highly effective. This is referred to as “machinima,” itself an emergent art form with concomitant international festivals celebrating it.²² The anthropologists have been present in Second Life for some time, studying the development of community and other activities, but to date there has been no concerted effort to combine the techniques of ethnographic film with the tools of machinima to document these works.²³

OTHER HYBRID OBJECTS

As with other media that have served to record reality over time, books have evolved to being art objects in and of themselves. Just as painting, photography, and film have a mutable nature that allows the veracity of their content to be questioned, books and their text have long been subject to factual distortion and forgery. That mutability also gives rise to creative purposes. The artist’s book is a standard fixture for special collections in libraries around the world. In many ways, books are the gateway for collecting “new” media works, and the growth of e-books portends a shift in how one perceives these objects.

Two examples of the extended artist’s book are presented here: *Between Page and*

20. DC Spensley and DanCoyote Antonelli, <http://www.dancoyote.com>.

21. Dennis Moser, “The Song Remains. . . the Same? Three Case Studies of Issues of Digital Preservation in Second Life Performance Practices,” *Body, Space & Technology Journal*, 2010, <http://people.brunel.ac.uk/bst/vol1001/dennismoser/home.html>.

22. SLACTIONS 2012 Machinima-International Festival, <http://www.digitalurban.org/2012/05/slactions-2012-machinima-international.html>; Machinima Expo 6, <http://www.machinima-expo.com/>.

23. Dennis Moser, “The Avatar in the Archives: Issues of Documentation and Preservation of New Media Art and Virtual Worlds,” *Academia.edu*, 2009, http://uwo.academia.edu/DennisMoser/Papers/128876/The_Avatar_in_The_Archives_Issues_of_Documentation_and_Preservation_of_New_Media_Art_and_Virtual_Worlds.

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Screen, a work by Amaranth Borsuk and Brad Bouse, and *Agrippa (a book of the dead)*, a collaborative work by novelist William Gibson, visual artist Dennis Ashbaugh, and publisher Kevin Begos, Jr. Both books challenge our conceptions of what a book is while incorporating digital technologies; furthermore, they provide new challenges for those who must be stewards to their legacy.

Between Page and Screen has been described as “an augmented-reality book of poems.”²⁴ That description is only the beginning; as discussed above, augmented reality offers a number of means of interactions. The book “chronicles a love affair between two characters, P and S. The book has no words, only inscrutable black and white geometric patterns that, when coupled with a webcam, conjure the written word. Reflected on screen, the reader sees him or herself with open book in hand, language springing alive and shape-shifting with each turn of the page.”²⁵

Between Page and Screen is still very much a physical book, with significant attention paid to its physical production and binding. The book object itself was initially created as a limited edition of twelve books, printed by hand on a letterpress, and then bound by hand. It is, historically speaking, a fine press hand-bound book. It is a physical object that stands on its own regarding the traditional criteria of artists’ books. Yet to fully appreciate the content requires one to move beyond the traditional and utilize technologies that are continuing to develop and may very well disappear in the future. The fact that its content is expanded through the use of digital means should raise questions about its care and keeping in special collections.²⁶

Agrippa (a book of the dead) is notorious if only for the simple conceit of its self-destructing nature. The text of the poem by Gibson is concerned with nostalgia; the book’s physical construction, attributes, and behavior speak to memory and decay. The ephemeral aspect of this book provoked considerable concern when it was published in 1992. There were two editions created, a deluxe and a small (or regular) edition. The deluxe edition featured a specially designed case meant to evoke a sense of being a long-buried relic, with a 3¹/₂-inch computer disk containing Gibson’s poem and extra artwork. The small edition lacks the special case and extra artwork. While described as being two editions, none of the extant copies are the same, even within editions. This appears to be the result of the amount of handwork in creating each copy; not even the numbering of the copies indicates their production sequence.

Gibson’s poem was designed to be read on a 1992-era Macintosh computer. Within a year of the book’s release, the Mac’s operating system was incapable of reading the disk due to changes in the software. This obsolescence may or may not have been anticipated all along, given Gibson’s ambivalence towards technology and the future, but it is consistent with the fact that Gibson planned for the text itself to disappear: the disk containing it self-erased upon reading. Once inserted into the computer, the disk was unencrypted, the poem scrolled across the screen,

24. *Between Page and Screen*, artists’ project website, <http://www.betweenpageandscreen.com/>.

25. Ibid.

26. *Between Page and Screen* depends upon a Flash-based webpage to function; this has serious ramifications for long-term preservation.

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and the unencrypted disk would then begin corrupting the content and erasing it. The poem was designed so that it could not be stopped, copied, or printed once started.

Twenty-plus years later, *Agrippa* continues to confound. A fuller investigation of all of its facets (its genesis and dispersal, the decrypting and successful release of the poem it contains) is beyond the scope of this article. Searching OCLC WorldCat²⁷ and other resources to identify editions and copies goes only so far in elucidating the matter.²⁸ It is fascinating that this work continues to have an unseen influence on several different levels with new work today.

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The interplay between the book as physical object and book as digital object provides a point of departure for considering how one might begin to think about the preservation of the object and the content of that object. Special collections staff have a long history and understanding of how to provide care for traditional books; they have also, over the past forty-plus years, begun to come to grips with zines as valuable additions to their collections. Judging by the number of conference activities related to book arts, the Art Libraries Society of North America Book Art Special Interest Group made it clear at the 2012 conference in Toronto that zines were significant cultural artifacts.²⁹ While the Association of College and Research Libraries Rare Books and Manuscripts Section pre-conference sessions have been slowly drawing attention to non-traditional materials, until recently these were construed as photographs, video, or film. Their 2011 and 2012 pre-conferences had fewer activities dedicated to non-book or non-traditional book formats than did the 2012 ARLIS/NA conference, though to their credit they did feature significant discussions on the role of digitization. There remains much to be done in coming to grips with the new realities ahead.

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OF THE NEW AESTHETIC

The “New Aesthetic” is a native product of modern network culture. It’s from London, but it was born digital, on the Internet. The New Aesthetic is a “theory object” and a “shareable concept.” The New Aesthetic is “collectively intelligent.” It’s diffuse, crowdsourcely, and made of many small pieces loosely joined. It is rhizomatic, as the people at Rhizome would likely tell you. It’s open-sourced, and triumph-of-amateurs. It’s like its logo, a bright cluster of balloons tied to some huge, dark and lethal weight.³⁰

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27. Three WorldCat search links go only so far with the enigma of this book—<http://www.worldcat.org/title/agrippa-a-book-of-the-dead/oclc/48079355?referer=di&ht=edition>; http://www.worldcat.org/title/aatcatagagttgcataactgaattggt/oclc/58653919&referer=brief_results; <http://www.worldcat.org/title/agrippa-a-book-of-the-dead/oclc/79137074?referer=di&ht=edition>.

28. *Agrippa* continues to be an object of investigation, partly due to the vagaries of its genesis and partly due to the cryptic and fugitive nature of its content. For further investigation, consider this starting point: *The Agrippa Files*, <http://agrippa.english.ucsb.edu>. Even the *Wikipedia* entry is singularly helpful: [http://en.wikipedia.org/wiki/Agrippa_\(a_book_of_the_dead\)](http://en.wikipedia.org/wiki/Agrippa_(a_book_of_the_dead)).

29. 2012 ARLIS/NA Book Art SIG website, <http://arlisnabookartsig.blogspot.com/2012/03/arlis-2012-book-arts-related-conference.html>.

30. Bruce Sterling, “An Essay on the New Aesthetic,” *Wired*, April 2, 2012, http://www.wired.com/beyond_the_beyond/2012/04/an-essay-on-the-new-aesthetic/.

The New Aesthetic is concerned with everything that is not visible in these images and quotes, but that is inseparable from them, and without which they would not exist.³¹

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Artists have been quick to subvert these advances to their own uses, even as William Gibson foretold. Of course, some of these things required greater collaboration in order to secure and utilize the needed resources for creation. Collaborative efforts have often been needed for some endeavors, especially with the development of large-scale virtual environments and massively multi-player games. This level of collaboration has been suggested as a defining characteristic of the New Aesthetic.

It would not be inaccurate to say that many of the new works being described are predicated on previously established technologies. It should also be clear at this point that even if this is so, the work has a decided twist suggesting that more is at play than a simple reworking or iteration of an older concept. This is evident in the documentation of the 2012 South by Southwest (SXSW) sessions in Austin, Texas. Aaron Straup Cope, one of the four panelists whom James Bridle asked to speak at his session there, presented numerous visual examples along with comments revealing the subtly familiar, yet utterly unfamiliar, nature of New Aesthetic works. This seems to stem from lack of direct human intermediation in the production of some of the works. Cope speaks of the impact of drone technology, combined with imaging technology that transcends the capability of human senses, and the result of imagery that we accept but upon reflection must confront its utterly inhuman genesis.³²

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STEPS FORWARD, FUTURE ACTIONS

Technology has always meant seeing things more clearly—with every advance we move closer to understanding what the world is about. With progress come new points-of-view, new perspectives, new ways of seeing.³³

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THE IMPORTANCE OF METADATA AND NEW MEDIA

Existing search tools—sufficient for text-oriented searches—are not adequate to address usage by scholars and researchers seeking to find visual or aural materials. Historically, for art historians or curators, the relationship between printed texts and the images contained therein informed the difficulty of locating the appropriate image for the making of one's argument or to elucidate a point. Such embedded resources³⁴ continue to be problematic, as search tools are not yet optimized for combining the two modalities of the visual and the textual. While image search

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31. James Bridle, "The New Aesthetics and Its Politics," <http://booktwo.org/notebook/new-aesthetic-politics/>.

32. Aaron Straup Cope, "The New Aesthetic," (*this is aaronland*) (blog), <http://www.aaronland.info/weblog/2012/03/13/godhelpus/#sxaesthetic>.

33. Joanne McNeil, "New Aesthetic at SXSW 2012," March 14, 2012, <http://joannemcneil.com/index.php?/talks-and-such/new-aesthetic-at-sxsw-2012/>. McNeil was one of the four panelists addressing the whole question of the New Aesthetic at SXSW 2012.

34. "Embedded resources" is a term previously used in programming, but the applicability to images, drawings, charts, maps, photo-illustrations, and actual photographs as "dark" research resources cannot be understated. The emerging importance of such resources in an age that is increasingly visual is only just being recognized in the library, archives, and museum communities.

algorithms continue to evolve and approach text-focused search engines in their precision of recall, they are still dependent upon indexed textual metadata in order to locate non-text information located within texts. This same difficulty extends to materials that combine audio and visual content; without some kind of indexing, annotation system, bibliography, or compilation to create pointers to the instantiations of the sounds, events, or images sought, the sought-after content remains elusive.

Descriptive metadata can go only so far, being dependent upon human input to provide the descriptions. Perhaps someday self-documenting processes of production will appear, but in the meantime, the scholar is still dependent upon external forces. This metadata is very much needed as resources become increasingly less text-driven. This is a form of the dematerialization of which Lippard speaks in reference to art objects.

Efforts to utilize massively distributed workflows, or crowdsourcing, can certainly be useful³⁵ for some of the basic creation of descriptive metadata, and institutions are looking at ways of effectively implementing the approach. These have been most successful with image collections, and once again it has not been without unintended consequences.

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The concepts behind crowdsourcing have also given rise to new art forms, partly through the use and creative abuse of social media networks such as Twitter, Facebook, Flickr, Foursquare, and a growing multitude of others. This bidirectional flow of technology and its applications from “low” culture to “high” culture is another earmark of the New Aesthetic works, one that emphasizes the ephemeral, the casual, or the deliberate nonchalance of the object’s generation, dispersal, consumption, and appreciation. Another example of this can be found in the machine-vision aerial landscapes or drone art that are the results of various Google mapping products, including the use of Google Streetview images.³⁶ While the presentation of such works can be accomplished through the use of websites, they are necessarily surrogates to the actual interactive works themselves. While possibly acceptable from a documentation perspective, this does not completely address deeper issues of preservation of the works and the preservation of the experience of the works. What remains now is for the rest of the community of galleries, libraries, archives, and museums to become engaged.

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CONSERVATION AND PRESERVATION RESPONSES

How existing institutions have responded to this shift is a critical concern for librarians, archivists, museums, and data-curation and management specialists across all disciplines. The creation of new positions with new responsibilities has been an

Tierney Morse-McGill (associate librarian and cataloger, Coe Library, University of Wyoming), in personal communication with the author.

35. For examples of crowdsourcing, see Matt Raymond, “My Friend Flickr: A Match Made in Photo Heaven,” *Library of Congress Blog*, January 16, 2008, <http://blogs.loc.gov/loc/2008/01/my-friend-flickr-a-match-made-in-photo-heaven/>; “Crowdsourcing,” Council on Library and Information Resources,” http://www.clir.org/pubs/reports/pub152/linked-data-survey/part1_c_tools.html; Shelley Bernstein, “Crowdsourcing the Clean-Up with Freeze Tag!,” Brooklyn Museum: Community: bloggers@brooklynmuseum.org, May 21, 2009, <http://www.brooklynmuseum.org/community/blogsphere/2009/05/21/crowdsourcing-the-clean-up-with-freeze-tag/>; “6,524 Tags in Our Collection Have Been Challenged. Decide Their Fate by Playing Freeze Tag!,” Brooklyn Museum: Collections: Freeze Tag!, http://www.brooklynmuseum.org/opencollection/freeze_tag/start.php.

36. Bridle, “#sxaesthetic.”

obvious response. In the greater culture, libraries have previously been notable as early adopters of new technology. As such, they have been at the forefront of the embrace of information technology in its application to their responsibilities. In the case of the current wave of new media, however, their presence has not been quite so quick to appear.

Fortunately, museums and art organizations have responded faster than expected. Librarians and archivists are beginning to become more involved, both within those institutions and those who have discovered collections of artists' records in their own institutions. Most recently, the Archivists Round Table of Metropolitan New York dedicated their fall symposium to a discussion of extant practices and examined just how these materials were being handled.³⁷ As witnessed at this event, most of the focus continues to be on the "old" new media à la Lippard or on the analog expressions of "new" new media, which are still seen as the most cutting edge even as they are surpassed by those of the New Aesthetic. While the analog "new" new media is no easier to deal with in terms of preservation, the New Aesthetic's digital "new" media promises to be even more daunting.

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Efforts to understand how best to preserve the mid- to late-twentieth century works that Lippard described came from both the need to understand the preservation of the intellectual content as well as the objects. The emergence of idea art—whether conceptual, installation, or performance—suddenly required a reevaluation of what was required for the re-instantiation of works in traveling exhibitions, for example. While documentation was nothing new for exhibitions, the manner in which some of these new works were intended to be experienced required considerable rethinking of just what the documentation should entail and how it might be used as a means of elucidating future preservation.

Video was one of the major forms to come out of the mid- to late- twentieth- century art, and the nature of the "carrier" of its content continues to be problematic for twenty-first-century conservators and other cultural heritage stewards. The same is true for other tape-based forms, whether digital or analog in their origin. This dependency upon physical media is of special concern for those utilizing electromagnetic media. The problem is clearly one of the media by which these new creations are made manifest. As one moves from analog creations to born-digital pieces, the problems increase, particularly with regard to the hardware and software needed for instantiation of the works. Issues of access to content, especially with the passage of time and concomitant obsolescence, become increasingly significant with the necessary mechanical intermediation of these works. A parallel, perhaps, can be seen in the paintings of Jackson Pollock, Helen Frankenthaler, Morris Louis, and Kenneth Noland whose use of unprimed canvas allowed for techniques that yielded distinctive effects, but at the cost of a fugitive nature of the work for future generations.

The fact that the content is dependent upon, yet separate from, media or carriers that are of a fugitive, fragile, or ephemeral nature, has been the driver of much of the discussion about these works. More recently, the realization of the closer relationship

37. Dennis Moser, "In the Blink of a Digital Eye" (paper presented at the Artists' Records in the Archives Symposium, New York, October 11–12, 2011), <http://www.scribd.com/doc/122514235/Artists-Records-in-the-Archives-Symposium-Proceedings>.

between the media and the content has forced greater scrutiny and discussion. Works that exist across both virtual and real world environments are quite complex in the parameters of the preservation of their media and the experience of the work itself because of this relationship. This is most evident in those works based on the use of augmented reality, where the interplay between the two environments is tight and closely tied to hardware, software, and network.

The focus on the impact of time and change on what had previously been considered as static works, or at least physical in their components, is a new approach that requires considerable reflection and reevaluation. This includes a consideration of the artist's intent, the fixity of the work itself, questions of reproducibility and duplication, and even the absolute cloning made possible by digital genesis—quickly bringing works of a digital origin into consideration and thus introducing questions of migration and emulation. Even performance works were included, as they often had artifacts and objects associated with them that required documentation and preservation.

In 1999, the Guggenheim Museum undertook the Variable Media Initiative,³⁸ a non-traditional preservation strategy that evolved into the Variable Media Network (VMN). The importance is that this emerged from a strategic approach to the preservation of late-twentieth-century works which already challenged the then-conventional approach to exhibition and preservation. Through its growth, the VMN has evolved an articulated methodology and includes the efforts of institutions in an international arena. The VMN exists as a cross-institutional collaboration, and its focus is best described in its definition of the variable media phenomena: “For creators working in ephemeral formats who want posterity to experience their work more directly than through second-hand documentation or anecdote, the variable media paradigm encourages creators to define their work independently from medium so that the work can be translated once its current medium is obsolete. This requires creators to envision acceptable forms their work might take in new mediums, and to pass on guidelines for recasting work in a new form once the original has expired.”³⁹

This statement reflects a change in attitude on the parts of the creators, the stewards, the viewers, and the works themselves. The Guggenheim's early work laid the foundation for the later work of both the Walker Art Center and of Rhizome.org, which have been instrumental in the latest efforts to develop preservation strategies for these new works. More recently, the Whitney Museum of American Art,⁴⁰ the Library of Congress,⁴¹ the Smithsonian,⁴² the Cooper-Hewitt,⁴³ the Daniel Langlois

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38. “The Variable Media Initiative,” Guggenheim Museum website, March 17, 2012, <http://www.guggenheim.org/new-york/collections/conservation/conservation-projects/variable-media>.

39. Variable Media Network, <http://www.variablemedia.net/e/index.html>.

40. “Come Closer Get into the Lens Let Me See You We Are About to Create Together . . .” <http://artport.whitney.org/collection/DouglasDavis/live/>.

41. “Digital Preservation,” Library of Congress, <http://www.digitalpreservation.gov/>.

42. “Nam June Paik: Global Visionary,” Smithsonian American Art Museum and the Renwick Gallery, <http://americanart.si.edu/exhibitions/archive/2012/paik/>.

43. The Cooper-Hewitt has been quite active in providing access to information about their efforts as seen by these two examples: “Cooper-Hewitt's Collection Database,” <http://github.com/cooperhewitt/collection> and “Digital Preservation 2013,” July 23–25, 2013, Alexandria, VA, <http://www.digitalpreservation.gov/meetings/documents/ndiip13/cope.pdf>.

Foundation,⁴⁴ and the “Matters in Media Art” consortium⁴⁵ (whose partners include the Museum of Modern Art, the Tate, the New Art Trust, and the San Francisco Museum of Modern Art) have become significantly involved.

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The problem is not only one of preservation of content. Because these are works intended to be experienced, there is the issue of the preservation of experience. While libraries have focused upon the preservation of the document aspects of works in their collections, there is much more to be done. The emerging consensus is that emulation will be the most beneficial method for the preservation of the experience of these works.

Perhaps the worst response to all of this would be to ignore it, saying that much of it is not new or that we are already aware of the issues and things will be taken care of. That would be a mistake, for while there may be a seemingly reassuring familiarity to much of what has been discussed, the decreasingly human nature of it is not being recognized. The record consistently and repeatedly shows that we have not been as anticipatory in our planning and implementation as we need to be. Greater dialog among the stakeholders—galleries, libraries, archives, and museums — is needed. James Bridle will be allowed the last word:

Since May 2011 I have been collecting material which points towards new ways of seeing the world, an echo of the society, technology, politics and people that co-produce them. The New Aesthetic is not a movement, it is not a thing which can be done. It is a series of artefacts of the heterogeneous network, which recognises differences, the gaps in our overlapping but distant realities.⁴⁶

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44. Daniel Langlois Foundation, <http://www.fondation-langlois.org/html/e/>.

45. “Matters in Media Art: Collaborating Towards the Care of Time-Based Media,” Museum of Modern Art, New York, http://www.moma.org/explore/collection/conservation/media_art.

46. James Bridle, “The New Aesthetic” Tumblr site, <http://new-aesthetic.tumblr.com/about>.

AUTHOR QUERIES

AUTHOR PLEASE ANSWER ALL QUERIES

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