

Digital Preservation

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“Conditions Governing Access : A Chronology of the Jeremy Blake Papers”

*Jeremy Blake, an up-and-coming artist who sought to bridge the worlds of painting and film in lush, color-saturated, hallucinatory digital video works, has died, the New York City Police said yesterday. He was 35 and lived in the East Village in Manhattan.*

Kennedy, Randy. “Jeremy Blake, 35, Artist Who Used Lush-Toned Video, Dies.” The  
New York Times, 1 August 2007.

*The first link in the archival chain of command is, naturally, the creator of the archives.*

Joseph Gallucci, “Reading Jeremy Blake: Issues of Preservation and Access to Born-Digital  
Artists’ Archives in a Multi-Institutional Context” , 2011

Before his untimely passing, Jeremy Blake (1971-2007) left behind a diverse body of work that encompassed painting, photography, digital art, digital video, and film. This diversity extended to the materials he used to create his work. The above quote from Joseph Gallucci gives an indicator of Blake as the first in a chain of individuals and organizations that determine access to his work. It’s essential to paint a brief picture of his life and work to give context to his collection and what conditions have faced it since then.

Jeremy Aaron Blake<sup>1</sup> was born on October 4, 1971<sup>2</sup> in Fort Sill, Oklahoma. He received his Bachelor of Fine Arts degree from the Art Institute of Chicago in 1993 and his Master of Fine

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1 Kim, Julia. “Researcher Interactions with Born-Digital: Out of the Frying Pan and Into the Reading Room.” Society of American Archivists blog post. January 28, 2016.

2 Gallucci, Joseph. “Reading Jeremy Blake: Issues of Preservation and Access to Born-Digital Artists’ Archives in a Multi-Institutional Context”. May 11, 2011, p. 3.

Arts from the California Institute of the Arts (CalArts) in 1995.<sup>3</sup> While supporting himself as a photo retoucher in New York, he became interested in manipulating images digitally. He began to create large digital C-prints using Adobe Photoshop; these, along with his art direction of the Theresa Duncan CD-ROMs *Smarty* (1996) and *Zero Zero* (1997) brought him attention and critical acclaim. By 1999, he had begun to experiment with digital video. “[...]Blake would create some thirty or forty painstakingly rendered Photoshop files, each with up to one hundred unique and detailed layers composed of hand-rendered and appropriated images, which would later be animated to a soundtrack of music, voiceover, and abstract sound works.”<sup>4</sup> In addition to Photoshop, Blake would use Final Cut Pro to animate his artwork and set it to music and sound effects.<sup>5</sup> In 2002, his work received wide exposure when his animated sequences were used by Paul Thomas Anderson in the feature film *Punch-Drunk Love*. After living in California from 2002 to 2006, Blake moved back to New York with Theresa Duncan, his partner for twelve years, in January 2007. On July 10, 2007, Duncan’s body was found in their apartment. Her cause of death was officially listed by the coroner as suicide by drug overdose. Blake would take his own life a week later, on July 17, by drowning himself off the coast of Rockaway Beach in Queens;<sup>6</sup> his body was discovered off the coast of Sea Girt, New Jersey on July 21.<sup>7</sup> The circumstances of his (and Duncan’s) death were subject to speculation; both had claimed harassment by members of the Church of Scientology towards the end of their lives.<sup>8</sup>

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3 Kennedy, Randy. “Jeremy Blake, 35, Artist Who Used Lush-Toned Video, Dies.” *The New York Times*, August 1, 2007.

4 Darms, Lisa, and Giffin, Lawrence. “The Jeremy Blake (Born-Digital)Papers. *Metropolitan Archivist*, Spring 2010, p. 9.

5 Gallucci 5.

6 Gallucci pgs. 5-7.

7 Kennedy, “Jeremy Blake, 35”.

8 Gallucci 6.

Blake's "papers" were donated to the Downtown Collection of New York University's Fales Library in the spring of 2009 by his mother, Anne Schwartz Delibert.<sup>9</sup> Prior to donation, Delibert had hired an outside cataloger to inventory its contents, which totaled nine boxes and one hard drive worth of paper and born-digital material. Dated March 18, 2009,<sup>10</sup> this was the first time someone other than Blake had exerted any intellectual control over the collection.

The processing of the collection was overseen by Senior Archivist Lisa Darms. Lawrence Giffin, an intern from Queens College, undertook the work of organizing and identifying the files.<sup>11</sup> In 2010, Darms and Giffin observed the daunting realities of a collection like Blake's: it was their first collection "consisting primarily of born-digital files".<sup>12</sup> They also pointed out two other factors facing them; lack of special funding and limited staff resources. What is interesting is how at this early stage, Fales was looking to partnerships within and beyond NYU and beyond to realize their goal of making the collection accessible to researchers.<sup>13</sup>

In addition to Giffin, they utilized some technical support from the Digital Library Technology Services (DLTS) department at NYU's Bobst Library. Brian Hoffman, DLTS' digital library publication and access manager, outlined several services that DLTS would hopefully be able to provide, among them "interface creation for user access – this encompasses browsing functions for finding aids, the application of preservation and technical metadata to digital files, and enabling authorization and authentication for access to the collection by library patrons."<sup>14</sup>

Joseph Gallucci, a graduate student in the Moving Image Archiving and Preservation (MIAP) program in the Tisch School of the Arts, provided input as to long-term preservation and access strategies. These recommendations were elaborated upon in his 2011 master's thesis,

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9 Gallucci 8.

10 Gallucci 25-26.

11 Gallucci 32.

12 Darms and Giffin 9.

13 Darms and Giffin 9.

14 Gallucci 17.

“Reading Jeremy Blake: Issues of Preservation and Access to Born-Digital Artists’ Archives in a Multi-Institutional Context”. When he wrote it, access had been given a lower priority, yet nonetheless presented issues that Gallucci felt worth noting. At the time, Fales was using Archivist’s Toolkit to create their finding aids, which allowed for EAD (Encoded Archival Description) to be exported based off user created data. However, Archivist’s Toolkit was not designed for digital objects; there was a plugin available for importing uniform resource identifiers (URIs) associated with a digital object in the finding aid, but remote data could not be accessed. As of this writing, Archivist’s Toolkit has been superseded by ArchiveSpace. Other concerns posed included: how would a patron view the materials? (onsite at Fales? Via a remote connection to an NYU-based server?) What are the inherent security risks? Would patrons be allowed to duplicate the files for further dissemination, or would any handling of the files be limited to Fales?<sup>15</sup>

Gallucci also took care to note the threat that hardware and software obsolescence poses to a born-digital collection. Blake’s files dated from the period of circa 1996 to mid-2007. All of them had been generated using proprietary graphics and video editing software (Adobe Photoshop, Final Cut Pro, and Adobe After Effects). The rapid updates to them merited two possible strategies:

- Emulation, wherein the original computing environment used to create the file is simulated on a new computer using such software as VirtualBox or SheepShaver, or maintaining an older computer with the required operating system as legacy hardware;
- Migration, where data on a format that is at risk of becoming obsolete is moved to a more current platform. Similar to transferring an analog item to a digital format, this process must be repeated to keep digital items accessible.

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15 Gallucci 33, 34.

Both strategies had their inherent limitations. In the case of emulation, cultural heritage institutions were leery of its use. A 2012 grant proposal by Cornell University Libraries stated that “[E]mulation technology is not yet a viable or reliable preservation strategy for most digital assets.” They referred to the report of a 2010 digital preservation project, “Preserving Virtual Worlds”, where the author, Jerome McDonough, stated that “[...] significant visual and aural aspects of the work can be strongly affected by running under emulation.”<sup>16</sup> Since it is imperative for an archive to maintain a work as close as possible to its original form, emulation could pose more problems than solutions. Migration, while essential to keep a file accessible over time, poses similar issues that affect formatting and presentation; erasing the original format of a work risks erasing the conditions of the work’s creation. With born-digital material, this is disastrous for the archive: losing the original format can mean the loss of any context for the work,<sup>17</sup> and with it, the provenance of a work.

Online research yielded no results for any work done between 2011 and 2013 regarding the Blake collection. This silence contrasts with technological changes that are yet another condition governing access. In 2011, Apple completely overhauled their Final Cut software, launching the controversial Final Cut X. In 2012, Adobe released their last standalone iteration of the Creative Suite software package, CS6. Starting in 2013, they switched to their subscription-based service Creative Cloud (CC). As these versions became the norm, older versions have fallen by the wayside as newer and newer operating systems drop support for them.

The groundswell for the Blake collection began in 2014, when NYU Libraries hosted a National Digital Stewardship Residency (NDSR). Julia Kim and NYU Libraries’ Digital

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16 Rieger, Ora Y. “Preservation and Access Framework for Digital Art Objects.” National Endowment for the Humanities grant proposal, May 2012. p. 4.

17 Gallucci 40.

Archivist Donald Mennerich returned to the collection. Among the things they had to reckon with were an inaccurate file count (125,000!) and several as yet unprocessed boxes. These conditions did not so much govern access as they hindered it; Kim and Mennerich were working with files simply copied from Blake's hard drives; this altered crucial technical metadata such as the date of creation of the file. As Kim explained it, this copying was done "in 2009, before write-blocker hardware" (a portable device with software that prevents writing data from one device to another) "was part of the required protocol for handling digital material at NYU". The original hard drives and CDs required new disk imaging<sup>18</sup> (a representation of the of their structure and contents). Before long, the file count of 125,000 was whittled down to 400.<sup>19</sup>

Kim, as part of her NDSR, was tasked with developing "access-based workflows for the handling of born-digital, complex media archives." The Blake collection was one of twenty born-digital collections she was responsible for processing.<sup>20</sup> But re-imaging the files was only a fraction of what needed to be one. Blake had used several iterations of Photoshop to create his still and video works over a ten-year period. It fell to her and Mennerich to identify those versions of the software. This was done by analysis of the hexadecimal (hex for short, is a "human-readable" (Kim's quotations) translation and condensing of the underlying bitstream of any file. This helped to narrow down the range of Photoshop versions needed to access the files.<sup>21</sup> After two weeks, Mennerich had successfully identified all of them, and from there he and Kim obtained those particular versions. Before long, Kim's office at NYU libraries was filled with computers configured to read various versions of Photoshop.<sup>22</sup>

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18 Kim, Julia. "Jeremy Blake's Time-Based Paintings." National Digital Stewardship Residency blog post. Web. November 3, 2014.

19 Kim, "Researcher Interactions with Born-Digital".

20 Kim, "Jeremy Blake's Time-Based Paintings".

21 Dietrich, Dianne; Kim, Julia; McKeehan, Morgan, and Rhonemus, Alison. "How to Party Like It's 1999: Emulation for Everyone" in *code4lib Journal*, n. 32, April 25, 2016. p. 4.

22 Kim, "Jeremy Blake's Time-Based Paintings".

If a movie star is only as good as their last picture, then in this case, an emulation is only as good as the emulator being used. Emulators, like any software, have their dependencies, functionalities, and limitations. As Kim noted in 2016, the emulator's success was limited to whatever operating systems it was built to emulate. One in particular, SheepShaver, does not support Mac OS 10, which was the first OS to support Adobe Photoshop Creative Suite (CS).<sup>23</sup> Also, either a disk image or installer disc for the operating system one wishes to emulate is required. The pre-built emulators, like SheepShaver, often resulted in glitchy images within the files; Kim and Mennerich also took to using older laptops with an Ubuntu 10.0 operating system installed. It is important to note that the time to set up each test configuration, emulated or otherwise, took 6 hours.<sup>24</sup>

While a solution had been found, one thing remained to be seen: how would researchers and scholars take to accessing these documents in the manner provided? Five archival researchers from Fales Library were engaged for a one to three hour session at NYU's Digital Forensics Lab. They were given a laptop containing a SheepShaver emulation of a contemporary (1990s-2000s) Apple computing environment with the imaged OS and files on it to try, before moving onto a contemporary Microsoft Windows PC with the files migrated to a current version of Adobe Photoshop. The researchers were also given access to Forensic Toolkit, a software which included a preliminary "arrangement of the imaged files to compare the emulated and the current environments. The researchers appreciated the emulation, but found the contemporary environments with imaged files preferable. Authenticity of the file mattered less than access to the file, which surprised Kim.<sup>25</sup>

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23 Dietrich et al, 4.

24 Ibid 7.

25 Kim, "Researcher Interactions with Born-Digital Materials".

Nevertheless, the timing was serendipitous; since 2012, emulation was better accepted as an access strategy. It also helped that NYU Libraries was not alone in the enterprise: several cultural heritage institutions were also putting emulation to the test. At Cornell University Library, Dianne Dietrich incorporated emulation into the preservation strategies being developed for CD-ROMs. Alison Rhonemus at New York Public Library successfully emulated 56 disk images of video games off of 5.25 floppy disks from the Timothy Leary Papers and made them available in their reading room. Morgan McKeehan, at Rhizome Art Base, collaborated with the University of Freiburg in Germany to use cloud-based emulation for born-digital artworks.<sup>26</sup>

This paper has so far detailed the conditions that determine how Blake's collection is to be accessed and disseminated in the future. However, in the spirit of spurring further discussion, one proposes a delineation between conditions and entities that govern access. A possible term and definition might be like this:

Governor of Access: an entity that permits, restricts, or otherwise mandates, conditions governing access of materials in a repository. Not limited to information service or cultural heritage professionals.

In the case of the Blake papers, we have several governors of access:

- Blake, as the creator of the archive, curated and organized the files he generated owing to his own personal workflow and the computing environment.
- Blake's estate, represented by Anne Delibert, his mother. As per Gallucci, "Negotiations with the estate are important because the estate exerts intellectual control over the collection."<sup>27</sup> In the case of Fales, which does not retain copyright over its collections,<sup>28</sup>

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26 Dietrich et al, 1.

27 Gallucci 8.

28 Galucci 9.

the donor agreement between them and the estate are crucial in how and when they make materials accessible.

- Tillou Fine Art (formerly Kinz + Tillou Fine Art), the gallery with which Blake worked for most of his career. From the revenue derived from Blake's work, a percentage is given to them. Access conditions at Fales must be made with respect to the agreement between Tillou Fine Art and the estate. The gallery, as of this writing, continues to press DVD editions of Blake's work with a certificate of authenticity.<sup>29</sup> However, even the most copy-encrypted DVD can have its restrictions circumvented, and illegal uploads of his video pieces have circulated online.<sup>30</sup>
- Fales, as stewards of the collection, have an obligation to do the following: maintain and preserve the collection for future and meaningful access; honor the donor agreement between them and the estate; maintain a good relationship with the gallery, as their knowledge of the artist's work can be instrumental to long-term preservation.<sup>31</sup>

The constant in preservation work is that it is never done. The Blake collection is no exception, and the desire for an open-ended conclusion bear this out. Like so many other collections of born-digital art from the nineties, the risk of format, hardware, and software obsolescence is all too prevalent. It has been seven years since Fales received the donation from Anne Delibert in 2009, and 2017 will mark ten years since Blake's passing. It is important to end with the caveat that this chronology of the Jeremy Blake Papers is not definitive, but must continue, if the work is to survive...or risk being lost.

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29 Gallucci 11.

30 Gallucci 12.

31 Gallucci 13.

## APPENDIX: TIMELINE

This basic timeline correlates Blake’s major works with developments in the software that he used to create them.

YEAR	BLAKE WORKS/COLLECTION	SOFTWARE
1996	<i>Smarty</i> (art director)	Adobe Photoshop 4.0, After Effects 3.1 (Mac)
1997	<i>Zero Zero</i> (art director)	Adobe After Effects 3.1 (Windows)
1998		Adobe Photoshop 5.0
1999		Adobe Photoshop 5.5; After Effects 4.0/4.1; Final Cut Pro 1.0
2000	<i>A History of Glamour</i> (art director)	Adobe Photoshop 6.0; Final Cut Pro 2.0
2001		After Effects 5.1
2002	<i>Punch-Drunk Love; Sea Change; Winchester</i>	Adobe Photoshop 7.0; After Effects 5.5;
2003	<i>1906</i>	Adobe Photoshop CS1; After Effects 6.0; Final Cut Pro 3.0
2004	<i>Century 21</i>	After Effects 6.5; Final Cut Pro 4.0/4.5
2005		Adobe Photoshop CS2; Final Cut Studio/Final Cut Pro 5.0
2006		After Effects 7.0; Final Cut Studio 2/Final Cut Pro 6
2007	Jeremy Blake dies.	Adobe Photoshop CS3; After Effects CS3; Final Cut Pro 7
2008		Adobe Photoshop CS4; After Effects CS4
2009	Donation to Fales.	
2010	Fales begins processing and appraising the collection.	Adobe Photoshop CS5; After Effects CS5
2011	Joseph Gallucci publishes recommendations for long-term preservation.	
2012	Cornell University PAFDAO project proposal.	Adobe Photoshop CS6; After Effects CS5; Final Cut X
2013		Adobe Photoshop; After Effects CC 2013
2014	NYU Libraries NDSR Julia Kim begins exploring emulation as an access strategy.	Adobe Photoshop; After Effects CC 2014
2015		Adobe Photoshop; After Effects CC 2015
2016		Adobe Photoshop; After Effects CC 2016

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