

THE ARCHEOLOGICAL MEDIA LAB AS LOCAVORE THINKING DEVICE

Between the much-needed efforts of the [Electronic Literature Organization's Electronic Literature Directory](#) (ELD) and now the European-focused [Electronic Literature as a Model of Creativity and Innovation in Practice](#) (ELMCIP), it seems our field has reacted quickly and seriously to Nick Montfort and Noah Wardrip-Fruin's 2004 declaration in "[Acid Free Bits](#)" that "Preserving e-lit, and creating e-lit that will remain available, is essential to the very concept of electronic literature, the basic idea that the computer can be a place for new literary works that make use of its capabilities." Certainly, one of the many benefits of these directories is that they're built to preserve and provide broad online access to works of e-literature created since the advent of the internet.

However, no archive can ever, nor should it ever aspire to, be universal and complete; and while both the ELD and the ELMCIP also catalogue earlier works of e-literature, an obvious stumbling block that neither one can entirely overcome is the material specificity, through and through, of works created before the internet and the domination of the Graphical User Interface. The ELD and the ELMCIP wouldn't exist if we weren't already agreed on the material basis of e-literature - a materiality that can and must be preserved. And, as such, it's not particularly revolutionary to point out that the materiality of a poem like bpNichol's 1983 - 1984 "[First Screening](#)," which was created on the Apple IIe for a command-line interface, simply cannot be preserved under the current model of online directories. Instead, what the ELD and the ELMCIP have done - in fact, all they can do - is point to works such as Nichol's, gesture to them, but not preserve them.

My paper today, then, outlines how I have approached the pressing issue of preserving, maintaining access to, and - perhaps especially - how I've been thinking through early works of e-literature by creating what I've called the Archeological Media Lab, aligning it with the field of [Media Archaeology](#). The lab tries to take on, loosely speaking, a locavore approach to both sustaining and framing e-literature - one that is primarily hands-on and resolutely of the local, with only a very modest global or online presence. However, I should openly admit that the lab's limited funding makes it difficult to build a lab on the scale of a project supported by the Maryland Institute for Technology in the Humanities (MITH) or the Salman Rushdie archive that's at Emory - both of which I'll touch on shortly. Certainly I would be grateful to have the kind of online catalogue that MITH has for its collection of [vintage computers](#). I am, in fact, hoping to build a more extensive online gallery of the lab's holdings, modeled after MITH's online collection, this summer but it'll be framed in such a way that, through some sort of dissonance in the interface, viewers will be acutely aware that the most the website can ever hope to be is the equivalent of a catalogue of museum or gallery holdings. For now, I'll just say that small scale of the lab dovetails nicely with its locavore philosophy.

Nearly all digital media labs are conceived of as a place for experimental research using the most up-to-date, cutting-edge tools available. However, this lab - which is, as far as I know, the only one of its kind in North America - is a place for cross-disciplinary experimental research and teaching actively using the tools, the software and platforms, from the past. There *are* a small handful of sibling organizations in the U.S. - though, notably, they are more akin to archives or special collections than they are labs in the sense of being an utterly open space for hands-on teaching and research. One is MITH's collection of vintage computers which I just mentioned and which is unique, in my mind, because of its online catalogue of vintage computers which clearly and carefully reflects a dedication not just to the idea of materiality generally, but to the fact of materiality at every level of each computing device; as they describe it on their website, "Every item is accompanied with some basic descriptive and technical metadata...Where it is possible metadata on actual

manufacture dates and companies has been given, and an emphasis on connections (external and internal) and the use capacity of the device (read/write abilities, OS affordances, etc.) is attempted."

There is also the [Preserving Virtual Worlds](#) project - a much more large-scale project focused on preservation rather than access, involving the Rochester Institute of Technology, Stanford University, the University of Maryland, the University of Illinois at Urbana-Champaign and Linden Lab. Their stated aim is "to investigate issues surrounding the preservation of video games and interactive fiction through a series of case studies of games and literature from various periods in computing history, and to develop basic standards for metadata and content representation of these digital artifacts for long-term archival storage."

Finally, tackling both access and preservation, Emory University has launched their Born-Digital Archives program with the [Salman Rushdie's archives](#), making his digital files available to the public - files which include "forty thousand files and eighteen gigabytes of data on a Mac desktop, three Mac laptops, and an external hard drive." However, it is not insignificant that all these digital files - including those from his [Macintosh Performa 5500](#) - are available to the public only through an [emulated environment](#).

By contrast, while the Archeological Media Lab cannot provide such broad and institutionalized access, what it can do is provide small-scale access to defining moments in the history of computing and e-literature. In addition to landmark computers such as the [Commodore 64](#) from 1982, the [Vectrex Gaming Console](#) also from 1982, the [Compaq III portable laptop](#) from 1987, the [NeXT Cube](#) from 1990, the lab also houses working [Apple IIe](#)'s and an [Apple Lisa](#). These last two computers are particularly important for understanding the history of personal computing and computer-mediated writing; while they were both released in 1983, the shift in interface from the one to the other, and therefore the shift in the limits and possibilities for what one could create, is remarkable. The Apple II series of computers all used the command-line interface and they were also the first affordable, user-friendly, and so most popular personal computers ever while the Apple Lisa was the first commercial computer to use a Graphical User Interface.

In terms of the literature created on these platforms from the past, I would say that a work such as *First Screening* by bpNichol - created in 1983-1984 using an Apple IIe and the Apple BASIC programming language - is exemplary in that it, like most other early works of e-lit, cannot be understood if we view it only via a media translation. On the one hand, where would we be if *First Screening* wasn't first recovered by Jim Andrews, Geof Huth, Lionel Kearns, Marko Niemi, and Dan Waber, made available via emulator, hypercard and Quicktime movie and now preserved on both the [ELD](#) and the [ELMCIP](#)? But on the other hand, there is simply no substitute for the command-line interface paired with physical structure of the Apple II computer; as Matthew Kirschenbaum points out in his groundbreaking 2008 book [Mechanisms: New Media and the Forensic Imagination](#), the Apple II computer has no hard drive; instead, "a program is loaded by inserting the disk in the external drive and booting the machine. In practical terms, this meant first retrieving the program by going to one's collection of disks and rummaging through them...Consider the contrast in affordances to a file system mounted on a hard drive: here you located the program you wanted by reading a printed or handwritten label, browsing like you would record albums or manila file folders, not by clicking on an icon" (33). Everything about the Apple II system, its entire hardware and software system, offers both writer and reader an utterly different set of experiences than when they read or write on, say, a MacBook or a PC or when they read *First Screening* by way of a Graphical User Interface.

Again, this is not to say that these media translations aren't as important or as necessary as the emulated environment for Rushdie's digital files. It's simply to point out that one would never know from the quicktime emulation that *First Screening* is a series of poems whose meaning is actually activated through the writer/programmer's invitation to the reader/view to type in commands - from the fact that you have to type "run" to initiate it (and of course there's no instruction to "type run") to the fact that in line 110 of the code for *First Screening*, Nichol writes: "REM FOR THE CURIOUS VIEWER/READER THERE'S AN 'OFF-SCREEN ROMANCE' AT 1748. YOU JUST HAVE TO TUNE IN THE PROGRAMME." As Jim Andrews discovered in the process of creating the emulations, "the poem is off-screen in the sense that to play/view it, you have to type in a command" - either RUN 1748, RUN 1748-, GOSUB 1748, GOSUB 1748 - "you have to engage with the language machine at that level to view the poem that remains off-screen until you summon it."

Finally, I also see the Archeological Media Lab as a kind of thinking device in that providing access to the utterly unique, material specificity of these computers, their interfaces, platforms, and software makes it possible to defamiliarize or make visible for critique contemporary, *invisible* interfaces and platforms. It's an approach to media of the present via media of the past that I've come to align with the small but vibrant field of "media archaeology" (which, incidentally, I didn't know existed when I came up with the concept for the lab). In part influenced by the so-called "Berlin school of media studies" that has grown out of Friedrich Kittler's new media approach, which is invested in both recovering the analog ancestors of the digital and reading the digital back into the analog, media archaeology has taught me that one can use older writing interfaces as a way to bring the digital back into view once again. One example of the invisibility of contemporary computing that I like to use comes in a well-known [TED.com unveiling of a multitouch interface](#), during which creator Jeff Han proudly declares that "there's no instruction manual, the interface just sort of disappears." Another example comes from the [Natural User Interface Group](#) who define NUI as "an emerging concept in Human/Computer Interaction that refers to a interface that is effectively invisible, or becomes invisible to its user with successive learned interactions;" and they use "natural" to mean "organic, unthinking, prompted by instinct." But just whose instinct is directing the shape of these interfaces? Or, more to the point, why would we - as users as much as creators or writers - want our interactions with interfaces to be "unthinking" so that we have no sense of how the interface works on us, delimiting reading, writing, even thinking?

In a sense, then, the reconfigured media archaeology approach I am trying to take up in the lab is a reconfigured media archaeology applied both to computing's past *and* to a constantly receding present that masquerades as the near future. Without reading early computing devices and interfaces against their contemporary off-spring and vice-versa, the present slips from view for the contemporary computing industry - which is accelerating its drive to achieve perfect invisibility through multi-touch, Natural User Interfaces, and ubiquitous computing devices - desires nothing more than to efface the interface altogether and so also efface our ability to read let alone write the interface. By contrast, it's the combination of the strangeness and the vague familiarity of artifacts such as the black and green command-line interface and the original Apple Basic version of *First Screening* that remind us of what our computing devices can do, of what we can do to and with them.