Comic Book to CD-ROM

In 1994, the Voyager Company released a CD-ROM version of cartoonist Art Spiegelman’s Pulitzer-Prize-winning books *Maus* and *Maus II*. For many, the comic is a dubious medium for investigating history, particularly one set in the Holocaust, which is why the additional multi-media possibilities of the CD-ROM format works so well for *The Complete Maus*: photographs, video footage, and oral histories are included, which are regarded as more primary documents to the historian. In a section conveniently called: “Why a CD-ROM?”, Spiegelman’s own voice explains that he imagined it as “a repository for the thousands of sketches, hundreds of pages of notes, hours and hours of tape, and all of that stuff in one nice little box.” He was disillusioned to learn the storage capacity wasn’t that great, but still believed that it could be “an indicator of the various levels in making *Maus*.” The Village Voice noted that “It functions less like a book or a museum exhibit (though it is, in fact, a ‘portable’ version of MoMA’s 1992 *Maus* exhibit) than like Voyager’s laserdisc Criterion editions of films – complete with additional information and reference material for the truly dedicated fan.”

The design of the *Maus* interface is to present the original book page-by-page on screen, and if the reader desires, augment their experience by comparing the final work with corresponding material such Spiegelman’s original sketches, multiple drafts of the comic and earlier published versions; along with archival documents and photographs, video footage shot by the artist during his research visits to Germany, and perhaps most valuably, an extended audio interview with Spiegelman’s father Vladek, whose experiences inspired *Maus*. The availability of these functions is variable, depending on the page, but when there is more to explore the appropriate icons will appear in the left margin of the screen. Outside of the reading experience, there are a number of appendices including various essays & letters by Spiegelman, maps of WWII Poland, Rego Park, NY

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and Auschwitz camps, and finally the “The Working Transcripts,” which is a 706 page interview with Vladek conducted by Art. The last of these is in fact a separate work, and one must quit *Maus* to enter the Expanded Book.

In exploring the overwhelming amount of material encoded onto this 5” aluminum-coated plastic disc, I tried to do so on an operating system close to the version that it was designed to run on (Mac OS 7) as well as on the most current Macintosh system, 10.3. System 7 was not available to me, itself an indication of media obsolescence, so the closest I could get was 8.5 at NYU’s Avery Fisher Center. Due to the practicality of scheduling, I actually explored the CD-ROM on the modern system first, and then on the older OS. Not an ideal method for this type of study, but I’ve kept this in mind in preparing this report.

**MAUS via Classic Environment in OS 10**

The first thing I noticed is that the CD-ROM will not run directly from the disk, but must be copied to the hard drive first. While the user is instructed to do so, I noticed that the *This is Spinal Tap* CD-ROM, also a Voyager disc from 1994, will open from the disk itself. Similarly, *Maus* launches by opening the application HyperCard, whereas *Spinal Tap* needed no particular application to run. Also, *Maus* required fonts to be installed in System Folder (OS 10), whereas *Spinal Tap* did not (perhaps it did not employ any uncommon fonts).

The biggest drawback to the digital adaptation is acknowledged by Spiegelman in one of the interviews: the CD-ROM frame is horizontal, and the original *Maus* page is vertical. This greatly alters the reading experience. The solution is that the user can manipulate a hand icon to scroll the page up and down within horizontal frame. It is possible to toggle between this and a view of the entire reduced page, but that page is too small to be read.

As for navigating the supplements from these main pages, I encountered few problems. Icons (such as a cartoon reel-to-reel tape recorder, and a film projector) appear at left when there is relevant material to explore, but one can also find all the occurrences of the video and audio from the shortcuts available via the menubar at top. A small layout grid of the displayed comic page appears in the lower left of the screen, and for the panels
that have prior sketches to view, these will be shaded so the user knows to click on them. In the introductory section, there was one multimedia area about preparation of the book called “Researching the Page”, in which I encountered some trouble. There is a series of images that plays like a slideshow as audio of Art provides commentary. You can also step through these, but on autoplay the audio stopped at step 7 of 18 and the Play/Stop button disappeared. I do not know how to account for this.

In another instance, I could not open a “Drafts” link without obeying a pop-up instructing me to switch to 256K color mode. Interestingly, *Maus* can run while working in other applications (unlike the *Spinal Tap* disc) though there is a brief audio skip when jumping between applications, and on one occasion Word quit when I was working in it while a *Maus* movie was playing. Limitations of computer memory may account for some of these, but one benefit of running on a current system is that capacities for memory have generally increased, and indeed the user is not as accustomed to encountering memory problems as in the mid-1990s.

**MAUS on OS 8.5 (w/ HyperCard 2.2)**

Memory was the cause of most of the difficulty I encountered when trying to run *Maus* on a system closer to work’s vintage. I tried to open from the hard disk, but an error message reminded me that the program “will not run unless HyperCard has at least 5000K of memory allocated and available to it.” For the time being I decided to ignore it, because I discovered that if HyperCard is already open, *Maus* WILL run without changing the memory. But I quickly learned that things were operating a little screwy. The comic page, rather than scrolling up and down with the hand tool, simply spilled out of its frame, leaving half the image beneath the view of the monitor. It was possible to push the window itself all the way up, but what it came down to is that you could only view half the page at a time, and could not navigate the original comic page smoothly.

A nice feature I noticed when running on the newer system was not presenting properly here. As an introduction to each book, there is a brief collage of a scratchy old German language popular songs accompanying a sequence of Art’s sketches, finally bringing you to the title page. In system 8.5, the graphics ran fine but no sound was heard. At this point I changed the HyperCard memory to the preferred size and the above
issues were corrected, but it is interesting that in some cases you will get a prompt telling you that your experience might be affected by running on low memory, and other times you won’t. If I hadn’t already run the disk on another system, I wouldn’t have known that music was supposed to accompany those introductions.

In contrasting the two experiences, apart from the technical limitations I have mentioned, both systems seemed to operate *Maus* effectively, and I found no markedly different feel between them. A good test would be to look closely at how moving images display on each version, but there are relatively few moving parts to *Maus*. There is a short interview with Art at his drawing desk in the Introduction, and rather rough quality home video footage throughout, but no animation. Granted, I was not able to compare them side by side (indeed a few days separated my two demos), but it appears that modern Mac users at least (who have the Classic environment installed), can run *Maus* in a manner not too far from its original intention.

**Preservation**

So the question remains: what is the work and in how will it survive? Of course, the original *Maus* books are culturally important, and were a breakthrough for the graphic novel form. Fortunately, many copies were printed and will remain in the marketplace for years (even a reprint is a possibility). The ancillary materials are valuable as well, though once the CD-ROM becomes obsolete they will not be accessible to the public. It is in fact the additional material that makes the CD-ROM valuable, for the act of simply reading the comic on a computer screen is inarguably an inferior experience to that which occurs between the individual and the book. But despite the technology that makes the interactive functions possible, it can be argued that even the ancillary material suffers from the computer interface. In his *Art in America* review of the *Maus* show at MoMA, Ken Johnson suggests that even the published original is too far removed from the artist’s craft. “There is a real sensual resonance to these pages that is unfortunately absent from the printed book,” he writes. “The best thing about the show was being able to examine the original pages… There’s a gratifying materiality about the black-inked pages: they are smudgy and dingy; there are pasted-on corrections of pictures and words; mistakes
are whited-out in places.”\(^2\) The computer screen takes the viewer even further from Art’s hand, and subtleties like these that distinguish the early drafts cannot even be adequately captured with a high resolution scan.

So, is the interface itself a work of art? As the Village Voice jested when it was issued, it is only interactive in a limited sense, for “you cannot change the narrative of the book by throwing open the gates of Auschwitz and freeing the mice.”\(^3\) While it might be imperfect, it is probably the best manner of organizing the extra material. Spiegelman could publish his sketchbooks, but the separate item would not allow for easy comparisons with the finished work. Vladek’s interview could appear on a separate CD (or other audio format), but is perhaps most compelling when considered with the work it inspired. Eleven years later, it is easy to imagine all the material in the *Maus* CD-ROM assembled in a similar fashion on a web site. Functionality could be retained without compromising authenticity – after all, the CD-ROM is a derivative work in itself, and while the interface itself is a good one, not much of the experience would be lost if readapted to another format. Indeed, a few things could be improved. Some of the ancillary documents, for example, appear too small to read and cannot be resized. But to do any new adaptation, one would need to get back to the source materials.

The nodes of data – music, text, graphics and sound files – are *internal* files, that is, they are embedded within the authoring system. Unless these digitized files are stored as discrete items in the care of the original programmer, the only way to get to them would be to hack the disk. The disk itself is a surrogate copy for Spiegelman’s private archive, and presumably the original artifacts have been kept (the music and archival photographs are either public domain or licensed from another source). From these, *The Complete Maus* can be recreated as a museum exhibit or some other new digital interface, but it won’t be precisely as it was in the 1990s (or even the late 30s-early 40s).


\(^3\) Stein. “Maus marketing.”
**Specs**

*MAUS* folder dated Mar. 17, 1994  
Size: 4.7 MB

Tech Requirements:  
• Any color Mac (25-MHz 68030 or better recommended)  
• 5000K of available RAM (at least 8 MB installed)  
• 13-inch (640x480 res) or greater color monitor  
• CD-ROM drive (double-speed recommended)  
• System 7