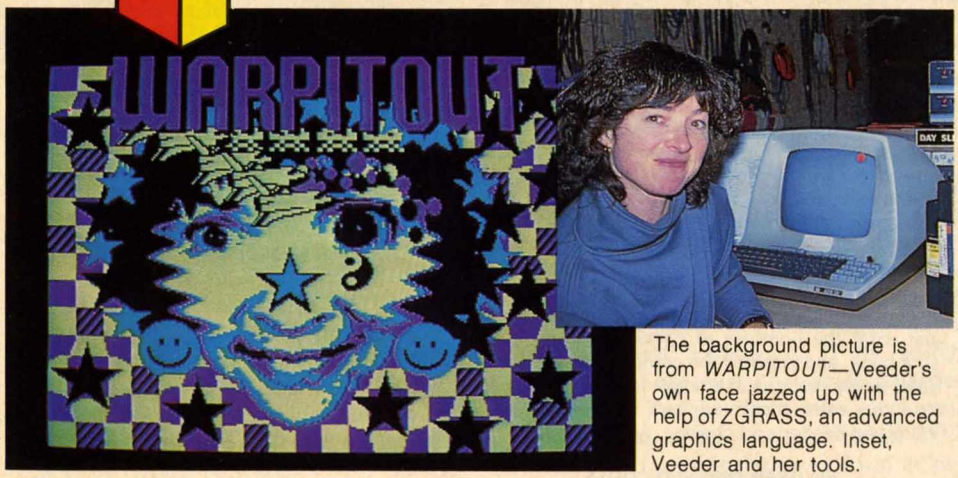
NEWSPEAK



The background picture is from *WARPITOUT*—Veeder's own face jazzed up with the help of ZGRASS, an advanced graphics language. Inset, Veeder and her tools.

CHICAGO COMPUTER ARTIST ACCELERATES TO WARP SPEED

Just south of the loop, south of the La Salle Street banks, south of the Michigan Avenue hotels, south of the State Street department stores, lives an epic host of poor, underprivileged Chicagoans. Artist Jane Veeder is on the leading edge of a new age in electronic expression, yet she lives in the slums on South Halsted Street in a split-level studio apartment.

In that apartment, Veeder and her fellow artist Phil Morton have an impressive array of computer gadgetry, including a Datamax UV-1 Graphics Computer, a Sandin Image Processor, and assorted video equipment. CRT buses shake the building when they roar up Halsted just outside the front door, but they have little effect on the concentration of Veeder and Morton.

Veeder's latest creation, *WARPITOUT*, made quite an impressive debut at the SIGGRAPH '82 Art Show in Boston this summer. Held annually for the last nine years by the Association for Computing Machinery's Special Interest Group on Computer Graphics, SIGGRAPH is the Academy Awards for computer artists.

In Veeder's own words, *WARPITOUT* is an "interactive computer graphics installation, supporting real-time color graphics processing of a digitized (facial) image of the current player using a menu-driven selection of drawing and processing programs, housed in a video-game cabinet."

Veeder's manifesto further explains the genesis of this computer game cum computer art program: "I had developed a number of generalized real-time computer graphics process program tools that I loved to play with. Some I had adapted into animation sequences, streamlined and stripped of their interactivity; others were still too slow for one-way performance. The recent development of our digitizer offered a wonderful opportunity to present these interactive programs in a menu-driven context for playing with everyone's favorite image . . . themselves."

Burned into eprom and housed in a video-game cabinet, *WARPITOUT* allows the user/player to be Lon Chaney, Salvadore Dali, and Vincent Van Gogh with a digitized image of your own face. It was a big hit at SIGGRAPH, but it raised many questions as to its status as a true work of art.

"Is it art? That's the first question. Let's go on to the next one," Veeder offers. How about an artistic video game? "With *WARPITOUT*, I'm using the universal appeal of your own face as a pretext to indulge in computer graphics more directly than you get to do with a commercial video game, where you're interacting with a finished product in restricted ways. ZGRASS makes possible an artist-integrated project such as *WARPITOUT*, as contrasted to the corporate-designed video games accomplished by teams working in fragmentary and specialized roles."

All this talk of video games and video game technology is not coincidental. Veeder uses a system that was developed in her neighborhood; video game behemoth Bally is based in Chicago. She has just smartly adapted the technology to other, more personal uses.

A more traditional work of art is *Montana*, a three-minute color videotape complete with stereo sound. Every year Veeder takes a trip into the western mountains, and *Montana* is an attempt to capture her "love [of] the physical world out there and its attendant information aura."

Montana features a number of forms (mountain, hawk, buffalo, earth, Sears Tower, video camera, and more) made all very simple (in the way the Japanese mean it). Veeder took these simple forms and developed the visual relationships with a fluid program of her own design. The program enables her to draw with any of a collection of "snaps" (screen sections stored as arrays) and tools to make lines, boxes, and other shapes. She worked on the piece for a long time, producing a dynamic,

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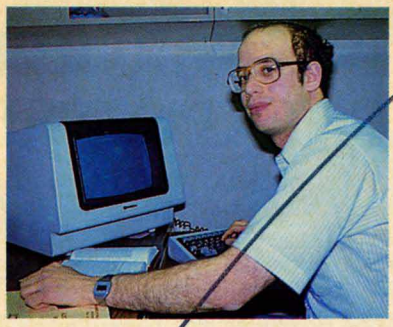
ewish Institute Imparts Religious Law with Computers



Rabbi Allan Rosenbaum seated before the terminal by which he accesses the Responsa database—a space-age tool for investigating age-old problems.

It should come as no surprise that technology is becoming the handmaiden of religion. The same computers that form the brains of multimillion-dollar corporations and lord it over scientific research institutes are being harnessed for the never-ending task of analyzing religious history and law.

One of the most ambitious projects involving computers and religious study was started in 1968 at Bar-Ilan University in Israel. A decade later, close to two hundred volumes of Halachic Responsa (the writings of ordained rabbis) dating from the eighth century to the present were assembled on a database using a large mainframe computer.

A little over a year ago the Institute for Computers in Jewish Life, based in Chicago, became the North American Center for the Bar-Ilan University Responsa Project. A copy of the database in Israel was put on an IBM 370/168 and a terminal was set up in the Institute at Chicago's Water Tower Place.

Using a TeleVideo terminal with a Hebrew text chip, Rabbi Irving Rosenbaum and his son Rabbi Allan Rosenbaum gain access to the Responsa database to perform complicated search routines and print out the results on a Decwriter IV also equipped with a Hebrew text chip.

According to the younger Rosenbaum, the Responsa Project provides very sophisticated search programs that go beyond the mundane and the everyday. For instance, you can search for the accumulated responses to the question: "When, according to Jewish Law, is the exact moment of death?" Or: "May an orthodox Jewish doctor send a patient to another physician to administer treatment which he himself may not perform because it is forbidden according to Jewish Law?"

Jewish scholars have benefited greatly from the Responsa Project, but it's not limited just to religious and ethical problems. Due to the vast amount of data stored, which covers a myriad of subjects, it's possible to glean information, for instance, about interest rates charged by European merchant bankers for the fourteenth through the sixteenth centuries. Both Rosenbaums are encouraging regular scholars and historians to use the Responsa Project for their own nonreligious research.

When people wish to perform searches, they must first fill out a comprehensive "search profile." The desired results are broken down into "an exact formulation of the search topic." You can have the whole database searched or just specific works, which you must indicate in the original Hebrew. Ultimately, the process is narrowed down to key words and key phrases.

"The scope of Jewish Law is so vast," explains Rabbi Allan Rosenbaum, "that performing a search for a subject like 'women and Judaism' is not practical. You have to narrow it down."

Director of the Institute for Computers in Jewish Life, Rabbi Irving Rosenbaum, is looking forward to the day when the Responsa Project will become a global database, with research centers in many different locations around the world. Eventually, personal microcomputers will be able to gain access to the Responsa database, bringing the service into individual homes. It's an ambitious project that attempts no less than uniting an entire people in and through computers.

The elder Rosenbaum feels there is no conflict with being a serious religious leader and a user of high technology. "The computer is mind-boggling, while at the same time it suggests new juxtapositions. In a nominal way, it's creative."

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arresting audio-visual experience.

Veeder and her partner Phil Morton are only two of many computer artists living and working in the Chicago area. Tom DeFanti and Dan Sandin of the University of Illinois at Chicago Circle have been very influential. mainly through their own development of new graphics technology. "I'm standing on a whole bunch of people's shoulders," says Veeder.

Veeder came from the world of video synthesis, which she feels is quite wonderful but akin to sex. "It's not too interesting for those watching." She supports herself by doing outside consulting work in the Chicago area, mainly instructing people how to use the ZGRASS language. She also says she's extremely addicted to real-time computer graphics.

"I am almost completely uninterested in still images other than photos for promotion or documentation. Real-time graphic performance resulting in a dynamic visual process is my priority and the motivation for my continuing growth as a programmer."

Living in a slum or not, Veeder is making history in computer art.