The Briscoe Center for American History is pleased to announce that it has recovered data from four large magnetic data tapes from the Denise Schmandt-Besserat Papers, with the help of the Living Computer Museum, a venture based in Seattle and funded by Microsoft co-founder Paul Allen. The tapes contain digital data related to Schmandt-Besserat’s work as an archaeologist and historian of writing. The data represents transcriptions of minute details obtained during Schmandt-Besserat’s field work examining tokens, symbol-based antecedents to the written word. These details, originally written on hundreds of note cards, will no doubt prove more valuable to future researchers in a digital environment.

The story behind the tapes, and the recovery of their data, makes this news even more exciting. In the late 1970s, Schmandt-Besserat (a self-confessed reluctant computer user) hired a student assistant to transcribe her field work notes at the University of Texas’ Computation Center. The assistant likely used one of the Computation Center’s CDC or DEC mainframe computers to record the notes onto the data tapes. The Computation Center stored the tapes for a period of time and then transferred to Schmandt-Besserat’s office. The professor, in turn, included them in her donation to the Briscoe Center in 1992.

The Briscoe Center then stored the tapes in its stacks, secure and climate-controlled yet far away from any machine that might read them.

Nearly twenty years later, in the Spring 2011 edition of Pat Galloway’s “Problems in the Permanent Retention of Electronic Records” course at UT’s School of Information, the Briscoe Center challenged a student group to migrate the data from the tapes to a modern storage environment. Dr. Galloway and the students, Javier Ruedas, Mark Firmin, and Meredith Bush, launched a search for any place that might maintain a mainframe computer capable of reading and (hopefully) migrating the tapes’ data. February, March, April, and finally May came and went, and the students had still not found a suitable machine.

In the meantime, the students researched Schmandt-Besserat’s paper files, and narrowed down the possible operating systems capable of interpreting the data once it was migrated. This research also helped Dr. Galloway locate the Living Computer Museum. The museum’s goal, according to its Web site, is “to breathe life back into our machines,” which include DEC and PDP computers that would support the operating systems the students specified. The museum’s Senior Curator Rich Alderson expressed enthusiasm in helping the Briscoe Center, as his academic background was in historical linguistics, a field similar to Schmandt-Besserat’s. Furthermore, another of the museum’s employees, Ian King, had been recently accepted into the University of Washington’s Ph.D. program in information science.

At the end of the summer, the Briscoe Center shipped five tapes to the museum, where Mr. Alderson and the museum staff attempted to produces tape images. Much like a disk image, a tape image represents a bit-for-bit copy of the contents of the tape as well as the manner in which the data is structured, stored, and organized on the tape. In early December, the Briscoe Center received word from the museum that they had successfully imaged four of the tapes, with the fifth tape being too fragile to migrate.

Now that the museum has rescued the data for the Briscoe Center, the next task remains to make sense of it. This is fitting: in many ways, the forensic work involved in interpreting the tape images will mirror the work Schmandt-Besserat performed as she deciphered tokens from thousands of years ago.