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J E W I S H E N T E R P R I S E

The Digital Revelation

It's a Monday, the only day the American Folk Art Museum on 53rd Street in Manhattan is closed to the public. Its airy, light-filled exhibition halls are eerily quiet. Besides our footsteps, the only sound to break the silence is the click of Ardon Bar Hama's state-of-the-art \$30,000 32 mega-pixel Leaf Aptus 75, a device mounted on the back of a Hasselblad camera. The Israeli photographer has spent the day documenting the museum's current display of gleaming carousel horses and lions and Torah arks carved by early 20th century Jewish artisans.

With an enigmatic smile and a kippah perched on his cropped dark hair, the 35-year-old Bar Hama moves like a man on a mission. Working with his behind-the-scenes partner—communications pioneer and philanthropist George Blumenthal—he traverses the globe, archiving priceless original manuscripts and artifacts and making them available on the Web. The ambitious project, established in 2004 and funded by Blumenthal, is called the Center for Online Judaic Studies.

Since the Center's founding, Bar Hama has digitally photographed some of the most precious Jewish and Christian manuscripts, most of them hidden away in climate-controlled vaults that few are allowed to enter. These have included ancient and medieval Bibles, histories, haggadahs, and contemporary items like Anne Frank's father's letters, Theodor Herzl's diaries and 4,000 Zionist posters.

He has been welcomed into the underground vault that lies beneath the Vatican Library. "It was exactly like *The Da Vinci Code*," he says. "The director has a back stairway behind his desk that takes you down. Inside the main room is another room that looks like a cage. This is for the holiest of the holiest, including the Codex Vaticanos, the oldest complete existing Christian Bible."

Working inside the "cage" for three days, Bar Hama captured images of the 1,500-page codex, then four masterpieces from among the 80,000-volume library's 803 Hebrew manuscripts. "The jewel was Maimonides' illuminated Mishneh Torah from the mid-15th century," says Bar Hama.

Working with manuscripts once touched by Maimonides is especially meaningful for Bar Hama. One fragment of the 50,000 he has photographed of the *Cairo Genizah*, the collection of rare Hebrew religious manuscripts and medieval Jewish texts found in an Egyptian synagogue in 1895, stands out for him. It was 1168 letter handwritten by Maimonides asking for funds to help Jews endangered by the Crusades. "I'm Orthodox and I have studied and heard so much about him," says Bar Hama. "Then suddenly I see the Rambam's signature and realize he was an actual person who was alive!"

Bar Hama's partner, the high-energy Blumenthal, a veteran of the cellular, cable and Internet revolutions, grasped early on the democratizing power of high-speed Web access. He says he had an epiphany when he first worked with Bar Hama in Israel in 2002. "When I saw what digital photography could do," he says, "I knew we could take primary sources and archeological objects and make them available in support of education to anyone, anytime, anywhere in the world."

Up until this time, the only technology in use for archiving was scanning, which takes three-to-five minutes per shot and is not feasible for three-dimensional objects. Bar Hama—trained as an architectural photographer—pioneered the use of the Leaf digital technology, which was

developed in Israel for high-speed fashion photography. “We can do over 2,000 shots a day at high resolution and it takes a thousandth of a second to capture the image,” he says.

Their first stop was the Ben Zvi Institute, where the two men stunned the staff by instantly digitizing a signature of false messiah Shabtai Zvi. The institute also owns the 10th century *Aleppo Codex*, the oldest existing manuscript of the Hebrew Bible, which is housed in the Israel Museum. At the institute’s request, Bar Hama digitized each leaf. The Israel Museum then allowed Bar Hama to digitize the 2,000-year-old Temple Scroll and the great Isaiah Scrolls, which can now be viewed in their entirety at deadseascrolls.tv.

The speed and non-invasiveness of the technology has made Bar Hama a favorite among archivists and curators—which is how he has been able to gain such extraordinarily unfettered access. Unlike scanning, high speed digital photography does not require manuscripts to be taken apart and pressed onto a glass surface, and their exposure to light is limited to a thousandth of a second, he says.

Armed with a portable rolling studio bag that holds his camera and lighting equipment and laptop, Bar Hama travels to valuable items so that they do not need to be moved. When finished arranging the lighting (“an art”) and shooting, he then also personally designs Web sites for the images. These images are high resolution and can’t be downloaded, which protects an institution’s ownership rights.

Images that Bar Hama shoots on behalf of the Center for Online Judaic Studies are available for free at cojs.org, and are often accompanied by commentary from world-class scholars. He also designs sites for museums, schools, libraries and private collections, and will soon begin work on one for “Gilded Lions and Jeweled Horses” at the American Folk Art Museum. Curator Stacy Hollander is delighted: “Now people who can’t make it to the exhibit will be able to see it,” she says. “And when it comes down, it will remain on the Web.”

As for Bar Hama, he loves the variety of the work, although he misses his wife and two young daughters while on the road. But the photographer is not complaining. “Everyone asks how did I get this job, how do I get to do something like this?” Bar Hama says with a grin. “Well, it didn’t exist before. We made this job up.”

—*Nadine Epstein*