

GENIZAH FRAGMENTS

The Newsletter of the Taylor-Schechter Genizah Research Unit, Cambridge University Library

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Digitising the Genizah Collection: a story to tell!

Digitising the entire set of the Cairo Genizah fragments dispersed in more than 60 public and private libraries all over the world, so as to make them freely accessible through the Internet to anyone, anytime and anywhere, has been one of the main missions of Genazim, the Friedberg Genizah Project (FGP) Computerisation Unit.

In September 2009, following lengthy negotiations between FGP and CUL, this truly mind-boggling project was begun. One of the largest of its kind ever attempted, it expected to process some 350,000 high-quality images of CUL Genizah manuscripts, to be produced following a detailed set of guidelines and under strict conditions of quality-control and checking.

Initially estimated to be a 15-year project, negotiations finally settled on a 3-year timetable, enabled by a) 'parallel processing', i.e., working with 3–4 cameras and photographers rather than just one, and b) preliminary planning to run the project with assembly-line efficiency. We are pleased to announce that as of August 2012, the project is now complete exactly three years later.



T-S A39.11, a Bible written by Sahlān b. Abraham in 953–4 CE, with both Babylonian and Tiberian vowel signs.

By a stroke of luck, just before starting the project in summer 2009, our advanced research for computer analysis of manuscript images allowed us to formulate basic guidelines (described in the next article by Dr Roni Shweka) on the best way to digitise such a document so as to make the image easily analysable by the computer, and these guidelines were followed strictly. We were therefore able to apply to the Cambridge collection the modules we had developed for having the computer suggest manuscript-joins, both inside the CUL collection as well as between the CUL collection and others.

Using semi-automated processes, each image was checked against the synchronised inventories of CUL and *Genazim*: filenames were verified and corrected, image resolution checked, missing images detected, and more. In short, *Genazim* ensured that every fragment in the collection, large or minute, was correctly shot and named.

With the entire Genizah world of images now in our servers (with the exception of those at Oxford and St Petersburg), we will soon be able to start working on the 'Grand Vision' of our project: to reconstruct the Genizah trove, bringing it back, as much as possible, to its original state.

Yaacov Choueka
Genazim

The Genizah Research Unit is pleased to announce that the digitisation of the T-S Collection is now complete, and we are proud owners of more than 310,000 digital images of Genizah manuscripts. These are currently accessible through the website of the Friedberg Genizah Project (www.genizah.org) but will also gradually be added to Cambridge's new Digital Library (cudl.lib.cam.ac.uk).

What's in an image?

As the digital images from the various Genizah collections began to accumulate on our servers, we started to investigate in what ways and under which conditions we could use this unique and huge digital collection, besides presenting it to the public as is. Predicting that advanced image analysis techniques may automatically generate some valuable data from the digital images (saving expensive human-expert resources), we were able to enunciate a set of guidelines which would guarantee optimal image quality in terms of its future processing by computer.

1 Capture the fragment's image on a background that provides the best contrast to the colour of the fragment and the ink used on it. Our analysis showed that a background with a certain shade of blue would provide the best contrast. Note that when presenting the image to

the user, its background can be changed to any desirable colour (since in fact it can be easily detected by the computer).

2 Supply the image with a ruler for an exact calibration of the image resolution.

3 Use extraneous elements such as clips, weight bags, notes, only if absolutely necessary, and then make them easily identifiable (and separated from the fragment itself) through colour, shape or unique markers.

This set of rules was applied successfully for the first time to the digitisation process used in Cambridge, and has subsequently been used with the British Library Genizah collection too.

We were able to automatically and successfully process the resulting digital images,

obtaining from them rich and valuable data on each related Genizah fragment, including the dimensions of the fragment, its written area and margins, the number of lines, line and text density, and more.

Another important product of our system is a 'digital signature' for every fragment, which represents the fragment's handwriting style. By comparing a pair of such signatures we are able to predict if the two fragments share the same handwriting, thus suggesting a 'join' (i.e. a set of different fragments that originate from the same manuscript but are now scattered). Tracing such joins is one of the biggest obstacles that Genizah researchers face in their routine work. With the ability to automatically compare the handwriting style of two fragments, we are close to overcoming this obstacle.

In the next year we plan to run this system, developed in cooperation with Prof. Lior Wolf and Prof. Nachum Dershowitz from The Blavatnik School of Computer Science at Tel Aviv University, on all Genizah fragments in all collections, comparing every available pair of images for a potential join. The total number of pairs to be compared is estimated to be more than 11 billion (11,000,000,000) pairs – a gigantic number that requires a massive amount of time and computer resources. We plan to accomplish this task in the near future, hopefully generating a complete set of all Genizah joins, restoring the Genizah to its original state, before it was scattered throughout the libraries of the world.

Roni Shweka
Genazim

First fruits of the Mosseri Collection

The latest volume in Brill's Cambridge Genizah Studies series, *Seride Teshuvot*, is the first product of the Cairo Genizah Responsa Project, led by Professor Shmuel Glick of the Schocken Institute for Jewish Research. It presents plates, transcriptions, translations, and notes on 75 responsa fragments unearthed in the Mosseri Collection, many previously unpublished. Like the documents of the wider Genizah collection, legal questions raised in the Mosseri documents often reflect the everyday concerns of the medieval world, and many of them are similar to those that people have today. There are questions relating to dietary laws, the legal status of children, financial transactions,



Mosseri III.150, a **responsum regarding a couple who are married, but may have previously committed adultery.**

the need to celebrate two days of festivals in the diaspora, as well as other, sometimes more unusual, issues. For example, Mosseri III.150 (p. 223) tells a story evoking the scandal of David and Bathsheba. Witnesses saw a couple engaging in an 'abominable action'. The act would presumably have been acceptable had the couple in question been married at the time, but the woman was still wed to her since deceased husband. The question is whether the now married couple must divorce. Shmuel Glick et al, *Seride Teshuvot: a Descriptive Catalogue of Responsa Fragments from the Jacques Mosseri Collection, Cambridge University Library* (Brill, 2012)

The Bisno Genizah Manuscripts: The Genizah Goes to Hollywood, Haifa, HUC, and Beyond

As most of us fans of the Cairo Genizah know, this enormous trove of manuscripts is now stored at libraries around the world – the large JTS collection in New York, the massive Cambridge collection in England, and dozens more. But until recently, very few of us had heard of the Bisno Collection.

I hadn't heard of it either until a few months ago. But that changed in mid-November 2011, when I stumbled upon an innocuous blog-post that sent me on a worldwide search for a previously unknown cache of manuscripts.

The fateful post was written by my colleague, Rabbi John Rosove, of Temple Israel of Hollywood (yes, *that* Hollywood). Discussing the museum at his synagogue, Rabbi Rosove mentioned that its holdings include 'a remnant from the Cairo Genizah'.

A Genizah fragment? In Hollywood? I'm a regular visitor to the website of the Friedberg Genizah Project (FGP); I often peruse its Genizah catalogue, and I was pretty sure I'd remember a mention of the Genizah having made its way to Hollywood. I double checked, and, sure enough, it turned out that although this manuscript was displayed in a museum – *a museum!* – nobody in the world of Genizah studies knew it existed.

'That Hollywood Genizah manuscript' I thought, 'it oughta be in pictures!' I put the Friedberg people together with the Temple Israel people, and now an image of the document is on the FGP website. It is a page from the book of Leviticus.

As he was arranging to have the manuscript scanned, the FGP's technical director in Israel, Professor Yaacov Choueka, asked whether anyone at Temple Israel knew where their manuscript had come from. They told him that it had been donated many years ago by a man named Julius Bisno. Evidently, the fragment had once belonged to the acclaimed British scholar and bibliophile, Elkan Nathan Adler. At some point, Adler gave a group of thirteen manuscripts to a friend of his named Wilfred Merton, and when Merton died in 1957 his manuscripts went to a bookseller named Breslauer. Breslauer sold them to Julius Bisno in 1958, and in 1962 Bisno donated one of them to Temple Israel.

Wait. Bisno originally owned *thirteen* manuscripts? Temple Israel only owns one. What happened to the other twelve? Unfortunately, the Temple Israel people told Professor Choueka, Mr. Bisno slipped off the Temple Israel radar screen back in the 1960's, and they had no further information about him or the twelve missing manuscripts.

I received copies of the emails, and as I eagerly followed the developing mystery, I realized that something about this story sounded vaguely familiar. Bisno...? Then, I remembered – I know a guy named Bisno. Aaron Bisno. A colleague of mine. I first met him back in the 1980s, when he was in college and I was a rabbinic student. Nowadays he's the senior rabbi of Rodef Shalom Congregation, in Pittsburgh. Without delay, I emailed him and explained what was going on. 'Aaron', I asked, 'I know it's a longshot, but, by any chance are you and Julius related?'

'Yes', he replied, 'Julius was my great-uncle'.

Julius Bisno, it turns out, had been a leader of the Los Angeles Jewish community. He was an executive of the local Jewish Federation, and, for several years he served as national director of the B'nai B'rith Youth Organization. And he loved old books and manuscripts.

Aaron put me in touch with his father, and his father put me in touch with more Bisnos than I could ever have imagined. There were Bisnos in San Francisco, Bisnos in Fort Lauderdale, Bisnos in Haifa, and for all I know, even some Fresno Bisnos, as well.

They were all enormously helpful. Julius Bisno, they told me, was a passionate collector of Jewish manuscripts, and also a devoted philanthropist. After purchasing his thirteen Genizah manuscripts, he gave one to his son, and today it is at the home of his former daughter-in law, in Haifa.

Two down, eleven to go. The Bisnos told me that Julius had donated the rest of his manuscripts to the Hebrew Union College in Los Angeles and the Hebrew University in Jerusalem. I contacted both institutions. Hebrew University – its library is now part of the National Library of Israel – has no record of any Bisno manuscripts in its collection. HUC in Los Angeles, however, does have one. Its librarian, Yaffa Weisman, told me that in fact a Genizah manuscript from the Bisno Collection has been proudly displayed in the library's lobby since 1971.

And as for the other ten manuscripts? Well, for now, the trail has run cold. HUC has no record of them; Hebrew

University doesn't, either. And believe it or not, for the time being, I've even run out of Bisnos with new information.

Maybe the missing manuscripts somehow slipped into larger collections; maybe there remain undiscovered records of what happened to them. And maybe, somewhere, there are yet-to-be-identified Bisnos guarding priceless Genizah treasures they received from Julius many years ago.

From Cairo to London to Los Angeles... to Haifa, Hollywood, and who-knows-where else – these documents have taken an amazing journey through time and space. And in our continued search for their story, so can we.

Rabbi Mark S. Glickman
Seattle

HOW YOU CAN HELP

To receive *Genizah Fragments*, to inquire about the Collection, or to learn how to assist with its preservation and study, please write to Dr Ben Outhwaite, Head of the Genizah Research Unit, at Cambridge University Library, West Road, Cambridge, CB3 9DR, England.

The Library can be reached by fax (01223) 333160 or by telephone (01223) 333000. Inquiries by email should be addressed to the Unit at: genizah@lib.cam.ac.uk

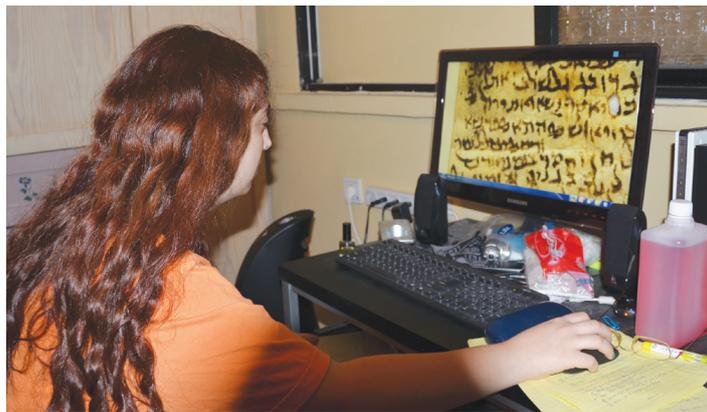
Contributions to the Unit are made to the "University of Cambridge," which enjoys charitable status for tax and similar purposes.

Genizah works its magic in science competition

Newly-graduated from high school, in March 2012 I submitted a paper on an unpublished Genizah amulet to the Israeli Young Scientists Competition. The 3-day competition is run annually by the Science Museum in Jerusalem, and is one of the most well-known and exclusive competitions for teenage researchers in Israel. Participants come from the fields of science, mathematics, engineering, social science and history, as well as other subjects, provided that their studies are interesting and original.

My research was supervised by Prof. Gideon Bohak of Tel Aviv University, and dealt with an unpublished 'grace and favour' amulet, T-S K1.165. Such amulets were made with the express purpose of achieving social sympathy and honour in the eyes of a specific person or group. T-S K1.165 dates from the end of the 11th century, and was written to order by an individual named Elazar ha-Kohen. Elazar wanted to find favour with the Qadi (Muslim judge or governor) Abū I-Fatukh, and have power over him.

The competition judging process involves at least 2 groups of judges: one group being experts in the same field as the paper, and another group comprised of



T-S K1.165. **Amit Shafran working on T-S K1.165. Now that the Collection has been digitised, it is possible for anyone, anywhere to make discoveries in the Genizah.**

experts in other, very different, fields. Each competitor must exhibit his or her project to the 2 different groups, considering their different ways of thinking and their prior knowledge on the subject, as well as answering all and any of their questions. At the end of the second day, the jury meets and chooses the overall winners from among the 45 projects submitted. On the third day prizes are awarded at the Knesset.

This year, the first 3 places were awarded to 7 projects: 2 projects won third place, 4 projects won second place, and one project

won first place. This year was the first in the history of the Young Scientists Competition to have so many winners, since usually there is one winner for each prize. I was one of the 4 students who won the 2nd place prize, and, along with the winners, gained a university scholarship and met president Shimon Peres at the presidential residence.

Furthermore, in September 2012 I have been chosen – together with two other teenagers – to represent Israel in the European Contest for Young Scientists (EUCYS) in Bratislava, Slovakia. This contest is much larger, and much harder, since only projects that have been nominated by the national organiser in each participating country are admissible – meaning only projects that won their national contest can be admitted. In the future I hope to publish a more academic version of my paper, and to continue my research on the Cairo Genizah and its manuscripts.

Amit Shafran

Rishon Lezion, Israel

Anna Johnson

Anna Johnson has just joined Cambridge University Library as the new manuscript conservator for the Jacques Mosseri Genizah Collection. Anna comes to Cambridge from a ten-month internship at the British Library, where she worked on the conservation of Western and Indo-European manuscripts. Prior to that, she completed a PhD in contemporary aesthetic theory at the University of Leeds and then trained as a book and paper conservator at West Dean College, University of Sussex. Anna is excited at the prospect of working on the Mosseri project, and is delighted to have been given the opportunity to conserve this fascinating collection.



The Lauffer Family Charitable Trust has generously contributed towards the cost of producing this newsletter in memory of the late David Lauffer, an enthusiastic student of history and supporter of the Genizah Research Unit.

The Genizah Research Unit would like to express its gratitude for the generous support of the Arts and Humanities Research Council, UK, the Friedberg Genizah Project, and the Isaac Newton Trust.

We are also grateful for the help of our supporters: the Benjamin Kruger Library (£350); the Spiro Ark (£240); Norman Shelton (£200); David Cashdan (£120); Naomi Alexander (£100); the H. Joels Charitable Trust (£100); the Rofeh Trust (£100); Ruth Montlake (£100); and for other smaller and anonymous donations.