

Uri Shmueli (1928–2023)

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Uri was born on 13 May 1928 in Kraków, Poland. His parents, Moshe Szmulewicz and Nina Seidenfrau Szmulewicz, both of whom were Hebrew teachers and Zionists, named their only child Uriel. He did not become Uri Shmueli until 1954.

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Photo courtesy of Alicja Rafalska-Lasocha

In his memoirs dated 2013 (see the supporting information), Uri described his childhood as happy. There were skiing vacations in the winter and two months in a family camp each summer. But Jews in Poland were also subject to increasing harassment. Walking to school could be dangerous.

Starting in September 1939, life for the Szmulewicz family became difficult (see his memoirs). When it became illegal for him to attend school, Uri's mother taught him Hebrew, Bible and German, and arranged lessons for him in Polish, history, Latin, mathematics, geography, natural history and English. The lessons continued after the family moved to the nearby town of Wieliczka, where much of his mother's family lived. At 13, Uri had his Bar Mitzvah, necessarily in a private house because the synagogues had been closed. Later he found he was unwelcome for prayers in two different minyans (a quorum of ten Jewish adults required for certain religious obligations in Judaism) because at home his family spoke Hebrew, the holy language, and because he knew no Yiddish.

The family was separated in August 1942. Uri and his father were sent to a work camp in Płaszów, where they were still allowed to wear their own clothes; somewhat later, they were relocated for a time to the Kraków ghetto. Because their factory made electrical cables and Bakelite sockets, they were protected as essential workers. Uri made friends in the camp and, because of his skills, became an informal apprentice to his department's mechanic. He remembered that there were supervising Poles at the camp who were kind to him. One sneaked him a book about the theory of sets.

In January 1944, Płaszów was converted into a concentration camp. That August, Uri and his father were among the 4500 put on a train for KZ Mauthausen, where they were

separated. Uri ended up at the subcamp KZ Linz III, located on an island in the river Traun, where conditions became steadily worse as the end of the war approached. In May 1945 Uri finally became free, eight days before his 18th birthday. Shortly thereafter he learned that his father had perished. Of his whole extended family only a few cousins had survived.

From August 1945 to November 1947, Uri was in Italy, first in a youth camp near Bari and later in Rome. He managed to learn enough on his own to pass, in Italian, the exams for an external, scientific high-school degree.

Uri had many gifts, one of them being for languages. He learned Hebrew and Polish as a child and had good training in German, English and Latin. In KZ Linz III, he learned Russian because it was the language spoken by most prisoners in his block. While in Italy, he learned, in addition to Italian, Yiddish, which during his childhood his parents had retained as their private language.

Using false papers, Uri entered Palestine in November 1947. He settled in Tel Aviv, where he first worked as a salesman of oil products but then apprenticed as a grinder of optical lenses. He was, to his regret, found unfit for military service. In Tel Aviv, he met Miriam Ajzenfeld, and they were married in 1954. She encouraged him to continue his studies and then worked to support them both while he did.

At 28, Uri started university at the Technion. He described the first year as being incredibly difficult because of all he had forgotten while grinding lenses, but he succeeded, earning a BSc in physics in 1960 and an MSc in 1961. From there, he went to the Weizmann Institute for graduate studies in polymer crystallography. By late 1961, Uri and Miriam were secure enough to start a family. Their son Rami was born in 1962, and their daughter Yael in 1967.

After completing his PhD in 1966, Uri joined the teaching staff of Tel Aviv University. There he set up the Laboratory of Chemical Crystallography. That lab was later taken over by one of his students, the late Professor Israel Goldberg, who became Uri's longtime collaborator and very good friend. The Cambridge Structural Database includes 35 structures from Uri's work in that lab.

Uri published papers about crystal packing and thermal motion in donor–acceptor compounds, and on the effects of molecular vibrations on NMR spectra. His 1974 paper *Vibration of 9,10-Anthraquinone at 5 Temperatures* with Peter Kroon in *Acta Crystallographica* Section A was pioneering in its analysis of thermal motion in a crystal studied at multiple temperatures. He was one of the eight authors of the 1996 publication in *Acta A* titled *Atomic Displacement Parameter Nomenclature – Report of a Subcommittee on Atomic Displacement Parameter Nomenclature*. That 12-page report has been cited a surprising 284 times.

Towards the end of the 1970s, Uri became interested in structure-factor statistics, which remained his focus until and beyond retirement. His last paper was published in *Journal of Applied Crystallography* in 2016. Altogether there were more than 80 publications that have been cited nearly 1700 times.



Figure 1
With the 70th anniversary plaque, Wieliczka, 2012 (courtesy of P. Zarychta).

In 1982 Uri started his long service as Editor of Volume B (*Reciprocal Space*) of *International Tables for Crystallography*. (Volume B is the successor to Volume II of the earlier ‘red’ series *International Tables for X-ray Crystallography*.) He edited the 1993, 2006 and 2010 editions and wrote more than a few of the included articles. The staff at the IUCr in Chester very much appreciated his diligent and careful work, and they remember him very fondly as a friend and as a pleasure to work with. He was always polite and kind, and always very tactful.

Uri retired in 1996. The next few years were marred by the passing of his wife Miriam in 1997 after a long illness. Later, however, Uri enjoyed the long, productive and happy retirement that he so deserved. He wrote a book (*Theories and Techniques of Crystal Structure Determination*, Oxford University Press, 2007), and continued editing Volume B of *International Tables*.

In his later years, Uri reconnected with Magda Leuchter, whom he had first known in 1947 while in Rome. They shared 25 years together and enjoyed their combined four children and eleven grandchildren.

In 2001 and 2003, Uri returned to Poland after an absence of more than 60 years. The first trip was to deliver a plenary lecture at the European Crystallographic Meeting; the second was to show his family the places where he had grown up. Later Uri became involved in projects to remember the Jewry of Wieliczka (see <https://www.youtube.com/watch?v=C4bzb2wut0I>, especially minutes 9:30–16:30).

No remembrance of Uri can be complete without mention of his remarkable personal qualities. I first met him in 1981 in Tel Aviv and was immediately struck by his humanity. He was gentle and kind, but also tough. I remember him as surprisingly hopeful and optimistic about mankind. At Tel Aviv University, he was recognized year after year as a beloved instructor whose door was always open. His memoir shows

that he made friends easily with all kinds of people, learning their language if necessary. People were drawn to Uri. While he described himself as secular, he shone with a kind of inner light that was appropriate for somebody who had been given the name of an archangel.

I am very grateful for Yael Shmueli-Friedland's help with this remembrance.