

I have put off writing this foreword until the last minute, but now I must or it won't make the Issue. I think my procrastination is due to my not wanting to put a final period on my relationship with Chava and acknowledge I won't be seeing her again at the many meetings we both attended each year. I know many of you feel the same way. Chava and I had been colleagues for 35 years and while I realized she had been fighting serious health problems for at least a decade, I had grown accustomed to her winning. I'm not sure where I first met her. It almost certainly was at an ASMS meeting, but I am not sure which one. She always sat at, or near, the front. This used to amaze me because it meant you had to stay awake for all of the talks, and we all know many of them were instant cures for insomnia! I think she did it for two reasons. First, she was actually interested in what people had to say. Second, she was soft spoken and very often asked a trenchant question of the speaker at the end of the talk and in the early days the halls could be big and there were no microphones for the audience. And she was persistent – (almost) never letting the speaker off the hook with a waffling or weak answer. I admired this trait, especially since she did it without irritating or embarrassing the speaker – something it took me years to learn (OK, I'm still learning!).

Our research interests intersected and overlapped for most of our careers. Perhaps the longest lasting and most intense interactions occurred in theoretical modeling of ionic processes. This area characterized Chava's career from beginning to end. From the early 1970's to about 1990 it was perhaps the dominant focus of our group resulting in both collisional and statistical reaction rate theories. We had a 15 year dialogue on whether the microcanonical approach (densities of states) or the canonical approach (entropy) was best with my championing the former and her the latter. It was fun, it was stimulating and it could be frustrating! But I will never forget something Chava did during this period following a keynote lecture by a friend and colleague of ours in the early 1980's at ASMS. Our group had recently published a series of papers applying our generalized phase space theory approach to different types of reacting systems. The mathematics were complex and formal and we hadn't yet learned how to package the theory in a user friendly way. This led to numerous attempts at simplified versions that might work with specific systems but not in general. Well, this particular talk was about the development of such a theory and the speaker hadn't once mentioned our already published more general approaches. As the talk wore on I got more and more agitated and by the time it was over would have given anything for a button that would open a trap door below the speaker's feet!! Well the chair of the session was a sensible person and selected Chava for the first question. Chava could be very direct in her questions as I'd personally experienced many times. The essence of her question was "Isn't your development just a special case of the phase space theory of Chesnavich and Bowers?" After pausing for a moment, the speaker acknowledged it was. There were no further questions! Even though Chava and I were in the midst of a spirited dialogue on this very topic, she asked the right question in the right way, saved me from perhaps saying something silly had I asked the question, and allowed me to remain good friends with the speaker to this day.

My most personal moments with Chava occurred during an 8 day visit to Jerusalem in August 1988. We were just finishing the third year of a joint binational science foundation grant that provide research funds to the Israeli scientist and also funds a visit from the American counterpart during the grant period. I remember the trip well since it also introduced me to El Al Airlines and their notorious security measures (all you've heard is true!). My timing was not great since the first Palestinian uprising was in progress (hence El Al instead of Pan Am). As a consequence travel outside of Jerusalem was vetoed by Chava as were visits to the Arab quarter in the Old City. After an eternal series of flights from Santa Barbara and a long limo ride with 7 others from the distant Tel Aviv Airport, I arrived at 3 AM at the Hebrew University Campus Center where there were rooms for visitors and the main campus restaurant. I had arranged to meet Chava just after noon at this restaurant and gratefully collapsed on the bed for some sleep. I finally got up about 11 AM, went into the bathroom and turned on the shower. Nothing; not a drop. A phone call to the desk informed me they hoped

to have water later that afternoon! In those days smoking was allowed on flights and I think everyone on El Al smoked but me. Most of the smoke was still attached to my body! Chava just grinned and shrugged, introduced me to her daughter (Orna, I think, see picture below) and we proceeded to have lunch and head for the lab. Fortunately having two days growth of beard was common in Israel at the time so I just fit right in.

Chava was hands on. A picture of her at the helm of one of her instruments (from a few years earlier) is shown below.



Chava and Family circa 1972. Husband Assa and children Ron, Donna and Orna



Chava extracting new data from one of her instruments circa 1980

She loved getting data and discussing what it meant. I don't think I had seriously taken data myself for at least 20 years at that time but she was right at home. We spent quite a bit of time in the lab during my visit. She was also a superb host and took me everywhere she considered safe in the city, giving me a first class introduction since it was my first visit. We also sampled a wide variety of restaurants and I was hosted by other faculty, notably Raphy Levine who held a dinner party in his home. By chance the International Quantum Chemistry Conference was taking place on campus during my visit, some of which I found interesting and gave it Chava a few breathers from baby sitting me. My one regret is we didn't manage to publish a paper together, something that matters much more to me now.

Chava and I often talked about her coming to Santa Barbara for an extended stay. She even agreed she would come for a year when she retired. This may surprise Assa and others in the family since I am not sure she shared this with them. Of course getting Chava to retire was the hardest part. You've often heard the old saw "No one goes to their grave wishing they'd spent another day at work" but Chava is the exception to that rule. Her work and her family were her life. She loved both with passion.

The last time I saw Chava was at the Special Symposium in Berlin honoring my fellow IJMS editor Helmut Schwarz on his 60th birthday. Chava attended even though she wasn't feeling well at the time because of the deep personal relationship she had developed with Helmut over their long professional association. I was there both to honor Helmut personally and to represent Elsevier in presenting him with a special issue of IJMS I edited that was published in his honor. It is entirely fitting that Helmut will perform this function at a Memorial Symposium honoring Chava in Jerusalem March 22, 2006, where this special, special issue will be presented

to Assa and other family members in attendance. I will be there in spirit and know it will be a special moment for all involved.

This is the second time the journal has honored a person with a second special issue. The first was John Beynon on his 80th birthday two years ago. It is entirely appropriate we do this for Chava. She has the distinction of serving continuously on the Editorial Board from 1983 to 2005, second only to Keith Jennings in length of service. It also allows the community to express their respect and affection for Chava and deal with the loss of her presence with us. There are 57 research papers included in this issue from her colleagues and friends, some of whom made great efforts to finish their work and writing in time. A cut-off date of November 1st was required since the manuscripts needed to be reviewed, revised and at the publishers the first week in January. This was a “hard” deadline in order to meet the requirement for presentation of the bound volume on March 22nd in Jerusalem. Of course inquiries were made about submitting papers a “few days late” and of course I said to submit them and I would do everything I could to get them in the issue. Well 16 late papers were received, the last two December 30, 2005 and January 4, 2006! Reviewers were great for the most part but yours truly ended up doing the last 10 reviews himself. These were for authors that really wanted to contribute but circumstances prevented earlier submission. The authors responded immediately with their revisions, Elsevier gave us an extra week, and all of them got in. It was a good experience for me, forcing me to carefully read things not precisely in my area and convinced me of the very high quality of papers in this issue. I hope all of you will read and enjoy the great science in this volume.

In the first special issue honoring Chava published 10 years ago a complete CV was published. We won't repeat this here. We will include a complete listing of her publications, however, as a testament to her enormous contributions to our Science. There is also an Appreciation written by one of her PhD students that follows this Foreword.

Finally, Chava has been close to me during my writing of this Foreword, as I am sure she was close to many of the authors as they wrote their papers for this issue. While there is little doubt the saying that “dust to dust” pertains to our physical selves, I believe our spirits are eternal. Chava's body may have become dust but her spirit hasn't and I look forward to my spirit and hers continuing our dialogues into eternity.

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