



In the Shadow of a Voyage through Time

Jack A. Syage*

Principium

I'm sure that I'm not alone in eagerly signing up many months ago with a flood of memories and a desire to write something especially poignant about our time with Ahmed. Then reality hits and our busy lives collide with the deadline! However, what we are currently busy with can always wait another day as we don't often get the opportunity to put our imprint on history. Additionally, when I emailed Abderrazzak apologizing for having to withdraw, he responded with some encouragement and finished with a simple yet resonant appeal: "Please try." So here goes over a glass of bourbon!

I was fortunate to be able to attend the tribute to Ahmed at Caltech on 19 January 2017 and was overwhelmed with recollections of what were some of the best years of my life. I was thrilled to meet so many people that I knew from so long ago (let's just say they were contemporaries) as well as the later generation and the greater Caltech community that were all part of Ahmed's universe. It was overwhelmingly inspiring to be surrounded by so much brilliance.

I came into the group as a postdoctoral researcher in 1982 and it was truly an incredible time for me. There was not a single day when

* Postdoctoral Research Fellow.
Email: jsyage@immunogenx.com

I drove into the Noyes parking lot in the morning that I didn't think about how blessed I was to be working at this amazing university, in this amazing research group, with such amazing people, fulfilling my scientific dreams. We sometimes don't realize this until we leave, but I can truly say I felt this every day.

Now, this is not to say it was always a bed of roses and it shouldn't be. We can better appreciate the good things when we have some adversity as a frame of reference, so my story may reveal another side to what you are probably reading in this book.

We all know the jovial side of Ahmed. He was a true gem; a real enthusiast and it rubbed off on so many of us. There were few greater feelings than to get into a stimulating discussion with him, trading ideas, and challenging each other. Ahmed openly invited opinions and thoughts which was wonderful. There is nothing quite like the old-fashioned paper writing exercise when we would, at least during my time, use primitive word processors to draft a paper and then sit in Ahmed's office as he read and edited it in real-time (with a pen!) so that we could go back to the sub-basement and revise it. And should we not accept something or reword it, he would catch it! Of course we didn't need to do that too often because he was very intuitive and his edits were usually spot on.

The Doghouse

But there was another side where some of us would occasionally find ourselves in what was known as Ahmed's "doghouse." He was generally accepting of working hard on experiments that weren't straightforwardly panning out because such endeavors are indeed worthy and honorable challenges, and we all know Ahmed loved challenging scientific problems. He certainly wasn't going to pursue the easy stuff and none of us were there for that either (well, maybe some were!). When I joined the group in 1982, I was forewarned about a history of turmoil, but I was undaunted because I was hungry to do well and had faith in my capabilities.

One night at my desk in the sub-basement, when Ahmed was on travel, I took the opportunity to work on a paper that grew out of my graduate years. I had developed into an independent researcher

during that time and was excited about a couple of theory papers that I was writing solo. All my material was fully spread out on the desk. Then I hear the elevator door open and the tell-tale sounds of hard-sole shoes walking down the hall toward my room. Now, graduate students and postdoctoral scholars wore nothing but sneakers or sandals, so my heart skipped a beat... it was Ahmed! I knew he wouldn't like me working on my own project, so in a panic I tried to decide what to do. Should I cut him off at the pass by getting up and meeting him in the hall or should I quickly gather up all my stuff and shove it into a drawer? Instead, I froze and faced the inevitable. He comes into the office and walks down to my desk with a big smile on his face wondering what I was up to. When he looked down, he became ashen. I can't recall what he said, but he quickly retreated with, to put it mildly, a displeased look on his face. I knew I was in trouble!

The next day when I arrived and settled into the laboratory, the phone rang and someone said that Ahmed would like to speak to me. I picked up the phone and Ahmed said to me in a very terse voice, "Jack, I'd like to see you in my office!" My heart started racing as I headed up to his office. This is how I remembered the conversation unfolding:

Ahmed: "Sit down."

Jack: "OK."

Ahmed: "Jack, what does it mean to you to be working in this group?"

Jack: "What do you mean?"

Ahmed: "I don't think you appreciate the opportunity you have here."

Jack: "Ahmed, I really do. I love it here and always think about how fortunate I am to be in this great group of yours."
(And then I rattled on about the excitement of working in the group, amongst other desperate ramblings.)

Ahmed: "How long have you been here?"

Jack: "About a year and a half."

Ahmed: "Maybe you should start thinking about where you should go next."

Jack: "Ahmed...!"

Well, I thought I was going to get fired, which was especially distressing since my soon-to-be-wife Liz was just starting her own postdoctoral stint and I was hoping to stretch mine out a bit longer. The conversation went back and forth and he told me what was bothering him; that I probably did not value the projects I was working on in his group. I explained that I was working on a paper (I knew better than to say "during my free time") that was dear to me and could potentially allow me to further develop my mathematical skills, and that, at the same time, I'd also love to do a little more theory for him. Yes, there was some groveling! But it was more like a lover's quarrel and we both got teary. He was hurt and I was scared! As quarrels go, you work things out and eventually he started to soften and a smile started to show. I was beginning to feel a little less panicked, but I didn't really think I was out of the doghouse until he finally said:

"Let's go get some pizza."

Place Your Bets

After my postdoctoral fellowship, I took a position at the Aerospace Corporation in El Segundo, California, in 1984, which is a government-supported but independent arm of the Air Force Space Program. I was fortunate to join the vibrant laboratory division and I was able to form a reasonably robust research group that kept me in the chemical physics game for many years. For a non-academic laboratory, I had satisfying success due to strong focus, reasonable funding, and a driven work ethic. Ahmed and I stayed in touch mostly through conferences, many of which were in Europe.

I was particularly pleased to have been invited to the 1996 Nobel Symposium in Chemistry held at Alfred Nobel's mansion in Björkborn, Sweden. This symposium is an annual, but little known, event that is truly a preview of which scientific fields will soon be honoured! An initial set of invitations were sent out to the usual luminaries in ultrafast spectroscopy, and those I knew were waving them around justifiably with pride. They were the invited speakers. Shockingly, a few weeks later, I got an invitation in the mail to attend (but not talk). I was clearly

on the “B” list. But hey, only 40 in total were invited. My invite was owed to the fact that I was doing ultrafast on molecular clusters, which was a sufficiently novel field for me to be part of a small group of practitioners. Well, that symposium was clearly a Zewail Fest and signaled what was to come. It was an incredible time with someone actually impersonating Alfred Nobel, a historian totally acting in character; a real highlight! But Ahmed was undeniably and deservedly the star of the party. I know in this world you can bet on almost anything; if I knew where to place my bet I would have made out very well in 1999!

Group Member Forever

As I balanced my responsibilities of paying Air Force programs for launch vehicles and pursuing my independent research career (and also raising a family!), there was not much time for side ventures... with one exception! More than once, I would get a call from Ahmed and he would say, “Jack, there is this paper we need to write.” A few times it was an invitation to write a review article. Although review articles can be notoriously time-consuming, how could I refuse Ahmed? It was not an easy task in the 1990s to look up and photocopy hundreds of references, especially at the Aerospace Corporation, but it was a great opportunity to highlight some of my own work as well as to be a co-author with a somewhat recognizable name (getting back at you Ahmed!). Getting instructed to do this and that, it was like I never left the group. Just recently, I was cleaning out one of my offices to move into another and rediscovered some of these old correspondences. Ahmed was a stubbornly analog guy. I would mail him a draft and a week later it would come back marked up with his copious handwritten edits and a type-written cover letter (clearly dictated to his secretary) thanking me profusely and informing me I needed to send him the update the next day! I’m sure I am not alone in these endeavours.

Operti

I started Syagen Technology in 1997, a mass spectrometry company focused on developing instrumentation for homeland security and

pharmaceutical analysis, and faded from the chemical physics scene. But Ahmed and I did maintain occasional contact and my last encounter with him was when he won the 2011 Priestley Medal. I was at the American Chemical Society meeting in Anaheim, California, and spent many moments with him. This was during the period following the Arab Spring when he was spending a lot of time in Egypt working for constitutional reform and crusading with the Egyptian youth movement. There was a whisper campaign for him to consider the Presidency, which he vehemently and believably denied aspiring to. As we talked about this heady stuff, he quickly switched topics and asked, "So, how are you doing Jack, and how is Liz?" I was astonished that he remembered my wife's name 27 years after I left the group! Despite all the attention he was getting at the meeting and being escorted around (and his daughter Maha was delightfully part of the entourage), he genuinely found time for me. Later at the Priestley Award signing ceremony, I got in line and asked him to sign the book I owned, *Voyage Through Time: Walks of Life*



Photo 5.1. Priestley Award signing ceremony; *Voyage Through Time: Walks of Life* to the Nobel Prize tucked under Jack's arm. (Picture taken by Maha.)

to the Nobel Prize. He was taken with surprise and then he looked up at me with a smirk and asked, "So Jack, did you read it?" I was happy to be able to answer: "Every word!"

I didn't hear much more about Ahmed until his death. It really caught me, as I'm sure it also did for many of us, by surprise. It is a lesson to us all: Embrace life because even the apparent immortals eventually pass away. So, on to my next tumbler of bourbon to toast Ahmed and all he has done.