## Teaching Task

In Spring of 2023, inspired by my eighth Perspectives course, I decided to see what Summer tasks were being offered by the same organization (but with a different name) that sent me to China for seven Summers to teach English there 2009 to 2015. Considering my background and interests, certain tasks in Mongolia and Laos seemed like possibilities. Upon inquiry there were other tasks that were not announced on their website. In particular, there was one identified for Tunisia: coaching Ph.D. science candidates in the use of English for their publications and theses. That looked like a finely tuned match.

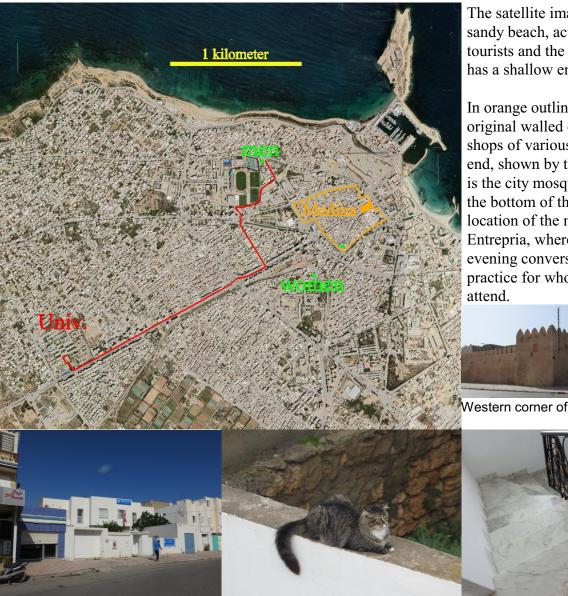
I have a Ph.D. and other trainings particularly in the earth sciences. I served professionally as a scientist for 34 years. I served as a graduate school professor for more than 17 years. I published dozens of my own manuscripts. I have been a reviewer of manuscripts submitted by others. And I had served with this organization teaching English for seven previous Summers. Loving maps, I knew where Tunisia is located and understood its basic culture in the middle of North Africa. It would be hot there in the Summer. Humidity could be variable: dry from the Sahara Desert or humid from the Mediterranean Sea. So I applied for that task in Tunisia.



I was told that the location would be in Monastir, a small city that I had never heard of. I began my explorations of the city and area using the satellite imagery of Google Earth, and about a thousand photographs taken in that area and submitted to Google Earth, to become familiar with what I would encounter there. Monastir had been the home of the first president of Tunisia after independence from French control - Habib Bourguiba. So several facilities were built there, related to that political connection. Monastir is also a popular tourist destination with attractive sandy beaches on the Sea. It had been a tuna fishing port, but it appears that there is not much sea life in the Mediterranean anymore. Sea gulls are minimal and I saw no ducks or shorebirds when I finally got there.

Our organization flew all of us teachers destined for Tunisia and Iraq from Chicago to Istanbul for initial training. Later two teams went to Kurdistan in northern Iraq and three teams went to Tunisia. The great majority of teachers were recent college graduates or still in college, with a typical age in the young twenties. Most were women. The Monastir team was of five of us older adults because of the nature of the teaching task there. The other Tunisia teams went to Douz and Tozeur farther south to help people with their conversational English.

Of our team, Jack, Brenda, and Christine were in Monastir last Summer. Rachel and I were new. This year Christine served as our team leader. Our men and women stayed in separate houses, shown by the green dots on the satellite imagery of the city (next page). Our women met with students in a different campus location, not shown. The red line shows the typical taxi route from the men's home to the Faculty of Science campus of the university. (The cost of the taxi trip was approximately \$1.00, paid in three Tunisian Dinar coins.)



The satellite image shows much sandy beach, actively used by the tourists and the locals. The water has a shallow entry slope.

In orange outline is the Medina, the original walled city. It is full of shops of various kinds. At the east end, shown by the orange rectangle, is the city mosque. The green dot at the bottom of the Medina area is the location of the meeting place of Entrepria, where most of us held evening conversational English practice for whoever wanted to



Western corner of Medina wall



Men's home, left side of center building Home's cat (Aslan?) guarding back yard Same cat at top of marble staircase

Monastir's streets have an abundance of cats, mostly feral but getting handouts. Dogs are rare.



Entrance to Faculty of Sciences

Entrance: my air conditioned classroom Jack's room was at the end of this line

I inherited a set of PowerPoint files from last year. The textbook was improved. I had to condense the material into two weeks (10 lessons) or less and adjust the topic priorities. I added content based on my own scientific papers, especially my first publications, and my review experiences of other's articles. Each day I had students submit a writing sample as they left the classroom. These I marked overnight to indicate the blemishes in English. As an extra, I reviewed and polished the English of three reports soon to be submitted for publication. The corrections were greatly appreciated. The 55 graduate students were divided into two groups, each for one hour in the classroom. Jack and I stayed in our own classrooms as the students switched rooms at 10 AM.

One day the writing sample from one student mentioned the name "Langmuir" with regard to some technique or relationship. The next day I asked how many of the students recognized that name. Perhaps a fifth raised their hands. That made me realize my own scientific heritage. Dr. Irving Langmuir worked in the General Electric Research Laboratory in Schenectady, New York, in the middle of the previous century. As I recall, he received the Nobel Prize for some of his work. He had an assistant, Vincent J. Schaefer. He had Vince make a supercooled (colder than freezing but still liquid droplets) cloud in a chest freezer. That was easy. Then he told Vince to try to turn that cloud into snow crystals. That was hard. Vince tried many things for many months and nothing worked. Then one hot day in 1946 his freezer was warming up too much. So he put in a slab of dry ice (solid carbon dioxide) to cool it. Suddenly the freezer was filled with the desired snow crystals. Starting with a clean supercooled cloud, Vince scraped off a tiny flake of dry ice and allowed it to fall into the freezer. That was all the trigger that was needed. Eventually it was found that anything colder than -40 degrees would convert the cloud into snow crystals. Months later the team dropped dry ice pellets into a real supercooled cloud in the sky. The hunger of the snow crystals for fresh water vapor visibly consumed the cloud in the line pattern by which the pellets were dropped into the cloud. That was the birth of the modern technique of cloud seeding for enhancing precipitation and clearing cold fogs. Vincent J. Schaefer was eventually given an honorary doctorate for the discovery even though he had not finished high school because of the depression years.

In 1961 (15 years later) at age 16 and at the end of my junior year of high school, I had the opportunity to attend a special Summer school for 40 boys, with the topics being physics and weather. Dr. Schaefer taught the weather course and set up some of Langmuir's equipment for the physics lab demonstrations. So I actually experienced working with Langmuir's equipment. Dr. Schaefer liked the way I did an assigned research topic in a chest freezer, so he invited me to join a trip to Flagstaff, Arizona, the next Summer to work among the top weather research scientists in the country on a real cloud seeding project. That confirmed a desire to pursue my Ph.D. in such research, starting my eventual career. Reflecting on the sequence of passing on scientific knowledge, techniques, and opportunities: Langmuir > Schaefer > Holroyd, that makes me a scientific grandson of Dr. Langmuir. (It also explains my tendency to avoid doing literature searches. If something seems interesting, simply explore it yourself, not worrying if someone else has already studied it.) I shared that connection with my students. Some of the students pondered their own opportunity of having a scientist with that background come to their classroom in Tunisia.



Both groups in my classroom after the last class, waiting for the presentation of certificates. A few students are missing. Most are women, with very few men.

For the last class, final Friday, I chose to demonstrate Schaefer's discovery by making it snow in the classroom (in Tunisia in the hot Summertime!). At noon on Thursday a university official indicated that the required chest freezer would be delivered to the classroom for testing and the Friday demonstration. But that did not happen. So I had to run a PowerPoint of the demonstration features with photographs rather than real snow. The attempt was greatly appreciated anyway. Instructions for doing the "Instant

The other four teachers on our team offered conversational English practice 6 to 8 PM in the Entrepria facilities in the Medina for a period of three weeks. It was a smaller group that attended with a wider range of ages. They received certificates on their last day of practice.



The conversational class with our four instructors and Rym

Our organization's two brief

Summers of coaching English in Monastir have been well received. There is hope that some full-year English instructors can be arranged in the future. It is recognized that English is a major trade language in the world, with many professions requiring it. In some of the countries served by our organization, most people have never met a real American Christian. Their impressions of Western people comes from movies and television programs, most of which give a false picture of the lives of most Western people. So giving the opportunity to satisfy their need for English instruction and practice while also letting the people in these Asian and African countries meet normal Westerners promotes better understandings of our cultures. We become cultural ambassadors as we share conversations in English. Some countries having experienced the brief Summer program offerings have requested many long term instructors of English.

By Dr. Edmond Holroyd 6 August 2023

bird seen in home back yard:



European Greenfinch

Laughing Dove





Sardinian Warbler

Pallid Swift