

**IALC Peace Fellowship  
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by  
**Jolie Goldenetz, Graduate Student, School of Natural Resources**

**University of Arizona**

***Learning From Ancient Agroforesters and Israeli Scientists in the Negev Desert***

Before I applied for graduate school at the University of Arizona, I saw the Peace Fellowship announcement on the Website for the International Arid Lands Consortium (IALC), and my decision to attend the U of A was made easier after learning about the work of the IALC and the existence of the Office of Arid Lands Studies. Now I am in the second year of a Master's Degree program, and I feel honored to have just returned from Israel where I worked with Dr. Moti Haiman on his IALC- funded project, *Ancient Desert Agriculture Systems Revived*. During my five weeks as a Peace Fellow, I learned about the ancient agricultural systems of the Negev Desert, worked with the interdisciplinary team lead by Dr. Haiman, and experienced the daily life of people living in Israel. In the following sections I describe a few highlights from my trip.



Jessie Pincus (grad student at Bar Ilan University),  
Dr. Moti Haiman, and myself



Map of an ancient terrace found near Nitzana

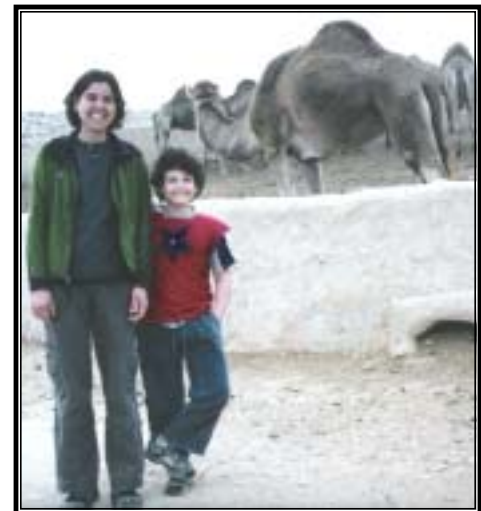
Surveying Ancient Farm Terraces: Dr. Haiman, an archaeologist and professor at Bar-Ilan University, introduced me to the remains of ancient agricultural systems scattered throughout the Negev Desert. For irrigation, these systems harvested rainwater from surrounding watersheds and channeled the water onto terraces. Fruit and nut trees, such as almonds, olives, figs, and date palms, along with grain and vegetable crops, were grown on the terraces during ancient times (some dated to the 5<sup>th</sup> Century C.E.). As both a research and educational tool, Dr. Haiman is surveying these sites and collecting information about them for the Ancient Desert Agriculture Systems Revived website (found at <http://www.mnemotrix.com/adasr/home.html>). Dr. Haiman taught me his theories on the functioning of the terraces, and he showed me how to use GPS to survey the sites. Together, we created a map of an ancient terrace, incorporating water channels, water entrances, spillways, existing orchard trees, and rock quarries, at a site near Nitzana.

Modern Dryland Agroforestry: Since a component of my studies at the U of A is dryland agroforestry, I was excited to observe many different forms of agroforestry in the Negev Desert. For example, I saw restored terraces (i.e., the walls rebuilt and trees planted) used for both educational and scientific purposes. While traveling by bike, car, and bus through the Negev, I also saw small forests irrigated with brackish water and areas planted by Bedouins. With each of these agroforestry sites, I clearly saw the watershed system that enabled vegetation to grow despite the arid climate.



A farm from the Byzantine Period, 5-7<sup>th</sup> Century C.E., restored by the Jewish National Fund (photo courtesy of Tom Amit)

Not the Average Tourist: As a Peace Fellow, I did not feel like the average tourist in Israel. My experience in the country was made rich by the families who hosted me and the people with whom I interacted. I saw areas of the Old City in Jerusalem and sites in the Negev Desert not often visited even by Israelis, stayed in people's homes, ate delicious meals, and played with children.



Visiting camels with my friend Dror

Thoughts for the Future: My participation in the Peace Fellowship came at an opportune time, during the middle of my Master's Degree program in the School of Natural Resources at the U of A. My visit to Israel showed me that I still have much more to learn about ancient methods for growing food in arid environments and the applicability of these methods in the development of sustainable systems for the future. Most importantly, through the Peace Fellowship, I was able to meet and work with individuals with whom I share common research interests, and I am excited to continue my relationships with these individuals and contribute to their work. For example, I will continue working with Dr. Haiman and his graduate student, Jessie Pincus. We plan to collect information on the ancient agricultural systems of the Sonoran Desert for the Ancient Desert Agriculture Systems Revived Project Website.

I feel grateful to Dr. Chamie, Dr. Halvorson, and Dr. Ffolliott at the University of Arizona for supporting me as a graduate student and encouraging me to participate in the Peace Fellowship. To Dr. Haiman, the Pincus family, and the staff at Nitzana Youth Village, I send a sincere thank you for the hospitality I received during my trip. I feel much more informed about the country because of the time they took out of busy schedules to teach me and include me in their work and daily lives.