



The Sky is the Limit



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The Israeli government's implementation of the decision to relocate the Israel Defense Forces training bases in the South has led to a massive investment in the region, including the building of new housing developments and road systems. This is most acutely felt on the way to Sede Boqer where a modern four-lane highway is emerging, providing tangible evidence that change is on its way, that the State of Israel is finally realizing that its future lies in the periphery, just as its first Prime Minister David Ben-Gurion maintained throughout his life.

For Ben-Gurion University of the Negev, this movement is to be commended and encouraged. The cornerstone of this development is the Advanced Technologies Park, now actively under construction in the area adjacent to the University's Marcus Family Campus. This will be the first environmentally-conscious green park of its kind in Israel and will be divided into civilian and open military sections, including the IDF's advanced communications unit. Large companies from Israel and abroad are already showing interest in the Park, and will give a giant boost to the South as the State of Israel's Silicon Valley.

This excitement is paralleled by the exciting developments that have been taking place across the University. In May of this year a survey commissioned by the National Union of Israeli Students revealed that Ben-Gurion University of the Negev placed first in student satisfaction for both its caring atmosphere and overall experience. This is a great achievement and one that is as exciting as it is rewarding.

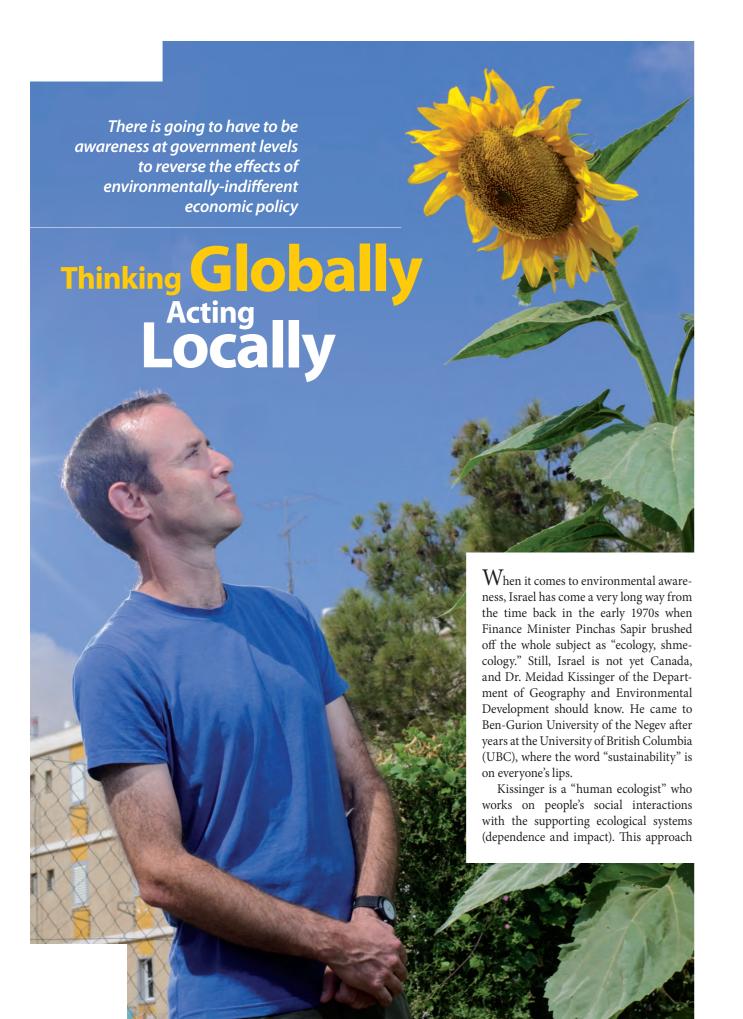
Also, our researchers have distinguished themselves and received an impressive number of highly-prestigious competitive grants this year, reflecting the University's ongoing commitment to bring the best and brightest scientists and scholars to the Negev region.

I believe that together we are living David Ben-Gurion's dream in real time and I want to thank you sincerely for your enduring support, encouragement and most dedicated commitment to our beloved University.

Yours in appreciation and friendship,

Prof. Rivka Carmi, M.D.

President



emphasizes the linkages between the local and the global and the implications of global changes on local sustainability. This is a new interdisciplinary field of social science whose ultimate purpose is to change public policy. "The idea is that it's not enough to focus on local efforts to improve quality of life, we also need to take care of the places we depend on," says Kissinger, who received his Ph.D. in community and regional planning at UBC after studying at Tel Aviv and Haifa universities.

To illustrate, he recalls a study he conducted of Israeli grain purchases which showed that even though the country was purchasing more grain in the last two decades than previously due to its growing population and increased prosperity, the "ecological footprint" – the amount of land and energy used up by Israel's grain consumption – had actually shrunk.

He explains: "In the past Israel bought over 90 percent of its grain from North America, mainly from the U.S., but since the Cold War and the Soviet boycott on Israel ended, we're buying more grain, mainly wheat – mostly from Ukraine and Russia, where the shipping distances are much shorter and the means of production are different, so the ecological footprint of our grain purchases is smaller."

Thinking globally but acting locally, Kissinger's goal is to get Israeli decision-makers to consider the impact on the environment when formulating planning and economic policy. Are Israeli leaders open to this idea? "Not really," he laments, "but to be fair, political leaders in very few countries are."

A key tool he uses in his work is "ecological footprint analysis," which he describes as "environmental accounting." It means looking at human activities and their impact on natural systems, then seeing where these activities are taking place, where they are having their impact and where they are affecting ecological changes.

But the

Pointing to the cup on his desk, he uses the example of coffee. "In the old days it was grown only in forests – in Ethiopia, Costa Rica and other countries – then exported all over the world. But in the

1950s, in order to increase production, new breeds of coffee were developed that not only didn't need forests in which to grow, but which made it profitable for coffee companies to cut down forests so they would have more land on which to grow beans. Now the overwhelming majority of coffee that's drunk in the world is 'full-sun' coffee, and huge expanses of forest have been and are continuing to be cut down to grow it."

Besides wiping out forests and any number of species that lived in them, a half-century of full-sun coffee growing has also engendered the heavy use of pesticides to protect the crops, resulting in a terrible degradation of the soil.

What to do? Kissinger says there are small-scale economic projects to support small coffee growers who grow their beans in forests, but these are not enough to halt the deforestation process that the modern, rapidly growing coffee industry has caused. "There is going to have to be awareness at government levels to reverse the effects of environmentally-indifferent economic policy," he insists.

This sort of awareness has started to come to richer, Western countries just as developing countries like India and China are emerging from a history of poverty. They're resentful of the wealthy West asking them to rein in their industry for the sake of the environment, when these rich, "green" nations got rich despoiling it.

"You can't argue with them," Kissinger acknowledges. "For the last century, 20 percent of the world's population has consumed 80 percent of the world's resources." But at the same time, the earth and humans simply cannot live with another pollution-choked Industrial Age. One of the solutions, he suggests, is for richer consumer countries to impose tariffs on imports from poorer producer countries like China, and to kick the money back to them for environmentally-friendly reforms.

But this sort of trade policy remains a long way from international acceptance, he says. Everybody wants to improve the environment, but nobody wants the improvements to come out of his own wallet. In general, environmentalism is a cause taken up by the "haves" of the world in ways that don't restrain their high-consumption lifestyle, which brings Kissinger to the case of his high-consumption hometown, Ra'anana.

"I did my master's thesis on Ra'anana's ecological footprint. Now I'm going back 10 years later to see if, despite all the environmental awareness that's since gone into local policy – such as the expansion of parks and recycling programs – that footprint has gotten smaller or larger."

He thinks he knows what the study will find. Asked if Ra'anana's popular "green"



Dr. Meidad Kissinger

image is accurate, Kissinger answers in the negative. "The wealthier you are, the more resources you consume, the more energy you use, the larger your footprint."

In the Negev, he's working on a project funded by a European Union International Reintegration Grant to map the ecological footprint in various small towns, Jewish and Bedouin, and then find ways with residents and local authorities to reduce it. "For instance, if we hear from residents that they drive their cars to work instead of taking the bus because the bus stop is a 15-minute walk from their homes, we can bring this data to transportation officials to adjust the stops on the bus routes."

As committed an environmentalist as he is, though, Kissinger doesn't try to be a saint, nor has he lost his sense of humor. During the interview, his office was getting hot, so he turned on the air conditioner. Horrors! Didn't he feel guilty? "Half the things I do in a day make me feel guilty," he replies, turning up his palms. "You learn to live with it."

Pursuing Proteins

For Dr. Anat Ben-Zvi, the decision to research protein folding came naturally; she says her life's trajectory was clear to her from youth - she simply set out to son's. heed the call.

A member of the National Institute for Biotechnology in the Negev, the 34-yearold got a jumpstart career-wise.

"When I was fifteen I knew I wanted to be a scientist so I moved to Jerusalem from Herzliya and enrolled in the biology program at the Israel Arts and Sciences Academy high school. I boarded there, fell in love with Jerusalem and stayed there from my bachelor's degree studies in biology to my doctoral studies in biochemistry. Then I went to Switzerland and Chicago for my final Ph.D. year and postdoctoral work," she explains.

It was during her first year of college, while attending a seminar, that she was exposed to the world of protein folding and its potential for understanding how protein abnormalities may be the cause of different age-related genetic diseases. "I knew then that I wanted to work on this subject. I just love proteins and I think they're amazing machines. So I felt compelled to pursue proteins that fix other proteins and make them my career focus,"

Specifically, Ben-Zvi's research hones in on protein folding that occurs in a normally functioning cell and the "helper" proteins that play specialized, dedicated roles in assisting malfunctioning or stressdamaged proteins. The "rescue" proteins help others get active again so they can resume correct structure and function.

Protein folding is a critical process within cells because to do its function properly, a protein must first take on its correct structure; abnormalities lead to folding-linked diseases like Alzheimer's, Huntington's, Cystic Fibrosis and Parkin-

"When you look into genetic diseases," Ben-Zvi explains, "you see a lot of them that result from proteins that lack the correct structure and are misfolded. This can result in aggregations, which are large associations of misfolded proteins. The general consensus, which is still under debate, is that those aggregates are toxic to the cellular function and can result in memory, function and coordination loss if ease symptoms: aggregation, toxicity and it happens in neurons."

By studying protein folding in Caenorhabditis elegans, a transparent worm, Ben-Zvi is able to observe their function within cells of a living organism. "It's compelling because you can look at the worm are correctly folded, but a worm carrying proteins associated with folding diseases barely moves and there is clear protein

A major breakthrough in her research came during her postdoctoral work, when she began focusing on a cell's protein folding environment and how a misfolded protein impacts on others in the cell.

"If I have a protein that is affected and it is misfolding, the helper or chaperone will try to do something for that protein" Ben-Zvi observed. "But if there is a huge work overload in the cell, for example when a ment in protein folding diseases. protein cannot be fixed, what happens to the other proteins that need helpers? And how does one misfolding protein affect all the other proteins in the cell?"

She decided to focus on temperature-sensitive proteins and how they malfunction when a cell is challenged by protein aggregates. Delving into the project, the researcher sat at her computer viewing large groups of proteins with temperature-sensitive mutations that appeared



Dr. Anat Ben-Zvi

to be folding mutations. Using the transparent worms, she observed that when the cell is challenged by a protein associated with diseases, temperature-sensitive proteins are affected even when the animals grow at low temperature, resulting in disaffected organism function.

This gave her a sense, when viewing the disease, of the temporal and physical interactions that affect humans at a later

As a result of her testing and observaand see it moving normally when proteins tions, two major issues came to the fore: One is that other genes that are not connected to the disease are important; people from different families may carry the difaggregation. It is an amazing system," she ferent sensitive proteins, which could be affected when a disease starts.

The second finding may change the approach to treating age-related diseases. Researchers thought that when exposed to stress conditions, chaperone expression increases and would therefore rescue affected proteins. But Ben-Zvi's experiments have shown that the chaperone proteins can become limiting and are not able to repair and readjust to the environ-

"Maybe we don't need to focus on proteins that cause Parkinson's or Huntington's or Alzheimer's," Ben-Zvi explains. "This shows that maybe the focus should be on the chaperones and letting the system work its magic."

This led to her current stage of research: determining why in age-related diseases proteins lose function and misfold at adulthood - a finding that could lead to reversing that shift in function - and a focus on cell-specific functioning and why some proteins behave the way they do based on location in the body.

When you look into genetic diseases, you see

a lot of them that result from proteins that

lack the correct structure and are misfolded

Ben-Zvi, who is also a senior lecturer at the Department of Life Sciences and received a European Union International Reintegration Grant that helps support her research, says her current activity will be the mainstay of the remainder of her career. "The field of protein folding in folding-linked diseases has opened up over the past few years so there's lots of space for researchers looking to find solutions," she says. "At the same time, the newness of it all can sometimes make pinpointing specific scientific questions difficult."

But Ben-Zvi is enthusiastic, maintaining that her attraction to protein folding and chaperone research was partially motivated by work under University of Chicago Prof. Rick Morimoto's tutelage for six years. "I was blown away by one of his lectures in Switzerland and pursued working alongside him after that," she

Wanting to raise her three children in Israel is what brought Ben-Zvi and her family back to Israel from Chicago. She joined Ben-Gurion University's faculty because she felt an instant liking for its culture, environment and staff.

"I'm working on age and dementiaassociated diseases because I feel I can contribute. That's part of the motivation and reason I wanted to pursue this field. I think it can help."



There is no better advocate for developing the Negev than Dr. Miki Malul from the Department of Public Policy and Administration in the Guilford Glazer Faculty of Business and Management. When he speaks about the importance of investing in Israel's periphery, he is basing his opinions on extensive research and hard facts and figures. He makes a convincing case that development of the Negev will bring prosperity to not only the region and the companies that locate there, but to the

"This is a truly win-win situation," says Malul, who focuses on economic issues

country as a whole.

erroneous view that there is more crime here causes companies to make the wrong decisions," says the economist, who suggests that a government program should be initiated to market the south to companies, to demonstrate how investment ernment's role in this region."



Dr. Miki Malul

Going South

concerning the center of Israel versus its in the Negev can be beneficial to both the periphery. Born in Dimona, the researcher has always been interested in how development of the Negev has lagged behind that of the greater Tel Aviv region, a subject he has been working on since he did his Ph.D. dissertation under the supervision of Prof. Raphael Bar-El from the Department of Public Policy and Administration.

A member of the economic team of the Taub Center for Research on Social Issues in Jerusalem, Malul frequently writes position papers for Members of Knesset and other policy makers. One of his papers focused on industry's differing perceptions of the center and periphery.

"When a company decides where to locate itself, it weighs issues such as manpower and infrastructure," he says. "Generally, the south is perceived as being inferior to the center." While he acknowledged that there is some difference in these regions, he found that in reality, there is far less of a gap than is perceived.

Malul points to crime rates, which are actually lower in the Beer-Sheva area than in Tel Aviv, as a major misconception. "The firm itself and to the economy at-large. "Establishing a company in the Negev is not a matter of altruism, but of economic efficiency," he emphasizes.

Malul has been involved in the effort, together with a research team, to relocate more Israel Defense Forces training bases to the south. Some of his proposals have already been adopted by the Ministry of Defense in identifying how the army can most efficiently contribute to the south. This great investment will give a big push to the area and will have a multiplying development of the entire Negev."

Today Malul is examining another aspect of the center-periphery relationship: how gaps in salary affect incentives to acquire an education. His primary results indicate that if there is a gap in salaries – if they are lower in the south - residents of the south will acquire less education. "They view it as a poorer return on investment. This, in turn, can create even greater gaps," says Malul, who is currently working on a model of this scenario and its implications for government policy.

Malul stresses that his work focuses on areas of practical application: how the

government can be most effective. "The Negev is very important for Israel, but is still behind economically," he says. "Beer-Sheva and the surrounding development towns are weak. We must define the gov-

In another main research area, Malul examines regional cooperation between Israel and the Palestinians, the subject of his postdoctoral research at Cornell Uni-

At Cornell, Malul worked with the prominent American economist Prof. Walter Isard. One of the main founders of the field of peace science and of the Peace Research Society, Isard viewed his novel discipline as an interdisciplinary, global effort to develop a special set of concepts, techniques and data for looking at and promoting peace.

Malul holds that hope lies in hi-tech cooperation, which does not require that personnel commute to an office daily or work together in a traditional way. Such settings, he believes, eliminate the need for direct contact, as everything can be done virtually. Even virtual incubators can serve as on-line "meeting points."

In the areas under Palestinian Authority control, there are some hi-tech efforts and a growing population of educated personnel. "What can these people do?" asks Malul. Answering his own question, he claims that hi-tech can be the basis for cooperation in which both sides will profit. The Palestinians will gain employment effect," he says. "It can serve as leverage for and Israel can benefit from the opening of the Arab market.

Under the umbrella of economics and society, Malul looks at equality and inequality. He states that there is inequality of income distribution and a growing percentage of poor families in the country. "We can establish a society characterized by greater equality and welfare, even



Disorder in the System



Dr. Moshe Schechter

One of the things Dr. Moshe Schechter likes about his field of physics - which involves experiments with magnets as well as with hard materials, or "condensed matter," at extremely low temperatures - is that it stands at the scientific locale "where reality and calculation meet at the optimal point."

The theoretical work he's doing has its most promising applications in the burgeoning field of nanotechnology. "One of the main barriers to advancing nanotechnology is the noise coming from materials in the physical states that I'm researching," he explains. "Understanding the source of this noise and finding ways to reduce it is one of the prime challenges of today's condensed matter research."

To this end, Schechter, who received his bachelor's degree at the Hebrew University of Jerusalem, his master's and doctoral degrees at the Weizmann Institute of Science, and did his postdoc at the University of British Columbia before coming to BGU, conducts theoretical research that aims to better understand the fundamental properties of disordered and amorphous systems, as were first observed by Profs. Bob Zeller and Robert Pohl in

"The two physicists found that for some unknown reason, when condensed matter in a disordered system, such as

glass, plastic or basically any other matesimilarly in several different ways. This in these systems displaying unique characteristics that are significantly different new experiments." from those of ordered systems.

"This gives further credence to the scicannot be efficiently described by one set of rules, but at each level of complexity arise new phenomena which have to be described by rules appropriate to that complexity level," Schechter explains.

Schechter's other interest as a physicist is magnetism. "Magnets are interesting because of their importance to technology, but also because they are excellent tools with which to study experimentally the validity of theoretical models." Interactions between particles, disorder and quantum fluctuations are all essential in exclaims. many physical systems. "In magnetic sysa controlled environment," he adds.

To the layman, Schechter's work seems abstract. But then everything's relative,

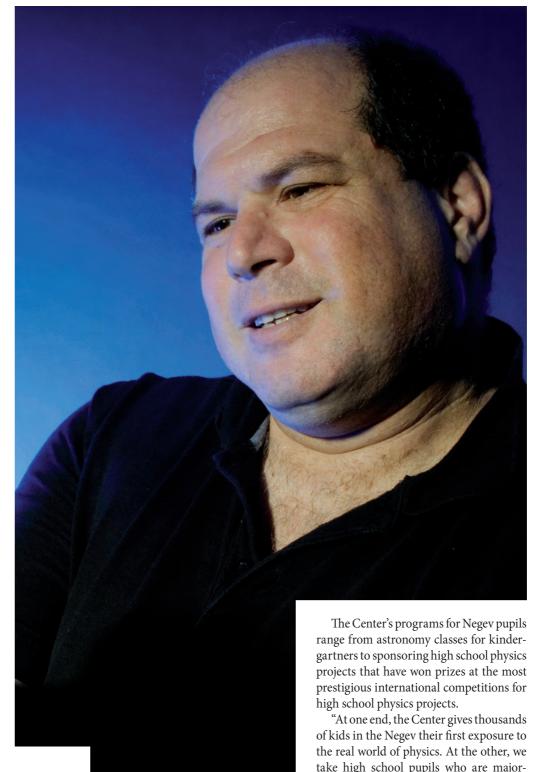
especially, of course, in physics. "Although rial, is cooled below the temperature of I am a theoretician," he says, "I'm very three degrees Kelvin, they all behave very closely connected to reality, which becomes evident in my line of research. breakthrough showed that there exists a Most of my work involves either trying fundamental mechanism that dictates the to enhance our understanding of existing physics of disordered systems, resulting experiments or in trying to predict physical phenomena that can then be verified in

The most obvious application of his work is in nanotechnology. "What I'm entific philosophy which holds that nature aiming for, ultimately, is a deeper understanding of the properties of materials at the nanoscale, which can lead to significant advances in our ability to create new technologies." In recognition of the importance of this emerging field, Schechter received a European Union International Reintegration Grant to help him establish his laboratory at BGU.

> And then there is Schechter's other love, which he pursues at the Ilan Ramon Youth Physics Center at BGU. "Along with science, I have a passion for education," he

At the Ramon Center it all comes tems all these can be tuned and studied in together for him - reality and calculation, science and education. He is scientific director of the unique Center, which teaches physics to 4,000 pupils in the Negev every year.

Started in 2007 and funded by the Rashi Foundation together with BGU, the Ramon Center's main purpose is "to promote physics education in the Negev by exposing pupils from elementary school through high school to the field at a more advanced, intensive level than they get in school," says Schechter. "Every eighth-grader in the Negev comes to the Center with his or her class for a threehour session. They do experiments in our state-of-the-art laboratories and also see a film on the Beer-Sheva-raised astronaut, Ilan Ramon, who perished in the tragic Columbia Space Shuttle disaster in 2003, and the legacy he left us."



ing in physics and enhance the quality of

their education," says Schechter. "If a pupil

feels ready to do a physics project as part

of his matriculation exam, we assign a fac-

ulty member or Ph.D. student to be his or

her mentor. We send the best projects to

Interactions between particles, disorder and quantum fluctuations are all essential in many physical systems

national and international competitions. Our high school kids have done remarkably well, including taking the top prizes in the 'First Step to Noble Prize in Physics' competition held each year in Warsaw." This year three of the four top prizes went to students from the Center. "This is an incredible accomplishment that proves we have a winning formula," he continues.

Among former winners were girls from the desert development town of Netivot. "Until the Ramon Center opened, you didn't find high school students in Netivot majoring in physics; the schools didn't have the resources to support it," says Schechter. "Last year, 85 students in three different schools in Netivot majored in physics, and 14 of them chose to add to the matriculation exam a final research project in that subject."

Of all Israeli high school pupils who do a final physics project as part of their matriculation, more than half now come from the Negev, he adds. Three high school pupils in the Ramon Center's labs have conducted, through their final project, experimental work that was so significant, they were named co-authors with their BGU mentors on scientific papers published in esteemed academic journals.

Schechter, who lives in Mazkeret Batva with his wife and two children, says he decided to pursue his career at BGU "because the Department of Physics here is excellent, with a really strong group in my field of condensed matter theory." He found what he was looking for – and more. "Being a researcher of physics on the one hand and an educator on the other," he says, "allows me to do the two kinds of work I most enjoy."

Patients may come to talk about their sore throat or stomach ache or about their son who is in jail, or the bills they are unable to pay. This is an all-inclusive job

Family physician and researcher at the Faculty of Health Sciences Prof. Aya Biderman never knows who will show up at her office. The comprehensive nature of family medicine, together with Beer-Sheva's diverse population of veteran Israelis, Russian and Ethiopian immigrants and Bedouin, makes her work day varied and altogether unpredictable.

"I never know who will be waiting for me and what kinds of problems – medical or non-medical – they will report. Patients may come to talk about their sore throat or stomach ache or about their son who is in jail, or the bills they are unable to pay," says Biderman. "This is an all-inclusive job."

Biderman decided during her internship to be a family doctor. "I was young and wanted to contribute in a special way, rather than be 'one more doctor'," she says, always seeing patients as part of the big picture. This viewpoint takes in elements like the long-term doctor-patient relationship and the patient's family. Her holistic approach enables her to view the patient as part of a system and not an isolated entity.

As a family doctor, Biderman is very much part of the community, and is in frequent contact with local schools, clubs and social welfare agencies. Having practiced medicine in Beer-Sheva for 30 years, she has put down long roots and has worked with many of the same colleagues for more than 25 years.

All in the Family

Biderman's booklet-length resume includes a long list of published research-based articles on different subjects, including domestic violence, patient-centered medicine, secrets in primary care, ethnic differences in preventive medicine and the role of the family doctor in mental health and modern medicine.

Despite this impressive inventory of research topics – all of which grew out of clinical work – Biderman holds that as a family doctor, it is extremely difficult to conduct research. "Most of the time I'm with patients and there is no time for my own research except in my after-work hours."

For this reason, the Faculty of Health Sciences established the Sial Research Center for Family Medicine and Primary Care, which for people like Biderman is a true blessing. The Center aims to nurture quality scientific research in family and primary care medicine. It helps related specialists and residents by assuming peripheral duties, such as seeking research assistants and writing, editing and submitting proposals.

Currently, Biderman is involved in a large-scale research project comparing the state of aged people who visit day-care centers in the community to elderly who remain at home. The assumption is that those in the day-care centers feel healthier and consume fewer health-care facilities.

Another recent research topic involves doctors who suffer from "compassion fatigue," a gradual lessening of compassion, common among those who work directly with victims of trauma. "This phenomenon is widespread among family doctors, who have such close relationships with their patients," says Biderman, who checked family doctors in the Negev and found many who suffer from this and from

career burnout. At the same time, though, these physicians may feel great "compassion satisfaction."

Over the years, Biderman has had direct experience with domestic violence and is committed to countering it. She currently heads the Clalit Health Services southern district committee for identification and treatment of domestic violence in primary care. "Women are always 'falling down' and 'bumping into things,' and when they finally kill themselves or are killed, everyone asks 'how could this have happened'?"



Prof. Aya Biderman

According to Biderman, family violence is widespread amongst all populations in the region and, she noted, one in seven women suffers from some form of it.

In practicing medicine, Biderman views her Negev location as both a boon and a stumbling block.

"Here there is much more cooperation than competition among medical personnel," she says. "The level of the Soroka University Medical Center is very high, and I know many physicians there who are willing to help with consulting – more than would be available in a big city," she continues, adding that personal relations often form the basis for innovative projects. In addition, she points out that Beer-Sheva offers an array of patients and medical subjects as the city has absorbed wave after wave of immigrants.

Biderman is now at a crossroads. Having managed the Yud Alef clinic of Clalit Health Services, where she worked for 25 years, she sought a change and plans to open a new service, together with a social work colleague – a consulting clinic for patients with complex biomedical and psycho-social problems. She will divide her time between part-time practice at this clinic, located in Beer-Sheva, and serving as a family doctor in Beer-Sheva and teacher at BGU. She teaches first year and sixth year medical students, residents in Family Medicine and practicing physicians in Continuing Medical Education courses at the University.

Biderman stresses to her students that family medicine is not for everyone. "It's not like other medical practices: family practitioners know their patients much better than most other doctors do and are far more involved in their lives," she notes. "Also, the profession is very broad and the physician must make decisions quickly, which often results in a lot of uncertainty."

According to Biderman, the profession is in crisis and not many doctors are entering it. The system, she says, will have to make changes, such as delegating more responsibilities to nurses and other personnel. "As things are now, time pressures are too great and the workload too heavy."

Despite these drawbacks, she believes that "family medicine is a wonderful profession. Nothing could be more varied," she adds. "This job lets doctors try out so many things and then develop the areas that most interest them – be it palliative care, geriatrics, psychiatry or infectious diseases." Whatever changes occur in the medical world, family medicine will remain the cornerstone for better health in nations all around the world."

For the average westerner, "Iraq" likely conjures up images of exploding cars, ambushes and repression. What that casual observer may not know is that Iraq has a strong literary tradition, dating back to the Middle Ages.

"Iraqi literature and poetry play an important part in daily life, perhaps more so than in any other Arabic-speaking country," explains Dr. Yair Huri, a member of the Department of Middle East Studies and author of numerous scholarly articles on modern Arabic poetry, literary criticism and linguistics, who is working to bring this to the public light.

In his recent book, The Poetry of Sa'di Yusuf - Between Homeland and Exile, Huri examines the works of Iraq's foremost living poet and one of the preeminent modernists of Arabic poetry. The study takes an in-depth look at more than 100 try."

> I want to deal with the younger generation and see how their poetry reflects the political situation

of Yusuf's poems. No less importantly, it helps present this poet to the Western world.

"I examined the works of Sa'di Yusuf, who shifted from a literary arena within Iraq's geographic boundaries to exile in the West," says Huri. Like Yusuf, he explains, other Iraqi poets and writers have moved to the West and adopted the local spoken language, but most continue to write in their original language, establishing an Iraqi literature outside the country's borders. Not unique to Iraqis, this is an international phenomenon, and expatriate writers often remain strongly connected to their home countries for decades.

Poetry in Motion

an entire generation, according to Huri. "These writers were born in the 1930s and '40s and many became communists. For political reasons, they were persecuted and jailed. Ultimately, they left Iraq, but still feel an inseparable part of the coun-

And while some Iraqi writers rejoice at the fall of Saddam Hussein, political instability keeps them away. "Iraq's most important intellectuals left the country. They still write in Arabic and hold vital dialogs through journals and on the Internet," says Huri, adding that many of those in exile miss their association with Jewish intellectuals and maintain connections with Israeli researchers. "In contrast to others from Arab countries, these writers and intellectuals are very willing to talk to

Huri, who is in the process of creating a study track in Arabic literature and culture, now plans to broaden his scope to other exiled Iraqi writers and poets. "I want to deal with the younger generation and see how their poetry reflects the political situation. I want to examine how they see themselves, as human beings and artists, in their self-imposed or enforced exile," he explains.

Many important authors and poets like T.S. Eliot, Vladimir Nabokov and Thomas Mann wrote in exile. Huri now wants to see how this phenomenon has manifested itself in connection with Arabic literature over the last 30 to 40 years.

Not a believer in "meeting your author," Huri holds that there must be a separation between artist and researcher. A supporter of the New Criticism, which deals

This peripatetic existence characterizes only with the texts, he also tries to detach the creator from his writings. "I did weave some biographical elements in my analysis of his poetry, but in a very minor, low key way," he says. "I approach texts more from an aesthetic point of view."

> In the same vein, Huri wrote his doctoral thesis at Tel Aviv University under the supervision of Prof. Sasson Somekh, one of the world's leading scholars of Arabic literature. His dissertation focused on metapoetics and narcissistic poetry in Arabic poetry, that is, poetic texts that reflect upon their own constitution, inner dynamics and claims to truth and authority. At BGU he decided to integrate poetry and history in his scholarly research. As Iraq always held great interest for him, he started to seriously research Iraqi writings during the second Gulf War.

> The son of parents who immigrated from Iraq, Huri has been bilingual in Hebrew and Arabic as long as he remembers. His parents support what he does, which is, in effect, to preserve a tradition they revere. "I would love to visit Iraq, to see Baghdad, where my parents and grandparents grew up, and told me far more good things than bad about it," says Huri, adding that the city's Jewish community dates back 2,000 years to the First Temple

Meanwhile, Huri remains contentedly at BGU. "I am very satisfied here, this is a university unlike any other," he says. "There is great interaction here between the faculty and the students, who enjoy a casual, un-buttoned relationship. The student community is dynamic and young.



Dr. Anat Tchetchik did not plan an academic career, but perfect timing led her to the area of tourism research and to a position in the Department of Hotel and Tourism Management in which she found her home.

Having earned her bachelor's and master's degrees in agricultural economics and management from the Hebrew University's Faculty of Agriculture in Rehovot, and worked for three years as an economist at the Weizmann Institute of Science, Tchetchik came to the realization that "I wanted to do something more challenging and fulfilling than EXCEL reports and budget planning; in other words, research."

While seeking a topic for her Ph.D. dissertation in the department she graduated from, she soon realized that "the agricultural subjects, such as the market for frozen chickens, just didn't grab me anymore." The Hebrew University had just opened a new program: Hospitality, Food



Dr. Anat Tchetchik

Resources and Tourism Management in the Department of Agricultural Economics and Management. "I met Prof. Aliza Fleischer, the head of this program, and she offered a thesis subject in the field of tourism economics. I immediately said yes. Personally, I was always fascinated by the tourism industry, not to mention that tourism is the biggest export industry and employer in the world," explains Tchetchik. "It's growing at the high rate of four percent per year, in contrast with approximately three percent for the world GDP on average. As a research arena, tourism is a multi-disciplinary field including psychology, sociology and anthropology, as well as geography and economics."

The SKY is the Limit Tchetchik's Ph.D. dissertation analyzed the growing market of rural accommodations - Zimmers or B&Bs - which are small apartments or rented rooms in natural settings. "Despite the rapid growth of rural tourism and its great contribution to the economy, there was no research that examined it using a robust economic theory framework," continues Tchetchik, whose findings appeared in two journals and two book chapters. Good timing showed up again when, upon finishing her Ph.D., the Department of Hotel and Tourism Management at BGU opened its master's program in 2007 and sought

"At that time they were only a few tourism researchers in Israel that originated very lucky to find a place in this department," Tchetchik says.

economics of tourism.

Speaking of rural accommodations, Tchetchik describes a sector that started growing in 1986 and underwent a major limit. change roughly ten years ago. "Rural accommodations originally started as a side business for farmers who couldn't live on agriculture alone," she explains. "They provided just the basics for outdoor recreation and a very simple accommodation entered the market. standard, bordering on Spartan. An air conditioner was an exception. As the market was exclusively domestic it had to rely on repeat visitors."

With time, in order to compete in the limited market, owners began to introduce innovations in their accommodation units. They began featuring luxury facilities such as saunas, Jacuzzis, wood stoves, a faculty member who specializes in the surround music systems and swimming pools. Innovations also took place in the design of the units, which started to take the shape of fantasy escapes, such as from the discipline of economics, so I was romantic caves, Mongolian yurts and Japanese houses. With some Zimmers today offering ceilings that slide open to reveal the stars overhead, it is no exaggeration to say that in this sector, the sky is indeed the

> As Israeli visitors started to flock to these innovative Zimmers, their owners enjoyed large profits, with an average price-cost margin of 60 percent. As a result, hundreds of rural households





the verge of a crisis," says Tchetchik, who early on had suggested that growth should be regulated.

Her current research topic has interestingly emerged from her personal phobia. Working as an airline stewardess while completing her master's degree, Tchetchik developed a fear of flying, which seriously clipped her wings. Unable to continue in that line of work, she never used the free ticket to Thailand she received as a parting gift from El Al. After she left her job, it took her five years until she boarded a plane again.

More than ten years later, when she came to BGU, Tchetchik decided to exercise one of her strongest talents: turning a negative to a positive, and thought about how to use her fear of flying (aka aviophobia, aviatophobia and aerophobia) as a subject of research. Right off the bat, she learned that there was an increase in this phenomenon after the September 11, 2001 attacks and that one of every five Americans suffered from this fear.

Tchetchik, together with Prof. Aliza Fleischer and Dr. Tomer Toledo from the Technion - Israel Institute of Technology, decided to probe the subject further and study whether fear of flying affects travelers' flight decision making. They examined whether aerophobic passengers who do fly, prefer flights with specific features – such as specific type of airline and aircraft, time of departure and routes - when they choose to fly to a given destination. The answer was clearly yes: people who fear more will pay more for flights with characteristics that reduce their fear. These travelers are willing to dig and these words are hardly limited to the deeper into their pockets for regular nonstop flights during daylight hours. Also it was found that this phobia is more prevalent among females than males, though Tchetchik suspects that women may just scapes - Poland and Israel." Her second be more willing to talk about it.

In another research project, Tchetchik, with Prof. Nati Uriely from her department, are studying a network-related subject. Around the world people relocate to find work, affecting the tourism patterns of their families and close friends. They are probing this trend and the role of the Internet within it.

Aside from conducting her research, Tchetchik teaches courses in economics and management and forecasting methods in tourism and hospitality. She also consults for the Ministry of Tourism and for El Al Airlines. She is helping to create policy where none existed and to get firm long-range plans in place. "I believe in this industry and its huge potential," says the researcher, who is confident that Israel can reach the same tourism level as a country

When not involved in academic or family matters, Tchetchik is writing. "I love words, the power of words," she says, academic sphere. She has written two books, one on the life story of her parents and grandmother. As she describes it, "My roots are planted in two different landbook is about her ringlet-headed five-year old son, Ori. "I love my writing, my work, the academic lifestyle and the interaction with students. It all gives me great satisfaction," she says. "Aside from time, I have everything."

Man's Best Friend



out at the shelter – which at any time houses 70 to 80 stray dogs – in innumerable ways. "Every Saturday, for four hours, I've gone to the shelter to help with the dogs. When I first came," he says, "I had only minor jobs. Now I'm the one training the 15-year-olds coming in to volunteer." He knows all too well the sad reality faced by these dogs, both on the street and in the municipality-run dog pounds. "The municipality puts them to sleep after a month," he laments. "We don't put them to sleep – we give them medical care and the necessary shots and take care of them until they find a happy home."

Tevet is the recipient of a Lubner Prize for Community Service, made possible through the generosity of Vice-Chairman of the Board of Governors Bertram Lubner of South Africa. His specific job at the shelter

Lior Tevet

is to talk to visitors about the dogs that are up for adoption. Every week when he arrives to volunteer, he walks the dogs and singles out one or two to be checked out by visitors, many of whom are taken by the warmth and kindness they receive from the animals. He greets the visitors, allows them to get to know the dogs and gives them important information regarding the dogs' health status, temperament and previous living conditions.

One of the things that brings Tevet joy each week is his interaction with other people, both those who work at the shelter and visitors. "At the beginning," he says, "I was this little kid and everyone was so nice. They took me in and as a result I learned how to talk to people of all different ages. I'm also working with a crowd of people, which has really enhanced my social skills."

On the most basic level, Tevet is involved with *Haver* because "it's good to take dogs out of the bad situations they're in on the streets. Dogs are living in very dangerous conditions today, but we're looking out for

Volunteering through Haver, says Tevet, "is like a time out from the big city - it's four hours with the dogs I love." It seems there is nothing else he'd rather be doing on the weekend. "Every Saturday my friends go to the beach," he jokes, "but I'd rather go to the shelter."

Helping Others Help Themselves

students making a difference



Adi Krespi

Adi Krespi is a realist. When asked what she plans to do when she graduates from BGU with a degree in social work, she says that in addition to being a social worker, she also intends to teach Pilates. When asked why Pilates, she jokes, "Well, I still need something to pay the bills with." It is certainly an odd combination of professions, but one that demonstrates how the second-year student favors commitment to helping others over monetary success.

Since she began her studies in the Charlotte B. and Jack J. Spitzer Department of Social Work, Krespi, recipient of a Lubner Prize for Community Service, has managed to juggle her course load and volunteer work in three separate organizations. Part of her time is dedicated to Paamonim (Bells), an organization devoted to helping individuals and families to learn how to conduct their economic activities responsibly. Her interest in this particular work, she says, has to do with her desire not only to help others, but to expand her own knowledge. "Because I study social work," she says, "I feel I don't know enough about economics. I want to learn how to help people help themselves financially and adapt it to use in my own life and profession after I complete my degree."

In an altogether different field of interest, Krespi also gives her time to the Jewish Agency, leading Zionist seminars in various countries. Teaching about Israel and Zionism and providing informal education to Disapora Jews, as well as working in a Jewish youth movement, she says, "all help me to learn about myself. When I teach about Israel, I also expand my connection to my heritage and to Zionism."

Although her work in these organizations is beneficial in a number of ways, Krespi seems most passionately

devoted to helping people in minimum wage jobs understand their employee rights.

As a member of the Forum for Social Justice, Krespi has been part of the movement to help cleaning crews at the University who are employed through private contractors receive fair wages and social benefits due to them.

Krespi saw for herself once she joined the forum, that "before these demonstrations, we hardly noticed the presence of the workers. Now we notice them more and more. Before, they were afraid to open up and tell us about their problems because this was sometimes the only work they had. Our task," she continues, "is to make sure the people they work for won't take their benefits from them; that they all have workers' rights. It's to take charge for them at the University."

Krespi's devotion to helping individuals become confident, self-assured and informed citizens is a sure sign that the field of social work is where she belongs. "All of what I'm doing helps me learn about myself and other people and understand people's difficulties," she says. "I hear from others who also work with these individuals and now I'm learning how to organize people and to get them the rights they deserve. What I really want is to make a difference."



Aviv Ben Eliezer

On a Bicycle Built for Two

Aviv Ben Eliezer finds tandem bicycling just as stimulating as sifting through the pages of a rare book. The master's student in the Department of General History, who is researching the relatively unexplored subject of female models in pre-Raphaelite art, defies all stereotypes of the determined budding scholar, as he is as devoted to his riding partner as he is to his studies.

Every Thursday and Friday for the past three years, Ben Eliezer has headed to Kibbutz Hatzerim to volunteer with the southern branch of the *Etgarim* (Challenges) organization as a front-seat guide on a tandem bicycle for physically challenged individuals who cannot ride solo.

Etgarim is a non-profit organization dedicated to providing physically challenged citizens with the opportunity to participate in outdoor sports and activities regardless of the nature or severity of each individual's handicap. One of the organization's popular activities is tandem bicycling, which gives the physically challenged – the majority of whom are blind – the experience of riding outdoors with the comfort of reliable volunteers like Ben Eliezer at the handlebars.

Ben Eliezer, recipient of a Lubner Prize for Community Service, currently rides with a vision- and hearing-impaired woman whose handicap has not kept her from very much, including marriage, three kids and nearly complete independence.

"When I first joined," he says, "I had the stereotype in mind of what a blind person is and what he or she is capable of. But I quickly learned that all of the people in the group are very independent – they are family people and most are married and have children."

This independence is also evident in the bond shared between the group's members. Ben Eliezer explains that "we also meet separately from the riding – for events like birthdays and holidays. And every couple of months we have a weekend trip which involves riding, but it also includes staying

in a youth hostel or hotel somewhere on a Friday night; on Saturday we go out and ride"

The activities outside the organized rides, he says, "are somehow more meaningful – they bring a real sense of family to the group. So I enjoy not just the riding – I can do that by myself – but especially the experience of riding with someone else and doing extra things with the group."

Ben Eliezer and his riding partner's relationship is, as family relationships often are, based on trust and communication. "After every ride, my partner always thanks me. The group means a lot to her; she goes through the week waiting for the rides." Ben Eliezer stresses his gratitude towards his fellow volunteers, some of whom are BGU graduates "who come back to the south from other parts of the country to ride with their partners."

He has also been greatly moved by the involvement of the volunteers from Kibbutz Hatzerim. "The heart of the program," he says, "really lies with the people from the kibbutz – without them, the group wouldn't be what it is."

Ben Eliezer insists that "the people at Etgarim are not, as most people say, 'special' or exceptional – they are normal people with disabilities. And despite their disabilities, they are really doing everything." His genuine respect for all of the riders is a major factor in his overall take on tandem bicycling with the physically challenged: "When riding with someone who cannot do it completely alone, this is where the boundaries are crossed and the disabilities end. On the bike, although I may be navigating, we are part of the same force. The handicaps are no longer there."

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Soft Matters

Physicist Prof. Yoav Tsori remains a kibbutznik and banana farmer at heart, having been a member of Kibbutz Afikim near Lake Kinneret until two years ago. "I'm a patriot of the periphery," he says. "I don't have anything against Tel Aviv; I just wouldn't want to live there."

The irony is that this quiet "country boy," now 41 and living with his wife and four children in Lehavim near Beer-Sheva, began his career not just in any city, but in Paris. After earning his bachelor's and master's degrees in physics and mathematics from the Hebrew University of Jerusalem, and his doctorate in physics at Tel Aviv University, he spent roughly four years doing a series of postdoctorates in the City of Lights. The first one was under the tutelage of the renowned Polish physicist Prof. Ludwik Leibler at the Grand Ecole for physics and chemistry. He then moved on to the Collège de France and the Curie Institute and to a second postdoctorate with Prof. Pierre Gilles DeGennes, a Nobel laureate in physics.

Along the way, Tsori won a Chateaubriand Fellowship, the Krill Prize, and most recently a coveted European Research Council – Starting Independent Researcher Grant, which includes a very substantial sum of money for the purpose of opening up new fields of science.

And this is what Tsori, now in his fifth year at BGU, is doing - exploring a brand new scientific field that he describes as "chemistry without chemistry - applying physical phenomena to the chemical world to manipulate chemical and biological reactions."



Prof. Yoav Tsori

It sounds abstract, and in truth, it is, but potentially it could have applications in cancer research, in nanotechnology, and in the endless applications for the emerging miniaturized field of chemistry known as "lab-on-a-chip," he explains.

The breakthrough for Tsori in applying electric fields to liquid mixtures came while he was working with Leibler at the Grand Ecole. He outlines the basics of his research field: "I'm looking at soft materials, like liquids, polymers, colloids and micelles, and how such materials are affected by external electric fields. For instance, if you take a liquid mixture, say water and nicotine, and you cool that mixelements will separate. What I claim is that ics." you don't need to change the temperature of the mixture to achieve this separation – you can separate the water and nicotine by applying a certain type of electrical field to the liquid. I've found a new type of phase transition (e.g. water changing into ice or into steam) in liquids and polymers. The phase transitions we found have not been studied before and they call for a fundamental study in physics. In addition they have implications on the very nature of chemistry and biology."

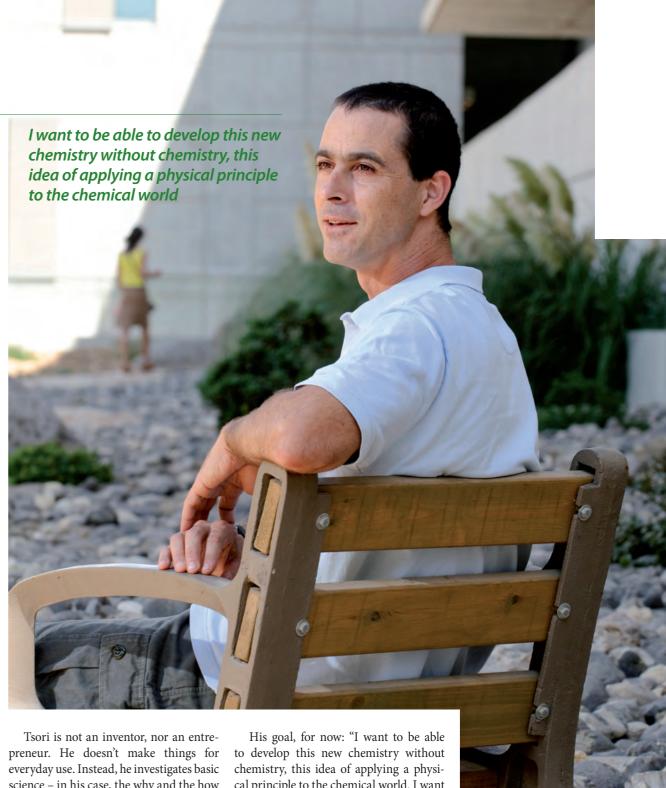
Tsori's work involves microscopic elements - molecules and electrical fields emanating from charged metals (electrodes) the size of the head of a needle. experiments." "I'm interested in doing chemistry on an extremely small scale, not the sort of thing you do in a large container," he continues.

Thus, he sees the possible hi-tech applications of his work being applied to advances in medical research.

"By arriving at a greater understanding of how liquids and molecules can interact, vou can control the biological reactions in human cells," he says. "For example, there is a class of proteins called actins that polymerize into long filaments in the body all the time. These actins help give cells a certain solidity, a physical integrity. Now we know that in cancer patients, the actins do not behave normally, and if it is possible to apply electrical fields to the cancer cells in a way that interferes with their negative behavior - that destroys the actins in question, or changes the rate at which their molecules grow into filaments - then this could be a very important development in the fight against cancer. But that's much further down the road; what I'm doing now involves learning the basic underlying physical processes, which are the building blocks of the process."

Asked why he chose to work at BGU after his years at the highest levels of scientific research in Paris, Tsori says: "I was attracted to the University's Department of Chemical Engineering. It's a very highly developed academic center, and BGU as a whole is the strongest place in Israel in ture at a low enough temperature, the two research in my field of soft matter phys-

> The discoveries he made about the separation of liquids and polymers with the application of electrical fields came during his postdoctoral work with Leibler. "I came up with a basic theory, I proposed a series of experiments - and they worked," he recalls. In the last several years, this field has developed quickly. "I never anticipated that the field was going to expand like it has, but apparently this physical phenomenon is complex enough to offer numerous opportunities for research, and is spinning off in many different directions, so it's been very fortuitous for me. I've gotten a lot of mileage out of those first



science – in his case, the why and the how of a very tiny but hugely important part of the physical universe, whose as yet undiscovered secrets are infinite. The practical uses of these discoveries are likewise infinite, but practical applications are not Tsori's focus. Rather, he is exploring inner space - traveling metaphorically inside the world of molecules.

cal principle to the chemical world. I want to develop further the means of manipulating chemical and biological reactions because I think this will have very wide ramifications in science."

20

Cities in the Desert

Historically, cities in the desert had rather unique qualities: they were usually more compact, located close to water sources and they had various defensive measures against dust storms and marauding nomadic populations - in other words, an expression of their history. However, "In modern times many things have changed," says architect and urban designer Dr. Yodan Rofè, "and it's no longer clear what is unique about desert cities in the 21st century."

And what about the towns in the Negev, the home of BGU? "In discussions of why the Negev is not developing and why the cities here are lagging behind, you often hear the argument that people don't want to live in the desert," he continues, "But many of the fastest-growing urban areas are in arid regions, like Phoenix and Las Vegas in the U.S. and Riyadh in Saudi Arabia."

A senior lecturer and researcher in the Department of Man in the Desert at the Jacob Blaustein Institutes for Desert Research, Rofè has been trying to find answers to this question, exploring ideas of how to make Israel's desert cities more attractive.

Efficient and adequate public transport, the railroad in particular, believes Rofè, is one of the keys to making the towns in the Negev viable and attractive. The idea, he explains, is to develop employment and residential nodes around the new railway line connecting the towns between Beer-Sheva and Ashkelon, Sderot, Ofakim and Netivot.

Rofè explains that the planning concept that drove the location of the so-called development towns scattered around the Negev was the strategy of creating a Jewish presence throughout the region. But

the economic theory behind this planning was erroneous from the beginning, he tural workers at best, and, at worst, centers says. "This was German geographer Walter Christaller's Central Place Theory of cities as small market towns for their agricultural hinterlands. Agriculture in Israel was never reliant on cities for anything but basic services and didn't need the cities as markets, but had direct links to the center of the country. These small towns soon

became dormitories for low level agriculof unemployment."

"Of course here," he comments, "you can't close down the towns because they are unworkable. The existing rail lines between Beer-Sheva and Tel Aviv can create a real opportunity for these communities that are only a short distance from Beer-Sheva and not very far from the thriving center. An improved system will enable residents of these towns to reach places of employment without using a car in a reasonable time."

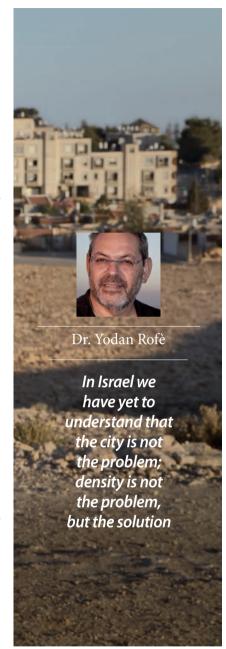
And in the other direction, people coming from the center of the country could travel to places of employment set up near the train stations. "Prices keep going up in the center and upgraded mass transit will encourage people to move and work in the south. Businesses could benefit from lower taxation, lower land prices and lower prices for services."

Rofè, who before coming to BGU worked for five years in the Ministry of Construction and Housing's Chief Architect Department, explains that the concept of transit-oriented development is being adopted around the world. This is a mixed-use residential or commercial area that maximizes access to public transport, particularly railroad stations.

"By connecting these towns to the metropolitan area by rail, you improve the quality of life and vitalize them. Trains are more benign than roads. They are city builders whereas roads are city destroyers. Efficient mass transit," he continues, "concentrates development around the stations, whereas more roads create the suburban sprawl we see all around us."

Rofè and his colleagues at the Desert Architecture and Urban Planning Unit have organized meetings and conferences with area mayors and other officials from around the Negev to present these ideas of connecting the towns, though he cautions: "We can only make recommendations."

Rofè is involved in another project with the Negev town of Yerucham, which, because of its small size and remoteness, is not a candidate for a train line. Answering a call by the Ministry of Interior to come up with ideas for renovating the city center, this past summer he led a special hands-on planning workshop that included professionals and local residents. "Yerucham is unique because it became emblematic of what went wrong with development towns," he explains. In addition to physical improvements, such as upgrading buildings and public spaces, the complex program includes ideas for changing the



town's image, organizing local merchants, entrepreneurial projects and schemes for making the place more attractive to residents as well as visitors.

Another ongoing research project Rofè and his colleagues are involved in deals with the issue of public open spaces: how they are planned, utilized and valued by local populations. Has planning of these spaces taken climatic conditions into consideration? The study compared cities and towns of various sizes: Beer-Sheva, Arad

and Lehavim in the Negev, and Ashdod, Bat Yam and Shoham on the coastal plain. "One of the things we discovered is that, contrary to expectations that open spaces in desert cities would be smaller, enclosed and more protected and shaded by buildings than in the coastal plain, it turns out to be the other way around. There are more open spaces in desert towns and many of them are undefined and uncared for."

The study found that residents in desert cities are less satisfied with the open spaces in their neighborhoods than their counterparts in the coastal plain, even though, from the point of view of thermal comfort, the conditions are better in the open spaces in the desert on late summer afternoons, when most people use these spaces. "Despite ample open spaces, people prefer walking in the streets of their neighborhood, or meeting at the local commercial center to using their local parks, thus suggesting the need to re-think the planning standards that allocate large areas to public open spaces."

Rofè is a founder and a member of the Board of Directors of the Movement for Israeli Urbanism, which, he explains, is part of a global movement to develop the ways and means to make cities attractive places to live in. "In Israel we have yet to understand that the city is not the problem; density is not the problem, but the solution," he says.

"Scattering small communities around the country has been a terribly inefficient way to use our precious land reserves," he continues. "Residents have to rely on automobile transportation, increasing the demand for roads and worsening traffic congestion, air pollution and energy waste. If you want to retain open spaces outside the city you have to use them frugally inside the city. This is perhaps one of the main lessons I draw from my research on public open space in Israeli cities."



For Dr. Oren Rigbi, the path to his chosen field, economics, has always been clear. Asked how he knew economics was his calling, his answer is short and to the point: "I have always been interested in numbers," he replies. And Rigbi's linear course attests to his words. He started at the Hebrew University of Jerusalem, where he earned a bachelor's degree in computer science and economics and a master's in economics, proceeded to Stanford University, where he received a Ph.D. in economics, and went on to BGU, where he is a currently a lecturer in the Department of Economics.

An applied economist, Rigbi wants his work to be put to use. "I often use different economic theories as input for my research and try to verify or refute them," he says. "If I find they need to be contested, I try to tell the theorist how to change his or her theory accordingly."

All of Rigbi's research comes under the umbrella of applied microeconomics, a branch of economics that focuses on decision-making of individuals, households or firms concerning the allocation of limited resources. He looks at the aggregated effect of these decisions and behaviors with an eye on how they affect the marketplace. Specifically, this means examining how supply and demand for goods and services determine prices, and the inverse: how prices determine the supply and demand for goods and services.

Microeconomics' stress on the individual contrasts with macroeconomics, where the unit of measurement is the state, and issues like growth, inflation and unemployment are examined.

In one research project during his doctoral studies, Rigbi explored the ability of franchised chains to control the prices set at their franchised outlets. To do this, he headed for the Golden Arches and analyzed price patterns at franchised and corporate-owned McDonald's outlets in California in 1999 and then again in 2006. He found that franchises' prices were higher than those at corporate outlets. He also discovered that the differences in price decreased substantially after introduction of the Dollar Menu in 2002. Initiated to boost sales, the Dollar Menu offered six to eight items at a cost of one dollar.

Rigbi offers two possible explanations for why McDonald's was able to induce franchisees to adopt the Dollar Menu, even though it ultimately lowered their prices. First, the 1997 U.S. Supreme Court vs. Khan decision, which allowed chains to negotiate maximum prices with franchisees, improved McDonald's bargaining power vis-à-vis franchisees. Second, the large advertising campaign that accompanied the introduction of the Dollar Menu made it costly for franchisees not to participate in this special promotion.

While at Stanford University, Rigbi conducted an original type of economic analysis: a look into the extent that religious activity responds to the presence and activity of other religions. "People often say that Hanukkah is so important in the U.S. because it falls at the same time



Dr. Oren Rigbi

as Christmas," he says. "I wanted to quantify this claim and see if Jews in Christian areas celebrate Hanukkah more intensively."

Using expenditure data as a major parameter, Rigbi found that Jews with children at home are more likely to celebrate Hanukkah than Jews without children. In addition, he noted that the correlation between children at home and Hanukkah celebration is higher for Reform than

middle man, and it takes ten percent. "Why not cut out the middle man by allowing people to interact without the bank?" asks Rigbi, stating the principle behind "person to person" credit markets, in which customers bid on interest rates over the internet. Cheaper than banks for customers, these web operations take only one to two per-

In this context, Rigbi investigated issues surrounding the effect of interest rate restrictions (usury laws), which cap the interest rates that lenders can charge. He probed questions regarding whether these laws are good or bad for the consumer

In two main findings, he concluded that these laws restrict access to credit of risky borrowers, and hardly reduce the interest rate borrowers pay for credit. Thus, he concludes that interest rate restrictions do not seem to deliver the outcomes for which they were intended.

Rigbi has received a European Union International Reintegration Grant, and speaking of access to necessary funds, he praises BGU. "The University very much helps me obtain the funds I need for research. It has experienced professionals who know how to assist individual researchers. Without these people, none of us could get the grants we need."

Currently residing in central Israel with his wife and three-year-old daughter, Rigbi entertains plans of moving south. "There are great communities near the University, and this is a wonderful place to build a home and raise children. I am very satisfied with the area, the University and the Department of Economics, where the doors are always open."

I often use different economic theories as input for my research and try to verify or refute them

Rigbi holds that these observations apply to franchises in general. McDonald's was the first to introduce the Dollar Menu and competing fast food chains followed suit with other similar specials. "Initiating special campaigns like the Dollar Menu is one way for chains to get price uniformity," he says. "McDonald's undertook a very large advertising campaign so franchises wouldn't want to not adopt the Dollar Menu. This gives ultimate control to the outlet." Regarding consumers, he continues, "franchises can go either way - for or against the customer, a point that regulators must consider."

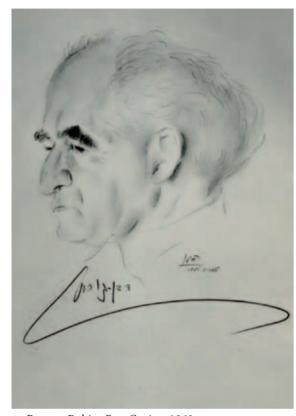
Orthodox Jews. In contrast, there was no such correlation for other Jewish holidays.

Signficantly, Jewish-related expenditures at Hanukkah were higher in counties with fewer Jews, and in counties with more Christians. Rigbi's findings support the notion that celebration of religious holidays provides opportunities not only for worship and enjoyment, but also counterbalances competing cultural influences. Not limited to Jewish celebrants, these findings, claims Rigbi, can be applied to religious minorities across the board.

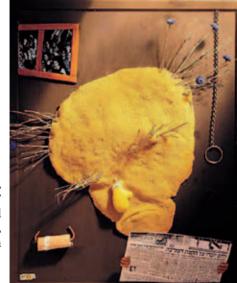
In a different line of research, Rigbi has worked on credit models. Generally, when people need money, they go to the bank and the bank lends them the money. In this interaction, the bank serves as the

The "Old Man"

David Ben-Gurion and His Legacy in the Mirror of Israeli Art



Reuven Rubin, *Ben-Gurion*, 1960 Pencil on paper, 20x15, courtesy of Rubin Museum



Hanoch Piven, David Ben-Gurion, 1997 Digitally printed collage, 50x45, the artist's collection

As part of the events celebrating the 40th anniversary of the University that bears his name, an exhibition was mounted of works solely representing David Ben-Gurion, curated by Prof. Haim Maor and the students in the Curatorship Course in the Department of Arts. The exhibition displayed creations by 60 Israeli artists in various media, including photographs, paintings, illustrations, sculptures, caricatures and cinematic footage, reflecting the artists' links to the leader, whether through his iconicity, from childhood stories or through personal relationships with him.

Each of the artists whose works were displayed has his or her own biographical details that influence the way they see Ben-Gurion. While some pieces may flatter and others criticize the man, they all reveal "his human parts." The items exhibited reaffirm the power of Ben-Gurion as a man who changed Israel's history in major ways – whether he is praised or harshly criticized, he is always "deeply encrusted in memory."

Some of the photographs caught major moments that went unpublished in newspapers. Other works reflected upon the way that older generations glorified Ben-Gurion, regardless of the historical setbacks that resulted from his actions. The works can also be viewed as a portrait of Israeli society: how the people saw him as a leader and a man of the people at different points in time.

David Ben-Gurion can be seen as a reflective staple of past events, both major and minor, a mirror image of the country's present political situation in the broad public sphere, and as an illustration of the stuff of childhood stories in the private sphere. The exhibition can be regarded as an elaborately detailed diary full of pages written by artists who knew him, who knew about him, and those who knew only that he represented something huge.

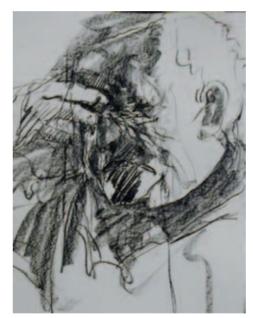
Adapted from an article in the Jerusalem Post by Alana Sobelman.



Haim Finkelstein, *Untitled*, 2009 Acrylic on canvas, 70x130, the artist's collection



Shlomo Cohen, *Super B.G.*, 1999 Airbrush, 29.5x42, the artist's collection



Uri Lifshitz, *David Ben-Gurion*, 2002 Mixed media on paper, 70x50, courtesy of Amos Aharoni, Israeli Prime Ministers Collection



Dan Reisner, *Memento Mori*, 2010 Digital print, 40x60, the artist's collection



Eliahu Eric Boucobza, *Self Portrait as a Cultural Icon*, triptych, 2010 Oil on canvas, each section 50x40, the artist's collection



Among the top researchers at LBNL was then-lab director and now Nobel Prize laureate and Secretary of Energy for the Obama administration Steven Chu. Chu, says Mokari, "has big ideas, and because I was one of the people in the lab working on energy issues, it was great to be witness to the energy revolution coming from a person who's now the US president's adviser on energy."

With invaluable experience gained working in nanotechnology at Berkeley, Mokari returned to Israel to teach in BGU's Department of Chemistry and pursue his research at the Ilse Katz Institute for Nanoscale Science and Technology. With the help of a Marie Curie International Reintegration Grant of the European 7th Framework Program, his goal is to push the subject of energy out of the confines of university labs and research institutes and into the consciousness of the general public. "I want to help make energy one of the most important fields in Israel," he explains. "That is, I want to help create a 'culture of energy,' which means not only talking about it but making it a part of our daily lives.

"When it comes to solar energy, Israel is a special case," the chemist says, stressing that Israel has an advantage over other countries researching solar energy because sunlight is available here most days of the year. This means that research can be conducted locally and applied directly.

Aside from the scientific challenges faced by Mokari is the lack of public interest in energy use. The energy situation in Israel, he reveals, is heading in the direction of a crisis. "Because we don't have wind or water for hydropower and we don't use nuclear power for civil purposes," he explains, "we have to find new sources of energy." And while Israel may not "be in that stage where people must choose between food and gasoline," if Israelis do find themselves in such a situation, "they'll have to think twice about their decisions, including buying gasoline." Mokari is determined to help create



Dr. Taleb Mokari

I want to help create a "culture of energy," which means not only talking about it but making it a part of our daily lives

this "culture of energy" before the problem of energy resource shortage escalates.

Although major energy problems may be foreseeable to scientists in the field, the good news is that "the sunlight here in Israel is more than enough to provide energy." Good news, indeed, but not quite good enough to deal with the energy crisis alone. Citizens and the choices they make equally determine the energy situation, now and in the future.

Mokari's take on the average Israeli citizen's awareness of the global energy crisis and its manifestation on the local scale involves the simple decisions people make with regard to energy, which, if altered, have the potential to drastically improve everyday life while preventing further damage to the environment. "If you go out on the street, you don't really see a culture of care for the environment. Many more people could ride their bicycles to campus or walk to their work place instead of driving their cars. People don't realize that they are part of the larger problem; they don't see that each one of us contributes a little bit," he says.

Mokari's work involves tackling these societal and environmental issues with the understanding that such changes don't happen overnight. He is currently using the tools he picked up throughout his career in order to initiate a break in the pattern of non-interest and energy waste.

On the scientific level, Mokari's plans come from highly practical thinking about a complex problem. In his research, he explains, "We're trying to take most of the carbon dioxide emissions from the factories and to find a way to recycle them so that they will react with other material, in this case hydrogen, which we plan to produce from water. And by combining the two gases – carbon dioxide and hydrogen – with sunlight in the presence of nano-

materials, we can convert the mixture into hydrocarbons to be used as liquid fuel."

Proud to be working at such an advanced center for research as the Ilse Katz Institute, Mokari says that he is "happy to be at a university that values finding new resources of energy and is focused on researching the ways that solar energy can be converted to electricity and liquid fuel."

Mokari believes the field would benefit greatly from the construction of more centers like the Ilse Katz Institute. The expanding presence of innovative research technology in the world, with the help of local government support, is pushing scientists like Mokari to plan the erection of more institutes to better accommodate the needs of researchers. "The government is moving towards thinking about energy," he explains. "We are happy to see that they support the construction of excellence centers in academic institutions around the country."

The centers he hopes to take part in creating, Mokari explains, "will become hubs of crucial information about energy and alternative energy use. They will focus on trying to solve energy problems. We will hire the most experienced scientists in the field and will construct the best facilities in which we can conduct the fundamental science and advanced applications for energy use and preservation.

"More and more researchers understand the potential of nanoscience for addressing the world's major energy problems," says Mokari, "and I want to be a part of expanding this knowledge, especially on the local level here in Israel."



Dr. Lynn Schler

Centered Africa

Ben-Gurion University of the Negev has led Israeli universities in a quiet revolution, putting African history back on the academic map. Dr. Lynn Schler, a lecturer in the Department of Politics and Government, has been a key figure in this peaceful upheaval. Her "weapons": teaching, researching and writing on different aspects of African history.

In the 1970s, explains Schler, the discipline of African studies was thriving in Israel and many leading scholars were involved in the field. But during the following two decades all related programs were shut down. There was, she says, "an institutional demise of the subject. The situation was intolerable, as study of an entire continent was eliminated."

In the subsequent movement to bring African studies back, BGU was at the forefront. The University recruited Dr. Tamar Golan, the former Israeli ambassador to Angola and an expert on the African continent, who began to teach a number of courses, stimulating fresh interest in the subject. Through Golan's initiative, the University established the African Initiative Program and the Africa Centre, an interdisciplinary body based in the Faculty of Humanities and Social Sciences, the Faculty of Health Sciences and the Jacob Blaustein Institutes for Desert Research in Sede Boger. In addition, Golan, through the Africa Centre, established a student volunteer program to Africa that has operated for a number of years and organizes cultural events about the continent.

"In two departments, Politics and Government and General History, great changes also took place," recalls Schler. doorstep. In Beer-Sheva we see Africans Two African scholars were hired and this year a minor in African studies – the only program of its kind in Israel – is now being offered. In addition, the University has joined a pioneering inter-university undergraduate program in African studmajor universities and will allow students to take courses at different universities. Education and the Yad Hanadiv Foundation, the program is headquartered at

Thus, according to Schler, other Israeli universities have followed suit and the country is returning Africa to its rightful place as a subject for academic study. "Israeli society cannot allow itself to remain ignorant of African-related issues," she says. "We can't afford that our only concerns about the continent will be generated by business and military interests. We must face the 21st century with a greater understanding of African politics, societies and cultures."

Altogether enthusiastic about her field, Lynn graduated with a bachelor's degree in general history from the University of Michigan. During her studies she spent a year at the Hebrew University of Jerusalem, where she studied under Prof. Naomi Chazan, an expert on African politics. Lynn was immediately, in her words, "totally hooked." After graduating, she moved to Israel with her mother and sister and went on to earn her master's degree in African studies at the Hebrew University.

"I felt that by studying about Africa I could make an important contribution to Israeli society," says Schler. "There is not enough openness about the different cultures that are found right here, on our own

arriving on foot seeking refuge from political and economic crises. Israelis need to learn more about Africans and their histories in order to understand where these people are coming from."

Schler's first book about Africa was ies, which is run through four of Israel's on Cameroon, specifically on the culturally diverse immigrant community of Doula, the country's commercial cap-Supported by the Israel Council for Higher ital. (See page 39) Why Cameroon? "The study of central Africa was especially lacking in Israeli academia, and Douala was a fascinating place," replies Lynn, adding, "Douala demonstrated different models of community-building beyond the nationstate model. It allowed me to examine ways in which people create community and how neighborhoods served as a basis for identity that cut across religious, ethnic and class boundaries.

> "You cannot assume that the nationstate is primary in people's experiences," Schler elaborates. "I look beyond the nation-state to understand different ways people come to identify with a communal identity, to build public spaces. I have come to view shared spaces as means of circumventing national identities." During her year of research, Schler, along with her husband, also an American immigrant to Israel, lived for a year in Cameroon. "It was a never-ending adventure: a fascinating, incredible and difficult experience."

Currently, she is working on a history of Nigerian sailors, a subject she discovered during her Douala research. "In Douala these seamen were always getting into trouble, and I started to wonder just who they were," says Schler, who began to study the sailors who were recruited by

politics, societies and cultures British shipping companies. These men, she explains, "travelled all over the world and enjoyed a very cosmopolitan lifestyle. They were strongly influenced by Black protest movements of the 1960s and '70s."

With Nigerian independence in 1960, Nigeria established its own shipping line and most Nigerian seamen went to work for the national line. But the Nigerian state did not have the capital or experience

needed to run this kind of enterprise, and it ultimately went bankrupt. Thousands of seamen were let go, losing both their livelihoods and their identities.

"Interviewing these people was a very humbling experience," says Schler, who conducted her interviews in the slums of Lagos. There, she conversed with people who, she says, "have been through so much in their lifetimes, have seen a whole historical era pass." These interviewees for a fundamental change in the place of Africa in Israeli academia. Further, she is convinced that this type of program is especially well-suited to BGU, with its politically active, curious and engaged

"BGU students are seeking real solutions to real issues outside the University walls, such as those involving foreign workers and refugees," notes Schler. "We are trying, and apparently succeeding, in instilling our students with a deep knowledge and sensitivity to cultures different from our own."





How we build and organize our surroundings says a lot about who we are as individuals, families, societies and nations. Dr. Kobi Peled, a historian with a bachelor's degree in architecture and a member of the Ben-Gurion Research Institute for the Study of Israel and Zionism, believes there is much to be learned from the spaces we build around us, and he aims to research and interpret living spaces and apply his findings as historical reference.

Peled relocated with his wife and three children to the University's Sede Boqer campus this summer, where the Institute is situated. "It's a wonderful opportunity for change after living in Jerusalem for almost 40 years," he comments. "I look forward to working minutes from home and enjoying the outdoors."

Peled views himself as a historian drawing insights from sociology and anthropology. He focuses on the social and cultural history of the modern Middle East and his work specifically looks at Palestinians and Israeli Arabs.

"The cultural history that I write emphasizes political and economic dimensions based on a historical synthesis in which culture, conceived of as a texture saturated with meaning, plays the major role," he explains. Peled is fluent in spoken and written Arabic and he uses his skills to interpret the culture around him.

"I was particularly intrigued by the Arab extended and nuclear family's living structures and how, throughout history, we're seeing extended family structures being dismantled," Peled explains. "My work strives to study society in a spatial perspective; to understand culture by means of architecture; to grasp the Zeitgeist in light of the built environment. I believe it has broader meaning and points specifically to breakpoints in Arab society in modern history."



language. Having always been interested in Arabic language and literature, while he studied for a degree in architecture at the Bezalel Academy of Arts and Design, he also studied Arabic literature and Middle East history at the Hebrew University of Jerusalem, which enabled him to understand classic texts, religion, the Koran and literature.

After becoming acquainted with the history, he felt the next important step was to get to know the people in their environment. "Until I started my doctorate, I understood the language and literature, but was not personally acquainted with the people," he explains.

Peled intensified his Arab history studies and one aspect he discovered was that during the British mandate period, whereas the Jews in Palestine documented much of daily goings-on and significant events, the Arabs relayed history by word of mouth. "That's what I'm focusing on now – archival history versus oral history. I talk to people who are in their 80s and 90s and I get histories from them as

living testimony," he explains. Oral history passed down through generations, he notes, holds a crucial place in Arab society. "The oral narrative is key," he says.

Peled's work also includes examinations of the correlation between war trauma and national memory, the disintegration of the Palestinian Arab extended family when viewed through home building practices and changes in home building styles and materials, and a focus on the study of Arab Israeli society in light of its attitude toward the past.

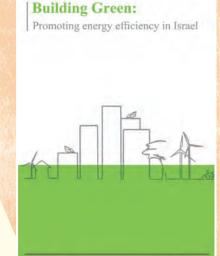
Peled plans to teach a course on the history of the Arab village and the process of its urbanization from the British Mandate period to the present and his continued research will look at how semi-nomadic Bedouin and Fellahs in the Upper Galilee and Golan get along, migrate and change throughout history.

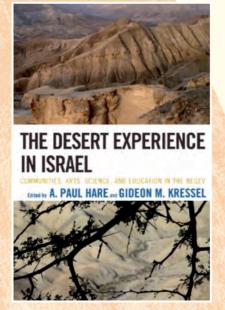
He also plans to build upon his previous research by studying relations between Jews and Arabs in the Upper Galilee during the British mandate as a means of drawing a cultural portrait of interaction between the two communities. But at

the moment he is focused on the environs close at hand. His passion for Arab culture is sparked not only by a desire to understand them but, he admits, may contain "genetic" components.

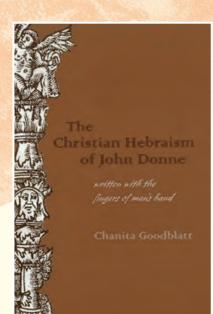
"My grandfather, who was killed in the 1948 war, was a musician. He collected Arabic music and was friends with Arab musicians, so there is actually a very personal side to all of this when viewed from that angle."

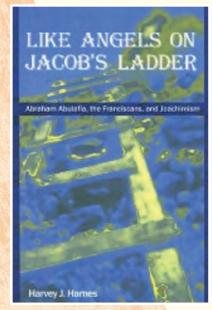
On the Bookshelf

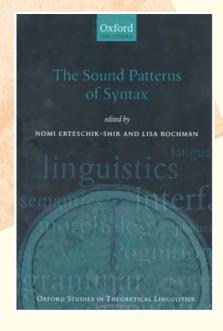












Building Green: Promoting Energy Efficiency in Israel

Yael Bar Ilan, David Pearlmutter and Alon Tal

Technion – Israel Institute of Technology Press, 2010

Based on research conducted by Ph.D. student Yael Bar Ilan and architect Prof. David Pearlmutter of the Department of Man in the Desert, and Prof. Alon Tal of the Mitrani Department of Dryland Ecology at the Jacob Blaustein Institutes for Desert Research, the book offers the first comprehensive look at Israel's experience in "green building" and suggests policy mechanisms to move the country towards a more sustainable path. The authors contrast Israel's green building standard with comparable programs implemented in other countries and examine the different approaches with respect to the local contexts in which they evolved. With lessons drawn from these experiences, they evaluate the efficacy of different policy tools for promoting energy-efficient building in Israel, hoping to evoke greater public awareness and instigate necessary change.

The Political Right in Israel: Different Faces of Jewish Populism

Dani Filc

Routledge, 2010

Prof. Dani Filc of the Department of Politics and Government examines the trajectories of Israeli politics since the election of Likud in 1977 and how right wing parties have adopted populist policies in order to carve out an identity and win support at the polls. He demonstrates how populism - the appeal to the "common citizen"- has become a hugely significant factor in shaping Israeli politics and society. Filc provides an analysis of the ways in which populism contributes to the consolidation of governing political forces in Israel and combines the theoretical elaboration of the concept with its application in the analysis of a specific test-case. This approach is useful for understanding many issues in the study of comparative politics and the Middle East.

The Sound Patterns of Syntax

Nomi Erteshik-Shir and Lisa Rochman (eds.)

Oxford University Press, 2010

The problematic relationship between syntax and phonology has long piqued

the interest of syntacticians and phonologists: the connections between sound and structure have played a key role in generative grammar from its inception, initially relating to focus and the prosodic marking of constituent structure, and more recently to word order constraints. Edited by Prof. Nomi Shir of the Conrad and Chinita Abrahams-Curiel Department of Foreign Literatures and Linguistics and Lisa Rochman, a Ph.D. student in the same department, leading scholars address the issues surrounding the syntax-phonology interface. These principally concern whether the phonological component can influence syntax and if so how far and in what ways. Such questions are a prominent component of current work on the biolinguistics of speech production and reception.

The Christian Hebraism of John Donne: Written with the Fingers of Man's Hand

Chanita Goodblatt

Duquesne University Press, 2010

The complex relationship between the nation, Church of England and the Jews reached an important culmination during the Reformation as Christian scholars became more interested in Hebrew language and the Jewish roots of European civilization. Christian Hebraism's influence spread as a central focus in theology and politics, spurring the Geneva (1560) and the King James (1611) Bibles in particular. Within this context, Prof. Chanita Goodblatt of the Conrad and Chinita Abrahams-Curiel Department of Foreign Literatures and Linguistics examines the exegetical strategies and language in Donne's psalms and sermons. While Donne shows only a basic grasp of the Hebrew language, his sermons reveal the many semantic nuances taken from Latin and vernacular translations of Jewish biblical scholarship. Goodblatt lays out the intellectual context of Donne's work and ties specific lexical, rhetorical and thematic strategies to Hebrew traditions.

Like Angels on Jacob's Ladder: Abraham Abulafia, the Franciscans, and Joachinism

Harvey J. Hames

State University of New York Press, 2009

Prof. Harvey (Chaim) Hames of the Department of Jewish History explores the career of Abraham Abulafia (ca. 1240-1291), self-proclaimed Messiah and founder of the school of ecstatic Kabbalah. Active

in southern Italy and Sicily, Abulafia believed the End of Days was approaching and saw himself as chosen by God to reveal the Divine truth. He appropriated Joachite ideas, fusing them with his own revelations, to create an apocalyptic and messianic scenario that he was certain would attract his Jewish contemporaries and hoped would also convince Christians. Though his messianic claims were a result of his revelatory experiences and hermeneutical reading of the Torah, they were, to no small extent, dependent on his historical circumstances and acculturation.

The Desert Experience in Israel: Communities, Arts, Science, and Education in the Negev

A. Paul Hare and Gideon M. Kressel (eds.)

University Press of America, 2009

Showcasing the responses of settlers, artists, poets, scientists and educators who live near BGU's Jacob Blaustein Institutes for Desert Research in Sede Boger, this book attempts to address the question: What difference has living in the desert year round made in your work? The editors, the late Prof. Paul Hare, together with Prof. Gideon Kressel of the Blaustein Institutes, present a collection of articles on different aspects of recent history and society in the Negev desert. They present a comprehensive view of life in the Negev over the past decades and specifically of the people of the Sede Boger campus who have endeavored to make it thrive by choosing to contribute to the region's welfare and development. This pioneering ethos lives on in the artistic, scientific and ecological endeavors of the Negev's residents and their communities.

Progressive Development: To Mitigate the Negative Impact of Global Warming on the Semi-arid Regions

Arie S. Issar (ed.)

Springer, 2010

Edited by Arie Issar, Professor Emeritus of BGU's Jacob Blaustein Institutes for Desert Research, this book is based on the results of the investigations of the authors in the semi-arid and arid regions (ASAR) of the globe. Their findings show that the warming climate will cause the drying up of the water resources in these regions. In this event, the principles of sustainable development will not be able to avert forthcoming catastrophes. These



Arie S. Issar (Ed.)

Progressive Development

To Mitigate the Negative Impact of Global Warming on the Semi-arid Regions



THE CHALLENGE OF SUSTAINING DEMOCRACY IN DEEPLY DIVIDED SOCIETIES

Citizenship, Rights, and Ethnic Conflicts in India and Israel

AYELET HAREL-SHALEV

HELPING PROFESSIONAL PRACTICE WITH INDIGENOUS PEOPLES

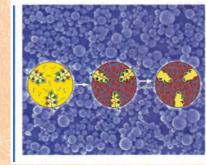
The Bedouin-Arab Case

> ALEAN AL-KRENAWI JOHN R. GRAHAM

Edited by Raz Jelinek

WILEY-VCH

Cellular and Biomolecular Recognition

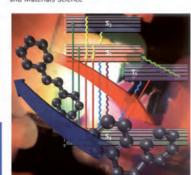


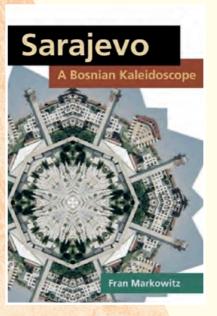
Gertz Likhtenshtein

WILEY-VCH

Stilbenes

Applications in Chemistry, Life Sciences and Materials Science





Education, Asylum and the 'Non-Citizen' Child

The Politics of Compassion and Belonging

Halleli Pinson, Madeleine Arnot and Mano Candappa



conclusions led to the policy of "progressive development," which emphasizes investment in the development of new water resources and changing the natural environments while educating the local populations. Topics include Malthusian and Neo-Malthusian prophecies of calamity; principles of sustainable development as a result of the neo-Malthusian conceptual model; and progressive development of groundwater resources of Israel.

The Challenge of Sustaining Democracy in Deeply Divided Societies: Citizenship, Rights, and Ethnic Conflicts in India and Israel

Ayelet Harel-Shalev Lexinaton Books, 2010

Dr. Ayelet Harel-Shalev, a postdoctoral Fellow in the Department of Politics and Government and the Centre for the Study of European Politics and Society, explores the inherent tension between the conflicting logics of democracy, citizenship and nation-state. Majority-minority relations are comparatively explicated by analyzing and theorizing the practices used by democracies to allocate legal rights to minorities while limiting their share in power. This discourse also functions as a political formula that enables such states to survive while sustaining a democratic process in the face of ethno-religious conflicts.

Helping Professional Practice with Indigenous Peoples: The Bedouin-Arab Case

Alean Al-Krenawi and John R. Graham

Nova Science Publishers, 2009

Prof. Alean Al-Krenawi of the Charlotte B. and Jack J. Spitzer Department of Social Work and Prof. John Graham of the University of Calgary, Canada, discuss issues helping professionals must confront when working with indigenous peoples, particularly the Bedouin. The authors claim that it is essential for social welfare practitioners and Bedouin communities to integrate paradigms that the helping professional carries out in practice methods and can lead to the emergence of a newer social work epistemology better anchored to the needs and realities of the Bedouin. They provide important insights into how intervention needs to be culturally situated through the unique time and person centered prisms of individual, community and place.

Cellular and Biomolecular Recognition: Synthetic and Non-Biological Molecules

Raz Jelinek (ed.)

Wiley-VCH, 2009

With its exploration of the scientific and technological characteristics of systems exploiting molecular recognition between synthetic materials, such as polymers and nanoparticles and biological entities, this multidisciplinary book edited by Prof. Raz Jelinek of the Department of Chemistry and the Ilse Katz Institute for Nanoscale Science and Technology bridges chemistry, life sciences, pharmacology and medicine. The authors introduce innovative biomimetic chemical assemblies that constitute platforms for recruitment of cellular components or biological molecules, while also focusing on physical, chemical and biological aspects of biomolecular recognition.

Sarajevo: A Bosnian Kaleidoscope

Fran Markowitz

University of Illinois Press, 2010

This urban anthropological analysis of Sarajevo and its cultural complexities examines contemporary issues of social divisiveness, pluralism and intergroup dynamics in the context of national identity and state formation. Rather than seeing Bosnia-Herzegovina as a volatile post-socialist society, Prof. Fran Markowitz of the Department of Sociology and Anthropology presents its capital city as a vibrant yet wounded center of multicultural diversity, where citizens live in mutual recognition of difference while asserting a lifestyle that transcends boundaries of ethnicity and religion. It further illuminates how Sarajevans negotiate group identity in the tumultuous context of history, authoritarian rule and interactions with the built environment and one another. As she navigates the city, Markowitz shares narratives of local citizenry played out against the larger dramas of nation and state building.

Education, Asylum and the 'Non-Citizen' Child: The Politics of Compassion and Belonging

Halleli Pinson, Madeleine Arnot and Mano Candappa

Palgrave Macmillan, 2010

This book draws on ten years of empirical research to assess for the first time the politics of compassion and belong-

ing associated with immigration policy and its impact on the education system in the UK. The authors - Dr. Halleli Pinson from the Department of Education, Prof. Madeleine Arnot of the University of Cambridge, UK, and Mano Cadappa of the University of London, UK, expose major tensions between restrictive asylum policies and responses by schools and local government to the presence of asylum seeking and refugee children. They reveal a compassionate professionalism amongst teachers and an emergent "new politics" that challenges the forcible removal by government of children to detention centers and the deportation of families.

Community Genetics and Genetic Alliances: Eugenics, Carrier Testing, and Networks of Risk

Aviad E. Raz

Routledge, 2009

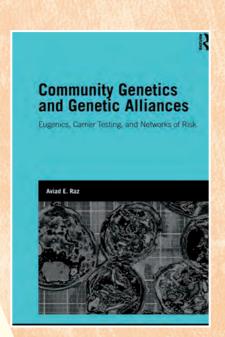
Carrier testing of adults provides information about the risk of passing a genetic mutation to one's children, leading to reproductive (and some say, eugenic) decisions. Prof. Aviad Raz from the Department of Sociology and Anthropology focuses on the interplay of community genetics (the medical organization of carrier screening) and genetic alliances (networks of individuals at risk), exploring how "genetic communities" are emerging within existing ethnic groups and around patients' organizations. While carrier screening emerges as ultimately a morally justified pronatalist endeavor for the reduction of suffering, thus being different in principle from the "old" eugenics, it can also have unintended adverse consequences if left unattended to consumers, communities or health professionals.

Techniques and People: Anthropological Perspectives on Technology in the Archaeology of the Proto-Historic and Early Historic Periods in the Southern Levant

Steven A. Rosen and Valentine Roux (eds.)

De Boccard, Paris, 2009

Prof. Steven Rosen from the Department of Bible, Archeology and Ancient Near Eastern Studies and Valentine Roux, Director of Research at the National Center for Scientific Research (CNRS) in the Prehistory and Technology Laboratory in Nanterre, France, have assembled a collection



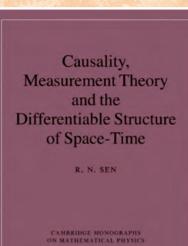


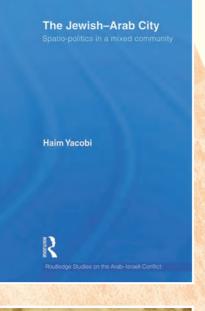
Sergei Volis

Adaptation in heterogeneous environments

Evidence of different plant strategies in populations of Hordeum spontaneum

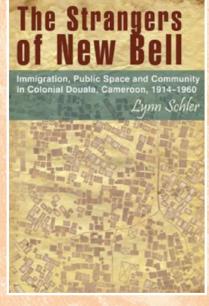


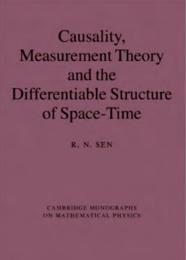


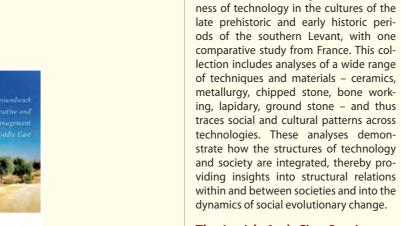


WATER WISDOM

TECHNIQUES AND PEOPLE







The Jewish-Arab City: Spatiopolitics in a Mixed Community

of studies documenting the embedded-

Haim Yacobi

Routledge Studies on the Arab-Israeli Conflict, 2009

"Mixed city" is a term widely used in Israel to describe areas occupied by both Jewish and Arab communities. Dr. Haim Yacobi of the Department of Politics and Government shows how a clear spatial and mental division exists between Arabs and Jews in Israel, and how the occurrence of such communities is both exceptional and involuntary. Yacobi argues that there are complex links between socio-political relations and the production of contested urban space. The case study of the city of Lod is used as the platform for wider theoretical discussion and political analysis. This city has great significance in the present global context, as more and more cities are becoming polarized, ghettoized and fragmented in surprisingly similar ways.

The Strangers of New Bell: Immigration, Public Space and Community in Colonial Douala, Cameroon, 1914-1960

Lynn Schler

UNISA Press, 2009

Dr. Lynn Schler from the Department of Politics and Government and BGU's Africa Centre studies a community of African immigrants – or "strangers" – designated to guarters in New Bell, Douala, in Cameroon, during the colonial era. New Bell was created in 1914 as part of an extensive urbanization and relocation plan intended to reserve the Douala city center for Europeans. It housed thousands of migrants converging on Douala from Cameroon and the entire west coast of Africa. Though never completely evading

colonial economic and political agendas, this vastly diverse and sometimes strife-ridden community forged alliances, solidarities and common experiences in response to their immediate needs and long-terms goals. Schler focuses on the ability of Africans to bridge their differences and live as neighbors in cultural and political spaces transcending postcolonial political boundaries. (See page 30).

Causality, Measurement Theory and the Differentiable Structure of Space-Time

Rathindra N. Sen

Cambridge University Press, 2010

This book by Professor Emeritus of the Department of Mathematics Rathindra Sen discusses two recent developments: the demonstration that causality can be defined on discrete space-times; and Prof. Granville Sewell's measurement theory, in which the wave packet is reduced, without recourse to the observer's conscious ego, nonlinearities or interaction with the rest of the universe. The definition of causality on a discrete space-time assumes that space-time is made up of geometrical points. Using Sewell's measurement theory, the author concludes that the notion of geometrical points is as meaningful in quantum mechanics as it is in classical mechanics, and that it is impossible to tell whether the differential calculus is a discovery or an invention.

Water Wisdom: Preparing the **Groundwork for Cooperative and Sustainable Water Management** in the Middle East

Alon Tal and Alfred Abed Rabbo (eds.)

Rutgers University Press, 2010

Israel and Palestine are, by international criteria, water scarce. As the peace process continues amidst ongoing violence, water remains a political and environmental issue. Thirty leading Palestinian and Israeli activists, water scientists, politicians, and others met and worked together to develop a future vision for the sustainable shared management of water resources that is presented in this volume edited by Prof. Alon Tal from the Mitrani Department of Dryland Ecology at the Institute for Dryland Environmental Research of the Jacob Blaustein Institutes for Desert Research and Prof. Alfred Abed Rabbo of Bethlehem University. The essays explore the full range of scientific, political, social and economic issues related to water use

in the region and identify areas of agreement and disagreement and options for resolution.

Adaptation in Heterogeneous **Environments: Evidence of Different Plant Strategies in Populations of Hordeum** spontaneum

Sergei Volis

VDM Verlag, 2009

Dr. Sergei Volis of the Department of Life Sciences analyzes the subject of adaptation by applying two approaches: generalist-specialist and plant strategy theory, and by using several populations of a single species – wild barley (Hordeum spontaneum Koch). Four environments were specifically chosen to represent a gradient of environmental productivity (annual rainfall) and unpredictability (inter-annual variation in rainfall). Plants originating in the four distinct environments were tested for local adaptation and analyzed for the possible mechanisms by which the adaptation was achieved. The author reveals that the specialistgeneralist approach was not efficient in analyzing the selection process at largescale (regional-scale) heterogeneity. On the other hand, the life history traits, phenotypic plasticity and competitive ability of plants originating in the four studied environments were in partial correspondence with those predicted by Grime's C-S-R model.

Stilbenes: Application in Chemistry, Life Sciences and **Materials Science**

Gertz I. Likhtenshtein

Wiley-VCH, 2010

This monograph by Gertz Likhtenstein, Professor Emeritus in the Department of Chemistry, covers several aspects of stilbenes - their chemical reactions, photochemistry and applications in industry and biomedicine. Topics include basic chemical properties of stilbenes; using stilbenes as probes for investigating molecular structure, dynamics and functional activity of proteins, enzymes and biomembranes; real-time analysis of biologically active compounds; and recent advances in modern absorption, fluorescence and vibration techniques and related areas that were stimulated by the growing requirements of stilbene applications.



studies and use innovative medical technology. The close and long-standing bond between Ben-Gurion University of the Negev and the Soroka University Medical Center would perhaps appear to be like

What is rare in the case of the Negevbased alliance, however, is the presence of two doctors who have made it their primary mission to bring Ph.D. students

Soroka explains, "Soroka is a classic example of a university medical center that looks for people who have an interest not just in service and people, but also in teaching - not only medical students, but all students interested in asking deeper questions about the reasons for the phenomena that they encounter in their clinical work. A Ph.D. student may do research, but this research is often totally disconnected from the clinical community."

became acquainted with the hospital when

he took an internship position there in 1986. In 1994 he returned from completing a fellowship in pediatric nephrology at Children's Hospital National Medical Center in Washington D.C. and discovered that Prof. Yael Segev from the Shraga Segal Department of Microbiology and Immunology in the Faculty of Health Sci-The Argentinean-born professor first ences, along with Prof. Moshe Philip, was working on tackling similar issues as he

was. Although Philip has left the team, Landau and Segev have continued their undertaking, says Segev, "of blending basic and clinical subjects in biology, specifically related to kidney disease."

Segev, who was born and raised in Beer-Sheva and received her master's and doctoral degrees at BGU, says "my family is here, I married someone from here who also studied at BGU. I like Beer-Sheva; not only the city, but the University especially, which connects us to the city." Although

she studied abroad for some time, she says, "I always planned to come back. I'm fully committed to the Negev - I feel like we have a mission here to build up the area."

She continues, "I'm involved in a variety of academic activities at BGU. I coordinate and teach cell biology; I teach immunology and microbiology in different settings; and I coordinate an immunology laboratory course for medical students,

laboratory medicine students and pharmacology students." Segev is also the head of the Supervising Committee for second-year students at the Joyce and Irving Goldman Medical School and secondyear students of laboratory medicine in the Faculty of Health Sciences. She is also the head of the Curriculum Committee **>**

at the Leon and Mathilde Recanati School for Community Health Professions. She is dedicated not only to her research, but also to creating an environment in which students in the Faculty of Health Sciences can integrate comfortably and effectively into Soroka's research setting.

Their research is centered on the subject of chronic kidney disease (CKD) in children. When the two began working together, Landau explains, their focus was the effects of Types 1 and 2 diabetes on the kidneys. Although many of their experiments vielded important conclusions, Landau says, "Our research did not crystallize into a clinical study." Their case study findings brought about offers from pharmaceutical companies, but their subject of research nonetheless shifted into CKD. Landau explains, "We have moved recently into the field of CKD, which affects one of ten Americans. In pediatrics, a major result of CKD is the fact that it affects children's ability to grow."

Landau continues, "Administration of high doses of Growth Hormone (GH) has been used for years to treat children



Prof. Daniel Landau

with CKD and short stature. This naturally occurring hormone is not deficient in CKD, hinting at a state of resistance. We wanted to investigate this resistance to the actions of this hormone in children with kidney disease. So we thought that we could now apply methods we have developed for other disease models to the field of CKD and find the basis of this resistance."

In the last two years, says Segev, "we have been investigating specifically the effects of GH on the bone. We are trying to understand the type of resistance to GH on the bone and to design novel interventions to overcome it. The hope is that

we'll be able to find new strategies to treat this complication of chronic kidney disease; finding this resistance will also be of importance in treating adults, in whom it is thought to cause debilitating muscle wasting and an increase in the risk of complications. By better understanding the processes of growth retardation in children with CKD, we can design novel strategies for intervention."

As clinical studies related to their particular research have vet to be conducted, Landau and Segev are working tirelessly, with the help of a collaborative team effort of Ph.D. students in the Faculty of Health Sciences, to bring such studies to fruition. And while their research relates specifically to CKD, the two are confident that their findings will also be of great importance to research of other chronic health conditions.

Their extensive investigation and its international interest has thus far earned Segev, Landau and their team of student researchers several grants, including an Israeli Ministry of Health Chief Scientist grant and a US-Israel Binational Science Foundation (BSF) grant. Funding, they case studies into clinical trials.

"Because our scientific research is characterized by blending basic and clinical subjects," says Segev, collaboration between students in the health sciences with individuals from the medical field is crucial. "Our basic concept was collaboration between physicians interested in experimental research and Ph.D. students," says Landau, "the latter of whom are much better equipped with invesexperiments and research."

Segev and Landau recently opened a lab at the Soroka Medical Center to be occu-Biology and Laboratory Medicine. "The lab is very active and student-oriented," says Segev. "Danny and I train the students together and we do a joint mentorship for them," she remarks. Several physicians outside the cooperation have also utilized Israel, and right here in the Negev. the lab for their own projects.



Prof. Yael Segev

students making a difference

Hadas Goldstein

Although the scientific and medical details stemming from their subject are highly complex, Landau and Segev face sometimes greater challenges when it comes to dealing with the financial and bureaucratic issues involved in bringing together what are all too often assumed to be independent fields of research.

Landau explains: "There's a threat in this type of collaboration because, in the past, hospitals were willing to recruit Ph.D. scientists based on the former's ability to pay a salary for the work, and these scientists would run some service laboratory in the hospital and at the same time perform collaborative research with hospital physicians and others. But because of lack of pay and appropriate placement in the hospital, these scientists are in danger of extinction. It is often the case that as soon as one of them leaves, no replaceagree, is essential to transforming their ment is hired." The main question, says Landau, and one that administrators have not vet answered sufficiently, is, "Where should these scientists really be - on campus or in the hospital?"

Landau and Segev are positive that too much of a distinction between medical and health science research only hinders potential progress in fields such as chronic kidney disease. As they have witnessed the positive results of collaboration, they firmly believe that BGU students deserve tigative tools to apply and conduct the a specific place in hospital labs and use of other medical resources for the general advancement of medical research.

Despite any setbacks they may encounpied by students from the Departments of ter, Segev and Landau plan to continue participation in the overlapping of scientific and medical investigations for many years to come and are fully committed to further pushing BGU to the forefront of cutting edge research - in the world, in

Breaking the Silence

The story of her grandmother's escape from Lithuania to Canada in 1933 factored into Hadas Goldstein's interest in Amcha, an organization devoted to providing mental and social support to the nearly 200,000 Holocaust survivors and their families living in Israel today. Of her grandmother, she says, "she and her brother were the only survivors in the family. She never talked about what happened, ever."

Three years ago Goldstein – a student of Sociology, Anthropology and General History who works part time as an assistant to the press officer in BGU's Department of Publications and Media Relations – was looking to do meaningful volunteer work. When she heard about *Amcha* through a friend, she says, she thought about her other grandmother, who had passed away one year before in a home for the elderly and from whom Goldstein learned "how important it is for older people to have support around." The University's Community Action Unit provided her with important details about the work and set her up at the local branch in Beer-Sheva, one of 14 around the country.

According to Amcha's mission statement, the devastating events of the Holocaust led to the trickling down of emotional and mental instability from survivors - many of whom remained silent for decades following the events – to their offspring, and subsequently to generations that have followed. In order to restore mental health and family ties and to encourage the breaking of this silence, Amcha provides several types of services, from psychotherapy to social casework for survivors with problems of mobility, to social clubs, intergenerational projects, and a volunteer service that provides homebound survivors with the company and attention of carefully chosen and highly committed volunteers.

In her first year with the program, Goldstein taught a computer course that included the basics of the Internet and

email. For the two years that followed, she made home visits. "I visited a couple, both over 90 years old and living by themselves." Goldstein recalls how the elderly man in the house "used to put books out for me when I came to visit. We would read together, one book per month." For the elderly woman, she says, who eventually lost her eyesight, "it wasn't just about reading."

This year Goldstein is involved in a program geared towards helping people understand their rights as both survivors and Israeli citizens. "This year they were told that they could get money back for their medicine," she explains, "but they don't know where to send all of their paperwork, so if it's too much trouble, they just drop it." Goldstein is there to help them get the benefits that they otherwise would have ignored. "I made sure that they sent in all of the paperwork and offered to call them two weeks later to remind them."

Goldstein's volunteer work reaches beyond Amcha's mission and into the personal lives of the survivors. One bingo night at the center, she recalls, "we ran out of prizes because we miscalculated and too many people were winning. So my friends and I said to the group, 'whoever wins, you get a hug.' So every few seconds, someone won and they got a hug." It is in instances such as this when Goldstein is reminded of the power of basic contact. "You feel like family there," she says. "Every Thursday I come and they give me hugs and kisses - one woman even made me a bracelet."

Goldstein's devotion to the survivors is rooted in her strong sense of compassion and sensitivity towards a subject and a population that is often said to go under the radar in Israel's larger society. "I think it's a population that gets forgotten," she explains. "At Amcha, they remind me that they're here and that they have a big part in our history and society. This is something I'll always take with me."



It's Music to their Ears

Yaniv Evgi takes nothing for granted. students making a difference Nearing the completion of a bachelor's degree in the Department of Mechanical Engineering, he maintains his enthusiasm for extra-curricular social activity. Deeply involved in three Keren Moshe programs, all of which are part of the University's Community Action Unit, Evgi has taken on volunteering with full dedication and sheer compassion. His support, care and unwavering commitment to helping underprivileged populations in Beer-Sheva have changed many lives, including his own Evgi's academic interests can be traced to the countless hours spent with his father in his garage, learning the ins and outs of

in his garage, learning the ins and outs of restoring cars. "This is where I learned to love mechanics," he says.

The soon-to-be mechanical engineer, whose goal after graduation is to gain

whose goal after graduation is to gain work experience and subsequently begin a master's degree in the same field, has throughout his studies set volunteering high on his list of priorities.

The first organization with which he

The first organization with which he worked, "People's Music Therapy," he explained, "provides music therapy to special needs people who work in a factory in Beer-Sheva." Under the manager's supervision, Evgi's 18 months at the factory were devoted to teaching music to the employees there, many of whom otherwise have no creative outlets. "We played and sang together," he says. "This was very significant work that had a major impact on my life."

Music is also central to the work he is now doing at the "House of Wheels." Here he works with youth between the ages of nine and 22 who come to the club to participate in different activities, including music therapy and cooking classes. "The first goal of 'House of Wheels," says Evgi, "is to create a community of special needs children who have mobility issues. Although most of them cannot walk, we show them how to be independent. Until they come, the children have everything done for them." Of the music lessons Evgi leads with the youths, he

says, "We speak with one another through music – this is our connection."

While the larger society may not view the youths as "normal," Evgi sees them as nothing but: "These children may not have normal experiences, but they do have the same dislikes and likes as all other kids. For instance, the young kids love playing games – this is simply the age where kids love playing games."

During the week, professional volunteer cooks teach groups of ten to fifteen children how to prepare meals. "By cooking together," he says, "the kids learn that if they want to eat, they can cook for themselves."

All in all, explains Evgi, "the children are taught the value of leadership and can begin to bring out their true character and ways to deal with their limitations."

The time Evgi spent at the "House of Wheels" was followed by yet another year of volunteer work at MANOF, an acronym translated as: "Youth Leadership and Active Citizenship." MANOF activities take place in Beer-Sheva high schools, where volunteers like Evgi come and talk to the students about university life and leadership. By illustrating the importance – as well as fun – of a university education, and by stressing the extra-academic possibilities that come along with such an education, the students, he remarks, "are taught how to connect with their city, to initiate social activities and to aim high in their post-high school lives."

Evgi has taken full advantage of the community action programs offered at BGU, all of which have changed his life in major ways. "I studied here for four years and have achieved an academic degree, but I also enjoyed the student life and activities. In fact," he says, "I think the many social activities were more important than my studies for my life experience and I'm glad I was given the opportunity to take part in them."

students making a difference



Eden Mehlem

Making Children Feel At Home

"As a regular girl from Jerusalem, when I began volunteering at the *Mercaz Gil Harach* – a 'safe center' for small children – my whole vision of the world changed," says Eden Mehlem, a student in the Departments of Middle East Studies and Communications, who has learned far more during her studies than she ever expected.

The Center is one of the several community centers of *Paele Tzibur*, or "social activists" – a leadership program run by the University's Community Action Unit that aims to connect student volunteers to various underprivileged populations living in and around Beer-Sheva. Volunteers participate for four hours a week in a range of organized projects, as well as in preparatory training, which includes lectures and workshops.

Although Mehlem participated in different *Paele Tzibur* activities during her first and second years at BGU, it was her most recent involvement at the children's center that most drastically challenged her previous notions of societal problems. The Center's main objective is to connect volunteers with children on the verge of displacement from troubled homes in and around Beer-Sheva.

The children with whom volunteers work, she says, are "one step from being taken from their homes" and are "often with parents who are not suitable for the job." Although the state ultimately makes the final decision regarding parental fitness, explains Mehlem, "the kids may live for a long time in these dire situations until a judgment is made about whether they should be removed and placed under state care. This is a very difficult time for the children, even if they don't fully realize what is going on," she explains.

"While their parents are given a last chance to improve themselves and prove their parenting skills," she says, "we make sure that the kids get the attention they deserve and have a chance to spend some time in a fun environment."

After passing a number of qualification tests, Mehlem was accepted into the program and paired up with Esther, a five-year-old girl whose mother suffers from mental illness. "I give Esther four hours of fun every week that are only for her. The kids – who are all between the ages of two-and-a-half and five – are often in regular pre-school from two in the afternoon until eight o'clock in the evening, and if their parents don't pick them up, they're taken home in a mini-bus."

The unfortunate fact that "many parents probably don't even know that their kids are in the program," says Mehlem, "makes it all the more important for children like Esther to know that they are in a safe place where they really can feel at home."

In only one year, Mehlem and Esther have built an important bond that has changed Mehlem's world perceptions indefinitely, and has no doubt made an impact on the young girl. "Esther and I play together," she says. "I make sure she knows that I care about her by doing things like making up games with her and teaching her the alphabet. Normally, kids are taught the alphabet at home, but Esther hasn't had this opportunity."

Although Mehlem does not know whether Esther will be put back into her parent's care or under state guardianship, what she does know is that her time with the young girl has taught her the importance of community outreach and has, she says, "opened my eyes to the reality of people's problems and the absolute need for volunteering."

Yaniv Evgi

Bacteria get a bad rap. At least that's what Dr. Eyal Gur thinks. A microbiologist, biochemist and member of the Department of Life Sciences, Gur is a bacteria fan, and if he can, he'll make bacteria his research focus for the remainder of his professional career

Gur set out to answer that question at Massachusetts Institute of Technology (MIT) labs where he went for his post-doctoral training. He spent four years at MIT looking at a protease called Lon – the major protease in bacterial cells that destroys misfolded proteins. "I studied the

This finding was significant because if knowledge about pathogenic material and how it uses Lon is applied, antibiotics can be produced for disease treatment. This is what part of his current research at BGU is based upon – developing novel antibiotics. Combining basic and applied research, Gur is also affiliated with the National Institute for Biotechnology in the Negev (NIBN) – an institute that advances and supports the exploitation of academic and

The Beauty of (NIBN) - ar supports the r's affinity for bacteria began when s in high school in Bat Yam. He d on biology studies as a top and

Gur's affinity for bacteria began when he was in high school in Bat Yam. He focused on biology studies as a teen and went on to get his bachelor's degree in biology from Tel Aviv University. Responding to a program option offered at the time to qualified students, he skipped his master's and went straight to doctoral studies in microbiology.

It was while earning his doctorate that Gur began using bacteria to study proteins and their quality control systems. "Each cell has numerous components responsible for the homeostasis of protein folding – a routine outcome of protein biosynthesis. But sometimes, when under stress, proteins lose their conformation and start causing problems within the cell."

This folding problem became the focus of Gur's research. And as he delved deeper into cell proteins and protein quality control, he realized that it was unclear how proteases – enzymes that degrade irreparable proteins – recognize misfolded, damaged proteins.

"I became interested in the decision a protease makes to destroy a protein," Gur explains. "It's important because proteases can cause a catastrophe in the cell unless they can accurately and selectively decide whether to degrade a protein. And I realized the answer to that question – how they decide – was unknown."

Dr. Eyal Gur

recognition principles of Lon and how it determines which protein to degrade," says Gur.

What he discovered was that Lon recognizes patterns mainly found at the hydrophobic (water repellant) core of folded proteins and that in this way, Lon recognizes and activates the mechanism for distinguishing healthy from unhealthy proteins, in molecular terms.

Gur's study of Lon and proteins in bacteria were for scientific research purposes: to understand the nature of how cell proteins and proteases function rather than searching for curative end-results. "My main focus is on basic research – I'm trying to understand nature and what life is," Gur admits.

But his research, it turns out, is highly significant to the biotech world. Lon is important to numerous cell processes, including bacterial virulence or infectious disease-causing material. Disease needs Lon to affect human cells; without it, disease can't make people sick.

intellectual knowledge for biotechnological purposes.

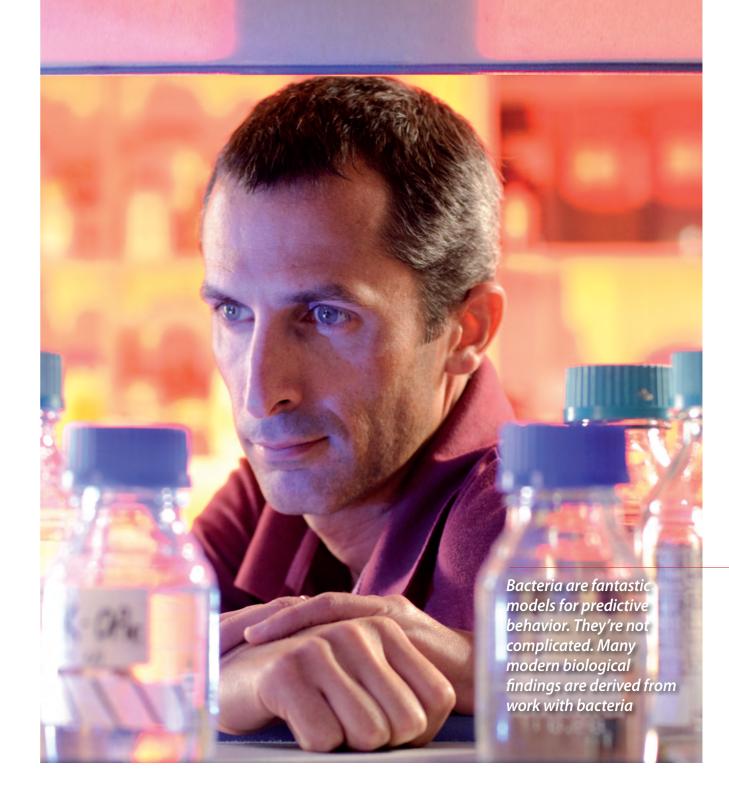
Gur is also studying the protease system in tuberculosis. "There is very little known about it and it is very different from Lon," he explains.

Which brings him to his current position. While in his fourth year at MIT, he was contacted about a microbiologist opening at BGU. "They didn't know I wanted to go to Ben-Gurion University more than anywhere else," Gur relates.

"I love the desert and I had heard very good things about BGU's outstanding and young faculty so I jumped at the opportunity."

Gur, his wife and two children came to the Negev last year, and since, he has been getting his lab up and running with the help of a European Union Reintegration Grant.

"I believe I'll be researching this field for the next seven to eight years and depending on how things develop, it could continue for more than 10 years. If we reach conclusions and get quick results, I'll continue researching other microbiology avenues. But I see myself continuing to follow the path of basic bacterial life," he says.



Why bacteria? Because, as Gur puts it, bacteria are fantastic models for predictive behavior. "Bacteria demand a relatively simple environment and they contain nearly all basic cell elements. They're not complicated. Many modern biological findings are derived from work with bacteria."

For Gur, the move to BGU is a triple win deal: He will research his area of interest, he is living in the Negev and he is imparting wisdom.

"I love teaching students, giving them the information and knowledge I have and conveying what I learned in the U.S. I feel so lucky that I have been able to do what I've done – life could have taken me in an entirely different direction. Getting to teach gives me a tremendous amount of satisfaction. I'm working with people who want to understand and know more. It's a huge bonus."



"The main aim of my research is to predict and eventually improve crop quality. It's a broad, long distance kind of thing but I focus on seed crops and seed quality traits, observing biological and physiological aspects," explains Dr. Aaron Fait, a member of the French Associates Institute for Agriculture and Biotechnology of Drylands at the Jacob Blaustein Institutes for Boger campus.

"If you have a crop that can germinate easily, at the right time, and sustain seedling development under adverse conditions, that's a good trait for growers and for the crop itself," he says.

Fait has been researching seeds and their metabolism for the past six years. He earned his bachelor's and master's degrees in ecology and environmental quality from Tel Aviv University and his Ph.D. in biochemistry and plant science at the Weizmann Institute of Science. He went on to postdoctoral studies in plant molecular physiology at the Max Planck

The Italian-born 38-year-old married father of three children always had a deep affinity for Israel. "I'm originally from a small Italian town on the Austrian border," he explains. "At the age of 19 I came here to check out what Israel was all about.

he recalls, noting that he returned to Italy after seven months but felt a pull back to Israel, "Within three months I was back in Tel Aviv studying at the Mechinat Olim program that prepares new immigrants for academic studies."

Fait's love of the environment, fond memories of Sede Boger and an appreciation for the Blaustein Institutes' multi-disciplinary approach to desert and environmental solutions motivated his decision to build his future there. He also had romantic visions.

"The Negev drew me in because of what I had read in the Israeli author Meir Shalev's books. He used sensual adjectives



I could feel what he described. Scientifically, personally and philosophically the desert is my dimension."

Fait's interests go beyond the laboratory. He is also fascinated by Jewish bioethics and Halacha (Jewish law). During his doctoral studies he met regularly with a rabbi and good friend to discuss issues such as genetic engineering in plants and the cloning of animals. The three of them subsequently wrote and published a book

in Italian, bringing Jewish philosophy and its vision regarding science to the Italian public.

Research-wise, Fait's concentration on plant seeds centers around observing metabolic processes to understand how the seed operates genetically while under stress and how the environment affects seed quality, including nutritionally important proteins and amino acids, starch or oil, in staple crops such as wheat and tomato, or biofuel crops such as brassica napus (rapeseed).

Research into plant metabolism, says Fait, has undergone a revolutionary process during the past decade, both conceptually and technologically. Scientists are able to follow simultaneously many processes taking place within a cell at any given time and under any conditions.

"Formerly, we would concentrate on one particular pathway as if it fluctuated in a sort of vacuum. At the same time, technological constraints limited our analysis to a few metabolites and made comparative studies difficult, as a relatively large

number of independent analyses were happening concurrently for each metabolic group," Fait explains.

Today, seed metabolic researchers look at the larger picture all at once, accessing more information faster. "These days, when we study a mutant or transgenic plant that has been altered in a specific pathway," Fait notes, "we look at the whole effect of the genetic alteration on the cellular network. Imagine a note played on a string of a violin - you can listen to that single note over and over again, but you will not be able to understand much of the symphonic aria. Any alteration – genetic or environmental – affecting one part of the network will create a perturbation that will flow through the web via defined routes. Once we identify those routes, we can understand how the metabolic web is regulated, what are the hubs of the web and what are its vital routes. Eventually we will be able to predict how it will respond to this or that genetic alteration or climate condition."

Combining this new scientific field with complimentary global analysis methods, says Fait, can give the most comprehensive possible description of cellular activity at any given time. "This is crucial to understanding genetic alteration and environmental effects on our plants, because we can develop more accurate breeding strategies for stressful environments," he notes.

Funded primarily by the United States-Israel Binational Science Foundation and the Binational Agricultural Research and Development Fund, Fait and his team recently showed that seeds accumulate unbound molecules during their development while on the mother plant, which affect the seed behavior once shed. This means that stored in a seed's molecular memory is information regarding the environment the seed was "raised in." The memory stays with the seed so that once it falls and is dispersed, information for successful germination in a specific area is embedded within the seed.

"We proved that the seed is not simply a passive sink of protein and lipids or starch but is actually actively changing its metab-



Dr. Aaron Fait

We look at the whole effect of the genetic alteration on the cellular network

olism during development in preparation for future germination in the environment where it is dispersed," he explains.

This is crucial in arid or semi-arid environments because if, for example, a seed germinates at first rainfall and is then subjected to three months of dry conditions, it will die. Therefore it must tightly regulate its germination, "knowing" how to read environmental cues to keep from drying out and dying.

The exciting part, Fait explains, is that "it doesn't only read conditions at that very moment, but it integrates this with its memories of environmental conditions experienced by the mother plant."

From a practical vantage point, Fait's vision is to predict seed germination, establishment or seed/fruit quality traits based on a metabolic or molecular signature. Establishment is a major factor affecting plant yield so, potentially, Fait and his colleagues could foresee the plant yield of a seed or of a seed grown under the same conditions as another. And this, he says, could revolutionize breeding strate-

The next step is to determine whether a meaningful and reliable correlation can be drawn between molecular signature in the seed and a plant yield trait. Fait is confident about the future.

"It sounds like science fiction but it's not," he suggests. "Yet the difficult part is ahead of us: to identify the multiple molecular signatures potentially existing for trait development and/or stress toler-



What's the Story

Prof. Ilana Rosen of BGU's Department of Hebrew Literature isn't your typical academic. "No person is alone. Everyone is a part of a community, and when we academics research society, we need to acknowledge our part in it. Only then can we understand and convey in depth the people we are studying," she says.

Rosen's field of literature is para-histor- Folklore Society's women's studies prize. ical or documentary personal narratives. Her work began with her own community. The daughter of Hungarian Holocaust survivors, Rosen wrote her first book, Sister in Sorrow, based on interviews with women Holocaust survivors from Hungary who'd immigrated to Israel or remained in Hungary. The ground breaking work won the 2009 Elli Köngäs Maranda American

After joining the faculty at BGU in 1997, she, her husband and two children (the third is a born "southerner") moved from Hod HaSharon to Lehavim, close to Beer-Sheva, and she began to seek out the personal narratives of the new communities that surrounded her - the immigrants Prof. Ilana Rosen

These communities want to explain that they overcame hardships and made accomplishments



from Europe and from Muslim countries who had moved into the cities, towns and agricultural settlements of the South. Currently she is working on a study of the narrative of Egyptian immigrants to Hungarians gradually adopted the fascist

"The stories tell about day to day life, whether it's in their countries of origin or in Israel. They describe their past almost like anthropologists - how they lived, where they lived, what it was like to be a child in school, the relations of Jews to gentiles, the attitude toward Zionism, the experience of surviving the Holocaust, or fleeing Muslim countries," she says.

survivors, of Middle Eastern immigrants - want to be heard. They want to explain that they had important experiences, overcame hardships and made accomplishments, although in the past they were looked down upon as inadequate, as 'primitive' orientals. These are people who settled in Israel in the early years of the state, and they are reaching the age when if we don't document their stories now, we will not get another chance. It's no accident that many of the academics who are doing this research are the children of these immigrants. I'm part of this half came to Israel." phenomenon," Rosen says.

Asked what the Holocaust survivors said about their relations with their gentile neighbors, Rosen notes that before the Holocaust, the Jews of Hungary had "a prodigious history, and a largely positive one," notably after the Jews won emancipation in the 1860s. The change began with the rise of fascism in Hungary in the 1920s. "The fate of Hungarian Jewry

was like a tragic love story. They believed they'd become true Hungarians, only of the Jewish faith, very much like the German Jews. But in the 1920s and 1930s, and racist view of the 'Jewish problem' those who identified themselves openly as Jews were seen as alien and corruptive to society, while those who tried to assimilate were a threat to Hungary's economy and 'breathing space.' Of the country's 800,000 Jews, half were wiped out."

The life of Jews in Egypt changed radically for the worst with Israeli independence in 1948. This was followed by "These communities - of Holocaust the rise of nationalist leader Gamal Abdel Nasser in 1952 and the 1956 Sinai Operation, explains Rosen. From the history and narratives she's read of Egyptian Jews, she finds that "about two-thirds of them were wealthy, and they had a colonialist attitude toward the Muslims. The Muslims were their servants and gate-keepers. The remaining third lived in poor Jewish neighborhoods adjacent to poor Muslim neighborhoods where they lived on equal terms. Between 1948 and 1956, the great majority of Egyptians Jews - 70,000 to 80,000 of them - left the country. About

> The narratives from both groups of immigrants are laced with tales of hardship – not only in the old country, but in Israel as well, and include not a few complaints about how they were received here by the young, ideological, conformityminded state. "Many of those from Arab countries say the Israeli establishment did not show enough respect for their heritage and values and tried to change them from traditional, religious Jews into secular, socialist and Western ones. Some recall how in school they were taught that

their parents' ways weren't right, weren't modern and in some cases weren't even hygienic. These were cultural differences that the Israeli establishment didn't appre-

"An interesting thing I found is that not only do the Middle Eastern immigrants make these sorts of claims, but so do the Holocaust survivors. Their narratives show that they weren't ready for socialism when they came here and some of them were unfamiliar with even basic ideas of Zionism. They came from the Jewish bourgeoisie and Israel was trying to indoctrinate them to become social-

Meeting women in the South from the Middle East, she developed an interest in belly dancing, and during a recent rehabilitation from breast cancer, she combined belly dancing with Japanese Reiki healing, which she's been practicing for years. She now teaches this therapeutic dance to women as a volunteer at the Ma'agan Community Cancer Care Center run by BGU and the Soroka University Medical Center with the generous support of Sol and Edy Freedman of New York through the Benjamin and Seema Pulier Charitable Foundation. "The movements of Eastern dance are healthy; they balance the body and soul; they put you in touch with your environment. Belly dancing emphasizes the body's femininity, the dancer shows her happiness with her motions and facial expressions, and all this helps to give joy back to the sick or recovering women."

In addition to teaching belly dancing at the Ma'agan Center, Rosen and her family are active in the Magen Avraham Conservative Synagogue in nearby Omer, an egalitarian synagogue - which is still unusual in Israel. Here she volunteers as a Torah reader (bealat kria), preparing boys and girls for the bar or bat mitzvah.

As she says, no one is alone. "I came here to be part of the South - to hear the stories of the people who live here, to teach, to write and to be a part of the community."

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