



In Our Community— Ecology Is for the Birds

By Michael Livni

Yes, literally—for the birds, especially migrating birds. Birds were a major factor in initiating the ecological bent of Kibbutz Lotan.

Kibbutz Lotan is fortuitously located along the global flyway of migratory birds between Africa, Asia, and Europe. Between five hundred million and a billion birds (mostly small songbirds) pass through Israel twice a year—every fall and spring. During the spring migration in particular, the birds tend to funnel through the Arava valley in Southern Israel. This valley is part of the Syrian-African rift system. Thus the route of the birds going North follows the historic route of the dispersion of plant and animal species out of Africa—including us, *Homo sapiens*, as well as our predecessors, *Homo erectus*.

“Think Globally, Act Locally”

The Eilat area at the southern tip of Israel is the natural rest stop of migrating birds after crossing the Sahara desert from their wintering areas in Africa. In the last few decades, intensive development for tourism has caused severe habitat loss in this area. Upgrading and development of additional sites as alternative rest stops in the Eilat area has become imperative. The maintenance of avian biodiversity depends on the integrity of the global flyways utilized by migratory birds. Thus nature activists encouraged Kibbutz Lotan, located only 50 kilometers (32 miles) north of Eilat, to develop artificial biotopes to promote the sustainability of the migratory route. An artificial biotope is a miniature eco-system created by humans. Within what we call our “bird reserve,” we have created a number of different biotopes. In Lotan, an understanding of the significance of maintaining the **global** flyway led to **local** action.

How Do Our Artificial Biotopes Work?

Kibbutz Lotan located a suitable area for artificial biotopes at the southern end of our property—500 meters from Lotan’s inhabited area. Using compost made from manure from our dairy barn and scraps from our communal kitchen, we planted a one-half acre patch of alfalfa—a cover crop that regenerates soil quality by fixing nitrogen in the soil. Alfalfa also provides cover for small songbirds, which feed on the renewed insect life produced by the regenerated soil.

Another biotope consists of a small artificial pool with surrounding vegetation. The kibbutz’s new constructed wetland, which recycles all of Lotan’s wastewater, supplies the irrigation

water. Partial funding for the subsurface flow wetland came from the European Union’s LIFE fund and was part of our bio-regional sustainable waste management and education project.

Lotan’s Center for Creative Ecology and students in our Green Apprenticeship (Permaculture and Ecovillage design program) maintain a half-acre organic garden for teaching purposes, benefiting two different population groups. The Lotan community enjoys the produce, and for the migratory (and resident) birds, the organic garden serves as an additional biotope. In April, at the height of the migratory season, the Society for the Protection of Nature in Israel sets up a bird-ringing station on this site.

Not for Birds Only!

The new biotopes have become a magnet for other animals. Desert animals are nocturnal. In the cool of the early morning one can identify their tracks before the heat of the desert sun desiccates them. Foxes, wolves, and striped hyenas visit frequently. Live-in residents include desert hedgehogs, porcupines, gerbils, jerboas (a jumping mouse), as well as skinks (a lizard with tiny legs) and desert beetles. The area also serves as a nature reserve where desert vegetation typical for this region can be seen in its natural habitat.

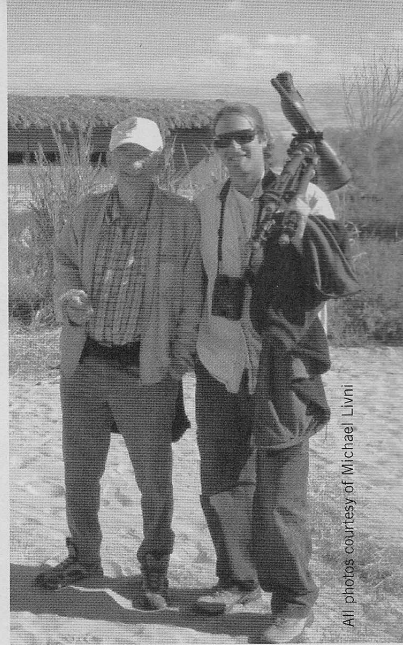
Bird Hides as Examples of Natural Building

Heightened ecological consciousness (and economic constraints) led us to build bird hides by reusing solid wastes (used tires, plastic wastes) and earth plaster. This triggered additional ecological initiatives (see sidebar).

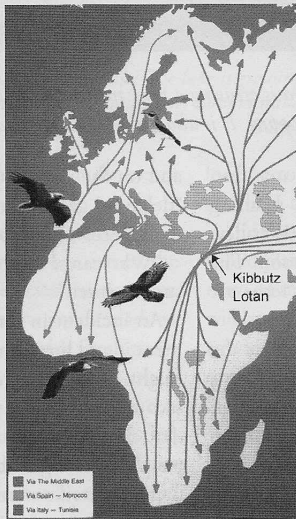
The large bird hide (120 sq. meters = 1300 sq. ft.) overlooking the alfalfa field biotope was built by filling the wood frame with old tires stuffed with waste and encased in mud plaster. The used tires were brought to Lotan by the Eilat municipality, 35 miles to the south, at their expense. Thus we incidentally made a positive contribution to Eilat’s waste disposal problem.

In addition to benefiting the birds, Lotan’s eco-tourism business has become an important part of the kibbutz economy. ❁

Michael Livni grew up in Vancouver, British Columbia, Canada, where he received a degree in medicine. He has lived in Israel, on kibbutz, for 45 years. Since 1987, he has made his home on Kibbutz Lotan. He has worked in agriculture, informal education, and eco-tourism. Michael is also an active member of the International Communal Studies Association (ICSA).



All photos courtesy of Michael Livni



Top left: Examining Spanish Sparrow before ringing.
 Top right: Author and professional birder Jonathan Meirav at the Bird Hide.
 Bottom left: Building the bird hide: old tires and adobe.
 Bottom middle: Bird migration routes through Israel.
 Bottom right: The bird hide.

Ecological Building on Kibbutz Lotan

The experience gained in building the bird hides helped generate an ever-increasing involvement in natural building. The activity of Kibbutz Lotan's Center for Creative Ecology, both in teaching and in pioneering building regulations in Israel for strawbale building, has already been documented in COMMUNITIES. (See "Kibbutz Lotan: Teaching Natural Building to Our Arab Neighbors," Issue 131, Summer 2006, as well as "A Kibbutz Battles the Bureaucracy," Issue 139, Summer 2008.)

In March 2008, Kibbutz Lotan's eco-campus became operational. It has already housed our ecological interns, our Green Apprenticeship course, and an Israel semester of Living Routes—Study Abroad in Ecovillages. The eco-campus consists

of 10 geodesic domes built of galvanized steel pipe. Strawbales are attached to the frame. Five centimeters (two inches) of earth are added both to the exterior and the interior. Each dome houses two people.

The campus includes a communal kitchen, composting toilets, and showers with water heated by solar absorbers. The whole area has been licensed for occupancy by the Regional Council Planning and Construction Board.

For information on Kibbutz Lotan's ecological courses: www.kibbutzlotan.com. For information on the Living Routes: www.LivingRoutes.org.

—Michael Livni