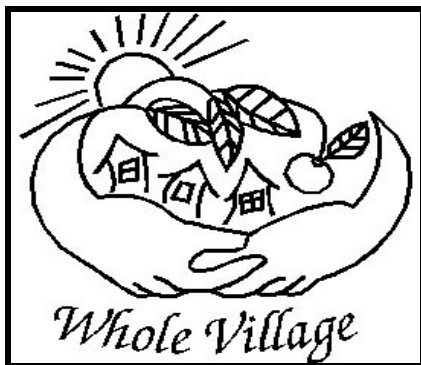


The Whole Villager

Whole Village is a Sustainable Farm Community

We are a group of people from a variety of backgrounds who have come together to build an ecovillage, creating an ecologically and environmentally sensitive farming community based on biodynamic principles and practices.

The Whole Villager is our quarterly newsletter, designed to keep our associates and friends up to date about our project and to help them develop stronger ties with our farm community. We plan to share information regarding community living, sustainable agriculture and land stewardship in order to promote our mission, vision and guiding principles.



Autumn 2004

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Living the dream: Whole Village annual report

By Brenda Dolling

Whole Village is becoming the community that was only a dream ten years ago. The past year has been one of many visible changes, great progress, and teamwork.

Last November members braved a snowstorm to travel to Kimbercote for a community dynamics retreat. The book discussed, "Getting Real," has become a guide for building community. Regular reminders of the Ten Truth Skills have helped to facilitate communication among members and others.

For the second year in a row, mandate groups continued to improve their reporting and planning skills at an annual strategic planning session. Members set priorities for 2004: construction of the new ecological house, recruitment of new members, and maintenance of projects begun.

Whole Village was well represented at dozens of events, local committees, and presentations. Communications were facilitated through increased internal and external emails, website hits, and ads placed in five magazines. Whole Village was featured in four newspaper articles, a CBC documentary and two radio interviews. This newsletter has been regularly published biannually and distributed at orientations and fairs. Monthly orientations continued to introduce dozens of people to the Whole Village concept. Some special tours were held for those who visited at other times. Most participants expressed support and admiration, while a few came back to attend meetings and start the membership process.

While Jay and Laura, our CSA gardeners, worked at Durika ecovillage in Costa Rica, villagers renovated three farmhouse rooms and enjoyed a Winter Fun Day. Jay and Laura's report inspired many to plan a trip to the south some future winter season to experience another project that attempts to heal the Earth.

To everyone's delight, Vic mastered QuickBooks and became a very competent treasurer in a year when careful accounting has been crucial. Mairy carried the load of research for a legal co-operative structure, which will hopefully make WV Ltd. redundant.

Living the dream (cont'd)

Shelley and Alta moved into the farmhouse last winter, providing positive dynamics and new skills. Ishta, Walker and baby Asher visited the farm from London, England and eventually applied for membership from afar. Andrew and Michelle became subscriber members, while two other families showed interest in joining.

March brought a much anticipated spring, and a long awaited building permit for the ecohouse. Years of discussion, negotiation and a court ruling finally bore fruit. It wasn't long before members began planning for future community responsibilities now that they could actually visualize themselves living together on the farm.

Grading the building site with sand and gravel from the property had already begun in February. The shock of contracted work exceeding the original estimate helped members to reconsider the management structure and eventually add a project manager, Jan Wintjes.

Application to DUCA Credit Union for a construction loan received tentative approval, pending an appraiser's report. Design changes were continually discussed, leading to refinements for the wall, sanitation and heating plans.

An enthusiastic construction crew was hired in late spring, and they continue to battle the elements, changing plans, and the unconventional design. Their problem solving skills, teamwork and loyalty to the project have been great bonuses for WV. Jeff, as the construction manager, has been in constant motion, juggling contractors, inspectors, and visitors as he integrates work plans, schedules and budgets. Denis, as architect, has been advising the project team through the process and tying up loose ends as the building progresses.

What a thrill to watch all the components come together! The ventilation, plumbing, electrical, and radiant heating systems took the longest time to be built and tucked in under the floor. Concrete poured over these elements ended the first phase and led to wall and roof building. Engineered wetlands appeared on the west side of the house, and then a ground source heat pump system on the east. Meanwhile 9000 succulents and other perennials have been grown from seed or cuttings to eventually cover the green roof next spring.

On July 18th seventy members and friends gathered at Greenhaven, our chosen ecohouse name, to celebrate the first phase of construction and dedicate the foundation stone. Meanwhile, from April to October, Jay and Laura were coordinating their second CSA project. Twenty-eight shares were grown, some started off in our newest greenhouse. Companion planting, green mulching and successional planting were techniques used to increase the amount of produce and improve the health of the garden.

Regular work bees brought members and volunteers together to tackle a variety of projects like wood gathering, tree mulching and farm repairs. Sixteen University of Guelph students spent a weekend learning about and supporting the project with their volunteer labour in

October.

Ten acres of flatland in the east lot were cultivated and planted with buckwheat, then rye for green manure. Most of the shelterbelt planted last year was weeded and mulched to give the 5000 trees a better chance of survival. The pines and silver maples are almost as tall as the meadow grass this year.

Alta played two important roles with Wwoofer help. She raised close to 200 organic chickens, some of which made tasty meals for the construction crew, while others will provide eggs for the winter months. Alta also worked as the project cook, daily dishing up wonderful, healthy meals.

Michelle took on the role of volunteer coordinator to attract and support those who want to donate time and labour to the ecovillage. Volunteers have come from as far as California, like Jenny, and as close as Guelph, like Mike, to work with the community on construction, gardening, food preparation, etc. Some have even moved on to paid work and continue to contribute to the project after their volunteer stints.

Michelle, Jamie, and Brenda moved to trailers on the farm in the summer and are enjoying being part of the growing on-site community. Jamie cares for the bees, while Brenda grows green roof plants.

Notable visitors to Whole Village in 2004 have included Dr. Dave Connell, a communities researcher and university lecturer; Dr. Bill Metcalf, a social scientist who has studied communities for over 30 years; and Ziggy Kleinau, executive director of Citizens for Renewable Energy.

Farm resources and expertise have been shared with Caledon high school students this year. Fifteen grade 10 classes have participated in eco-spiritual retreats. The primary goal is to build deeper connections to the earth. Activities like transplanting trees, gardening, beekeeping, food preparation, composting and eco-building have introduced them to hands-on ways to reduce their ecological footprints. WV leaders believe that this has initiated a rewarding partnership with our local educational community.

Over the past year, many donations of items, time and labour have contributed to the steady development of the ecovillage. An increase in volunteers, Wwoofers and friends has enriched our community. Much sincere gratitude goes out to all the hundreds of kindred spirits and hearts who kept us on our path. The dream of WV would not be possible without these important gifts. Members and friends have displayed much patience, great generosity and willingness to learn problem-solving skills. Special thanks to all WV members who have persisted through a challenging year, have taken great risks with their precious time and small fortunes, and have never given up on a worthy dream.

As Alta reminded up one day in the kitchen as we struggled with a problem, "We'll look back on this year with amazement and pride. Let's relish every moment, positive or not." With that in mind let's go forward with the same zest, determination and love that brought us here,

“Greenhaven” — our ecofriendly home

By Jeff Gold

From the early beginnings of the Whole Village project almost ten years ago, all participants included the construction of Earth-friendly and energy efficient housing as a central part of their collective vision. After countless meetings, endless research, exhaustive planning and scores of design revisions, a unique building embodying those principles is now taking shape on the Whole Village farm.

The original design program for the dwelling was quite ambitious: to create a passive solar, superinsulated building envelope; to use ‘green’ building materials (low or no toxins, made from renewable resources, locally produced, low embodied energy, recyclable at the end of their useful lifespan); to use renewable energy sources for power; to minimize the environmental and ecological impact of the building (compact size, careful siting, reuse of waste materials generated during construction); to create a building layout with a balanced mix of common and private areas; to include amenities and features desired by the future residents; to make the building accessible for the disabled and keep it affordable.

In the end, not every element of the design program has been realized; nonetheless, the results are still most impressive. “Greenhaven,” as the building has been named, is to be a one-story structure with a shallow, insulated foundation in lieu of conventional footings and frost walls, and no basement. The floor is an 8" thick monolithic structural concrete slab, (as compared to 4" in a typical building). It sits on a pad of compacted fill, which was extracted from the extensive gravel and sand deposits

on the Whole Village farm. First the formwork for the entire floor was built, and then plumbing drains and vents, electrical power distribution conduits and the exhaust system for the heat recovery ventilation system were all installed below grade. A layer of polyurethane insulation was then sprayed on the pad, 3" thick (R20) in the middle of the floor and 6" thick (R40) at the edges. An additional 3" of rigid foam insulation was applied to the outside edge of the floor. To complete the shallow insulated foundation, more rigid foam in the form of recycled refrigerator doors will be installed running out 3 feet horizontally from the bottom edge of the foundation.

After fourteen weeks of preparation, the floor was poured in mid-September. The extra thickness of the floor slab will add enormous thermal mass to the inside of the building envelope. Thermal mass acts like a storage battery for heat: soaking up and storing excess heat during the day when the sun is shining and releasing it at night, evening out temperature fluctuations in the building. The floor is also structural, allowing load bearing walls to be put up anywhere on the slab with no need for additional footings. The hydronic, radiant heating system is also in the floor.

Greenhaven’s walls and roof consist of Structural Insulated Panels (SIPs), manufactured by Thermapan of Fort Erie (www.thermapan.com). The panels are a sandwich of oriented strand board and polystyrene insulation. Wall panels are 4 feet by 9 feet and 8¼ inches thick (R32), while the roof panels are 4 feet wide and anywhere from 8 to 16 feet long (R39). The roof is flat.



Whole Village members pose for a group photo shortly after participating in the Foundation Stone ceremony on July 18th.

“Greenhaven” (cont’d)

About two-thirds of the walls have been erected and we have begun installing roof panels. One inch of rigid mineral wool insulation will be placed on the exterior of the walls to minimize heat loss due to thermal bridging through the solid wood members that have been inserted around window and door openings. An additional layer of insulation, either rigid foam panels or sprayed on polyurethane, will be applied on top of the roof panels to create a 1% slope for water drainage from the centre of the building to the edges. A waterproof membrane is then applied to the insulation, a combination drainage layer and root barrier put on top, then a 4" thick growing medium (sand, compost, soil, vermiculite) will be added. Drought tolerant plants such as sedum and yarrow will be planted in the growing medium. This green, living roof will help to cool the building in summer, as well as extend the life of the roof membrane by protecting it from UV radiation.

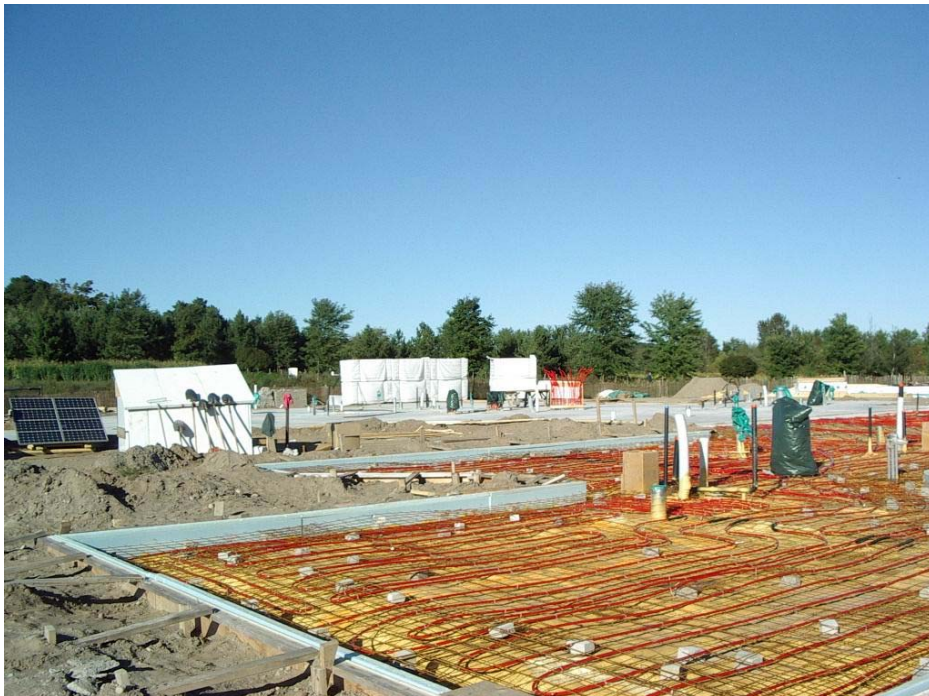
Door and window frames are made from fibreglass, manufactured by Fibertec (www.fibertec.com) in Concord, near Toronto. Many of the windows and doors are triple glazed, and all have at least double-glazing, with a low_E coating and Argon gas between the panes. The triple glazed windows are rated R7.7.

Three 5-ton, ground source heat pumps will provide heat and hot water for the residents. 6800 feet of 1" polyethylene pipe has been laid in 6-foot deep trenches in

the field next to the house. A working fluid composed of water and ethanol will be circulated in these loops. The heat pumps will extract heat from the working fluid and transfer it to 17,000 feet of ½" pipe which has been placed in the floor slab. A heat pump can use one unit of electrical energy to move three or four units of heat energy. Electricity for the heat pumps, lights, motors, compressors and other devices in the building will be supplied by a combination of photovoltaic panels, a wind generator and the provincial electrical grid. Solar hot water panels will provide hot water during the spring, summer and fall.

An engineered wetland has been constructed by Aquatreatment Technologies (www.aqua-tt.com) of Welland. Three “cells” of gravel and sand, with cattails planted on top, will treat the wastewater leaving the building.

During the next two months, if the weather is not too severe, the building envelope will be completed, the windows, doors and skylights will be installed and the heating system commissioned. Then work will proceed over the winter to complete the electrical wiring, hot and cold water lines, interior sound insulation, drywall, wood trim, cabinetwork, interior doors and floor finishes... all of these being completed in time for occupancy by April 2005.



This photo taken in September clearly shows some of the 17,000 feet of polyethylene pipe for the ground source heat system placed in the floor slab. In the background to the left can be seen the solar panel used to provide power to the work site, and in the far centre are stacked some SIPs panels for the walls.

Letter from a friend...

Dear Whole Village,

Thank you so much for a wonderful five weeks! I'll take your love, sharing, passion, values and pass them on to random people on the street.

Your message is out there, so never stop. Thanks to the construction crew, every minute was an adventure. Keep up your hard work! I'll bring the coffees (and a tea for Mike) next time I stop in.

Until then — Power to the peaceful!

Joe

