

# Eco-Community Design

## The new Canadian town of Bamberton puts all the pieces together

by *Guy Dauncey*

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*Two years ago, author Guy Dauncey was invited to join local activists and environmentalists in a think tank set up by Vancouver Island's leading residential property developer. The team was asked, "If you were to design a town that was a model of environmental responsibility, what would you do?"*

*The seeds of their ideas, combined with thoughts and suggestions from others, have borne fruit as Bamberton - a new community designed for 12,000 people. In this article Guy, who now works as an environmental and community development consultant for Bamberton, describes how the vision took shape and why its pattern may represent a better model for the 21st century.*

The population of Vancouver Island, on the west coast of British Columbia, is growing at a very fast pace, as people from other parts of Canada move here in search of a more peaceful life.

To accommodate them, development is proceeding wherever it can find a foothold. Suburban sprawl is eating up the countryside and forest as a result of poor land-use planning.

In 1990, the South Island Development Corporation bought a 1,560-acre piece of land 20 miles north of Victoria, on the site of a huge cement works which had closed down in 1980. The site is quite steep, with some flatter benches suitable for development. It faces due east onto the tranquil and sensitive Saanich Inlet, a fjord-like body of water off the Georgia Strait, with magnificent views across to Mount Baker in Washington State.

Before engaging in any planning, South Island held numerous community meetings, asking local people what they thought should happen on the site. They were told, "If you are going to develop that site, build it the way things used to be in the old days. Design it to encourage a real sense of community, with a lively town center. We don't want any more shopping malls or big, fast roads. And furthermore," they said, "don't trash the environment. Protect the trees that are on the site and don't pollute the Saanich Inlet."

At that point we were invited to offer our thoughts. Since then, I have been immersed in

the project night and day, along with Randy Hooper and Roger Colwill, two other members of the environmental think tank.

The leadership was there in the person of David Butterfield, president of South Island, who is quite open about his desire to change the world.

The market need was also there, in the form of 12,000 people moving to Vancouver Island every year.

The financing was in place from 200,000 Canadian trade union members, who invested their pension funds in the project. This source of financing has made it possible to plan the development of Bamberton over a 20-year period. These pension fund managers are interested in long-term returns, so they are willing to let us build the town up organically, rather than requiring rapid development and a quick return on investment. And the workers get the added benefit of the jobs created to build Bamberton.

What has emerged is a proposal to build a town for 12,000 people as a model of community, economic, and environmental sustainability.

In order to do this, we have been designing for not one, but five levels of infrastructure:

### **CULTURAL INFRASTRUCTURE**

The essential cultural infrastructure must lie within the hearts and minds of the team that is doing the developing and the local community that approves it. Without the values to guide the project down a new road, the tendency is to stick to the old roads.

The cultural infrastructure is expressed through the Bamberton Code, which lays down five fundamental commitments (see related story on p. 25). The code is an expression of an inner commitment to change, which every resident, builder, and architect will be invited to sign. It is also expressed in a volume called 'Issues and Principles,' which describes 95 different issues and more than 300 design principles that put into concrete terms the principles embodied in the code. This volume was the result of input from the surrounding community and was completed before the developer would allow any design work to begin.

### **ENVIRONMENTAL INFRASTRUCTURE**

The old cement works, which occupies some 60 acres, will require a thorough cleanup. The rest of the site is land that was once glorious old-growth coastal forest. Over the past 80 years, most of the land has been heavily logged, leaving behind a canopy of arbutus (madrone) trees and some badly eroded soil. As the project's environmental team, we have taken the Worldwatch Institute's goals of the 'Turnaround Decade' to heart by attempting to design sustainability into almost every aspect of the future community's life:

- **A detailed biodiversity study** is showing us exactly which lands need full protection. A 300-acre area, including old-growth forest that the loggers failed to reach, is being designated as a park.
- **Every watercourse** and the entire waterfront 40 meters back from the sea will be protected from development, except at the town center.
- **All of the larger trees** will be protected by a tree protection by-law, requiring a permit before they are cut. One quarter of each lot will be left under native species.
- **Chemical pesticides**, herbicides, and fertilizers will be restricted by ecological covenant on the land, accompanied by detailed educational programs. Asphalt roof shingles and roads will also be prohibited to reduce chemical run-off.
- **The town's sewage** will be treated by an advanced biological tertiary works, producing compost for re-use on the land and a liquid effluent of high enough quality to raise fish.
- **Every house** will be built to a high standard of energy efficiency. Building standards to encourage long-term sustainability are being written.
- **A Site Protection Code** and training program will apply to every builder and worker on site.
- **A 'wet-dry' system of waste management** will recycle up to 85 percent of the town's wastes through a composting plant and materials recovery facility.
- **A community utility** will control the pricing of energy and water to encourage efficiency and discourage use during peak-demand periods. Intelligent house-wiring will enable appliances to minimize the energy loading during those periods.
- **Formal linkages** will be established with local organic growers to provide them with a stable market and residents with a regular supply of locally grown organic food.
- **A local economy**, including telecommuting satellite offices, will minimize the need for commuting.
- **For those who do commute** into Victoria, car-pooling, van-sharing, and transit will be encouraged.
- **Local schools**, shops, businesses, and recreational facilities will keep 60 percent of a household's normal daily trips within Bamberton, and off the region's road network.

## COMMUNITY INFRASTRUCTURE

- The village and street layouts are based on the principles of traditional neighborhood development, popularized by Elizabeth Plater-Zyberk and her husband Andres Duany, who came to Bamberton to help with the design. Houses will be built close to the street to encourage conversation with pedestrians, on a close network of neighborhood streets, within a five-minute walk of a village center.
- **The town center** is designed to be active and lively, combining living, working, retail, and culture and connected to the villages by footpaths and by community transit.
- **To retain the industrial heritage** of the cement works, as much of the ruins as is feasible will be kept and converted for re-use.
- **Traditional architecture** with some Victorian features will be the norm in the first neighborhood, implemented through a detailed design code.
- **A strategy for affordability** will ensure that a minimum 10 percent of the houses will be affordable for rental or purchase and that there will be a lively rental sector. Cohousing, small growhomes, housing co-ops, and self-building will all be encouraged. A Bamberton cohousing group has already formed.
- **The arts** will play a prominent role in the community. The first Bamberton Arts Forum, held in March 1993, generated many practical ideas and proposals.

## ECONOMIC INFRASTRUCTURE

Without a healthy economy, the town would become a bedroom community to Victoria and its residents would become commuters, contributing to greenhouse-gas emissions and local traffic congestion. To foster a strong local economy:

- **A business network** has been formed for people interested in locating a business at Bamberton. Four business opportunities seminars have been held so far, helping us build personal relationships with the network's 200 members.
- **An electronic bulletin board** and a community directory have been set up to facilitate the sharing of skills and resources. The Briarpatch Network in San Francisco and the London-based Business Network are useful models.
- **The economy** is taking shape around eight sectors: building and development; value-added wood products; environmental technologies; retail, community services and home-based businesses; the arts; telecommuting and computer services; education and eco-tourism; and consultancy and human resource development.
- **A Business Code** sets 20 voluntary principles, encouraging social and environmental responsibility and mutual support among local businesses.

- **An economic** development strategy has been drafted, and an economic development coordinator will go to work full time once rezoning is approved.

## PHYSICAL INFRASTRUCTURE

- Storm drains (which normally channel run-off into a river or the sea) will be replaced by a system of grass swales designed to maximize the reabsorption of run-off back into the land.
- **The community** will be wired with fiber-optic cable, permitting a high use of broad band-width activities such as teleconferencing and electronic town-hall meetings.
- **Instead of the clearcutting** that normally precedes development, individual lots will be selectively hand-cleared and the larger trees will be left intact.
- **Where there is a clash** between a road and a large tree, wherever possible the road will give way. This has the added advantage of creating winding roads, which add charm and help slow traffic.

After two years of planning, the project has now reached the final stages of a contentious rezoning process. If rezoning is approved, work on the site will begin this fall, lots will be for sale in the fall of 1994, and the first residents will be in their new homes that winter.

At one level, the detailed matrix of considerations that make up a whole-systems approach to sustainable community design seems complex. But at another level, the issues have a simplicity to them that emerges from the desire for a new harmony of nature, community, and economy.

Among our guiding principles is a deep belief in human potential and in the need to design communities that will enable us to shift the process of growth in three ways: from the physical level to mental, emotional, and spiritual levels; from economies based on quantity to those based on quality; and from environmental degradation to restoration. Designing in ways that maximize opportunities for individual fulfillment and community support, in harmony with nature, will set a new pattern for development that will provide a much needed model and inspiration for the future.

[\[for an update ...\]](#)

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## THE BAMBERTON CODE

We, the builders and residents of the town of Bamberton, stand by the following intentions :

1. **That Bamberton represents** a way of living which seeks to serve the needs both of our own generation, and of generations to come.
2. **That Bamberton represents** a new possibility for the way people co-exist with nature, upholding the ideal of responsible stewardship, and seeking to be ecologically sustainable in the use of natural resources such as water, soil, habitat, energy and raw materials.
3. **That Bamberton represents** a rediscovery of the traditional virtues of community, being conducive to social interaction, care and mutual support, encouraging of responsibility in the pursuit of shared goals, and supportive of cultural and artistic richness.
4. **That Bamberton represents** a new possibility for the building of a self-reliant, local community economy, emphasizing enterprise and initiative; the contribution of labor; mutual economic support; innovation, research and development; personal, social and global responsibility; and long-term ecological sustainability.
5. **That Bamberton represents** a positive opportunity for all who call Bamberton home, being encouraging of creativity, learning and growth, and nurturing of a deep appreciation of the gift of life.

The Code and the Design Principles will be used to guide future development, and to keep future partners, builders and residents mindful of the intentions and commitments underlying the project.

Once built, a town may exist for thousands of years. Perhaps more than anyone else, the builders and designers of a new town are accountable to future generations, and their unspoken needs. In honour of this trust, they must endeavour to reflect the needs of the future in the designs of the present.