The idea of living lightly on the land and in a community setting is not a new concept; however, a majority of Americans live in a suburban cycle of consumption and isolation. Living in a village type setting or “in community” is the situation in which groups of people, who are often friends with common ideals, decide to live in a setting where resources are shared. Resources include a wide range of things, from income to food, yard equipment to automobiles. This type of living is in stark contrast to the suburban model that has become the norm in the United States where each household strives to achieve a greater income bracket so that the latest gadget can be obtained. The pattern of settlement that originated in Europe and the Americas included densely clustered buildings for living with surrounding open space for farming. Urban living is a form of sustainable design expressed through the resources that it provides in a small amount of space (as compared to the sprawling suburbs), and the footprint that each inhabitant occupies. The Urban Eco-Village, as proposed in this paper, attempts to unify ideals of living in community, tools of sustainability, and the urban context.
This paper will examine a few eco-village examples that are in or near urban settings, review the successes of BedZed in England, and propose potential tools for promoting urban eco-village living. By utilizing the same marketing methods that have experienced historical success in the introduction of new products, it seems possible to propose an alternative lifestyle choice of urban eco-village living to be appealing to the mainstream population.

While the Urban model seems like an ideal one, the development of the suburbs has generated the breakdown in efficiency of urbanism, several problems have resulted from this breakdown. There is a huge problem with commuter traffic leading to reliance on fossil fuels and generation of green house gasses. Resource consumption has skyrocketed in the US leading to the statistic that if everyone lived like Americans, we would need three planets to support the population. Commuting used to not seem so bad in the 1950’s, but with the expansion of the suburbs, traffic volumes have increased as have commuting times, leading to an average commuting time of 50 minutes round trip per day (US Census Bureau 2002). With so much time spent just driving to and from work, there has been a decrease in community within neighborhoods. Just the process of getting around suburbia diminishes the available time one has to get to know the neighbors.
According to the Global Eco Village Network (gen.ecovillage.org), an eco village is:

“urban or rural communities of people, who strive to integrate a supportive social environment with a low-impact way of life. To achieve this, they integrate various aspects of ecological design, permaculture, ecological building, green production, alternative energy, community building practices, and much more…”

One of the main barriers thwarting the spread of eco-villages is the public misperception that living in an eco-village is a substandard lifestyle choice. Many people wrongly believe that living in a more sustainable manner; both environmentally and socially, results in daily discomfort in one’s routine (i.e. cold showers, constant composting); this misconception acts as a deterrent for much of the mainstream population seeking more sustainable methods of living. The truth is that one of the main successes of eco-village living is convenience through simplification. By living in community, common chores are absorbed by the group and dispersed in such a manner that all benefit through the sharing of resources and responsibilities.

The goals of eco-villages often include sustainable living techniques ranging from the design of the community and its buildings, materials used, tapping into renewable resources such as solar energy, conservation of energy and water, and reduction of
non-renewable resource consumption, to name a few. Some communities strive to “close the loop” of life, living off the land, and using the waste generated as a resource for another function. Most eco-villages have a consensus-based form of governance, although there are some which function under democracy and autocracy. Nearly all eco-villages have an education component through which the community can reach out to the greater public and teach about alternative living methods and dispel any myths that may exist about living in community.

In an effort to assimilate a list of elements to recommend for inclusion in a proposed urban eco-village, several examples were examined and their successful elements identified. Most of the communities listed were selected from the Communities Directory book; a set of criteria was used in a process of elimination to identify those communities, which are the most successful in combining aspects of urban and eco-living. The selected eco-villages must exist in or near a dense urban environment, and maintain a standard of living, which is above the (non-sustainable) status quo.

Criteria for Selection:
- Urban Design Characteristics
- Sustainable Elements
- Social / Business Structure
- Legal Compliance
- Marketability
Examples of Urban Eco-Villages

**Bellingham Cohousing, Washington**

This community is sited on nearly 6 acres with 33 homes clustered on the Northern portion. Work is being done to rehabilitate the wetlands area to the South, which includes Connelly Creek. The immediate context of the community is suburban type residential developments to the North and East, a mobile home community to the West, and a collector road to the South. The community is in the city of Bellingham, which has a population of about 70,000. There is a bus stop just outside their driveway, a grocer within a five-minute walk and downtown Bellingham within a 20-minute bike ride. The cohousing community is governed by consensus and expects about 20 hours of work per week from its members. There are condo fees, determined annually by a budget committee, and the central guiding principal is to be an urban cohousing community (http://www.bellinghamcohousing.org).
**Cambridge Cohousing, Massachusetts**

The CCH site is located on the northeastern fringe of the former brick-manufacturing complex, which dominated this area of Cambridge in the mid- to late-19th Century. This community is located in the heart of Cambridge, with access to the excellent transportation system offered by the district; it is less than one mile from Harvard University, and 2.5 miles from MIT. The site consists of 41 buildings organized in a townhouse and stacked unit configuration and houses approximately 100 residents. Cambridge Cohousing is organized as a condominium association run by a Managing Board composed of elected unit owners (http://www.cambridgecohousing.org).

**Commons on the Alameda, New Mexico**

A cohousing community located along the Santa Fe river, 3 miles from the Santa Fe historic plaza. This community includes 28 homes and a common house, and has about 65 residents on 5 acres of land. The design of the community uses pervious surfaces where possible and climatically appropriate architecture. The community focus is to “enjoy our neighborhood” (http://santafecohousing.org).
Los Angeles Eco-Village, California

Established after the Civil Unrest in 1992 and the earthquake in 1994 in Los Angeles, this group purchased a 40-unit apartment building in 1996 and the adjacent 8-unit apartment building in 1999. The purchases were made possible with loan money raised through the local ecological revolving loan fund. The site was in a blighted neighborhood and the project satisfied a demand for affordable housing and urban revitalization. This community has experienced enormous success and is located in a two-block multi-ethnic working class neighborhood, which is home to about 500 people. Located three miles west of downtown L.A., the area is close to public transit, the Metro Redline, schools, churches, stores, commercial services, and light industry. A rich neighborhood history and architecturally significant buildings provide a sense of place to build on. In 2004, the LA Eco-Village started its Institute for Urban Eco-villages, a training center that plans to stimulate and provide resources to other eco-villages in the LA area (http://www.ic.org/laev).
“N” Street Cohousing
A community made up of 16 houses in a typical subdivision whose owners removed their backyard fences to create an interior park space to be shared by all. Since its informal redesign in 1991, the community has been rezoned as a planned development, which allows the members to build more “granny flats” or garage apartments, thus providing the community with a form of affordable housing. Because of the rezoning, setback rules have also been reduced allowing the neighborhood to become slightly more urban in its layout of new buildings (http://www.nstreetcohousing.org).

Nakamura Co-Op, Ann Arbor, Michigan
The attitude of this cooperative living community is upbeat and attractive as a place for young people to live. This quote was taken directly off their website:

If Co-ops ran personal ads, ours would read something like this:

Fun, diverse, free-spirited cooperative household seeking friendly, responsible, tolerant individuals for memorable times. Save the drama fo’ yo’ Mama. Clean hippies and friendly punks welcome.

The Nakamura Co-op is more of a large community of students rather than an eco-village; however, the structure for living within the building seems to be a successful model on which many eco-village ideals can be applied. The urban setting is definitely an advantage for this particular co-op (http://www.icc.coop/houses/nak/nak2.html).
Nomad Cohousing, Boulder, Colorado
This community is a high-density project with 11 units on one acre in north downtown Boulder, Co and is in walking distance to many of the urban amenities that Boulder has to offer. About 25 people live at Nomad, with the goal of creating an urban community focused on energy efficiency. The community has direct access to the urban public transit busses and operates a small theater for local performances. The common house doubles as a community amenity and as a part of the theater. Nomad also manages a neighborhood-composting program. All of the buildings are passive solar and constructed with sustainable, non-toxic materials. In a high market value environment like Boulder, it is remarkable that seven of the eleven units are designated permanently “affordable” made possible through a City of Boulder program (http://www.nomadcohousing.org).
**Eden Project, England**

The Eden Project is an artist-designed eco-village that reclaimed formerly disturbed land, it is currently the third largest tourist attraction in England. A large assembly of artists worked together to design the grounds and exhibits, and following construction, filled the community spaces with public artwork. Products and artwork are sold to support eco-village, commodities taken outside the village work as advertisement, helping to brand and promote the village community. The Eden Project is used as a sightseeing destination and simultaneously educates its visitors, both young and old (http://www.edenproject.com/index.htm).

**Arcosanti, Arizona**

Arcosanti is an eco-village with grand plans to transform the way that people live in urban settings. Currently located in the high desert of Arizona, North of Phoenix, this community operates primarily as an art and education facility with community and sustainable living ideals. Arcosanti’s great success is based on their community outreach and education programs. There are about 60 permanent community members who participate in building new facilities, growing food, and conducting workshops (http://www.arcosanti.org/).
Learning from Urban Eco-Villages

The examples illustrated above show that living in an ‘eco-friendly’ manner is comfortable, desirable, and fun. All of these communities provide less complicated lifestyles through convenience; there is little or no commuting due to the proximity to urban centers, many of them offer on-site childcare, making it easier for single parents to work. All of the communities have some form of community dinner on a regular basis. These examples all work towards creating a strong sense of community to provide support to those who live alone. There are many opportunities for participating in community chores all of which provide individuals with an understanding of social gestalt. When living in community, the whole is greater than the sum of the parts. An urban eco-village should, as many of the examples do, include measures for sustainable living. These examples are constructed using sustainable materials and techniques, and often have some form of energy use reduction techniques. Nearly all of the projects examined grow some portion of their food and compost much of their food waste. Including the three main aspects of convenience, community, and sustainability can create a successful urban eco-village; combine these with good urban design principals and tasteful aesthetics, and the mainstream population will line-up for a home in a trendy urban eco-village.
Case Study: BedZED

The Beddington Zero-fossil Energy Development (BedZED) is a radical and successful experiment in ecological housing in the greater London metropolitan area. Designed by architect Bill Dunster, the project achieves remarkable reductions in energy use, while positing a new ecological take on an established paradigm for multi-family projects. BedZED is not a co-housing development or eco-village per se; it does not have explicit aspirations for creating an ecologically or socially based community.
Instead, the project squarely accepts the model of speculatively produced mass housing in its marketing and finances. The project succeeds because it combines a radical and creative re-thinking of ecological living with a well-designed, hospitable, modern design.

**BedZED Environmental Agenda: The Carbon-Neutral Home**

Given the challenge of selling units in a speculative development to a mainstream buyer, it was necessary the environmental aspects of BedZED be well thought out and not make onerous or Puritanical demands on its residents. The overall ecological ethic is to address the primary environmental impacts of the average British family. Noting the extreme urgency of global climate change, the designers chose a goal of a carbon-neutral development: that is, a place that would contribute no net carbon emissions to the atmosphere as a result of residents living there.

According to a study by Brenda and Robert Vale in *The New Autonomous House*, carbon emissions caused by the average UK family can be split into three equal categories:

1. home energy, which includes both heating the home and powering appliances;
2. land-based travel, which includes private automiles as well as commuting; and
3. foodmiles, or the emissions associated with petroleum-based farming and its transportation to the dinner table. (Dunster 2003)

Arguably, the study ignores some other significant forms of carbon emissions (manufacturing and transportation of other goods besides food, e.g.). However, the consumption of these goods and their environmental impacts is a matter of personal choice and lifestyle and largely outside the designer’s purview. In contrast, the three primary emission causes identified by the Vales are both necessary for survival in the modern age, and, importantly, can be addressed by the design of housing.

BedZED’s fundamental goal, explicit in its name, is zero-operating energy. In contrast,
most notable energy efficient projects in the United States are commercial and achieve reductions up to 50% percent.¹ In actuality, the project is designed to cut carbon emissions and associated energy use by 90%, compared to the recently updated UK residential energy code.

Land-travel emissions are reduced through a number of means. The development is in close proximity to mass transit (2 bus routes within 300 feet, 0.34 miles to regional railway station), allowing residents easy access to employment in the greater London region. As well, a fleet of gas and electric vehicles are available for all residents to share. Electric cars are powered by solar panels integrated into the development. Because of stiff carbon taxes on petroleum fuels, these solar panels are far more cost effective than if they were used to generate home energy (which is not so heavily taxed): the solar panels pay back within a period of fifteen years, rather than seventy-five if they were used for home energy. In addition, they help replace gasoline-burning vehicles, one of the most significant sources of carbon emissions. The photovoltaic panels produce over 300 kW of energy annually.

More significant than these less-polluting transportation choices is BedZED’s long-term role in shifting the paradigm of commuting suburbs. The project balances residential and commercial spaces: 16% of the projects floor area is for live-work spaces; 7.5% are for commercial enterprises on site. The live-work spaces can

¹Commerical businesses reap the economic rewards of their own efficiencies, and consequently have a rationale for taking any efficiency steps that will save money. Housing projects, however, are built for a speculative owner, and environmental measures may increase the first cost of the dwelling: little incentive is offered to the developer to undertake substantial environmental improvements.
be used by local residents, or by reverse commuters who might live further in the urbanized region of southeast England. In the latter case, commuters would take advantage of trains that would otherwise run empty as they run back to pick up more rush-hour commuters. (Dunster 2003). The commercial spaces include a organic cafe, pub and grocery shop and a healthy living center and nursery. Besides adding to the life and vitality of the place, these places reduce the need for residents to drive for goods and services.

The strategy to reduce “foodmiles” is similarly transportation-based and multi-pronged. Most foods travel thousands of miles from farm to distributor to grocery store before they end up on the dinner table. BedZED incorporates an organic grocery store onsite, making the choice to buy low-impact, healthy foods the most convenient option. BedZED also attempts to reduce this environmental impact by providing individual garden plots with each residence located, somewhat paradoxically, located on the north side of buildings along the sloping roof. The placement, though is intentional. Summer sun (during the growing season) rises
high enough to give the gardens at least partial sun during the day, and their placement facilities a deliberate shaping of the solar envelope to permit winter sun and passive heating.

Arguably, though, the more radical step of providing individual garden space may be a less successful strategy than the organic grocery store. The grocery store/cafe/pub doubles as a social magnet. The gardens rely on the initiative of the residents (see illustration showing some rather untended gardens). A community garden might have better solar access; it might also benefit from some economies with the sharing of land, tools, and gardening techniques. Most importantly, perhaps, it could enhance the social interaction of the residents. Admittedly, though, the private gardens have different benefits: their placement allows a tapered building scheme to permit winter sun to reach every unit’s southern sun room, and they provide a private, if small, outdoor space (and selling point) for each unit. Given that the BedZED was designed to succeed as a successful speculative development, and not as a cohousing or community housing scheme, the decision to incorporate private gardens makes sense. The rooftop gardens permit private outdoor space while the project achieves substantial densities (20.1 dwelling units/acre, over the entire project area.)
More important to the ecological success of the project is the its passive solar scheme; buildings are oriented along and east-west access, maximizing exposure to the sun. While the gardens might suffer slightly, the sculpted building form allows the sun rooms on the south side to substantially reduce heating needs. The passive solar collectors themselves cut heating energy by up to 30% (Sommerhoff 2003). With smart detailing, including super insulation, triple-paned windows, and thermal mass, energy can be cut by 90% (Dunster 2003). Rather than traditional mixed use where work spaces are placed over residences, creating a barrier to the sun and privacy issues, residences are given the priority for south-facing light, while work spaces are tucked beneath on the north side. The decision to organize the project by solar exposure meant that the development could not face the main road, which runs along the western edge of the parcel. Colorful wind ventilators mark each unit; each hood rotates in the wind, optimizing the passive cooling performance.

Much of the heat and power needs are met on-site by a combined heat and power (CHP) plant. Cogeneration produces both electricity and heat (which is normally a wasted byproduct of electricity production). Heat is used to produce hot water and for radiant heating for each unit. The plant runs on coppice, vegetation
grown onsite, as well as waste from a local milling plant. The overall carbon emissions per unit of generated energy are just over a quarter of what would be produced by a typical English fossil-fuel based plant (Dunster 2003). While there are carbon emissions produced by the plant, these are effectively offset by the carbon sink created when new plants are grown as fuel for the plant.

Initial documented results from energy operation are good, but perhaps not reaching idealistic expectations. Water heating is down 43% versus a UK baseline; electricity consumption 60%. These results do not factor in colder weather; they were also before the CHP plant was put in use (http://www.bedzed.org.uk).

BedZED Lifestyles

As mentioned earlier, the BedZED project is a speculatively designed-housing project. Units were sold individually; the success of the project is illustrated by the fact that the last unit was sold the day the first resident moved in. The sidebar

- Don’t worry about finding a mortgage
- Don’t have to worry about resale
- Don’t live in dark gloomy houses with poor ventilation
- Don’t live in flats without gardens – everybody needs to be outdoors sometimes
- Don’t go out of your way to stay fit
- Don’t worry about untried technology
- You don’t need to live in a spaceship
- Don’t spend two hours a day commuting – walk to work
- Don’t worry about young children – walk to the nursery, and pop them home for lunch
- Don’t spend a fortune on utilities bills – they can only get larger as carbon taxes bite
- You don’t have to live in a completely new house
- You don’t have to live in a dormitory with little sense of community
- Don’t have to eat organic veggies flown in from the other side of the world
- Don’t spend a fortune on expensive cars – simply borrow what you need when you need.

The BedZED lifestyle marketed
Source: http://www.bedzed.org.uk

Combined Heat and Power Plant
Source: Dunster, 2003
shows adapted marketing language from the website; the points are arranged roughly from the most mainstream (buying into BedZED is a good investment) to the most radical (you don’t need a private automobile). It is evident from this presentation that BedZED is designed to appeal to the average UK resident; but it is also true that the project can help shift attitudes and lifestyles to the more ecological. Many of the technologies (passive venting and heating, rainwater recovery, etc.) operate with little or no input from the resident. Other ecological options (gardens, organic vegetables, shared electric vehicles) are presented as a matter of convenience. Ecological living will not succeed if it is more difficult than alternatives; BedZED makes this easy.

Replicating BedZED

Although BedZED is in many ways a unique projects, plans exist for many future sister developments. Indeed, many of the environmental technologies were first implemented in Hope House, a prototype residence that is the home of architect Bill Dunster (and designed when he was an employee of Michael Hopkins). Bill Dunster Architects have teamed up with the other members of the BedZED design team to form ZEDFactory. ZEDFactory, which is housed in one of the workspaces
of BedZED, has as its goal the promulgation of carbon-neutral development.

Future developments are planned using using the tried and tested components and technologies employed in BedZED as a kit of parts. The ZEDFactory website cleverly lays out the palette of ZEDproducts “from A to Zed”, illustrated in the sidebar.

Developing a palette of materials has a number of advantages. For one, the architects are familiar with the performance specifications of each material. Importantly for the ecological aspirations of their projects, this also means that they have a good idea of the relative environmental merits of these materials: embodied energy, particularly, is

A: Substructure
B: Precast concrete floors and stairs
C: Inner leaf walls (concrete masonry units)
D: Steel frame - wide span option for large workspace units
E: “Waterproofing and superinsulated, irrigated skygarden”
F: Upper roof covering for non trafficked areas inc. mansafe
G: Rooflights - triple and double glazed thermally broken
H: South façade - double glazed timber structural curtain wall
I: Triple glazing - thermally broken windows with cavity trays
J: Outer leaf walls (brick cavity walls)
K: Aluminium copings and sills
L: Airtightness/acoustic isolation (sealing service)
M: Natural ventilation system
N: “Internal carpentry - partitions, doors, floorboards and stairs”
O: “Prefabricated hot water store, back up heating and plumbing connections, meters display and distribution board”
P: Plumbing
Q: External handrails and balustrading
R: Eco bathroom
S: Electrical distribution
T: Finishes
U: Eco kitchen
V: Renewable energy solutions
W: Wastewater treatment solution
X: Site wide public utilities installation
Y: Landscape and external works
Z: Green Lifestyle and communal activities
   Z1: Green transport strategy tailored to any site
   Z2: Food Service tailored to any site
   Z3: Waste reduction service tailored to local council recycling services
   Z4: Communal facilities
   Z5: Purchaser register

From A to Zed: The BedZED kit of parts
Source: http://www.bedzed.org.uk

Section through roof, showing the use of precast hollowcore concrete slabs (ZEDproduct B) arranged transversely on the arched roof
Source: Sommerhoff, p. 89
dependent on many factors and can be difficult to estimate. Many of these materials cost more than standard components, so an intimate knowledge of their relative advantages helps make the argument for the more environmental approach. Finally, the development of a palette that works together means that future projects can be designed with greater ease (and lower cost).

Lessons of BedZED

1) More and more people will choose an ecological living, provided that it is accessible and does not involve substantive sacrifices from generally accepted modern lifestyle “norms”. BedZED success not because of its laudable environmental goals, but because it manages to achieve these goals within the mainstream housing paradigm. A project that explores a new type of housing or financing may not be able to implement a similar environmental agenda with such success. Arguably, European residents in general are more ready than their American counterparts to accept density and to adopt an environmental lifestyle; however, it is almost certain that demand in the U.S. will grow for this type of project in the coming years.

2) Zero-energy development is difficult, challenging, and within the realm of the possible. BedZED falls a little short of its goal, but it shows the way for such an endeavour (and its is far more worthy of the “zero-energy” moniker than many projects in the U.S. that cut energy use by a mere 10-50%). Ultimately, a sustainable architecture should have “zero-energy” as one of its core principles.

3) The sustainable living challenge of the twenty-first century doesn’t stop at your doorstep. Given the extreme environmental challenges that we face (global
climate change, overpopulation, resource depletion, mass extinctions, etc.), the environmental lifestyle can no longer afford to be “alternative” lifestyle. Designers, planners, politicians, and all trades need to work together to address the complexities and needs of modern life. BedZED is a great first step in the mainstreaming of a sustainable lifestyle; but to be truly successful, it will need to be replicated many times over.

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*BedZED site statistics*
*Based on information provided by Bill Dunster*
Art and the Eco-Village: Overview

Though it is of course important to focus in closely on eco-villages with successful attributes, it is also important to step backward and begin to hypothesize as to what really makes these eco-village models work on a more fundamental level. The urban problem has been stated; that it is fundamentally unsustainable goes without saying. Several types and models of eco-villages have been introduced and the BedZED project has been well elaborated. Despite its shortcomings, it may well be one of the best paradigms for a future increasing expansion of the urban eco-village model. It is critical these models succeed, an eco-community cannot bury its head in the sand. The failure of the current urban model may well be catastrophic enough to overwhelm any existing eco-villages, no matter how independent, off the grid and innovative. If the eco-village model is underutilized, it will be overwhelmed.
It is critical to keep in mind that sustainability is not just a technical environmental issue. The tendency to neglect to our environments, natural and man-made, may be rooted in the current divorce between the ‘art of living’ and the modern idea of ‘making a living.’ Ideally in one model, the eco-village, an individual’s life is integral with art, expression, acts of making and the continual expansion of understanding. In the modern world, the average personage is asked to live in a highly fractured state, split into many different and often fundamentally antithetical parts. One drives to work, toils away at something unrelated to their interior life or life at home, drives to the store to buy food someone else (or some machine) grew, and returns back home. Though in a very loose sense some form of a circle is completed, it is a fractured, unfocused, highly eccentric track. In an alternate and more spiritually nourishing model, the eco-village, the circle is not only merely complete, but focused, includes rapid feedback loops, and is life-affirming.

The Culture of Art

Important questions then shift from not only just technical questions, but to social and philosophical ones as well. How can and does the eco-village then bring these values of quality of life to the world in an inclusive way? What is the vehicle for change, and how can it be utilized to draw greater populations to the eco-village model?

The answer may well be Art. Art is a vehicle for change, often at the vanguard of emerging truths, and the use of art and acts of making are powerfully synergistic. Inner life sustains outer, and vice versa.

For primitive cultures art was not separate from life. It has taken the bulk of human history, but much of the current cutting edge art has al last returned once again to this theme (please see attached presentation for elaboration on this). Creation is regenerative, responsible, meaningful and beautiful. The refuse and detritus of current urban environments have been used to generate new forms, including the introduction
by Duchamp of the Readymade, and the increasing use of recycled high-design materials in high-design, assemblage and collage and burgeoning interest in adaptive reuse. Reuse has moved in recent history from early and rather limited ideas of collection of antiques and antiquities to modern massive urban revitalization efforts often spawned by the new cache once run-down areas are given by a powerful creative culture (as in Christiana, Denmark and locally the Pearl District in Portland, Oregon).

The Art of Culture: Product

Current eco-villages exhibit several types of characteristics in which their life and works are fully integrated. Perhaps the most common is the use and sale of products made in or by members of the community. This is a particularly useful strategy, as not only does the revenue from the sale of these items go to support the community, but these commodities are subsequently then taken outside the physical boundaries of the eco-village, functionally advertising, branding and promoting the community. A variation of this type include the use of the eco-village itself as a venue for third party events or marketing it as a novelty or tourist destination.
The Arcosanti Project has done a masterful job of selling its products. Its bells are world famous, and produced by residents at the site in the Arcosanti built and operated foundry. One of the central structures of the community is the gallery and shop complex in which one can purchase any number of the plethora of products produced by or about Arcosanti. Ceramics, tiles, artwork, books, drawings, videos, etc. are all available not only at the site but over its highly elaborate and buyer-friendly website. There are several theaters at the site as well, both outdoor and indoor. There are frequent concerts and festivals on the grounds, from mainstream acts such as Ritchie Havens to more obscure electronic music festivals. They also host an annual Young Composer’s Workshop.

The Earthship communities have also embraced this type of revenue generation. One can buy anything from an earthship itself, to plans for building your very own, to souvenir t-shirts and tours of Earthship communities in New Mexico.

BedZED has made extensive use of developing the various systems integral to the project for marketing to the ‘outside’ world, founding the ZED Factory, which makes and
sells everything from precast concrete roof panels, to biodiesel and low energy systems to literature on the BedZED project and model.

The Eden Project has become one of the top tourist attractions in England. Several of the structures there, called biomes, were used in the filming of the James Bond film “Die Another Day”, and for better or worse, one can hardly think of anything that gets the publics attention better than the U.S. entertainment industry. Another important exhibit in the Eden Project is one in which children make their way through a series of plants, each labeled with their name and the type of product that comes from them (ie. cotton-clothing, tomato-food, pine-shelter, etc.) and then they are given a seedling of the type of plant they choose. A link that is often merely an abstraction in modern society is made and the connection to the natural world is made in a concrete and tangible way.

**The Art of Culture : Process**
The act of making and involvement of an individual into process is another critical strategy/trait that is commonly used by the eco-village to sustain and propagate itself. This tactic has several beneficial aspects; attendees are educated about the technical issues of the eco-village, the community receives the direct benefit of the physical work put in, and it provides an important opportunity for ‘outsiders’ to experiment with and experience life in an eco-village. Unlike the previous strategy, the visitor does not take away a physical souvenir or ‘piece’ of the community (save a few blisters), but perhaps more significantly, takes away a memory and more complete understanding of the methodology and practices of life in an eco-village.

At the Arcosanti Project, visitors can earn their keep and stay at the village for a short time if they participate in the construction of any number of structures currently under way. Less intensive workshops are also available, for both children and adults. There is a wide variety of possible subjects, including siltcasting, ceramics, music, stonecutting, and metalsmithing.

The Earthship communities offer similar programs, but with a tighter focus on the various techniques used in the actual construction of these buildings. The construction of an earthship is decidedly low-tech and inexpensive, so the assumption is made that many of the people that take the workshops will immediately put this knowledge to use in the construction of their own projects.

A local example of communal activities transforming the face of the existing urban environment is the City Repair Project in Portland, Oregon. Members of a local community, be it a neighborhood, users of a park, concerned citizens, etc. come together to perform an action that usually activates the sense of life and sense of place of an otherwise bland or featureless part of the urban landscape.

The St. Norberg Art Center is an ecologically sound complex near Winnipeg. They host a “departures” program that rose from a desire, both on the part of the St. Norbert Arts
and Cultural Center and of local artists, to develop a service for at-risk kids from the inner city of Winnipeg whereby these young people could, literally, make a departure from their quotidian environment. It begs the question that if leaving their current urban environments is so helpful and healthful, why are they there to begin with? It is an intimation that the underlying need for change is more than just environmental, it is psychological and social. The pathologies are legion.

The Art of Culture : Synergy

It is too easy to forget that in the discussion of sustainability, the point of the labors and investigations we have discussed here is not to just pursue an academic ideal of the least possible energy footprint, or highest possible recycling rate, but to sustain life. Art supports life and life supports art. They should not be separate and in the modern urban environment, too often the links between them are often razor thin and intangible and tangential. In the eco-village archetype, community and identity are defined and reinforced by the act of making; both the physical structures of the village itself, and its commodities.

We can see this principal in effect in many ways. Award-winning environmental artwork is generated on-site at the St. Norberg Arts Center. The BedZED development is colorful, beautiful and thoroughly full of life, expressed most obviously by the lovely gardens and animated, vibrant wind scoops. The Tea-Horse created, fabricated and used by the City Repair Project would not be the wonderful and energetic success it is if it were a bland, factory produced mini-van. Arcosanti would not have the magnetism and strength of identity it does if it looked like and felt like an “anyplace.” These places are special, and the idea of a place being special provides an important feedback loop for the conscientious inhabitant; that one must take care in life to take care of life.

One project in particular, the Eden Project in England, provides a marvelous vignette of these principles in action. It spread its beneficial aura to much of the rest of the
surrounding region, helping the recovery after the infamous foot-and-mouth crisis that closed down much of the United Kingdom at the peak of the tourist season. This ambitious and visionary environmental and art center acted as a financial and spiritual crutch for a society handicapped by a zoological and financial crisis largely of its own construction. The profundity of this effect is magnified upon consideration that this complex was formed on the site of a barren abandoned strip mine, the healing of that specific piece of ground facilitated healing on a far larger scope. Art and environment at the Eden Project are largely one and the same. The line between architecture, landscaping, sculpture and natural world is highly blurred.
In conclusion, within the diaspora of current eco-villages are many fantastic examples of the different ways in which society as a whole can begin to adopt strategies to move towards creating sustainable urban environments. Many of these projects and communities are not completely sustainable themselves, and some, though largely sustainable, would be overwhelmed if the larger urban problem is not aggressively addressed. There is however, an important connective thread between them all, that the effort is worth making, and they speak to the need for a concrete and weighty shift in the regard for the life of the Earth and the individual.
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