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GENERAL MANAGEMENT ASSISTANCE CONTRACT (GMAC)

Contract No: 674-C-00-01-00051-00

Lynedoch Sustainable Housing and Urban Service Project

Grant No. 0045-0402-G-GA13

Lynedoch Development

This report was produced for review by the USAID. It was prepared as a performance milestone under Mega-Tech, Inc.'s prime contract. The contents of this report address activities performed under USAID/South Africa's Strategic Objective No. 6: Increased Access to Shelter and Environmentally Sound Municipal Services

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Activity Summary and achievements:

The overall goal of the grant program was to make it possible for Lynedoch Development (a non-profit South African company) to prepare all the detailed technical planning, design, and legal approvals required for the company to build a model eco-village to help alleviate rural poverty, demonstrate the viability of environmentally responsible physical development, and be financially viable and affordable. A further aspect of the program was to construct and demonstrate a unique on-site ecological waste treatment system as a key element of the overall infrastructure of the development.

The attached Grant Activity Completion Report and magazine articles summarize the achievements of the program.

Contents of this report:

1. Grant Activity Completion Report (February 2003)
2. Magazine Articles:
 - a. “International Living & Learning: Lynedoch Eco-Village” in Progress, (June 2003);
 - b. “Sustainable Living” in Odyssey, (January 2003).

Grant Activity Completion Report

1. Name of Organisation	Lynedoch Development (Section 21 Company)
2. Grant Activity	Lynedoch Sustainable Housing and Urban Services Project
3. Briefly describe the grant objectives achievements and impact as a result of the grant activities implemented during the grant period.	
4. Briefly discuss the implementation process, including lessons learned and recommendations	
5. Public Dissemination: GMAC requires that all grant activity deliverable(s) of the grant activity (e.g., a report or survey) must be made available to the general public. Briefly discuss how the grants activities and results were made accessible to interested parties.	

Signature of Grantee _____ Date _____

3. Briefly describe the grant objectives achievements and impact as a result of the grant activities implemented during the grant period.

The strategic objective of the project was to “improve access to housing and environmentally sustainable urban services for the historically disadvantaged populations” in accordance with USAID’s Housing and Urban Environment Division (S06). The Lynedoch Development successfully completed, via a participatory design process, the detailed technical designs for the building plans of Phase One. This included infrastructure development, home architectural plans and a financially viable system to enable low-income earners access to a home that is also a substantial financial asset.

Phase one of the Lynedoch development has sold out in accordance with the socially mixed ecologically designed model. Nineteen middle class units and fifteen subsidy units have been purchased.

The most significant impact was twofold. First was the approval by local and provincial authorities of the Lynedoch development and its infrastructure. The other direct impact was the acquisition of a Rand 3 million loan to build the infrastructure from the Development Bank of South Africa for Phase One. A copy of this loan can be obtained upon request.

Lynedoch has been identified as a pilot for national application. The South African government has recognized that Lynedoch is a tangible example of a sustainable housing development for uplifting low-income and historically disadvantaged groups. The Sustainability Institute is helping to revise the national housing policy through work with the Western Cape Provincial Government and the Cape Town City Council. Lynedoch will serve as a model for the future planning and regeneration of inner-city Cape Town, and the office of the mayor of Cape Town is looking at Lynedoch Development as a model for investigating new energy, waste and water approaches. There are direct links between the strategic teams of Lynedoch and both the Cape Town City Council and the Western Cape Provincial Government. Letters from either the Department of Housing or the Provincial Government can be provided upon request.

4. Briefly discuss the implementation process, including lessons learned and recommendations

The implementation process was categorized into nine tasks to be completed, with funding from the USAID grant for tasks one through eight. All tasks were completed, with funding for task nine coming from the IFC. Copies of the nine tasks are attached in **Appendix A**. The eight tasks funded by the grant are as follows:

- Task 1 - Revised strategic spatial plan for greater Lynedoch (including upgrading costings)
 - Achieved – Document entitled Revised Strategic Plan for East and West Lynedoch, plus letters of appointment signed with professional team. A copy of this can be found in **Appendix B**
- Task 2 - Detailed sub-divisional plan for W. Lynedoch

- Achieved – Document that describes the final sub-divisional plan for W. Lynedoch compiled for submission to the Stellenbosch Municipality and was subsequently accepted. A copy of this document can be obtained upon request. The plot layout can be found in **Appendix C**
- Task 3 - Beneficiary participation process and establishment of Home Owners Association (HOA)
 - Achieved – Creation of database containing prospective home owners as well as the establishment of a Committee structure; establishment of the HOA, elections for the first HOA Committee completed and via the different Committees, agreements on various empowerment initiatives such as skills training for the housing construction process, establishment of a safe house, parent involvement in the School, etc. A copy of the HOA agreement can be found in **Appendix D**
- Task 4 - Rezoning applications
 - Achieved – Official letters from the Stellenbosch Municipality confirming that they have received the rezoning applications and the expected time frame for approval and was subsequently approved
- Task 5 - Overall infrastructure plan and detailed infrastructure specifications for Phase 1 contract documentation, including approval applications and negotiations
 - Achieved – Document submitted to Stellenbosch Municipality containing detailed description of overall infrastructure specifications for the entire site, plus detailed technical specifications for Phase 1. See **Appendix E1-4** for copies of the water report, civil infrastructure report, water and sanitation system review and electrical reticulation
- Task 6 - Detailed architectural designs for rental units and house types
 - Achieved – A copy of the building plans, plus covering letter, submitted for approval to the Stellenbosch Municipality and accepted. See **Appendix F** for architectural designs
- Task 7 - Institutional design for delivery vehicle and tenure arrangements
 - Achieved – A document entitled *Institutional Arrangements for the Lynedoch Hamlet* that defines the agreed delivery vehicle, contains the constitution of the vehicle, and describes the principles and procedures applicable to the tenure arrangements that will be implemented
- Task 8 - Dissemination and visitor program (model, pamphlet, website) and report writing
 - Achieved – Milestone 1: Completion of Information Brochure (see **Appendix G**)
 Milestone 2: Completion of house model
 Milestone 3: Completion of eco-village model
 Milestone 4: Design and operationalization of the website (visit www.sustainabilityinstitute.net)
 Milestone 5: Design and documentation of the visitor program

Lessons Learned:

Because there was funding from the IFC for a demonstration house, the design that was created would actually not be feasible if it would be constructed by a general

contractor. A 40 % labor cost on the contractor built homes would make them unaffordable for those that purchased subsidy lots. One major lesson was the need to create a self-built version of the low-income design. Creating a home that can be built using the people's housing process (PHP) necessitates a redesign of the home so that it can be built without a contractor's expertise.

The Biolytix was initially intended to be the only waste treatment process. During the design process it was realized that the Biolytix system produces an affluent that is not good to bring back into the household. Therefore we added a new technology for wastewater treatment, a constructed wetland, which was not mentioned in the original proposal. Lynedoch will use a vertical filter system that uses a smaller surface space than horizontal filter systems therefore losing less water to evaporation. The wastewater is fed close under the surface of the bed intermittently through pipes. The water gradually drains through the bed to the base, where it is collected in drainage to be led out of the filter. The filter drains completely free and this allows to refill the pores with air, which is needed due to oxygen related processes; especially nitrification. Using this system with Biolytix will reduce the costs of potable water for flushing toilets. **See Appendix E3** for copy of the new system.

Our original idea was to use hydroform technology to manufacture unfired clay brick on site, on the assumption that there would be enough material on site. However, there is not enough material, so the challenge we now face is either import raw material and manufacture on site or importing already manufacture unfired environmentally friendly bricks, which is possible. We learned that the material on site is of a very high quality, making it difficult to buy material of similar high quality for an affordable price.

Recommendations:

Sustainable construction and urban design should in the future proceed on an integrated basis. Funding should not support merely one aspect of development, such as energy, waste treatment, or water, but instead use a whole systems approach. This will ensure that all aspects of the development work in an integrated fashion to ensure the best possible results. Some systems may be a better complement for a certain technology application, and using a whole systems approach will ensure all projects work well together.

There was a lot of value received from the funding of the planning process and not just physical deliverables. Because funding for the entire project was not given, it was actually possible to revise our plans based upon the advice of consultants used during the planning phase. Therefore, it is recommended to fund the planning process which will ensure the physical deliverable will be an accurate fit for the project. With the financing from the grant, it allowed for new innovations without being linked to time constraints and we found that not being given money tied to physical deliverables worked out to our advantage in the end.

5. Public Dissemination: GMAC requires that all grant activity deliverable(s) of the grant activity (e.g., a report or survey) must be made available to the general public. Briefly discuss how the grants activities and results were made accessible to interested parties.

Brochures were created explaining the development at Lynedoch and how it is different from other projects going on in South Africa. See **Appendix G** for brochure samples. A website was created by leveraging the grant money received and finding a webmaster who matched the funds and created a site at the reduced cost of R30,000. This website can be found at www.sustainabilityinstitute.net and describes the Lynedoch village as well as the Sustainability Institute. It has a global reach and allows Lynedoch's message to find international support and interest as well as provides information for local use.

The website was done by a professional firm incorporating a user friendly format and presents information on Lynedoch in a clear, professional manner. At sustainabilityinstitute.net, there is a pull down menu at the top of the page for the Lynedoch EcoVillage. This menu has six options,

- Lynedoch and the Winelands - The first page describes how the Ecovillage is situated, both physically and in the future development of the region within the greater winelands area. It gives detailed information about the site of the eco-village and why it is being built in the this area.
- Goals and Key Features – Site visitors can learn about the vision of the eco-village as well as the main features of the eco-village.
- Main Ecological Design Features – This section details what makes the design of the eco-village different and unique from other developments. It outlines the improvements in performance and function of the different designs and the emphasis on zero waste, energy efficiency, minimization of environmental impact and connectivity to local food sources among others.
- Ecological Features of the Main Building – This gives the specific details of the building that houses the Lynedoch Primary School and the Sustainability Institute. Namely, walls made from natural materials, passive solar design and the Biolytic Filter system for waste water treatment.
- Contact Details – This page makes it easy for site visitors to contact any person involved with the Lynedoch Eco-Village and the Sustainability Institute.
- Lynedoch EcoVillage Presentation – This slideshow shows the design of the eco-village and gives basic information on the technical features of the environmentally designed village with accompanying pictures.

Tours of the development and Sustainability Institute are given on a weekly basis and there are frequent visits from interested stakeholders. The Ecovillage has also been written about in several magazines with an uncalculated number of impressions around the world. For two of the articles, see **Appendix H**.

THE SUSTAINABLE DEVELOPMENT QUARTERLY

Progress



SECOND QUARTER 2003
R24.95

**TRANSFORMING
AFRICAN
BUSINESS
THROUGH BLACK
ECONOMIC
EMPOWERMENT**

**IMPROVE YOUR
BOTTOM LINE**
with Corporate
Social Investment

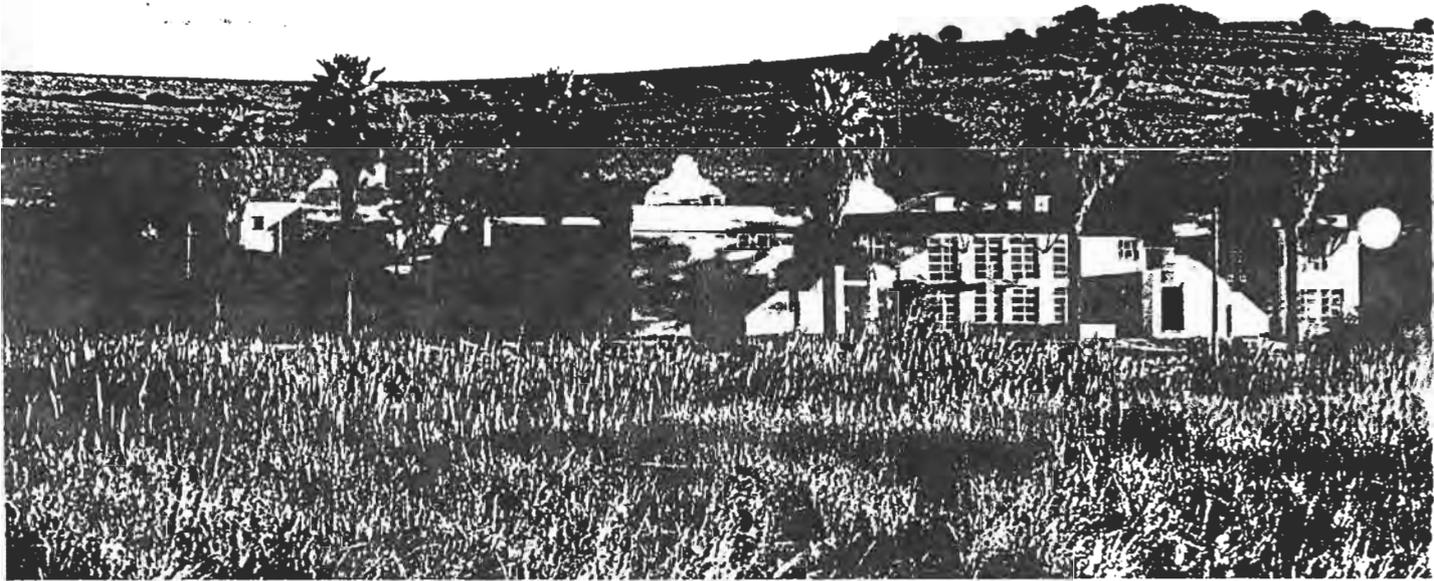
THE IMPACT OF
ENVIRONMENTAL
EDUCATION IN
SOUTH AFRICA

**A HAND UP
NOT A
HAND OUT**

WHY THE BIG ISSUE WORKS



INTERNATIONAL



As if Stellenbosch didn't already have it all - sprawling vineyards, antique troves, academic life and excellence in the arts - it's now been further enhanced by the Lynedoch Eco-Village, which essentially puts everything else into context. Cindy Lee Moritz met with Sustainability Institute director Eve Anneke to experience the concept in person.

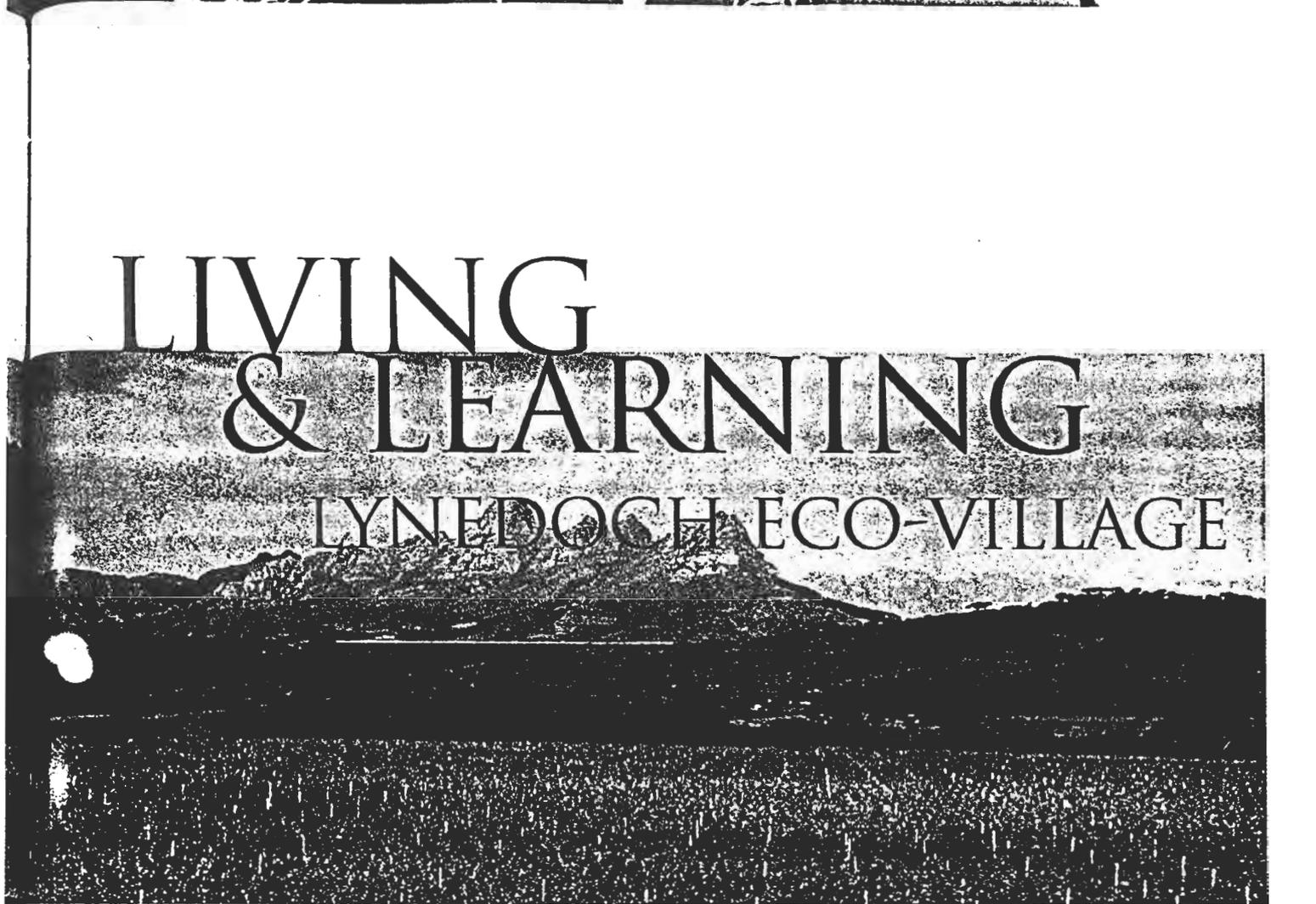
ocated just outside the hub of Stellenbosch town itself, some 15km south to be exact, is the small emerging hamlet, Lynedoch, within which the Eco-Village development is located. The learning precinct around which the village is focussed is known as the Sustainability Institute, a living and learning centre that is designed to educate on sustainable leadership, especially focussing on fundamental social and environmental transformation, which is necessary for addressing poverty - the scourge of South African society.

Eve Anneke is clearly a person that walks her talk, and as director of the Sustainability Institute, emphasises that the project has had clear leadership in the form of a group of people who are incredibly exhilarated and liberated in terms of creating a new future.

What strikes you about the entire project is that it is tackling issues at whatever stage they may be at, instead of allowing things to be neglected that are deemed by some to be 'too far gone'. "We are creating spaces and centres of energy, so we are not doing things in linear way," explains Eve. She is strong in her belief that the Western style to which the world has become accustomed has eradicated that sense of belonging that is actual-

ly so integrally a human need. That sense of connection is being allowed to develop here, made possible by being able to work on a smaller scale. Unlike some academics and institutions, this lot knows that in doing the things they are teaching about, you may well make mistakes, but you certainly learn to do things differently the next time around. "It's a process approach built around diversity," says Eve.

More about the project, then. The Sustainability Institute, which forms part of the wider Lynedoch Eco-Village, "provides a space for people to explore an approach to creating a more equitable society that lives in a way that sustains rather than destroys the eco-system within which all society is embedded." The Lynedoch Eco-Village "is an emerging ecologically designed socially mixed community built around a learning precinct, the heart of which is a primary school of 350 children who come mainly from the families of farm workers in the area." The Sustainability institute is a non-profit trust that was set up in 1999. The first element of the project was that the people involved were part of the strategic planning team that framed Spier Estate around a sustainable framework in conjunction with Spier owner, Adrian Enthoven. What grew from there was the acquisition of the land on which the Institute now



LIVING & LEARNING LYNEDOCH ECO-VILLAGE

TEXT BY CINDY LEE MORITZ PICTURES COURTESY OF THE SUSTAINABILITY INSTITUTE

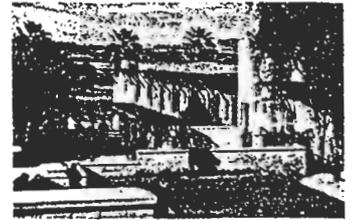
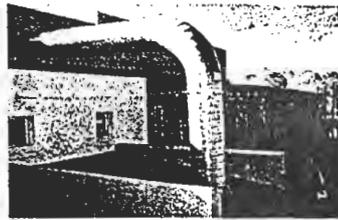
stands, as well as the old Drie Heuwels hotel which was built in 1914 and has been renovated to become a residence for the students enrolled in the various tertiary programmes the project offers. The "big dream", according to Eve, is for the Eco-Village to become a reality in its entirety, which would involve it being a true mix socially and of income groups. It is envisaged that there will be homes ranging from the very small to the more middle sized, giving a broad range of people the opportunity to live in a development where they can explore the notion of dignity without it being unaffordable. Says Eve, "We don't want urban sprawl from Belville to the Boland. We need to have hamlet type, high density living in a socially responsible way, something that focuses on development." Any other Eco-Village that does exist is middle income dominated, and this was confirmed by a visit from the people of the Global Eco-Village Network who had "never seen anything attempted quite like this."

PROGRESSIVE FEATURES

The Lynedoch Eco-Village's initial focus is on construction, but its advocates foresee it rapidly becoming a permanent commitment to building an inten-

tional community, leading to learning in both the technical fields and community building.

The main ecological design features of the Eco-Village make tangible the ideals that underpin the project. Water is heated using the sun's rays, and solar water heaters take the place of the traditional electrified geysers. Electricity takes a back seat again with the introduction of stoves using LPG. Moreover, there is a strong possibility that LPG could be replaced by stoves powered by a solar-generated source still under investigation. Lighting is efficient with a change from incandescent to compact fluorescent bulbs. The project team has minimised the environmental and resource impact of building materials by using a decision-support tool that will make it possible to select building materials according to criteria that will include the low embodied energy levels, benign toxicity, positive environmental impact, long-term low cost durability and recyclability and/or biodegradability. Thermal performance is improved via the use of unfired clay bricks made from material sourced on site using the patented Hydraform brickmaking technology (based on the "rammed earth" principle), orientation and design for energy efficiency and natural climate controls using passive solar



design, the addition of insulation and ceilings in the houses to reduce the need for electrified space heating and cooling, as well as appropriate natural landscaping to ensure the development of gardens, dams and green spaces that act as self-organising thermal management systems. Emphasis is placed on local sources of food, water and energy where practically possible. The movement of motor vehicles has been controlled via "pedestrianisation" measures that will include cycle paths, protected leisure spaces where children will be safe, and speed reduction measures. Application of the "zero waste" principle with respect to both solid and liquid waste is achieved via the following measures:

- the extension of the community-based waste collection and recycling system operated by a local empowerment firm called Novwaste (Pty) Ltd to the new developments at Lynedoch Hamlet - this firm currently collects all the waste from the Spier Estate and from the existing Lynedoch Hamlet after which it is separated at a local depot into discrete waste streams and sold to recyclers resulting in only 5% of the total waste stream being transported to landfill;
- introduction of the unique patented Biolytix sanitation system which has been implemented on the Spier Estate, various Western Cape conservation areas, and in the Lynedoch Hamlet in accordance with special permission from the Department of Water Affairs - the only effluent from this entirely biological system (which treats all sewage as well as organic kitchen waste without any changes to the normal flush toilet system) is irrigation quality water that can be fed back into the irrigation of gardens and food lots, i.e. there is no sludge, no negative odours, and no flies;
- a permaculture-based landscape design that provides a user-friendly network of green areas connected to food lots (irrigated by the effluent from the Biolytix Filters™) that generate organically grown food that can supplement household diets thus reducing costs and increasing nutrition levels;
- a system of dams for capturing rainwater, stormwater and treated water and re-using for irrigation, and internal use in the houses for toilet flushing and washing (but not drinking).

CENTRE OF LEARNING

Lynedoch Pre- and Primary School aims to equip its learners with the peace building ethic through ecological learning, including permaculture gardening. Ongoing support for teacher development, institution building, remedial work and measures to reduce domestic violence against children create the environment for a sustainable learning community, appropriate to equip future leaders and community members with skills, ideas and a social and environmental conscience.

The Main Building, which has housed the Lynedoch Primary School and the Sustainability Institute since the start of 2002, has the following ecological design features:

- various interior walls made from unfired clay brick manufactured on site from excavated materials;
- an underfloor rockstore link to a low energy air circulation system that cools

- the interior of the school during summer and warms it up during winter;
 - the hall is cooled in summer via Wind Chimneys located on the roof that draw down into the hall the prevailing South Easterly wind;
 - onsite sewerage treatment using the Biolytic Filter system.
- Projects besides the Lynedoch Eco-Village and the Lynedoch Pre- and Primary School include:
- Land reform: facilitation of projects with emerging farmers to acquire land and set up farming businesses to supply organic food
 - Renewable energy and recycling: in association with Lomold (Pty) Ltd strategic management of investments in renewable energy technologies and in plastic recycling
 - Africa Human Genome Initiative: in association with the Human Sciences Research Council and the Academy of Sciences of Southern Africa, the promotion of dialogue about the complex impact of genomics on African development
 - Greening the South: an inter-disciplinary work group that will generate chapters for a book that will present a working vision for what a sustainable South Africa could look like, and how this applies to other developing countries

LEARNING FOR SUSTAINABLE LIVING

One of the Institute's major drawcards is the Masters Programme in the Practice of Sustainable Development. The course is run in conjunction with the School of Public Management and Planning at the University of Stellenbosch, which delivers a wide range of under- and post-graduate degree programmes in the public management, development management and planning fields. Short courses are also provided. All Masters students are required to do the core modules of the course, starting with module 1, a foundational module, which is to be completed first. After that, course participants are able to choose how and when they can complete the remaining modules in the space of four years. Accommodation is available in the Lynedoch Eco-Village, and true to the spirit of the Institute, should a participant not afford the costs, as per the course brochure, "costs could be reduced or waived in return for support work for activities at the Sustainability Institute."

Current participants in the Masters course include Cape Town Tourism Manager Sheryl Ozinsky, who feels that this has "opened a whole new world" for her. She thinks of herself now as "Sheryl Ozinsky before this programme", and "Sheryl Ozinsky after this programme." "It has put things into context and perspective for me," says Sheryl, "it has given my job in tourism more meaning and has shown me how to contribute in a significant way to the society in which we live." It has allowed her to think more broadly about the role of tourism, and has expanded the context in which she operates. "The alternative way in which the learning is pursued is incredibly empowering, and it impacts on the way you feel about yourself. We know what self-respect and confidence does for human beings, and also what a lack thereof brings about. Everything about the current way we do things actually disempowers our selves. Here, you are built up, made to count, made to think

and are able to think in an incredibly supportive environment."

On a holistic level, the Sustainability Institute is addressing social ills such as gangsterism and alcoholism and the effects these have on impressionable children, children such as those at the Lynedoch Pre- and Primary schools.

"We are setting up a primary healthcare project for poor people so that they can have access to this too, so that they are truly able to start healing from within," explains Eve. According to her, the ramifications of the dop system, whereby farm workers were paid in bottles of wine rather than hard currency, leading to alcohol dependency and continued poverty, is something the school has to deal with on a daily basis. This, she says, needs to be addressed and remedied, not allowed to continue to exist as something in the past that cannot be changed. The school gymnasium is used for performing arts rehearsals, with the profile of performer ranging from the SA Academy of Performing Arts to Usiko, a group trying to create alternate role

models of masculinity for boys reaching the age where joining a gang is a real, somewhat expected, option. They are trying to work with boys just before the gangs get to them, ensuring there are other connections that they can make besides belonging to such a group or abusing narcotics.

The Sustainability Institute, as part of Lynedoch Eco-Village, provides a beacon of hope for the future of humankind. Global Ecovillage Network website sums it up: "Ecovillages are one solution to the major problems of our time - the planet is experiencing the limits to growth, and our lives are often lacking meaningful content. According to increasing numbers of scientists, we have to learn to live sustainably if we are to survive as a species. The United Nations launched its Global Environment Outlook 2000 report, based on reports from UN agencies, 850 individuals and over 30 environmental institutes, concluding that "the present course is unsustainable and postponing action is no longer an option." Who can argue with that?

PEOPLE OF THE SUSTAINABILITY INSTITUTE

Eve Anneck, Robert Davids, Sharifa Ismail and Lee Larkins are responsible for the programming, projects and daily operations of the Institute. Mark Swilling is employed by the University of Stellenbosch, but works closely with this core team on a daily basis. This group is accountable to a small Board that consists for the moment of Adrian Enthoven, Edgar Pieterse and Eve Anneck. This group brings together the required mix of developmental activism, academic experience and administrative expertise.

Eve Anneck is Director of the Sustainability Institute and has worked for many years in organisational learning, with a special focus on process facilitation, dialogue and leadership. She has been an early childhood development worker and is a trained Montessori pre- and primary educationist. Her Masters in Management Learning through Lancaster University, UK, focussed on the relationship between sustainability and the practice of leadership.

Mark Swilling is Academic Director of the Sustainability Institute. He has a long history of activism in the NGO sector and co-founded the Graduate School of Public and Development Management at the University of the Witwatersrand in 1992 where he later became Director and Professor until 1997. He has written extensively on democratisation, management development, local economies, cities, local government and civil society. He has a professorial appointment in the School of Public Management and Planning at the University of Stellenbosch, and is responsible for the co-ordination of the Masters programme in sustainable development.

Robert Davids is Projects Director. He studied public management at the University of Stellenbosch and has a background in community development work. He currently manages the Lynedoch Eco-Village development and is extensively involved in land reform work in the Winelands region.

Sharifa Ismail is a qualified accountant who completed her practical training in the Stellenbosch office of PricewaterhouseCoopers. She was the Financial Director of Biolytix SA (Pty) Ltd before being appointed as Financial Director of the Sustainability Institute in 2002. She is also on the Board of the Lynedoch Development company and responsible for its financial management.

Lee Larkins has many years experience in the hotel and leisure industry as an operations manager, event organiser and marketer. She has opened a number of new facilities and prior to joining the Sustainability Institute she helped establish and open the Village Hotel at Spier.

THE NEED FOR SUCH AN INSTITUTE

Leadership for sustainability is the great challenge of our times. Throughout the developed and developing world there are governments, businesses, non-profit organisations, citizens and communities that are struggling to come to terms with the global social and environmental crisis. They want to understand what is really going on and many are expected to take on the challenge of leadership for fundamental change at the local and global levels.

To be prepared for the future, those that take leadership will be expected to handle cultural diversity, complex changes, and the many dimensions of the sustainability challenge. Globalisation, depletion of strategic natural resources (like fossil fuels), technological change, the biotechnology revolution, urban agglomeration, mass communications - these are just some of the changes that are transforming local economies and the lives of ordinary people. In response, communities are forging local economies where essentials like food, jobs and safety are secured through joint action between local associations, small businesses and democratically accountable local governments. They often strive for local energy sources, zero waste, healthy food, mutual solidarities to protect the vulnerable, and beautifully cared for local environments. For many, sustainability is little more than common sense. But to achieve it will require another kind of leadership inspired by the possibility of a world where human society and nature can coexist and where the suffering caused by poverty has been eliminated.

(www.sustainabilityinstitute.net)

Ecovillages are 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.

(Global Ecovillage Network website www.gen.ecovillage.org)

Odyssey

Spirit @ Work

Everything about
Labyrinths

INDIAN
Sojourn



**Mystic
Mountain**

Paulo Coelho's
Christmas

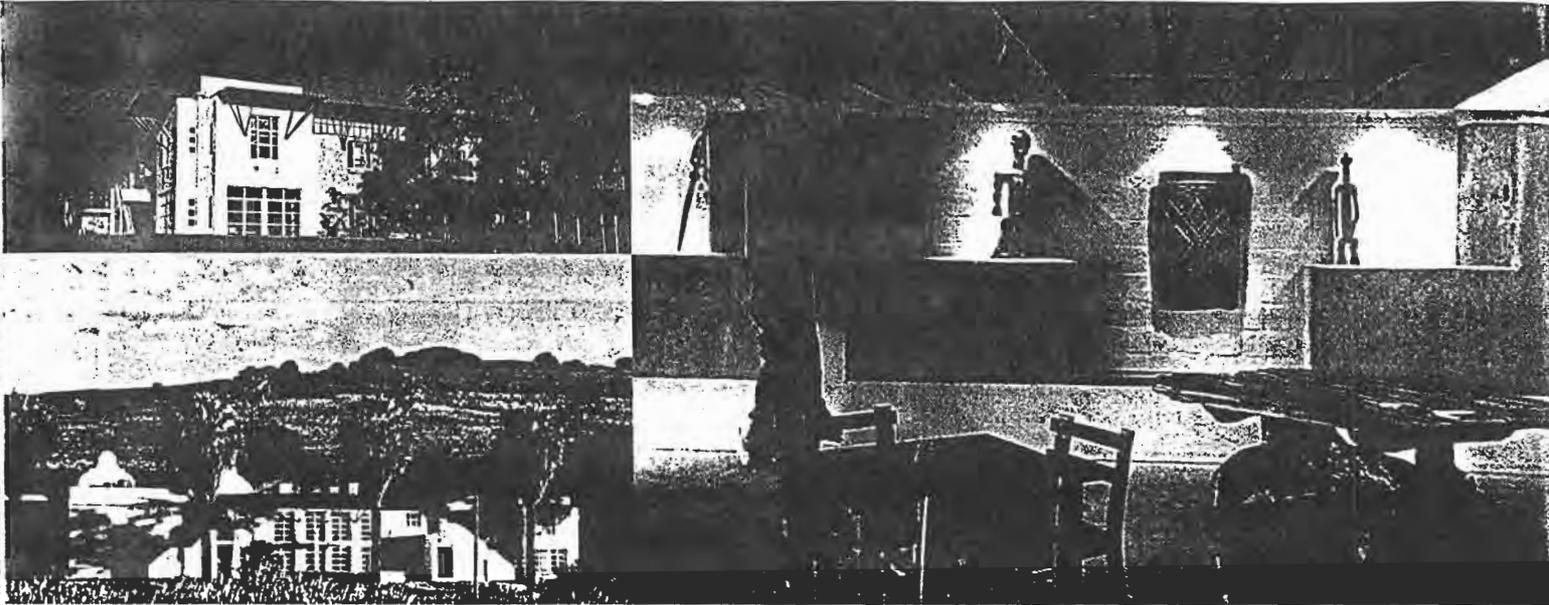
**ECO
LIVING**

Loving Touch

GRACIOUS GIVEAWAYS



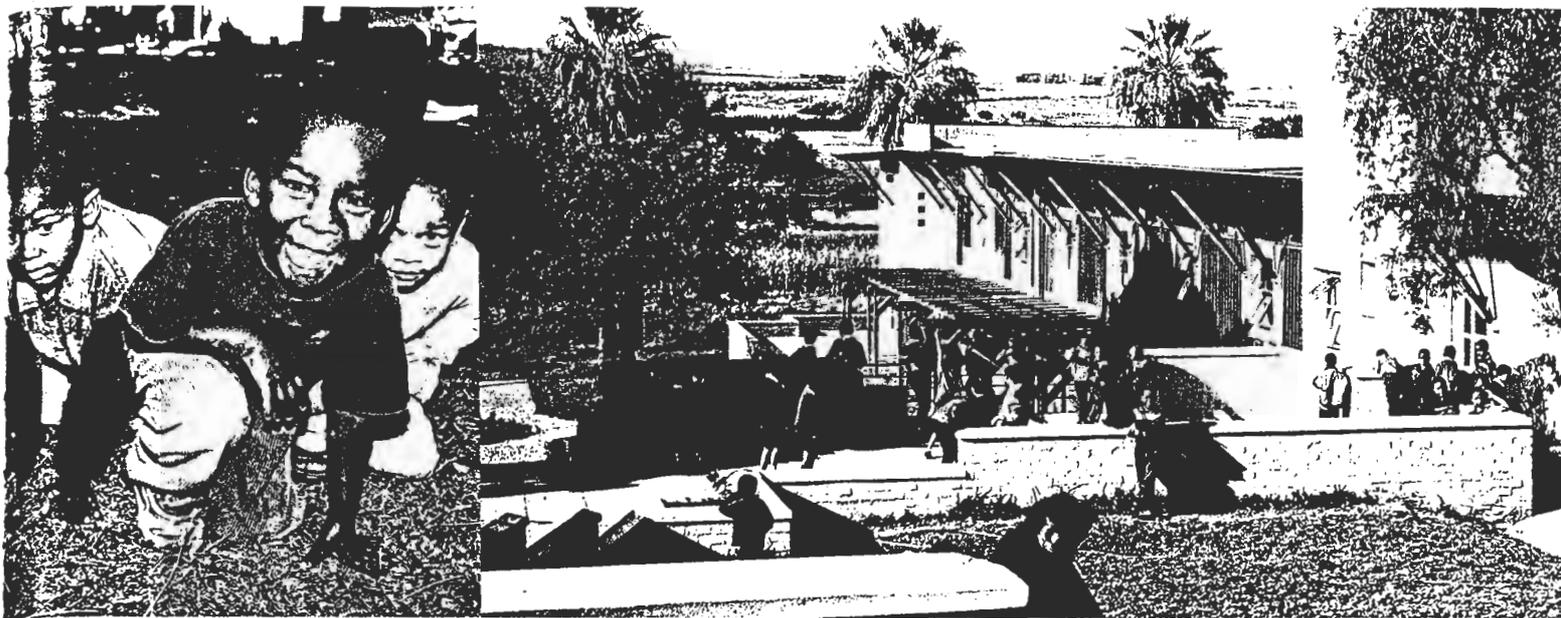
R20
Dec/Jan 2003



Sustainable Living

Imagine building a community around a learning precinct. A community made up of people from all backgrounds, that has been designed using state-of-the-art ecological technologies. Also imagine that you are surrounded by towering majestic mountain ranges, cultivated vineyards and the occasional whiff of the sea. This is the Lynedoch EcoVillage, the 'first ecologically designed, socially mixed intentional community' in South Africa.

This experimental community can be found where the old Drie Gewels Hotel used to be, a mere 10m away from Lynedoch railway station on the line to Stellenbosch. By car, it is on Lynedoch Road between Stellenbosch and the N2 Highway, almost opposite the main entrance into the Spier Wine Estate. Lynedoch is not just a dream, it has started to happen. What used to be a huge ugly corrugated iron shed built for student raves, has been renovated to accommodate the Lynedoch Primary School for 300 children, a large all-purpose hall, and the offices and classrooms of the Sustainability Institute. There is also a Montessori pre-school which, like the primary school, is attended mainly by the children from families who live on the surrounding farms. Although Lynedoch Primary is a government school, the pre-school is private. The development of the Lynedoch EcoVillage is managed by a non-profit company, the Lynedoch Development Company (LyneDev). The governing board - comprised of a mixed group of local community leaders and professionals, including Grantham Jansen (principal of Lynedoch Primary), Ross Van Niekerk (pre-school teacher), Gerrit Hendricks (leader of the organic farming project), Sharifa Ismael (financial director), Robert Davids (managing director), Tom Darlington (architect), Eve Anneke (director of the Sustainability Institute) and myself was set up in 2000. We were inspired by the possibility of building an inclusive living and learning community that would demonstrate in practice what it means to live in sustainable ways. Initially, three goals were formulated to guide the various aspects of the planning and implementation of the project. We decided that Lynedoch EcoVillage must be a mixed community organised around a child-centred learning precinct, should strive to be a working example of a liveable, ecologically designed, urban system and that it would be a financially and economically viable community, with no external funding to sustain itself.



The key features of the ecovillage include a primary school (completed in December 2001) that accommodates 350 children drawn mainly from the families of local farmworkers, a pre-school for 40 children, a multi-purpose hall, offices and classrooms for the Sustainability Institute, 40 residences that will provide accommodation for participants of the Institute's programmes, 110 housing units ranging in price from R 90 000 to R 480 000 per unit, commercial space for offices or small manufacturers and crafters, and a village green and landscaped areas laid out in accordance with permaculture principles. To improve livability it was also decided that the ecovillage would have limited traffic to ensure a secure environment for children and pedestrians.

Above all else, the Lynedoch EcoVillage has to provide a safe space where South Africans from all backgrounds can live in peace with each other and in harmony with nature. It must also be a place where people from all over the world can come and share in the life of the community while they learn, think, create works of art and share knowledge that will contribute to the making of a better world. It must, in short, be a place where all life is celebrated and beauty in all its forms treasured for this and future generations. Much has already been achieved towards this end, but the journey so far has not been smooth.

Although we submitted a development application, which should have been passed by June 2000, approval was only finally secured in May 2002. The delay was caused by objections from neighbours, which made it necessary to obtain approval from the Western Cape provincial government, which eventually allowed 150 housing units. During the planning process, it became clear that a mixed community, with a diverse range of activities and incomes, had a greater chance of being economically self-sustaining than a community that was entirely dependent on returns from workers earning very low wages. The Board decided that it did not want to create another human dumping ground for disgruntled workers who may well have preferred to remain living where they have lived for generations, on the farms nearby. Despite bureaucratic problems, funding of various kinds (grant and low cost loans) was secured from a range of parties, including the Spier Estate, Danish Government Aid, the Winemakers Guild, Enthoven Family Trust, the United States Agency for International Development, and the Ford Foundation.

It is worth noting that the work done to date has already won recognition for Lynedoch. The South African government, with funding from USAID, ran a national competition for best practices in order to select model projects for display at the World Summit on Sustainable Development (WSSD). Lynedoch was one of 18 projects selected from well over 100 applicants. The development also got Best Environmental Project for 2002, awarded by the South African Planning Institution.

The Sustainability Institute, which is a core enterprise at the ecovillage, is a non-profit trust that works in close partnership with LyneDev. Directed by Eve Annecke, it aims to promote a wide range of educational programmes, projects and writing initiatives that relate to the spectrum of sustainability issues. Among main projects are a masters programme in the practice of sustainable development, land reform and organic farming, building the Lynedoch village, ecological and nonviolent education in schools, and the Africa Human Genome Initiative.

One of the unique aspects of this community is that the projects of the Sustainability Institute are initiated by people who share in the vision and who feel comfortable working in an unstructured creative environment. People tend to first find the Institute, and then if they want to stay, projects are developed and employment created, not the other way round.



Under the leadership of the old Winelands District Council and more recently the Stellenbosch Municipality, an Integrated Development Plan for the local region has been formulated which is based on sustainable development principles. It is this plan that makes provision for the establishment of contained high-density 'hamlets' across the Winelands region as a means of managing urban growth over the next 25 years without triggering massive urban sprawl and related environmental destruction. This plan refers specifically to the Lynedoch hamlet as a pilot development that could lead the way. The Lynedoch board has in turn been inspired by this plan and has decided that its greatest contribution to realising its aims would be to demonstrate that it is possible to build a socially mixed community that has a much reduced ecological footprint, and contributes significantly to poverty elimination.

LyneDev has committed itself to several projects for the three-year period, starting August 2002. These include finalisation of the design and acquisition of final approvals for the Lynedoch housing project; commencement of construction by March 2003; ongoing strengthening of the Lynedoch Primary School, including teacher training and curriculum development, support for the extension of the pre-primary school and further training in Montessori educational practices, and the establishment of a performing arts project in partnership with the South African Performing Arts Academy.

The existing building's works that resulted in the renovation of the old rave hall, plus all future construction work, will reduce the footprint of the development by integrating ecological design approaches, such as using unfired clay brick made on site utilising a low-skill rammed earth machine, long-life and low-maintenance materials for roofing and window or door frames. We are also aiming at the reduction of coal-generated Eskom energy by 60% via the replacement of electric geysers with a centralised solar water heating system for each street. A vermiculture-based waste treatment system, which makes it possible to treat on site all liquid and organic waste so that it can be beneficially re-used for irrigating gardens and food lots, form part of the plan. Other steps include the use of gas-fired stoves, the installation of passive heating and cooling systems via north-facing perspectives, carefully planned roof overhangs related to window sizes, as well as wind chimneys and under-floor rock storage systems for channelling and managing wind and heat for summer cooling and winter warming. Non-toxic products for painting, wood treatments and cleansing will be used. Landscaping with permaculture principles will also be echoed in the organic farm across the road which will supply the community with local low cost produce.

The Lynedoch Development Company acts as the developer. This means that it applied for the development rights, raised the funding, and will manage the housing construction and community building aspects of the development.

Many people want a secure, beautiful and peaceful place to live, where they can feel comfortable and part of a supportive and lively community. It is our dream that with proper management, careful and considered planning and watchful implementations, Lynedoch hamlet will become just that. And, perhaps, it may be a sign-post to a future where many similar such devel-

opments exist, not only solving current sustainability issues, but helping build the society we would want for our children and their children. ☺

Mark Swilling

For those interested in living in Lynedoch and/or attending courses by the Sustainability Institute, email info@sustainabilityinstitute.net or write PO Box 12358, Die Boord, 7613. Visit www.sustainabilityinstitute.net for more.



Lynedoch
ECO
VILLAGE

INVITATION



SUSTAINABILITY
INSTITUTE

Real Living at Lynedoch.

You are warmly invited to purchase a house in the Lynedoch Eco-Village, surrounded by the beauty of the Boland. Join a community that lives in sustainable ways. Share a sense of security that comes from being part of a strong and vibrant community. Contribute your skills where you can, and have your say in the running of the Village. If you want to know more about sustainable development, register for the Masters Programme in Sustainable Development. A complete house with services will cost between R100 000 and R500 000.

The Lynedoch Eco-village is
25 minutes from Cape Town
10 minutes from Stellenbosch
15 minutes from Somerset West

For more details see www.sustainabilityinstitute.net or contact Robert Davids on (021) 881 881 3196 or send an email to robspier@iafrica.com