





# Deep Roots

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## Deep Roots

October Gallery operates as one of a series of international projects developed by the Institute of Ecotechnics (IE) as places to learn by doing. Situated in the centre of London, the Gallery was established to explore the idea of an 'ecology of cultures' both within and beyond its own particular urban setting. Human cultures can be regarded as the dynamic structure of human adaptations to their environment, and cultures flourish or decline under the challenges of opportunity and the necessities of survival. This exploration – and the vital search for better ways to harmonise human actions and inventions with their ecological context – led to the founding of the Institute of Ecotechnics (IE) and the development of the new discipline of ecotechnics. Unlike old-school ecologists, who acted as if ecology only began at the city boundaries, IE's vision includes anthropogenic biomes like cities, ranches and farms since they drive so much of the modern biosphere's dynamics.

The first members of the Institute started to work together in San Francisco, in 1967, establishing an international touring repertory theatre company they called the Theater of All Possibilities (TAP). IE formally began its ecological work, in 1969, with an initial capital investment of \$25,000 as down payment on IE's first 'challenge,' a badly-eroded, 60-hectare ranch near Santa Fe, New Mexico. We named it Synergia Ranch. The group's move to New Mexico coincided with a general 'back to the land' movement and the start of the modern environmental movement.

Over the next few years we restored and expanded this ruined ranch, using 30,000 hand-made adobe bricks to construct many residential buildings and workshops. Subsequently, with Buckminster Fuller's encouragement, we built a geodesic dome for use as a theatre and conference venue. Using innovative techniques of erosion control, tree planting and soil regeneration, we began the slow restoration of the land. Today the ranch continues to evolve, now home to an organic vegetable farm and fruit orchard. Synergia Ranch also served as the basic training ground for later ecotechnic projects in other regions, which all sought to integrate human culture, technology and diverse ecosystems with the evolving biospheric totality. Each IE project was chosen and developed because it presented another challenge. Areas of land degradation and cultural conflict were of particular interest, precisely because conventional approaches and standard economics wouldn't work there.

Over the succeeding decades the Ranch supported itself through the many enterprises that thrived there, and by hosting meetings of groups working in ecology, art, and psychology. The enterprise structures used at Synergia Ranch and the later IE-developed projects, a mix of non-profit and for-profit companies, enhanced their flexibility, evolution and longevity. These projects also serve as real-time demonstration models, providing positive interactive feedback with their host cultures. Unlike conventional businesses, IE-consulted projects aim at both top-line benefits (enrichment of the local ecologies and biodiversity) and bottom-line economic viability. By owning the land and the means of production and by working in common with others, initial capital outlays are far lower and operating costs are dramatically reduced, both crucially important factors when attempting something which has never been done before. Profits are reinvested in the project and shared with the working managers, who are thus motivated to exercise intelligent and creative oversight to increase the overall value of the project.

The original routines of Synergia Ranch were intended to evolve in differing environmental and cultural field conditions. Everyone engaged in 'three lines of work' - ecology, theatre, and enterprise – and this approach became the foundation of each IE project thereafter. This appealed greatly to me when I arrived at Synergia Ranch in 1969, a college-educated but completely impractical 22-year old city kid. I jumped in wholeheartedly, eager to learn by doing, even if it meant starting from close to zero on the learning curve! I appreciated an approach offering a formula for a balanced life rather than just the pursuit of a specialist career.

Opposite page: Inside Biosphere 2, the desert biome showing self-organisational adaptation two years after initial closure, Oracle, AZ, USA, 1993.  
Photo: Gill C. Kenny.



Above (from top to bottom):  
Mark Nelson, West Kimberley, Australia, late '70s.  
Photo: Robert Hahn.

Actors from the Theater of All Possibilities ensemble,  
Synergia Ranch, Santa Fe, NM, USA, 1981.

Synergia Ranch during construction phase,  
Santa Fe, NM, USA, c. 1971.  
Photo: Robert Hahn.

The geodesic dome at Synergia Ranch was first built  
with canvas and wood, Santa Fe, NM, USA, c. 1970.  
Photo: Marie Harding.



Our days included theatre work; ecological restoration and regeneration, building and planting; and some individual enterprise. I first began in woodworking, making doors, windows and furniture for the Ranch buildings and also selling to the public; then a landscaping company and finally planting the Ranch orchard. Other enterprises included pottery, auto repair, metal working/welding, leather work, weaving, clothing, wind power, stained glass, art, film, publishing, etc. A Synergia Ranch construction firm pioneered modern adobe architecture in Santa Fe. Inspired by the Bard's 'All the world's a stage,' our theatre work included acting classes to develop our dance, movement, emotional fluidity, voice, and the capacities to act in multiple roles and in all types of drama. TAP itself presented a mixture of avant-garde western theatre (Stanislavski, Artaud, Brecht, etc.) and Asian dance drama, and performed both classical and newly-created plays.

A few years after Synergia Ranch embarked on its mission to create an oasis on desertified land in New Mexico, plans to build an ocean-going research vessel were hatched. How could we understand Earth's total biosphere without investigating the planet's oceans? Between 1974 and '75, a group of people trained at Synergia Ranch (Synergists for short) designed and constructed a 25-metre ferro-cement sailing ship that IE named the Research Vessel (RV) *Heraclitus*. Built in Oakland, California, the ship was itself a synergy, combining the design and sails of traditional ocean-going Chinese junks with modern ferro-cement hull and decks. Over the next four decades, the *Heraclitus* circumnavigated the globe, venturing up the Amazon and as far south as Antarctica. Ship's crew, including student trainees aboard to learn seamanship and participate in real-time science, worked in critical areas including tropical ethnobotany, the declining health of planetary coral reefs, and the documentation of endangered 'sea-people' cultures.

In 1975 IE purchased Les Marronniers, a 7-hectare farm property outside Aix-en-Provence, to serve as the ecotechnic Mediterranean project and conference centre. In 1976, Synergists began operating Quanbun Downs, a 120,000-hectare cattle station near Fitzroy Crossing in the tropical savannah of northern Western Australia. By 1978, both October Gallery in London and Birdwood Downs, another station in Western Australia's Kimberley region, were acquired. I left my Ranch position as 'Manager of Gardens and Trees' (already an evolutionary leap for this New York City lad!) and went to start up Birdwood Downs, which focussed on the pastoral regeneration of a desertified 2,000-hectare property. This built on what I'd learned at Synergia Ranch, but working in a tropical savannah biome deepened my understanding of ecological complexity and the different approaches needed at different scales.

After extensive repairs to the semi-derelict Victorian school building in Bloomsbury, October Gallery opened in 1979. The Gallery's mission was to investigate, at one and the same time, the field of global contemporary art and culture and the critical megalopolitan environment - the city itself as an object of study. As the UK arm of the Institute of Ecotechnics, the Gallery also offered an ideal location for bringing together artists and scientists and became an important venue for organising IE conferences. The fact that London is a leading centre for both the sciences and the arts had inspired its selection as the Institute's Ecohub.

I lived at October Gallery in 1981, and led studies of London's regional ecology using the Institute's conceptual model. Synergists do whatever needs to be done at whichever project they are currently based. One humorous memory of my annual stays at the Gallery was being sent out to find an artist on the opening night of his first Gallery exhibition. Intuition prompted a frantic search of nearby pubs that eventually led me to the nervous artist, who I managed to persuade to return just in the nick of time!

In 1980, IE worked with a community of Tibetan refugees to design and build the Hotel Vajra in Kathmandu, Nepal. This beautiful East-meets-West traveller's hotel complements and supports local cultural traditions. The earthquake-proof building

Above (from top to bottom):  
TAP performance of an original play,  
*The Energy Empire*, Synergia Ranch,  
Santa Fe, NM, USA, c. 1971.  
Photo: Kathelin Gray.

Ship construction site shortly before its  
launch, Oakland, CA, USA, 1974.  
Photo: Robert Hahn.

Les Marronniers Conference Centre,  
Aix-en-Provence, France, c. 2000.

## Deep Roots

(which survived the 7.8 magnitude quake of 2015) also hosted the Vajra-October Gallery. Like its affiliated sister project in London, its theatre and library spaces play host to a variety of cultural events featuring traditional and contemporary artists, actors, and musicians from Nepal, Tibet and everywhere else beyond.

In 1983, IE members and TAP actors helped construct and manage the Caravan of Dreams performing arts complex in downtown Fort Worth, Texas. This project achieved its goal of revitalising a run-down and residentially depopulated city centre by creating a centre for the arts (dance, theatre and music), as well as offering an attractive ambience to eat and enjoy the nightlife with its rooftop bar and geodesic dome cacti/succulent display. Ornette Coleman, a Fort Worth native and firm friend of the Institute, opened the Caravan's jazz nightclub with a week of festivities.

In just over a decade, IE had created a network of ecotechnic projects around the planet, and initiated a series of IE international conferences. In 1983, the last ecotechnic endeavour, Las Casas de la Selva, began its sustainable rainforest timber reserve by planting 40,000 seedlings of valuable hardwood trees on a portion of 400 hectares of secondary forest considered worthless, near Patillas, Puerto Rico. The government welcomed our project as, despite extensive forest cover, the island imports virtually all its timber. 2017's Hurricane Maria severely damaged the project infrastructure, but rebuilding is currently underway. Fortunately, most of the original lower elevation forest enrichment plantings survived.

The challenges IE undertakes grow more complex as its members' capacities develop. What greater challenge could there be than to build the world's first mini-biosphere? In 1984, IE helped initiate the Biosphere 2 project in Oracle, Arizona<sup>1</sup>, a daunting experiment and ecotechnic test bed invented by John Allen, one of the founders of IE. Could its extensive engineering and advanced technology systems really support, and not poison, this sealed-off miniature world? Our biospheric experiment, the world's first laboratory for global ecology, included totally recycling water and wastewater systems, a high-yield, non-chemical farm, and a thriving collection of wilderness biomes. The network of outstanding scientists, managers and engineers we'd met through our annual IE conferences filled key roles in the complex project, which drew extensively on all the IE biomic projects for practical and experiential knowledge. As a member of the first biospherian crew to live inside that closed mini-system, for a two-year experiment, it's clear to me that this pioneering endeavour, together with knowledge gained over decades from ecotechnic biomic projects, becomes ever more relevant to a world facing the grave ecological challenges of our new Anthropocene era<sup>2</sup>.

Throughout Biosphere 2's life, London has been a central nexus for development. The Gallery hosted one of the project's early Project Review Committee meetings, as well as helping host two further landmark meetings organised by IE and the Russian leaders in the field: the First International Conference on Closed Ecological Systems and Biospherics held at the Royal Society, in 1987, and the fourth such meeting held at the Linnean Society of London, in 1996. Over the years, numerous talks, workshops and conferences have brought scientists, artists and thinkers together at the Gallery to develop and explore stimulating new perspectives.

The connections between the Theater of All Possibilities and the Gallery also run deep. London was often the place where TAP plays were first created and then polished, and the European tour bus resided in London until it carried a full complement of Synergists and actors to Les Marronniers for the Institute's annual Autumn conference. TAP toured each year from 1967-1989 and after the Gallery opened, a European



Right (from top to bottom):  
Hotel Vajra, Kathmandu, Nepal, 1983.  
Photo: Marie Harding.

Caravan of Dreams Performing Arts Center,  
Fort Worth, TX, USA, 1983.

Ornette Coleman, William Burroughs and  
Brion Gysin, Caravan of Dreams, Fort Worth, TX,  
USA, 1984. Photo: Ira Cohen. Courtesy of Ira Cohen  
Archive, LLC, 1986.

Biosphere 2 on the day of the Crew's re-entry to  
Biosphere 1 – Earth, after two years living inside  
the facility, 26th September, 1993.



tour followed the North American one. Theatre tours led to important artistic and cultural connections for the Gallery. Theatre plays, staged at all the IE projects, deepen the bonds with their neighbouring communities. The Gallery has presented theatre plays since the project first began, and their many in-house productions have included *Deconstruction of the Countdown* (adapted from the works of William S. Burroughs and Brion Gysin)<sup>3</sup>, *Gilgamesh* and Beckett's *Happy Days*.

October Gallery has fulfilled its role as our Ecohub. Synergists including myself whenever possible route our travels through London to be revived by the eclectic events and interesting people drawn to the Gallery. Many volunteers and eventual Synergists first come into contact with the Institute at October Gallery, before venturing out to experience the challenges of our other real-time ecological frontier projects.

Synergist ecotechnicians have always 'cross-pollinated' their individual skill sets and knowledge bases by spending time at other projects, each of which specialises in different aspects of the biosphere. Chili Hawes, for example, spent many years helping to build Synergia Ranch, then crossed the Atlantic aboard the RV *Heraclitus*, before helping manage the farm at Les Marronniers. Next she took the helm at October Gallery, and managed the Quanbun Downs cattle station, in tandem, between 1987 and 1991, during the critical years of Biosphere 2 development. All IE projects are open to others, welcoming everyone from professionals and advanced scientists, from whom we learn so much, to 'willing incompetents' like I was myself when I first arrived at Synergia Ranch fifty years ago.

It is, therefore, with huge admiration that I join our friends from around the planet, my fellow Synergists and all our British friends in saluting the remarkable accomplishments of October Gallery. It feels particularly significant that, in 2019, the year in which Synergia Ranch marks its own 50th anniversary, October Gallery is celebrating the milestone of forty years of outstanding work in London. Few dispute the Gallery's impact on the field of global contemporary art as it champions cutting edge artists from cultures around our extraordinary planet.

Our heartfelt congratulations go out to Chili and Elisabeth and to each and every member of the dedicated 'crew' of October Gallery.

### Santa Fe, New Mexico, 2019

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1. See: [www.biospherics.org](http://www.biospherics.org)
2. Mark Nelson, *Pushing our Limits: Insights from Biosphere 2*, The University of Arizona Press, Tuscon, 2018. See <https://uapress.arizona.edu/book/pushing-our-limits>.
3. A dramatisation of works by William S. Burroughs and Brion Gysin, adapted, with their approval, by John Allen and Kathelin Gray for TAP.



Above (from top to bottom):  
Andrés Rúa, Technical Director of Las Casas de la Selva, Patillas, Puerto Rico, 2007.  
Photo: Thrity Vakil.

RV *Heraclitus* arriving in Phuket, Thailand, 2007.  
Photo: Rafael Aisner.

Mark Nelson, Synergia Ranch certified organic vegetable garden, Santa Fe, NM, USA, 2019.  
Photo: Deborah Parrish Snyder.