

Home Place



LIFE CYCLES

Study Guide by Leslie Karasin
Bullfrog Films

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Life Cycles is one of the four videos in the Home Place series, which are based on Canadian ecologist J. Stan Rowe's book Home Place: Essays on Ecology. The series attempts to redefine the role of human beings as one of Earth's species and look anew at the systems which sustain and constitute life on the planet. Hosted by J. Stan Rowe and narrated by Liona Boyd, the series consists of **Inside - Outside, Life Cycles, Partnership, and Going Home**. Each film is 26 minutes.

Other videos in the series:

Inside - Outside

Images of the earth from space finally enabled us to discard the human-centered concept of environment, replacing it with a more universal idea of ecosystems. Earth itself is conceived of as living...as an ecological being.

Partnership

Explores the challenges faces by industrial societies as they shift from their present exploitative relationship with earth ecosystems towards a more sustainable partnership. Shows what happened to ancient societies that lived beyond their ecological means, and points to models of partnership that are possible.

Going Home

Explores the ways in which cocoons of cultural myth affect the way we see and understand the world, and cocoons of technology insulate our senses from nature. Personal remedies are found in activities which overcome our alienation from our Home Place, and help us to reconnect with the earth.

Organizations and Websites

Earth Island Institute 300 Broadway, Suite 28;
San Francisco, CA 94133

National Centre for Sustainable Society 1896 Watson
Street Victoria, BC Canada V8R 6N6 [http://
www.islandnet.com/~ncfs/ncfs](http://www.islandnet.com/~ncfs/ncfs)

National Parks and Conservation Association 1015 31st
St., NW, 4th Floor, Washington, DC, 20007.

The Nature Conservancy National Headquarters: 4245 N
Fairfax Drive, Suite 100, Arlington, VA 22203 [http://
www.tnc.org](http://www.tnc.org)

Related Bullfrog Films

*(Please call for a catalog or check our website,
www.bullfrogfilms.com
for the most up-to-date-listing of related videos.)*

Gaia: The Living Planet

Turtle World

Our Planet Earth

The Green Zone

Yosemite & the Fate of the Earth

It's Gotten Rotten

John Livingston: The Natural History of a Point of View

Ecology, Community, and Lifestyle. Arne Naess. Cambridge University Press, New York: 1989.

Environmental Science: The Way the World Works. Nebel and Wright. Prentice Hall, NJ: 1993.

Wadsworth Company, CA:1992.

Man and the Natural World: A History of the Modern Sensibility. Keith Thomas. Pantheon Books, USA: 1983.

Not Man Apart. Friends of the Earth, 530 Seventh St. SE, Washington, DC, 20003.

Simple in Means, Rich in Ends: Practicing Deep Ecology. Bill Devall. Peregrine Smith, Salt Lake City: 1988.

The Arrogance of Humanism. David Ehrenfeld. Oxford University Press, New York: 1978.

The Control of Nature. John McPhee. Farrar Strauss Giroux, New York: 1989.

The Deep Ecology Movement: An Introductory Anthology. Drengron and Inoue. North Atlantic Books, Berkeley: 1995.

The Trumpeter Journal of Ecosophy. P.O. Box 5883 Stn. B, Victoria B.C. Canada, V8R 6S8.

Western Man and Environmental Ethics. Ian Barbour, ed. Addison-Wesley, Reading, MA: 1973.

What Are People For? Wendell Berry. North Point Press, Berkeley: 1990.

Wildlands for Wildlife. National Geographic Publishers, Washington, DC: 1988.

Contents

Synopsis	p. 1
Key Concepts	p. 3
Before Viewing	p. 4
After viewing	p. 5
Glossary	p. 6
Resources	p. 7
Related Bullfrog Films	p. 11

Synopsis

A coral reef is a brilliant display of color and underwater activity; no one would argue that it is very much alive. In addition to the fish that swim among the corals, the reef itself lives and grows. Yet, rather than being satisfied to see the sea as a complex living system, we have a tendency to divide matter into living and non-living parts. Here, though, this distinction is confounded. Breaking the reef into smaller pieces, we fail to find life. Rather, we lose it, because independently, the elements of the system are lifeless. It is only together, as part of the ecosystem, that the coral organisms, united with their discarded calcium carbonate skeletons, thrive.

Humans have traditionally been concerned with defining, locating, and isolating the property termed "life." Life has been seen as a property of organisms: of individual plants and animals. This perspective has prevented us from seeing it as something bigger, as a force belonging not to individual organisms, but to ecosystems and the planet as a whole. In the process we have lost respect for the many inorganic elements of the environment which support life and make life possible, and we have gotten out of touch with the cycles and processes which unify the earth.

The analogy of comparing a person to the earth provides insight into the nature of individual organisms and ecosystems. Organisms, like cells in the body, are part of functioning organs, and are dependent upon their surroundings for energy and sustenance. Ecosystems, like organs in the body, carry out important functions. Yet even they are alive only within a larger living body. Matter and energy flow among the various cells and organs of the body in a rich and complex cycle which unites us all and makes life possible.

By revising our perception of life and coming to a greater understanding of the unifying forces which bind the elements of the ecosphere, we can move towards a new appreciation of the wonders of the world and a humbler understanding of our role on the planet. And we can begin to recognize that our interference with the world's systems has the capacity to do irrevocable harm. But a critical initial step towards a less harmful human role on the earth is a new respect and appreciation for the multitude of connections which constitute life in the world around us.

Resources

Books, Articles and Journals

A Sand County Almanac. Aldo Leopold. Oxford University Press, NY: 1949.

“Biological Fallacy: Life Equals Organisms.” J.S. Rowe. In *The Trumpeter*, Vol 7, No. 3, 1990, pp. 119-121.

Deep Ecology. Michael Tobias, ed. Avant Books, San Diego: 1985.

Gaia: A New Look at Life on Earth. James Lovelock. Oxford University Press, New York, 1979.

Gaia: The Growth of an Idea. Joseph E. Lawrence. St. Martin's Press, New York: 1990.

Earth. Anne H. and Paul R. Ehrlich.

“From Reductionism to Holism in Ecology and Deep Ecology.” J. Stan Rowe. In *The Ecologist*, Vol. 27, No. 4, 1997, pp. 147-151.

Fundamentals of Ecology. EP Odum. W.B. Saunders, Philadelphia: 1953.

“Human Ecology: The Subversive, Conservative Science.” Garrett Hardin. In *American Zoologist*, Vol 25, 1985, pp. 469-476.

Human Ecosystems. WB Clapham, Jr. Macmillan, NY: 1981.

Living in the Environment. G. Tyler Miller, Jr. Franklin Watts, New York: 1987.

Glossary

Coevolution Evolution resulting from interactions between species which, over a long period of time, exert selective pressures on each other that lead each to undergo various adaptations*

Protoplasm The contents of a cell

Keystone species Those species which play important roles affecting many other organisms in an ecosystem

Ecosystem Community of different species interacting with one another and with the chemical and physical factors making up its nonliving environment*

Ecosphere The collection of all of Earth's ecosystems; Earth's collection of living organisms interacting with one another and their non-living environment (energy and matter) throughout the world*

Gaia Theory The school of thought that the earth is itself a living being

*Definitions from Living in the Environment, G. Tyler Miller, Wadsworth Publishing.

Key Concepts

The film presents some revolutionary and highly philosophical ideas, many of which are a challenge to conventional modern thought. To help both students and teachers work through the material in the film, some of its key concepts are enumerated below.

- Eliminating the living/non-living distinction. The first step towards a more accurate and perceptive understanding of life is to cease separating the world into living and non-living parts. Then we can begin to see the complex functions of all of the elements of an ecosystem and recognize that importance should not be attached to living or non-living parts.
- A new understanding of life. Rather than perceiving life as a quality of organisms, we should begin to appreciate that life is a quality of ecosystems and the ecosphere. By moving away from an organism-centered view of life, we will have a more balanced and less anthropocentric view of the world.
- The concept of interdependence. Organisms depend on non-living elements of the ecosystem, other organisms, and things outside of their own ecosystems. No organism is completely self-sufficient; rather, it is alive because it is part of a larger living system.
- The connections of natural systems. Matter and energy circulate over time throughout the world, within and between ecosystems. This cycling is a unifying, timeless force, and the myriad connections of natural systems are truly the basis of life on the planet.

Before Viewing

The following activities are meant to enhance understanding and enjoyment of the film, and can be effectively performed in a variety of ways.

- Try to define “life.” Is it a straightforward concept? If you are able to form a definition, write it down for after the film. What types of things do we think of as being alive?
- Can you think of examples of things which seem to blur the boundaries between living and non-living? Consider a bone in your body. Could you argue that it is alive? Not alive?
- Consider a molecule of carbon in your body, another in a tree, and another in a piece of coal. How are they linked? How are you linked to the tree and to the piece of coal?
- Imagine that you could isolate an atom of oxygen in your next breath. Where might it go after leaving your body?
- Review the definition of ecosystem (see glossary, below).

After viewing

- Revisit the definition of life you recorded before watching the film. Does it still seem accurate? Try applying the definition to an ecosystem or the ecosphere. Do they qualify as living?
- In what ways is human life made possible by the life of our surrounding ecosystems? Imagine trying to live in a vastly different ecosystem, perhaps a desert, or away from Earth—say on the moon. Does this shed more light on the benefits we derive from our surroundings?
- What are some examples from the film that living and non-living things are connected through natural processes? What other examples can you think of?
- The film suggests that human understanding of complex ecological relationships is limited, and yet that humans may impact aspects of the world which have close connections with the health of various species and ecosystems. What are the implications of these ideas? If we have an imperfect understanding of the world’s connections, can we perfectly predict the outcome of our actions?
- The host says that man is “searching for a new relationship with Earth.” What does this mean? What do the ideas presented in the film suggest that this new relationship might be like?
- Research Project: The film briefly mentions Gaia Theory, named after the Greek Earth goddess. Research more about the history and philosophy of this field. Check the Resources section, below, for some books and articles to consult.