In his dismal and provocative statement, Canadian artist and theorist Tom Sherman reflects on the fact that we form our environment with our actions and way of life. Human culture is inextricably bound to the earth’s ecosystem. Ecological change has been brought about by human interventions in existing ecosystems, among other causes, and is one of the most relevant problems society has to deal with today. Environmental catastrophes and global warming are the results and consequences of a highly civilized and industrialized way of life. Ecological thinking and long-term action are among the present day’s most important tasks if we want to avoid further damage to the environment and thus to our own living space.

Art has intervened in many ways since the destruction of the natural environment. Attempts have ranged from Romantic designs for countering the first stirrings of capitalism in the early 19th century through Land and Environmental art of the late 1960s and early 1970s, to Contextual art of the 1990s as well as eco-media strategies deployed today by global capitalism. These various approaches have greatly diversified in recent years in the context of new media and have tested new methods based on collaboration between art, science and technology. Environmental issues are addressed by many artists today, and more and more exhibitions have dealt with the topic of ecological change in recent years. In this essay, I would like to focus on recycling strategies in contemporary art practice. Examples introduce projects that aim to raise consciousness for environmental issues and the need for the sustainable use of resources in particular.

The use of recycling strategies in art has a long history. In the 1970s, Environmental art developed from Land art and alongside aesthetic concepts it placed concrete ecological interests and their relevance to society in the foreground. Mierle Laderman Ukeles is one of this movement’s central representatives. In her piece _Touch Sanitation_ (1978-80) she visited all the facilities of the New York City Department of Sanitation over the course of an entire year. The artist shook the hands of the 8,500 employees and expressed her gratitude to them for “keeping New York alive”.

For Laderman Ukeles, recycling processes are the great art challenges of our time and she has been dealing with these issues in her work since her first projects about garbage in the late 1960s. She emphasizes the importance of the reuse of garbage for our society: “The design of garbage should become the great public design of our age. I am talking about the whole picture: recycling facilities, transfer stations, trucks, landfills, receptacles, water treatment plants, rivers. They will be the giant clocks and thermometers of our age that tell the time and the health of the air, the earth, and the water. They will be utterly ambitious–our public cathedrals–for if we are to survive, they will be our symbols for survival.”

Laderman Ukeles projects call attention to the environment and to the changes brought about by globalization, pollution and the unsustainable way we spend our resources. Her works are a plea to reflect on our own actions and lifestyle and an invocation for sustainable behavior. Since the 1990s, American artist, Dan Peterman, has dedicated himself to the topic of the waste of natural resources and the resulting necessity of recycling. An example is _Spending Energy Storing Energy Spent_ (1993), a sculpture made of batteries. As is well known, batteries contain a considerable amount of heavy metals and therefore warrant special disposal arrangements. Peterman has also exhibited blow-up furniture made of transparent plastic in _Advances in Bio-Gas_ (1992). This is a closed system, which produced methane gas through the breakdown of organic material by anaerobic bacteria, and which he then stored. The inexorable destruction of the earth’s ozone layer has made methane gas an increasing threat to our environment. In Peterman’s work, the gas is transferred into a positive context and transformed into a make-shift battery or energy source. The process-based and transitory nature of objects is not only made a central element of an artistic end product: the works themselves often set processes of growth and decay in motion.

_Running Table_ was made in 1997 as a commission for public space—a sculpture of recycled plastic for Grant Park in Chicago. The installation consists of a unit made up of a table with two benches; its segments can be joined together and incorporated into functional contexts either as a large sculpture or separately. Thousands of reprocessed plastic milk cartons and plastic bottles were recycled to make a thirty-metre-long table, which visitors to the park immediately accepted as a possible picnic spot and place for social gatherings. Peterman turns a throwaway product into a practical object that is reused in a social function. He examines the production cycle of the manufacture, usage and consumption of an article. Plastic is used particularly because of its inherent quality as a shapeable material. Although it is basically shapeless, it can be moulded into any shape imaginable. It is still to be found in many everyday objects. Despised and held in contempt as a cheap material, it modestly ends up on our cities’ rubbish heaps. By means of recycling it is put back as a product into a cycle that takes our limited resources into account—one which calls for a more sustainable way of treating these resources in contemporary society.

Peterman addresses the deplorable state of society’s affairs in which the endless exploitation of resources and waste of energy are supported in the name of a free-market economy. In his works, he opposes and criticises a social norm determined by consumption. The driving force behind his work and his artistic strategy is the attempt to persuade the public to accept responsibility by participating in our culture—both economically and aesthetically.

Another example for consciousness building and raising awareness about the importance of recycling are projects by Yonic, a non-governmental organization registered in Switzerland, founded by the Swiss artist Geraldine Belmont in 1994. The organization’s mission is to carry on innovative socio-ecological projects and dedicates them to “diminish[ing] pollution and find[ing] new solutions to old problems.” All of the projects are collaborative and involve the local population. Based in Bahia, a remote small town close to the Brazilian tropical rain forest, Yonic has started recycling activities, spanning from educational work to Arts and Crafts production. Activities of _Lixomania_, which could be translated into “Wastemania”, could be described as a waste management program, which “aims to ZERO trash, recycling all waste produced by a community, without discrimination, from plastic to glass, paper and organic, all rubbish is separated and processed to find its destination and reintroduction into the market as a new product.” Together with the locals, materials from the nearby waste dump are recycled into objects that can be of use for the community. For example, plastic bottles are melted into bricks that are used to build infrastructure. All _Lixomania_ projects are documented in the Yonazine magazine, which is produced with 100% handcrafted recycled and chemical free paper. Documenting not only their recycling activities, but also the debris of globalized waste production, Yonic is making a statement that there is no other way if we want to save our environment. Recycling is “the ultimate survival structure.”

Another example of collaborative projects that involve the public in a direct way are projects by the American artist Natalie Jeremijenko. Her works combine engineering, biology, and art in order to deal with socio-political questions and thereby to offer visionary solutions. Communication between man and animal, the changed living conditions of man and animal in the urban space as well as social and environmental influences and their manipulation by means of genetic engineering are the topics she investigates.

Jeremijenko’s _Fetal Robotic Dog Workshop_ (2004) is an interesting example of her participatory approach. Robotic dogs ranging from Sony’s expensive AIBO to cheap imitations serve as construction
sets to turn a meaningless toy into subservient technological human companions. Because dogs have an inborn tendency to sniff about, Jeremijenko equipped the robots with sensors that react to contamination in their immediate vicinities. This technological adaptation was realised in a workshop with twelve school children from the Bronx River Art Center. The transfigured robotic dogs were used by the twelve- to fifteen-year-old pupils to track down heavy metal residues in the ground or trace the increased CO₂ concentrations in their own surroundings. A technical tool that contributed to the perception of the ecological situation in one’s own vicinity was thus created out of a prosaic toy. At the same time, the Open Source technology used to convert the robots enabled the pupils to free themselves from their passive consumer role and actively design their own technical tools. As Jeremijenko emphasised in her mission statement, this aspect of her work is particularly important to her: “Robotic toys embody a particular view of learning and entertainment. Are we EQUIPPING our children to address the technological future, or are we simply training them to push buttons in predetermined, pre-scripted interactions?” The translation of abstract graphs and satellite images into comprehensible results (the sniffing-out of toxins) produces greater effects and triggers more reflection than the revamped data collections that the non-professional is incapable of reading or interpreting. Jeremijenko succinctly summarizes her point: “If we want to make effective political change when it comes to urban environmental interactions, we need to change how evidence is gathered.”

A final example are works by the Danish artist Tue Greenfort, which try to activate sustainable behavior in a globalized consumer society. His works are based on the concept and necessity of recycling and ecological engagement. Biological processes are often used as a main topic. Producing 1 kilogram of PET plastic requires... demonstrates the inefficiency of the production of plastic water bottles. The work illustrates how important it is to recycle and re-use plastic water bottles by showing the complexity and the demands made on our resources for the production of these bottles. The question of energy supply is open to debate in Greenfort’s From Grey to Green (2006) for Witte de With in Rotterdam in conjunction with his solo exhibition. The power supply was to be shifted from normal electricity to green energy for the duration of his exhibition. Bureaucratic hurdles made this impossible, but the artist ultimately left it up to the heads of the institution to realize this matter of concern in the future. The art critic Raimar Stange succinctly summarizes her point: “If we want to make effective political change when it comes to urban environmental interactions, we need to change how evidence is gathered.”

All of the above mentioned examples might raise the question of whether art really can change things. Wouldn’t it be better to rely upon the activities of eco-activists? Artist Tue Greenfort gives the following answer: “Art has the ability to elaborate and open up discourses without being labeled and categorized as this or that political fraction. It can draw on a more complex system of references and interdisciplinarity than a purely politically defined activity. This ability to be an open system makes it interesting to work within.” Art must raise its voice to expand the political, social, and economic debate to demand that we deal respectfully with our environment and natural resources, and show us how we can make change a reality.

**NOTES**

2. In 2007 I have curated the show Ecomedia. Ecological Strategies in Today’s Art together with Karin Ohlenschläger and Yvonne Volkart. The exhibition has been staged at the Edith Russ Site for Media Art in Oldenburg, Germany, from October 12, 2007 to January 13, 2008. As an exhibition project, Ecomedia touched on such essential disciplines as the earth sciences, communication technologies and ecological activism.
4. www.yonic.org
5. www.yonic.org
8. Full title: Producing 1 kilogram of PET plastic requires 17.5 kilograms of water and results in air emissions of 40 grams of hydrocarbons, 25 grams of sulfur oxides, 18 grams of carbon monoxide, 20 grams of nitrogen oxides, and 2.3 kilograms of carbon dioxide. In terms of water use alone, much more is consumed in making the bottles than will ever go into them.
10. Interview between Tue Greenfort and Zoë Gray on the occasion of Greenfort’s Solo Exhibition Photosynthesis at Witte de With (24 June – 6 August 2006), http://www.johannkoenig.de/inc/02_art_texts_popup.php?publication_id=64