

Angelo Ciotti

Environmental Reclamation Artist



As a child growing up in Western Pennsylvania, I was fascinated by the large spoil dumps (abandoned coal mine refuse) that dotted the landscape.

These massive mounds of unearthed volcanic-looking rock made a sharp contrast to nearby lush green valleys. This picture of nature laid waste by the careless formed an indelible mark on me, and it became the impetus for my imagination.

This negative (subjective) transformation of the earth's crust carried implications of an alternative positive approach involving the transformation of mining-induced scars.

Ten years of study and travel throughout Europe, North Africa, and China, revealed attitudes toward the Earth that were much different. In other parts of the world, there was a spiritual value in the earth, not merely an economic one which leads to exploitation. Primitive structures, such as Stonehenge, and stupa and burial mounds, seem to speak of this deeper value. Even the Italian formal gardens give voice to a spirit of life that is earth.

Today, as an environmental reclamation artist, I am trying to find new and innovative applications for an art of the land. From a history of human love for the land, I know my roots are in the earth. Our future is in the re-establishment of an art that reflects the spiritual values of the earth.

I have been teaching at the college level since 1970. During this time I have found it more valuable to see art as an active means for change than as a technique to be learned.

My approach takes the student back through the ages to the changes that took place from the Mesolithic to Neolithic times when the human sense of earth was pure. I want to teach humans the pure spirit of the Mesolithic and Neolithic shapes before the planet was contaminated.

In 1972, I began work on a surface mine that had been abandoned for 13 years, and had become desolate through the relentless erosion of silt. Through the simple placement of rock earthworks, the flow of silt was stopped and, within three years topsoil was accumulated to support indigenous vegetation. The guiding principle for this project was to bring life back to a dead earth through the creation of functional earthworks. Today vegetation has spread over the seven acres.

Since 1973 my interest in primitive burial grounds has been theoretically important in my sculpture. The mounds symbolize the human bond with the earth: the dead body is given back to the earth for the rejuvenation of life. The Twin Stupas Project was first conceived in 1977 as a prospective massive reclamation of an abandoned surface mine.

The Twin Stupas Project, is in Chicora, Butler County, Pennsylvania, is part of a 22-acre earthwork. Conceived and executed as collaboration with the Pennsylvania Department of Environmental Resources (DER) and the Pennsylvania State Council on the Arts to revegetate and to provide food and cover for wildlife habitats - specifically turkey - by planting birdsfoot trefoil. The living mound is covered with various colors of grasses. It is joined by a spiral to an inverted dead mound of sand and rock; the mounds are 1000 feet in diameter. The height of the living mound is 90 feet, and the depth of the living mound is 40 feet. Project cost was One Hundred and Seventy Thousand Dollars, with a savings to DER of more than Seventy Thousand Dollars in earth moving cost by utilizing the existing topography of spoil piles.

The Tubs Ramp Project, in Wilkes-Barre, Luzerne County, Pennsylvania, (a federal, reclamation program for land and water resources adversely affected by pre-1977 coal mining that is funded under the Surface Mining Control and Reclamation Act of 1977, by fees that coal operators nationwide pay on each ton of coal mine). The Soil Conservation Service of the United States Department of Agriculture, which will entail earth moving and revegetation on about 25 acres of highly hazardous strip-mined land located primarily within the 600-acre Luzerne County Tubs Nature Area, on Wilkes Barre Mountain, overlooking the city of

Wilkes-Barre, the site is highly visible and accessible from routes #81 and #115 and the Pennsylvania Turnpike. The project will consist of four major earthworks - air, earth, water and fire - each work layer interpreting the geological through the industrial history of the site.

The goals of the collaboration between Soils Conservation Service, the County of Luzerne, and interested community groups, are to reclaim lands damaged by mining into a series of functional earthworks, help bring back wildlife habitats, provide food resources for a variety of species, select suitable vegetation giving food and cover for deer, birds, etc. In addition, the sculptural earthwork is a powerful aesthetic entity. The project will be divided into two sections-a passive area, with outdoor rooms, walkways,etc. and an active area, playing fields, playgrounds, etc. The project will deepen the communities understanding of the arts in nature and the on-site events. The land will be owned and maintained by the County of Luzerne.

Oven Run Project, Oven Run, Somerset County, Hooverville , PA. The Reclamation of an abandoned boney pile, and deep coal mine into wetlands. Creating an educational,historic, and scientific center. A community basedproject in collaboration with the US Soil Conservation. Funded by the Heinz Foundation, US Forestry Service. With the inclusion of additional partners such as the PA Dept. of Environmental Protection Bureau of abandoned Mine Reclamation(PA DEP BAMR), U.S. Congressman John Murtha, the Southern Alleghenies RC&D and Conservancy, Mountain Laurel Chapter of Trout Unlimited, Somerset County Commissioner, and other agencies and organizations 6 sites where identified where treatment systems would be constructed. The estimated cost to complete all 6 sites was estimated to be 5 million dollars.

The largest producing mine in the Oven Run watershed was the Ralphton # 15, which recovered coals from the Lower Kittanning seam. It is estimated that more than 3 million tons of coal where mined during the life time of this mine. Although this and other mines in the watershed are no longer in operation these same locations are now the source of over 720,000 gallons a day of abandoned mine drainage (AMD) that heads directly into Stonycreek River. In 1995 the first site was completed at Site D (Oak Trail) to treat a 90 GPM Discharge of AMD impacting the Stonycreek River. Acid levels in the discharge range from 100 to 150 milligrams per liter, iron levels average 40 MG/L and aluminum levels fluctuate between 1 and 5 MG/L. The pH entering the treatment system is 3.5. The treatment system consists of settling pond that provide oxygen and detains water long enough to begin the precipitation of iron and aluminum. The next feature is cattail wetlands that continue to filter out the metals and add alkalinity. The next treatment cell is a successive alkalinity producing system (SAPS). This area has limestone rock and compost in the bottom that the water flows through. The compost chemically alters the iron and allows the acid to react with the limestone and neutralize the acid. When the acid is neutralized the water can no longer hold the dissolved metal and they drop out. The water then enters a settling pond for the remaining iron and aluminum to settle out. A second system of wetlands and SAPS provides the final treatment. The system removes 96% of all metals and increases the pHlevel to a high of 7.2. The site that is owned by Somerset County Conservancy, also includes a self guided interpretive trail. Interpretive signage explains how the systems functions and details other information about the AMD abatement efforts occurring in the region. The Mountain Laurel Chapter of Trout Unlimited provided half of the funding and the volunteer labor for the trail and secured a grant from National Trout Unlimited's Embrace A-Stream Program for the balance of the cost.

Each of these works embodies concepts crucial to farming construction, leisure activities, and for the preservation and enjoyment of wildlife. Each piece is a monument that offers itself not as the art of a museum, but rather the object of a pilgrimage. Our main concern in coal-rich Appalachia is to address the problems presented by abandoned surface mines, and to solve them in a functional way at a minimum cost. Many problems must be addressed-water quality, erosion, protective cover and hazards to health and safety. The most detrimental effect of the abandoned mine surface are the results of its high walls, spoil bands. These problems can be dealt with effectively by benching the high walls, saving what plant life is present planting pines and revegetation of the spoil dumps. By working with the contour of the land there would be less earth to move. The earthworks could be accomplished in cooperation with soil conservation services, forestry's, youth services, sportsmen's club, and other interested citizens. It should be a community project.

As a fellow at the Studio for Creative Inquiry at Carnegie Mellon University, in Pittsburgh PA, I am working in search of alternative ways to reclaim urban and rural abandon industrial waste sites. I seek to bring life back to a dead earth, encourage public awareness of environmental problems through the collaboration between naturalists, industrialists, government officials, community involvement and artist sharing both technical expertise and creative opportunities. The programmatic concepts that I envision present possible plans for reclaiming surface mines even while the coal is being removed.

Art in the final analysis an art of ethics.

I am concerned about the relationship of humanity to the earth.