

HAWAI'I GREEN SCHOOLS AND SPACES PROTOTYPE HONOKA'A HIGH AND INTERMEDIATE SCHOOL

CREATIVE DIRECTOR
CALLEY O'NEILL

DEDICATED TO THE CHILDREN OF HAWAI'I

INTRODUCTION: As a conservation artist, landscape designer, mother of two Honoka'a High School graduates, and teacher, my passion is to make a difference in Hawai'i. My calling is to help create a future that is even better than we can imagine. Throughout history, we have seen that art ignites change! *It is art, not information, to which the most powerful part of us responds.* Our environment profoundly affects people's moods, behavior, and outlooks. People need to see what is possible, and feel that the future holds great potential for them and their children. Toward this goal, I am spearheading **HAWAI'I GREEN SCHOOLS AND SPACES (HGSS)** and have selected Honoka'a High and Intermediate School as the pilot school. The key to success is integrating and energizing the community through art, ecology, education, and agriculture in action that they can see.

RATIONALE: We stand at the crossroads. Given extreme loss of biodiversity, serious climate and ocean change, the fragile state of nature in island ecosystems worldwide and in Hawai'i in particular, we must accelerate our work in recreating a life in harmony with nature. Our actions will determine the quality of life on Earth for the foreseeable future. Our islands are vulnerable to food, water, and energy shortages, pollution, loss of biodiversity, and rising sea levels. Our young people are concerned about the environment, and their future. We need a bold, powerful new story of hope and a vision that provides opportunity for everyone to thrive and creatively contribute. Art can move people into a new level of awareness, sparking the action we need to evolve a robust sustainable society. We must become, and teach our young people to be *konohiki* (skillful stewards of the land and sea) once again ~ on behalf of our 'aina (land) which will sustain our mo'opuna (grandchildren) when we are gone. Upholding ancient Hawaiian deep ecology through powerful works of public art and the transformation of schoolyards into living ecosystems will help ignite students' connection to nature, each other, and the future.

EDUCATIONAL RATIONALE: There is a growing movement of green schools around the world bringing extraordinary measurable benefits to students, staff, communities, and the land.

In 1998, the **State Education and Environment Roundtable (SEER)** published a groundbreaking research study of 40 schools, highlighting the academic and behavioral benefits of developing the environment as an integrating context for learning (*Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning*, Lieberman & Hoody, 1998). SEER developed the EIC model (using the landscape as an Integrating Context for learning) in 1997. The SEER website notes that the primary results reported in *Closing the Achievement Gap* included:

- Higher scores on standardized measures of academic achievement in reading, writing, math, science, and social studies

- Reduced discipline and classroom management problems
- Increased student engagement and enthusiasm for learning
- Greater pride and ownership in students' accomplishments

Since SEER published their original research in 1998, there have been a wide variety of follow-up research projects that confirmed the positive results. The research is impressive and well documented.

One of many institutions **The American Institute of Architects** notes the beneficial characteristics of becoming a Green School: **green school / a school that creates a healthy environment that is conducive to learning, while saving energy, resources and money. This benefits people, prosperity, and the planet.**

A Green School:

- Conserves energy and natural resources, reduce harmful pollutants
- Saves taxpayer money and increases property values
- Brings the community together
- Improves student health, decrease absenteeism
- Helps improve student performance and increase teacher retention
- Employs sustainable purchasing and green cleaning practices
- Improves environmental literacy in students and the community
- Decreases the burden on municipal water and wastewater treatment
- Encourages waste management efforts to benefit the local community
- Conserves fresh drinking water and helps manage stormwater runoff
- Encourages recycling
- Promotes habitat protection
- Reduces demand on local landfills
- Provides a model of sustainable living
- Create jobs and strengthen the economy

The Canadian Biodiversity Institute describes a 'hidden curriculum'.

In the context of school grounds, the hidden curriculum refers to what children learn through their senses from the environments in which they spend a lot of their school lives. The hidden curriculum is what is passively learned through messages received by the senses directly from the environment and the living and non-living things within it. The hidden curriculum is very important because it has a powerful effect on children's behavior and attitude. It affects their sense of safety, well being, of being cared for, respected and valued as well as their comfort, self esteem and interest in learning.

Transforming school grounds means changing barren rectangles of asphalt and grass into stimulating, biologically diverse outdoor classrooms and healthy, enjoyable play and social spaces.

From the U.S. Department of Education: *The aim of U.S. Department of Education Green Ribbon Schools (ED-GRS) is to inspire schools, districts and Institutions of Higher Education (IHEs) to strive for 21st century excellence by highlighting exemplary practices and resources that all can employ. To that end, the award recognizes schools, districts, and IHEs that:*

- *Reduce environmental impact and costs;*
- *Improve the health and wellness of schools, students, and staff; and*
- *Provide environmental education which teaches many disciplines, and is especially good at effectively incorporating STEM, civic skills, and green career pathways*

Currently, most people live far below their capacity to create, and children are educated far below their highest potential. There is so little eco-literacy that people have become fearful of a scant uncertain future. Local school grounds, constrained by liability fears, look more like prison yards than verdant ecosystems. Students learn this is how we treat land ~ as a non-nutritive, low maintenance, meaningless lawn. **HHIS** students will actively contribute to their own health and that of their families, school, community, watershed, and future generations through their creativity, citizen science, and *hana* (work), abundantly transforming the land and lifting the energy of their campus.

Through transforming the school into a meaningful, abundant environment, optimism, community participation and pride will grow. When students learn through the joy of creating something tangible and beautiful, they learn profoundly, as do the adults around them. Educate our children, and activate our community. The fusion of art and ecology can effectively build resilient communities, by putting the children and education at the center, creating landmarks that uplift local consciousness, and attracting visitors who support local culture, food, and business. Relevant public art has the potential to catalyze a community toward a vibrant vision of a bright future for their children. We must actualize our aloha 'aina. Loving where we live IS the solution. Beautiful green places will enable us connect, and express our love of where we live. The long-term overarching vision is to create an abundant, sustainable future with meaningful work for everyone.

As with most public school campuses, the HHIS campus evolved only as needs arose, consequently developing a less than ideal campus layout, with children walking across a public street, and few, if any, inspiring gathering places to foster positive interaction between students, staff, and the land. This speaks volumes to our students of how we value and treat their school, their future, and the land that sustains life.

THE INSPIRATION: Seeing the positive effect of my recently completed Hawai'i State Foundation on Culture and the Arts **KIPAPA ELEMENTARY SCHOOL** inspired HAWAI'I GREEN SCHOOLS AND SPACES. Kipapa Elementary had no public art at all. KIPAPA AND THE PATH OF LIGHT, the first stained glass mural in Hawai'i, is now an iconic landmark. It was created with 3,000 pieces of exquisite handcrafted glass and an 18,000-piece mosaic border created by 115 4th graders and 70 adults from the principal, to the head custodian, families, and political leaders who became immersed in mosaic work. and political leaders who became immersed in intricate mosaic work. Opening the mural's dedication, area superintendent Dr. John Brummell told of a recent district meeting of school leaders at Kipapa: *"Try as I might to direct their focus to other issues, the only thing they wanted to talk about was - the mural!"* KIPAPA AND THE PATH OF LIGHT is uplifting the children and the community. Kipapa led to my second consecutive HSFCA commission at Pukalani Elementary on Maui.

<http://www.CalleyONeill.com/KipapaMural.html>

THE VISION: Conservation artist Calley O'Neill will work with the staff and students of HHIS to create a place and culture based stained glass mosaic mural/s and a Landscape

Master Plan. Based on traditional Hawaiian values, leading edge green landscape practices, and the power of community art, students will work to transform their schoolyard into a replicable model of *lokaʻhi* (harmony), *aloha* (unconditional love), *malama honua* (care for the Earth), *kuleana* (responsibility), *kuhaʻo* (self reliance, confidence), *hoʻohana* (work with intention and purpose), and *hoʻonani* (creating natural beauty). The goal is to elevate student participation into community leadership, and the land into a nutritive ecosystem. Students will be educated to value and participate in the restoration of nature and beauty in their own environment.

As the program develops, HHIS will be encouraged to strive to fulfill the comprehensive requirements to apply for a DOE Green Ribbon School Award by reducing environmental impact and costs; improving the health and wellness of students and staff; and providing multi-disciplinary environmental education incorporating STEAM (science, technology, engineering, art, and math), civic skills, and green career pathways.

THE PROGRAM:

- **ECO-CULTURAL STAINED GLASS MOSAIC MURAL: Elegant, safe, durable, and impermeable, stained glass mosaics last indefinitely with no maintenance.** The creation of a major mural or several smaller murals will be based on the Hawai'i State Foundation on Culture and the Arts Art in Public Places Program process, and community participatory design practices.
 - Conceptual Design and Planning Phase: An Art Committee will be formed, and a wall or smaller walls selected. The committee will decide what grade level or classes will participate, and offer suggestions for a theme. Calley will facilitate a Community Design Charette with the committee and the larger community. Local interviews and research will be conducted. The preliminary Conceptual Design will be created and presented to the Committee for input, suggestions, and approval.
 - Final Design Phase: Final full color design will be prepared and presented for review, final input and approval.
 - Mobilization: Full-scale cartoons, materials list, and budget finalized.
 - Construction Phase
 - Installation Phase
 - Dedication: The school will create the dedication and community outreach.
- **HHIS LANDSCAPE MASTER PLAN: REWILDING AND THE RESTORATION OF NATURE**
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Calley will work with staff and students to design the HHIS Ecosystem Landscape Plan using low maintenance native, ethnobotanical, Hawaiian and mixed cultural and edible plants, trees and shrubs. Students (potentially from AP Art class) will learn how to assess the current landscape, envision what can be, and assist in the research and design of the landscape. Agriculture students and interested volunteers will prepare the soil and do the plantings using directed runoff water and drip irrigation. Phases are as listed above.

- **ZERO WASTE INITIATIVE:** Based on the Oregon Green Schools' Comprehensive Waste Audit, and the Zero Waste initiative at HPA, a Green Team will be established with the help of a local solid waste expert. The team will direct a waste audit to determine what and how much garbage is being thrown away, emphasize

that there is 'no away' (especially on an island) and determine what garbage can be eliminated, reduced, upcycled, re-purposed, composted, or recycled. Rigorous efforts toward Zero Waste are essential to save money, resources, and cultivate an ecological consciousness to move forward.

SYNOPSIS: HHIS has the potential to lead the way in helping Hawai'i public schools become green schools. A fusion of ancient wisdom with the technology, talent, and energy that abound here will provide a solid foundation to create a future that is better than we can imagine. Our future depends upon our students becoming leaders, our communities becoming strong, resilient, and connected, our school systems becoming living ecosystems, and our businesses and economy becoming green and prosperous. After the mural/s and landscape are completed, all efforts will be made to encourage HHIS to move toward water conservation, catchment, energy conservation and green energy generation.

FUNDING: We will seek out private donors to fund the mural and initial landscape improvements. The funding fee for this first phase is \$155,000.

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KIPAPA AND THE PATH OF LIGHT, KIPAPA ELEMENTARY SCHOOL
A 3,000 piece stained glass mural with an 18,000-piece mosaic border was created with handcrafted smalti by 115 4th graders and 70 adults from the school and community.



THE CHILDREN'S GARDEN AT LA'ILANI

© KONA MONTESSORI SCHOOLYARD ECOSYSTEM ©
 MASTER PLAN KONA, HAWAII JULY 1996

a transformation to celebrate and nourish children and the earth.

SCALE - ONE INCH
 EQUALS FOUR FEET

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