

Montessori School of Maui
Native Plant Propagation Program
Grant Proposal Narrative

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Green Mountain College
COM 6070 Grant Writing Workshop

Submitted to Atherton Family Foundation on
29, June, 2018

Atherton Family Foundation Grant Proposal Narrative – [Project Guidelines](#)

Organization: Describe the organization, including mission and history, year established, geographic reach, staff size, and staff capabilities to conduct the proposed work. (Maximum 1,500 character count single-spaced)

The Montessori School of Maui (MOMI), founded in 1978, began by serving eight students in a Quonset hut. Since then, the school, supported by 81 staff members, has evolved into a 9-acre campus in upcountry Maui that serves 275 pre-K through 8th grade students. We are a non-profit 501(c)(3) corporation with an annual operating budget of \$3.9 million and are state licensed and fully accredited by the Western Association of Schools and Colleges and the Hawaii Association of Independent Schools.

MOMI provides a comprehensive curriculum that follows the principles and philosophy of Dr. Maria Montessori's method of education. This approach features a collaborative learning environment that stimulates each student's critical thinking skills, cultivates inquisitive minds, and empowers children to actively participate in the changing environment of the 21st century.

Dedicated board members, staff, and our parent community have consistently united to accomplish our goals and provide an enriching educational experience for the students. Scott Lacasse, the Living Classroom Teacher, holds a B.S. in Landscape Architecture and is currently a M.S. Environmental Studies candidate. During his six years at MOMI, he has successfully completed many projects, several as a result of grant awards, with the help of students and volunteers. Scott is leading the project and will use his two decades of project planning experience, capstone research, and community connections to ensure its success.

Problem or Opportunity: Describe the problem or opportunity to be addressed by the project. Describe the population that will benefit from the project, including an estimate of size or numbers. (Maximum 3,000 character count single-spaced)

Hahai no ka ua i ka ulula'au, "The rain follows after the forest." Freshwater is an essential resource on Maui and is especially important to preserve and manage responsibly. Native forests provide the critical, yet often undervalued environmental services of improved water quality, increased carbon storage opportunities, increased resilience in the face of climate change threats, and reduced risk for invasive species colonization. Less than 10% of native forest cover remains on leeward Haleakala due to overgrazing by feral ungulates, fire, direct human land use, and the vigorous encroachment of invading plant species. It is imperative to bring awareness to the communities of the importance of maintaining healthy watersheds through native forest restoration. This process of educational outreach begins with the construction of a greenhouse on MOMI's campus that will support a collaborative native plant propagation program with the Leeward Haleakala Watershed Restoration Partnership (LHWRP) and the Skyline Conservation Initiative (SCI). This partnership will work together towards restoring Maui's native forests, thereby bolstering the health of our island ecosystems and creating more resilient communities.

Although MOMI's students have successfully propagated and out-planted thousands of native and "canoe" plants throughout the years, (468 plants from seven species this year alone), their overall annual production has been limited by a lack of dedicated space. The native seedlings

compete with our agricultural starts for limited space in the school garden. Additionally, the native plants produced by the students were often suitable only for landscape-level applications and did not meet the strict standards required by seedlings that are placed in restoration and conservation-level areas of the watershed. Plants to be used in these types of applications must be grown using best management practices under environmentally controlled conditions to reduce the risk of transporting pathogens and unwanted species into sensitive areas.

Fiscal support for this unique and relevant project will add a vibrant interdisciplinary approach to the existing project-based Living Classroom curriculum. The students will have the opportunity to directly engage in the economic lessons of trade exchange that result in meaningful community contributions. Concurrently, it will assist the restoration efforts of two prominent organizations by providing consistent amounts of seedlings below market costs. This reduction in per plant expense will potentially allow the restoration organizations to purchase thousands of plants annually and leverage their existing budgets more efficiently.

Project Overview: Provide a general overview of the project. Explain why you chose this approach to address the problem or opportunity. Provide a project timeline. If this is an ongoing project provide past results and achievements. (Maximum 4,500 character count single-spaced)

MOMI is committed to creating a positive relationship between the natural world and our community, and to offering students a personal experience that connects academics to these vital aspects of life. The propagation of native plants from seed to seedling will provide our 275 students with project-based interdisciplinary learning opportunities. The applied botany, ethnobotany, ecology, and economics involved in operating a plant nursery will translate classroom concepts into observable cause and effect. Furthermore, the collaboration between students and organizations fosters the development of communication skills, responsibility for one's actions, teamwork, and empowers the children to become global citizens with sound ecological literacy.

A greenhouse that is dedicated to restoration-level native plant propagation will serve as the basis to:

- Develop a native plant propagation program with support from Anna Palomino of Ho'olawa Farms and Ethan Romanchak of Maui Native Nursery, two pillars at this level of propagation.
- Supply watershed restoration organizations with native plants, at or below cost, suitable for use in their projects.
- Bring awareness of the importance of maintaining healthy watersheds through native forest restoration to the community.
- Generate an upper elementary level interdisciplinary, project-based curriculum that focuses on botany, ethnobotany, language, math, art, trade exchange, and overall awareness, knowledge, and respect for the interconnected ecological processes in our bioregion.

Currently, the Living Classroom curriculum is based on purposeful task-oriented activities reflective of essential garden procedures. Observational skills and investigative approaches are integrated and highlighted within the fundamental activities of composting, planting,

maintenance, and harvesting. Emphasis on sensory and gross motor skill development take place daily within a framework of grace and courtesy. In place of formal teacher-centered lessons, children are presented with the opportunity to choose from a variety of garden works that spark curiosity, build a sense of stewardship, and promote further individual exploration of relevant topics.

The construction of the greenhouse will enable the physical expansion of the Living Classroom to the upper campus and diversify the students' educational experience as they transition to a higher plane of development. The construction process will be embedded in the curriculum and students will participate accordingly. While the fundamental skills associated with plant propagation will be introduced in the traditional garden setting and developed from pre-K through 3rd grade, more challenging concepts will be explored in the native nursery from 4th through 6th grade. This proposed educational framework will facilitate the students' understanding of their interconnectedness to the 'aina and by the time the children reach adolescence in 7th and 8th grade, they will begin to recognize the drivers of change and be better prepared to engage the outside community in social action.

The processes of conceptual nursery and curriculum design, and securing quotes have already begun. However, the additional quotes, in-kind and other funding assurances, and final nursery design will be completed by the end of August this year in anticipation of a favorable response from the Atherton Foundation in September. Once we have been notified of the award, deposits will be placed and the greenhouse, container, and materials will be ordered. The lead-time for the greenhouse to arrive is expected to exceed eight weeks. During that time, we will begin the site preparation work so that the greenhouse and container can be installed immediately upon their arrival in Nov/Dec 2018. The subsequent assembly, roof construction, and fitting-out are expected to last an additional month. In January 2019, with the nursery completed, we will begin production and anticipate an initial generation of 2,500 native plants of two different species by the end of May 2019. Final reporting will be completed and submitted over the summer break and curriculum adjustments will be made based on student, staff, and organizational reflections. If awarded, the grant of \$22,054 would support the educational and environmental missions of multiple collaborating organizations that embody the educational, environmental, and community values cherished and upheld by the Atherton Family Foundation.

Networks and Partnerships: Explain how the organization partners or collaborates with other organizations to achieve its mission. If this project is a partnership, describe each partner's role. (Maximum 2,000 character count single-spaced)

The student-led philanthropy committee provides children with an empowering opportunity to support community-based organizations. This year, they raised \$6,500 and distributed it among: MOMI's Tuition Assistance Fund, victims of Big Island's eruptions, Save the Children, the Montessori School of Oceanside on Oahu to provide flood relief, and the East Maui Animal Refuge to feed the animals. Additionally, the students organize annual campaigns that support Women Helping Women and the Maui Food Bank. Students regularly volunteer their time in support of various local charitable organizations and participate in native species out-plantings with environmental restoration organizations.

Equal consideration must be given to the groups that are supplying social capital for this unique and relevant project. LHWRP, SCI, Ho'olawa Farms, and Maui Native Nursery, which base their missions on environmental education, outreach, and action, have pledged their support and collective knowledge to the success of MOMI's Native Plant Nursery.

SCI has offered the use of a volunteer work crew to help us prepare the site and raise the greenhouse. Additionally, SCI will host wild-sourced seed gathering field trips for the students and support our propagation efforts by purchasing a portion of our native plants. LHWRP has agreed to supply our program with 10% of their wild-sourced seeds and to purchase seedlings.

The partnership between LHWRP and MOMI began in 2016 when 265 students made 7,000 native seed balls to be distributed by the restoration organization. The children, aged 3-14, handcrafted a mixture of native seeds, powdered clay, and water to form seed balls that were scattered across the Nu'u landscape to help restore the watershed. Since then, we have annually contributed 3,000+ seed balls to the effort and in 2017, the philanthropy committee raised 1,200 to aid them in their mission. It is this spirit of reciprocity that demonstrates MOMI's commitment to community.

Activities and Expected Results: See attached Project Matrix

Funding plan: Explain the project budget, including adjustments to be made if not all anticipated funding is received. Describe the plan, if any, to continue funding the project after the grant period ends. (Maximum 2,000 character count single-spaced)

The Montessori School of Maui's native plant greenhouse is an example of a project actualized through community support. In-kind donations in the form of volunteer labor from parents and outside organizations, student/staff participation, and equipment use contribute 35% of the total monetary value, while 6% is anticipated from other funding sources. The remaining 59% will potentially come from the Atherton Foundation, who places the highest value on educational programs and community outreach.

The proposed project and program is an ambitious goal whose success will be measured by its educational and community-impacting outputs. To achieve the highest programmatic and project quality that is essential for restoration-level propagation, all items listed on the attached budget must be installed. The cleanliness and organization achieved through a separation of production activities is essential to growing healthy seedlings and preventing contaminated plants from leaving the nursery. However, should we not receive all of the anticipated funding at once, we will phase the project and adjust production and curriculum to coincide with additional funding as it becomes available.

Phase 1-Prepare the site-\$3,988

Phase 2-Install Greenhouse, Furnish, & Materials-\$10,071

Phase 3-Install Container, Roof, & Furnish-\$8,029

Ongoing financial support for the maintenance, operating, and material costs will be generated from the sale of plants produced in the greenhouse. Restoration organizations have agreed to

purchase quality seedlings at our cost to reimburse the expenses. A percentage of those plants not suitable for out-planting in sensitive areas will be downgraded to landscape quality to be used in public awareness campaigns and sold at a profit to landscape professionals and homeowners. The plant products will also be diversified, and a percentage of space will be designated growing areas for canoe plants and vegetable starts available for sale to the public.

See Also Attached Project Budget and Letters of Support

Atherton Family Foundation Project Matrix

Organization Name: Montessori School of Maui
Project Title: Native Plant Propagation Program

<u>Activities</u> What will you do?	<u>Outputs</u> How much will you do?	<u>Results</u> What difference will you make?	<u>Measurement of Results</u> How will you know?
To address the problem/opportunity, what activities will be completed? Provide details including frequency, duration, etc.	Once the activities are completed, what are the expected outputs of the project? (ex. # of people served, # of tickets sold, # of acres cleared of debris, etc.)	What are the anticipated results of the project? (changes in behavior, attitudes, conditions, knowledge, skills) (ex. 80% (16/20) of participants increase knowledge)	What will you use to measure results? (ex. surveys, pre/post tests, observation, etc.)
Design and construct a native plant propagation nursery – 4 Months <ul style="list-style-type: none"> Finalize the location and overall design Obtain quotes for the necessary work/materials Order the materials Prepare the site according to the final design Install and furnish the 24'x36' greenhouse Install and furnish the 8'x20' storage container Construct the container roof and workspace overhang 	<ul style="list-style-type: none"> One 24'x36' greenhouse and the necessary supporting accessories will be designed and constructed and support 275 students. 	Shorter-Term <ul style="list-style-type: none"> The Living Classroom program will be expanded in an intentional and meaningful way. An increased supply of native plants is available for watershed restoration efforts. Collaborative community partnerships will be strengthened. Intermediate <ul style="list-style-type: none"> A consistent supply of native plants will increase the landscape-scale restoration efforts of the partnerships. Additional watershed partnerships will be added to the collective. Longer-Term <ul style="list-style-type: none"> Other schools (statewide) will develop and implement similar collaborative programs. 	<ul style="list-style-type: none"> One 24'x36' greenhouse and the necessary supporting accessories will be designed and constructed

*Grant recipients will be required to submit a Final Report Project Matrix reflecting the accomplishments in completing the activities, outputs, and results cited in the proposal.

		<ul style="list-style-type: none"> Educational outreach programs will be generated from within the watershed partnerships. 	
<p>Develop and implement plant propagation protocol – Ongoing Weekly</p> <ul style="list-style-type: none"> Ongoing consultation with collaborative partnerships re: best propagation practices Ongoing consultation with collaborative partnerships re: required plant species Ongoing record keeping of successes, failures, and reflections (students and teacher) 	<ul style="list-style-type: none"> Up to 5 different species of native plants will be propagated annually to supply the restoration organizations totaling 5,000 plants annually for a gross profit of 10,000 to support the maintenance and material needs of the program. 	<p>Shorter-Term</p> <ul style="list-style-type: none"> A data set that contributes to the local propagation body of knowledge will be created to inform others of successes and failures <p>Intermediate</p> <ul style="list-style-type: none"> The accumulated data will be able to be analyzed for trends and patterns. <p>Longer-Term</p> <ul style="list-style-type: none"> The collective data from all the participating organizations will serve conservation organizations throughout the Islands. 	<ul style="list-style-type: none"> Feedback from partnerships on plant seedling mortality. Number and location of seedlings outplanted.
<p>Develop and implement supportive project-based plant propagation curriculum – 5 Months</p> <ul style="list-style-type: none"> Continue research and development of masters capstone applied professional project Create Botany/ Plant ID Lessons Create Field Journaling/Observation 	<ul style="list-style-type: none"> Weekly journaling by students and teacher will result in an individual project report at the end of each propagation cycle. The curriculum developed for my graduate capstone project will address and satisfy the outlined activities and the outlined activities will help refine my proposed curriculum 	<p>Shorter-Term</p> <ul style="list-style-type: none"> Students will learn new skill sets of cultural use, plant ID, propagation, husbandry, observation, record keeping, watershed health and interconnectivity, and economics. <p>Intermediate</p> <ul style="list-style-type: none"> The accumulated data will be able to be 	<ul style="list-style-type: none"> Student, staff, and organizational surveys (Pre and post) to ascertain learning and retention. Documentation of Student self-assessments in addition to the service-learning “business / management plans,” on an annual basis.

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<p>Practices</p> <ul style="list-style-type: none"> • Create Seed preparation and plant husbandry lessons • Integrate cultural use lessons 		<p>analyzed for trends and patterns.</p> <p>Longer-Term</p> <ul style="list-style-type: none"> • The collective data from all the participating organizations will serve conservation organizations throughout the Islands. 	
<p>Community Outreach – Ongoing</p> <ul style="list-style-type: none"> • Let the community know about the collaborative successes taking place through press releases, professional journal articles, school website updates, and social media. 	<ul style="list-style-type: none"> • One journal article will appear in a professional publication after the first successful propagation cycle. • Press releases will be sent out at the commencement and conclusion of the first propagation cycle. • Biannual newsletters highlighting the project's status will be posted to the school website. • Social media will be copiously flooded with footage of the students engaging in the program's activities. • The extra plants not utilized by the partnerships will be sold at fundraising events. Information about the native plants (where to plant them, cultural uses, etc) will be generated by the students and provided to the buyer, thereby increasing awareness. 	<p>Shorter-Term</p> <ul style="list-style-type: none"> • Education and awareness of the importance of native plants to our watershed health will increase. <p>Intermediate</p> <ul style="list-style-type: none"> • Students and parents will make lifestyle choices that benefit our watersheds. • Students and parents will become more involved in community projects. <p>Longer-Term</p> <ul style="list-style-type: none"> • The health of the watersheds will improve and impact the resiliency of our communities. • Students and parents will become inspired to plant natives on their own properties. 	<ul style="list-style-type: none"> • Number of Community restoration/resilience meetings, including attendance and holistic list of potential actions community members agree to participate in. • Student, staff, and organizational surveys (Pre and post) to ascertain learning and retention.

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Montessori School of Maui - Native Nursery Program Capital Needs					
6/27/18					
EXPENSES	CASH REQUIRED	IN-KIND CONTRIBUTIONS	*OTHER INCOME	TOTAL PROJECT	SECURED / PENDING
Site Preparation					
Removal of (3) Trees	\$1,500			\$1,500	QUOTE SECURED
Volunteer Wood Chipper Machine		\$300		\$300	PENDING
Volunteer Loader Machine		\$750		\$750	SECURED
(28cy) 3/4" Gravel	\$1,500			\$1,500	QUOTE PENDING
(1) 12'x300' Roll Weed Barrier	\$350			\$350	QUOTE SECURED
(1) Pkg Barrier Clips	\$20			\$20	QUOTE SECURED
MOMI Supervisor		\$200		\$200	SECURED
Volunteer Labor		\$1,000		\$1,000	SECURED
Student Participation		\$750		\$750	SECURED
24'x36' Greenhouse					
Greenhouse Unit	\$4,022			\$4,022	QUOTE SECURED
Freight	\$950			\$950	QUOTE PENDING
Delivery		\$150		\$150	SECURED
Windscreen (shade cloth, rigging, & footings)	\$375			\$375	QUOTE PENDING
(1) 12'x300' Roll Weed Barrier	\$350			\$350	QUOTE SECURED
(1) 50# Box 3/8"x12" Galv. Spikes & Washers	\$125			\$125	QUOTE SECURED
(12) 8"x36" Concrete Footings	\$420			\$420	QUOTE SECURED
(2) 4"x3'x4' Concrete Entry Pads	\$136			\$136	QUOTE SECURED
Compactor Rental	\$100			\$100	QUOTE PENDING
Concrete Mixer Rental	\$150			\$150	QUOTE PENDING
Rental Delivery		\$150		\$150	SECURED
Irrigation - (PVC, 1/2" tubing, connectors, & emitters) (mainline & valves already installed and operational)	\$525			\$525	QUOTE PENDING
MOMI Supervisor		\$500		\$500	SECURED
Volunteer Labor		\$4,000		\$4,000	SECURED
Student Participation		\$750		\$750	SECURED

Greenhouse Furnishings					
(12) 3'x8' Benches	\$2,100			\$2,100	QUOTE PENDING
(1) 30"x20"x72" Plastic Storage Cabinet	\$200			\$200	QUOTE SECURED
MOMI Supervisor		\$75		\$75	SECURED
Student Participation		\$750		\$750	SECURED
8'x20' Storage Container					
Container, Freight, Delivery	\$6,250			\$6,250	QUOTE PENDING
MOMI Supervisor		\$75		\$75	SECURED
Volunteer Loader Machine to Set		\$300		\$300	SECURED
Container Furnishings					
Shelving	\$500			\$500	QUOTE PENDING
MOMI Supervisor		\$75		\$75	SECURED
Student Participation		\$750		\$750	SECURED
Container Roof & Overhang					
*Roof Structure and Workspace Overhang			\$1,500	\$1,500	INCOME PENDING
(6) 8"x36" Concrete Footings	\$210			\$210	QUOTE SECURED
Work Benches	\$450			\$450	QUOTE PENDING
MOMI Supervisor		\$400		\$400	SECURED
Volunteer Labor		\$800		\$800	SECURED
Student Participation		\$750		\$750	SECURED
Tools					
*Hand Tools, Sprayers, 100 gal bin, containers, etc			\$500	\$500	INCOME PENDING
Materials					
*Potting Soil, Pots, Fertilizers			\$500	\$500	INCOME PENDING
Wild-Sourced Seeds (LHWRP)		\$665		\$665	SECURED
HI Sales Tax (4.166% on total purchased)	\$843			\$843	
5% Contingency	\$1,012			\$1,012	
TOTALS	\$22,088	\$13,190	\$2,500	\$37,778	
	CASH REQUIRED	IN-KIND CONTRIBUTIONS	*OTHER INCOME	TOTAL PROJECT	
*NOTE: Additonal Grant Funding anticipated by the Kokua Foundation Mini-Grant and Hawaii Youth Sustainability Challenge Funding Programs					



June 25, 2018

Dear Atherton Review Committee,

Skyline Conservation Initiative (SCI) strongly supports Montessori School of Maui's (MOMI) proposal to establish a native plant propagation facility. This facility will support conservation programs Island-wide who depend on growing high quality native trees and shrubs for outplanting.

MOMI has provided remarkable support of SCI for many aspects of our conservation work. Every year, MOMI middle school students participate in a series of volunteer trips to help install and maintain the SCI native forest restoration project area on Haleakala Ranch. SCI supports MOMI's commitment to conservation and pursuit to expand their facility in order to propagate high quality plant material on campus.

SCI is excited to expand our experiential and educational partnership with MOMI. With the development of a plant propagation program, students will be able to help us collect seeds from wild native plants and learn how to germinate and care for them. These same students will be invited to return to our restoration site and plant the species they have nurtured and watch them grow in a place they will always be welcome to visit throughout their lives. This is a valuable tool for students to establish a deeply rooted respect for the importance of native habitat restoration in our island community.

Skyline Conservation looks forward to seeing continued success of MOMI's living classroom programs and is proud to call them a supporter and collaborator in conservation. We strongly recommend that the Atherton Family Foundation support the Montessori School of Maui's proposal for 2019 funding.

Thank you for this opportunity,

Sincerely,

Joseph Imhoff
Program Manager
Skyline Conservation Initiative



The Leeward Haleakalā Watershed Restoration Partnership

3620 Baldwin Ave., Suite 202/203, Makawao, HI 96768

Ph. (808) 573-8989

Fax (808) 573-1932

www.lhwrp.org

Dept. of Hawaiian Home Lands
Dept. of Land & Natural Resources
Haleakalā National Park
Haleakalā Ranch
Ka'ono'ulu Ranch
Kaupō Ranch
Nu'u Mauka Ranch
'Ulupalakua Ranch

June 26, 2018

Memo regarding LHWRP support for Montessori School of Maui's proposal to Atherton Family Foundation

Aloha no,

The Leeward Haleakalā Watershed Restoration Partnership (LHWRP) was formed in 2003 to protect and restore more than 43,000 acres of upper elevation watershed from Makawao through 'Ulupalakua to Kaupo. In doing so, freshwater availability, native biodiversity, cultural resources, and economic opportunities will also be perpetuated. Engaging the community - especially local youth - in conservation efforts is a central to LHWRP's approach to restoration. Ensuring that Maui youth gain an understanding of the unique natural and cultural history of the Hawaiian islands, develop a sense of stewardship for these resources, and are exposed to career paths in the fields of science, technology, and conservation is important to our landowners and our staff.

LHWRP developed a relationship with the Montessori School of Maui's Makawao campus nearly 15 years ago, working with the "wili wili class" to share the plight of the wili wili trees that were at that time being plagued by the invasive Erythrina gall wasp. This connection was deepened when one of our staff's children became a student at MOMI. LHWRP was invited to share our efforts with the school at a 2016 Earth Day event, and since then has continued to engage with Scott Lacasse and students of all ages in hands-on educational opportunities.

We are excited about the opportunity to further develop this relationship as well as the students' abilities to understand plant propagation, restoration processes, native species identification, and ethnobotany through the proposed Native Plant Propagation Program. This program will enable LHWRP to continue to engage with MOMI students in a novel and meaningful way, and to have an additional source for native plants to be used for restoration. LHWRP supports MOMI's application for funding, and looks forward to the opportunity to share our knowledge and contribute to Maui youth and native forest restoration efforts through this new collaboration. Please contact me with any questions.

Mahalo for your consideration and support,

Andrea Buckman, LHWRP Program Manager

Summary of Qualifications:

Recognized for offering a passionate commitment to promoting ecological literacy and sustainability leadership in our children through real-world learning environments. Demonstrated organizational, research, and instructional abilities. Articulate and engaging communicator: speaking and writing with proven virtues of clarity, strength, and style. Consistently exhibiting adaptability, resourcefulness, and creative problem-solving skills to achieve viable and conscientious solutions. Characterized as a quick study and willing contributor. Possessing a natural ability to collaborate with others and attain excellence in all endeavors.

Education:**Master of Science in Environmental Studies:** GPA 4.0/4.0**Sept. 2017 expected July 2019***Green Mountain College - Poultney, VT***Bachelor of Science in Landscape Architecture:** GPA 3.58/4.0**Sept. 1999 - May 2002***University of Massachusetts - Amherst, MA***Relevant Experience:****K-8 Outdoor Living Classroom Teacher****April 2013 - Present***Montessori School of Maui - Makawao, HI*

- Currently developing a K-8 vertically integrated, project-based environmental curriculum in alignment with Common Core and Next Generation Science Standards and rooted in the pedagogy of Dr. Maria Montessori and the practices of 'āina-based learning.
- Developed a K-6 organic garden curriculum comprised of hands-on and purposeful task-oriented activities reflective of necessary garden procedures and methodologies.
- Lead specialist for middle school students' design/build of native plant rain gardens, campus recycling and composting centers, and agricultural development projects.
- Lead faculty for the student-run Sustainability Committee, which initiated water conservation, single-use plastic, and watershed restoration campaigns.
- Implemented campus-wide food and green waste composting practices utilizing a student-constructed composting center and grant-funded solar-powered compost tea brewer.
- Created an indigenous plant seed banking, propagation, and out-planting practice. Annually coordinated 270 students in the creation of 5,500 native plant seed balls for field distribution by the Leeward Haleakalā Watershed Restoration Partnership.
- Independently drove program expansion, under budget, through resourcefulness, enlisting volunteer support from the community, and grant writing.

Grant Writing & Reporting:

- Anticipating a \$23,000 capital grant to install on-campus greenhouses in support of a collaborative, community-based native plant propagation program between students, local watershed restoration partnerships, and nurseries.
- Awarded a \$1,000 Hawai'i Youth Sustainability Challenge grant to install an off-grid solar powered compost tea brewing system.
- Awarded a \$500 Hawai'i Farmers Union grant to study the effects of cultivated indigenous microorganisms on soil tilth with students.
- Awarded a \$500 Sustainable Living Institute grant to construct a chicken coop utilizing indigenous microorganisms and Korean Natural Farming practices.

SCOTT LACASSE

<http://www.lacassefinearts.com/>

PO Box 1641 ♦ Makawao, HI 96768 ♦ (808) 757-8688 ♦ oneifbylandenv@gmail.com

Relevant Experience Cont'd:

K-12 Substitute Teacher II #20075032

Aug. 2012 - April 2013

Hawai'i Department of Education - Maui County

- Successfully carried out teacher lesson plans and ensured the safety of students.
- Personally requested by teachers at all levels in multiple schools on Maui.

Company Owner & Landscape Designer

Jan. 2005 - May 2014

One If By Land Environmental Design LLC - NH, FL, HI

- Consistently delivered complex construction documents on time, within budget, and following applicable zoning regulations.
- Created administrative systems and protocols to efficiently market and manage a small landscape design business with multiple clients in several states across different time zones.
- Highlighted local projects include Pohaku Park rain gardens, Lokelani Intermediate's school garden design, and the Peace Garden design and construction at the Montessori School of Maui.

Project Manager & Landscape Designer

June 2002 - Dec 2004

Brad Smith Associates - Melbourne, FL

- Simultaneously managed multiple design projects and was responsible for meeting in-house, client, and interdisciplinary deadlines.
- Facilitated the efficient exchange of design information between numerous agencies, contractors, and clients within complex projects such as wildlife habitat restoration, county parks, institutional, large-scale residential mixed-use subdivisions, mitigation, high-end residential, and commercial landscapes.

Certifications:

PADI SCUBA & First Aid Instructor - Lahaina, HI

Sept. 2009

USCG 100 Ton Master Near Coastal License - Lahaina, HI

July 2010

Volunteer Work:

Community Garden Design Consultant

2012-2013

University of Hawai'i Sustainable Living Institute of Maui - Kahului, HI

PhD Candidate Research Volunteer

2010-2012

SCRIPPS Institute of Oceanography - Ka'anapali, HI

Volunteer Deckhand

Summer 2007

LYNX Educational Foundation - Hawai'i, Maui, Oahu

Medical Mission Volunteer

Fall 2005

Damien House - Guayaquil, Ecuador

Watershed Action Volunteer

2003-2004

St. John's River Water Management District - Brevard County, FL

Software Proficiencies:

Microsoft Office, G Suite, Adobe Photoshop, Lightroom, Acrobat, Word Press, and AutoCAD