'ĀINA-BASED LEARNING IS NEW OLD WISDOM AT WORK

Brandon C. Ledward

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people, communities, and lands thrive. 'Āina refers to the land, sea,

and air—all that feeds and sustains us. As Hawaiians we have a

powerful kinship to the 'āina. This familial connection continually

reminds us of our kuleana (responsibility) to each other and to the

planet. The 'āina is as much a theater for learning as it is a repository

of life. 'Āina can be a teacher, a classroom, and a living laboratory for

education in next-century skills, sustainability, and self-determination.

It provides a rich context for developing critical thinking and problem

solving, communication and team-building, and political conscious-

ness. There are obvious connections between science and technology,

resource management, and 'āina-based learning that speak directly

to stewardship, ecological literacy, and Hawai'i's potential role as a

sustainability leader in tomorrow's world.

CORRESPONDENCE MAY BE SENT TO:

Brandon C. Ledward, 'Āina-Based Education Department, Kamehameha Schools

567 South King Street Suite 400, Honolulu, Hawai'i 96813

Email: brledwar@ksbe.edu

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Hū! Aloha mai kākou (greetings). My name is Brandon Ledward, and the big idea I want to share with you today\* is 'āina-based learning—what is it and where can it take us in the 21st century? With increasing interdependencies linking distant communities, the world is becoming a kind of global island. And like any island, the survival of its people rests on how well you manage your resources. Wouldn't you agree that Hawai'i has much to share with the world when it comes to understanding and protecting diverse ecological systems? After all, we have existed as part of Hawai'i's ecological landscape for centuries.

But before getting wrapped up in discussing whether or not there is a global ecological crisis on the horizon—one where 'āina-based learning represents a positive intervention—let's back up and start with a story. The year is 1976. Cast your mind back to that time. Disco was king of the charts, America was celebrating its 200th anniversary of independence from British rule, and an unknown company called Apple Computer had just been launched out of a garage by three guys. It was a crazy year, a year of new possibilities. It was also the year that I was born in the beachside town of Kailua, O'ahu.

There were incredible and extraordinary things happening in Hawai'i that year as well. Maybe you can remember some of them. Hōkūle'a, a Hawaiian sailing canoe, made its journey from Hawai'i to Tahiti guided by the stars. That intrepid voyage proved how successful ancestral wayfinding techniques could be. It also propelled a wider social movement and a renewed interest in long-distance voyaging among Pacific Islanders. In that same year, we also saw a group of Hawaiians from the Protect Kaho'olawe 'Ohana attempt a reoccupation of Kaho'olawe, an island that was being used by the military for live fire training exercises. The careless bombings were considered a desecration. Although the protestors were eventually captured, their actions set the stage for an eventual return of Kaho'olawe. Those are the kind

...how many children still find themselves stranded in their classrooms today? of social fireworks I was born under, what people often refer to as the "Hawaiian Cultural Renaissance." It was bursting at the seams.

I find it strange that while there was so much change going on outside, most of my educational life was spent inside the four walls of a classroom. I could look outside the window and see things happening, but inside the

classroom I was taught about pilgrims and forefathers from textbooks. And the only time I really spent outdoors was during recess. But you know, I think my

experience as a Hawaiian in public school was pretty typical for a child at that time. A question worth asking is, how many children still find themselves stranded in their classrooms today?

I had very little exposure to Hawaiian language, culture, and history in school. When I finally did get to take a Hawaiian class it was in the ninth grade, and I was really excited. It turned out to be taught by the assistant gym coach who was not necessarily qualified to teach the class. He promptly delivered one book to us about the Great Mahele, the land redistribution act of 1848. It didn't really mention the generations of history before 1848 or the current struggles being faced by Native Hawaiians today. That was the whole course, just one book!

And it gets worse. If you wanted a passing grade in the class, all you had to do was show up on the last day with a cheesecake. True story. It had been happening for years, and all the kids knew about it. You didn't have to read the book, you didn't really have to do anything except show up on the last day, give the gym coach his cheesecake and you got your passing grade. So, that's what Hawaiian education was worth at the time I was going to school. To some people, it was worth a slice of cheesecake.

We can celebrate the fact that today, there are Hawaiian language immersion schools and Hawaiian-focused charter schools that are creating culturally relevant teaching and learning environments for our keiki (children). What is a culturally relevant teaching and learning environment? From a Hawaiian perspective,

it's one that begins with our people, our culture, and our 'āina at the center of education. That being said, one of the most important vehicles for teaching our culture is the 'āina, and it goes back to that new old wisdom that we are talking about today.

'Āina-based learning sounds catchy, but what is it? I offer a simple definition. 'Āina-based learning is teaching and learning through 'āina so that our people, our communities, and our lands thrive. It's an old formula about what matters most and how best to get things done.

... 'āina can be a teacher, a classroom, and a living laboratory.

But let's unpack this idea some more. It's not just teaching *about* 'āina. You could learn that as a content area. Instead, you're learning *through* 'āina, it's the lens through which the instruction occurs. It's exciting when you realize that 'āina can be a teacher, a classroom, and a living laboratory. And who benefits from this approach? It's not just the individual learner. It must also be about community empowerment and the restoration of biocultural landscapes.

When you think about it, 'āina-based learning was the dominant form of education that our people had for generations. It was only in the past 200 years that schooling has taken place in a classroom. We don't have time to unpack the nuanced significance of 'āina here. It would take a lifetime of TED talks to unpack what 'āina means, but suffice it to say 'āina refers to the land, sea, and air—all that feeds and sustains us. As Hawaiians we have a powerful kinship to the 'āina. It's a familial connection, one that continually reminds us of our kuleana (responsibility) to each other and to the planet. The importance of these relationships are inscribed on the land—symbolically through mo'olelo (stories) and physically through the creation of cultural sites. As such, the 'āina is as much a theater for learning as it is a repository of life.

We are trying to do more of our teaching and learning outdoors. Here is a photo of a group of students who are learning about the delicate ecosystem of a dryland forest. Today less than 5% of the world's pristine Native Hawaiian dryland forests remain intact. Kaʻūpūlehu on the west side of Hawaiʻi Island is one of those special places. Some of the lama trees growing there are nearly a thousand years old. In this setting, students are gaining the firsthand experience of being in an ancient forest. They're hearing from community experts, they're working shoulder to shoulder with scientists, they're studying the unique biodiversity in the area, and they're coming to appreciate their 'āina as a rich source of knowledge and a launch pad for future career aspirations.

Educational reform in the United States includes numerous attempts to reduce the gap between indigenous students and their peers in the classroom. Some of the promising models over the years have been culture-based education, place-based learning, and more recently, 21st-century skills. Now advocates of 'āina-based learning would say, "You know what? This is old new wisdom at work. This is 'āina-based learning." They would argue that there are enduring cultural principles operating within these different frameworks and that they can be easily brought together in the delivery of 'āina-based learning.



2012, BRANDON LEDWARD

One centralizing feature of these educational frameworks is the idea of making learning relevant, practical, and meaningful. It's about engagement. It's about grabbing them from the inside and igniting their curiosity. Teachers can see engagement when it happens. It's as clear as day. Hawaiians have a saying, "He aliti ka 'āina; he kauwā ke kanaka" (the land is chief, we are its servants). This proverb speaks to the great respect Hawaiians have for the land, and it references the understanding that the land is a teacher, a source of knowledge. Our kūpuna (ancestors) not only recognized this fact, they celebrated it as well.

There are three broad areas where I think 'āina-based learning can lead us into the 21st century. The first area is in the development of next century skills. I like the notion of next century skills because it sounds like they'll never go out

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of style. To fully meet the challenges of today and to better anticipate the world of tomorrow, a blending of ancient and modern wisdom is needed. It involves synthesis—putting different ideas together. And it requires a deep understanding of how systems work. We know that our Hawaiian islands hold great significance for scientists; they've been studying islands for years. Charles Darwin's theories on the Galapagos propelled the world into a new understanding of humanity. And his theories were rooted in observations made on islands.

In this next picture, we see students sharpening their critical thinking and problem solving skills by taking water samples and making observations of nearshore marine life at a stream system in Puna on Hawai'i Island. They are gaining those same sorts of skills. These kinds of firsthand experiences allow students to better understand and appreciate the complex ecological systems at work. Each year, companies like DuPont spend millions of dollars on educational initiatives aimed at generating interest in STEM (science, technology, engineering, and math) careers. It's an area, sadly, where the United States is falling behind.



2012, BRANDON LEDWARD

Here at home, we have grassroots programs promoting scientific thinking through encounters with the 'āina. Students get to experience not only what it is like to solve real-life problems through inquiry-based learning, but they are also connecting the knowledge gained with enduring cultural principles like mālama 'āina (to take care of, preserve, protect the land) and kuleana—critical values that underpin the ahupua'a (land division usually extending from the uplands to the sea). Teachers and students who experience 'āina-based learning will tell you it's exciting when you see it all come together.

Other important skills that our keiki will need in the next century are effective communication and teamwork. Working together on the 'āina provides an opportunity for these skills to be developed—especially when you integrate project-based learning. Like a canoe paddling team, you have to set a vision for yourselves and get in sync, lauhoe, paddle in that same rhythm, and you have to work through challenges. The one thing we know about the 'āina is that it can be unpredictable. Things can change on you in a flash.

However, if you spend enough time immersing yourself in the elements, you can better anticipate changes. Imagine if you could sense an impending weather change with your skin rather than your iPhone! At any rate, when you're on 'āina things don't always go as planned. But how you deal with life's setbacks as an individual or as a team member can be a powerful teaching moment. For example, if you decide to plant one day and it rains, are you going to keep to the plan or shift your gears and do something else? How you meet challenges, mitigate conflict, and ensure cooperation are critical skills our keiki need to develop in addition to basic content areas like math, science, and language arts.

Another major area that 'āina-based learning can speak directly to is sustainability. For some people it's a new concept. But for island people this is how we live. When you are surrounded by miles of ocean, you come to depend heavily on the resources that are available to you. In addition, you have to think about the long-term consequences of the actions you take today—important skills for our young generation to learn. This is a picture of students doing mahi 'ai (planting food crops). For myself, the first time I set foot in a lo'i (irrigated taro field) was in college at Kānewai. It took me that long to feel the mud between my toes. Now our kids are getting out there and they're planting kalo (taro), they're planting 'uala (sweet potato), and they're planting 'ulu (breadfuit). And in the process they're learning about where they get their food from and what their food source means

to them. It's an important activity in today's world where most of us purchase our food from stores. Planting is something that keiki can practice in their home, and it helps them have a different relationship to food and to their 'āina. One of the challenges many kids face is that they may not have access to 'āina. So if schools can provide access to "growing spaces" that's all the better. You could even accomplish this with a container garden. Hoa 'Āina o Mākaha has been doing this with elementary school students and their families for years. But what you hear time and time again from students is that they're learning so much from the practice of gardening.



2011, MICHAEL YOUNG

'Āina-based learning is not just happening on the ma uka (inland) side, it's on the ma kai (sea) side as well. And if you take this approach deeper you can even

'Āina-based learning is not just happening on the ma uka (inland) side, it's on the ma kai (sea) side as well. learn about community-based sustainable economic development. These are some youth cleaning limu (seaweed) at Paepae o He'eia on the windward side of O'ahu. They're selling an invasive type of limu to raise money for their educational

programming and to finance the restoration of the fishpond. By the way, you have to marvel at the scale and efficiency of aquaculture that our kūpuna perfected with loko i'a (fishponds). Loko i'a, like stand-up surfing, are Hawaiian inventions. At the height of production, He'eia fishpond could sustainably feed thousands of people.



2011, MICHAEL YOUNG

The last thing I want to talk about is self-determination, which is a pointed issue for Native peoples. How do we ensure the perpetuation of our Native culture? How do we get to a platform of a preferred future for our keiki? I've come to discover that 'āina has a lot to say in that department. It all starts with having a different relationship, a kinship and kuleana to Hawai'i nei. When I started to learn more about our relationship to kalo and our link to Hāloa, it changed my attitude completely. For some of our kids, when they are out there in a lo'i kalo or in an 800-year-old fishpond they start to understand that they are descended from genius. They come to believe that our kūpuna were master scientists, architects, and engineers, and that has a powerful impact on the trajectory of their learning. Not surprisingly, cultural pride can lead to the development of a new political consciousness.

This is a picture taken a couple of years ago right here on the University of Hawai'i Mānoa campus at Bachman Hall. College students and community members organized a protest against GMO (Genetically Modified Organism) technologies for kalo. What was really meaningful about that day is that in addition to all the adults protesting, there were classes of kids as young as 10 years old getting up and talking about what they believe is right and wrong. It's a powerful thing when our keiki learn civic engagement and political literacy through experiences with the 'āina. And we need to move the meter in this area, it has been coming for a long time for Native peoples. But how do we get to that next level? How do we build relationships with the 'āina so it can sustain us in the direction we want to go in the future? After all, self-determination begins with the power of authentic choice. And if we can't reckon our own educational context, we're going to keep getting passed by.



2006, BRANDON LEDWARD

So what is it worth? What is this type of educational approach worth to you? What is the value of 'āina-based learning? For me, I think of my kids. I have three young boys. Here are two of them. They're at Ha'ikū stream in Waipao. We spent a day

with the folks at Papahana Kuaola, and I saw my boys light up. I was so glad that they got to experience outdoor learning at a younger age than I did. I think a lot about the educational experiences that they'll encounter, and I can tell you, as a parent, their education is worth way more than a slice of cheesecake! I don't want them to come to school one day and be told they can bypass a meaningful education by handing in a cheesecake to their teacher.



2012, BRANDON LEDWARD

So I ask you as parents, is it worth making a phone call to your schools and finding out what 'āina-based learning opportunities your keiki are experiencing? Teachers, is it worth educating yourself about 'āina-based learning and exploring the resources available in your community? Principals, is it worth throwing your support behind culture and 'āina-based programming so that keiki—all keiki regardless of ancestry—can benefit from a relevant learning environment? And finally, funders and landowners, is it worth putting the financial conditions in place that allow access to land so that 'āina-based learning can take root and thrive across our islands?

I'm fortunate to work at Kamehameha Schools (KS) and with community partners who are advancing 'āina-based learning every day. I learn so much on the job. There's tremendous work that has been done on Oʻahu by Kaʻala Farm, MAʻO Organic Farms, and Paepae o Heʻeia, on Maui by Ma Ka Hana KaʻIke, on Kauaʻi by the Waipā Foundation, and on Hawaiʻi Island by Hawaiʻi Forestry Industry Association and Three Mountain Alliance. These are just a few examples of strong 'āina-based learning sites across our islands. Last year, Kamehameha Schools' 'Āina Ulu program served over 50,000 learners through community-based

We have to think about 'āina-based learning as more than a huaka'i, a one-time field trip. nonprofits operating on KS lands. This number has grown exponentially from double digits in 2000. And the demand for 'āina-based learning continues to grow.

Although we've achieved a lot, there's still so much more work to be done. Now we need to take it to the next level. We have to think about 'āina-based learning as more than a huaka'i, a one-time field trip. We can't be content with spending a few hours in the lo'i and then returning to the

classroom to learn "real" things. We need to get our keiki to ho'opilina 'āina (grow closer to the land) through learner pathways that extend across multiple years. Imagine if every school had an 'āina-based learning lab where children strengthen their sense of place, build new cultural connections, and apply their knowledge and skills to matters that affect their community. Imagine the growth for our learners, our communities, and our land.

To get to this point we need to reinforce the links between schools and 'āina-based learning sites. And this process begins with bridgework between teachers and community partners. They each have much to contribute to this project. And they each have areas in which to build capacity further, whether it's in project-based learning or achieving common core standards. We also need to articulate new curricula tailored to each specific learning site, and there are wonderful examples to draw from. The real value will materialize as learners cycle through multiple experiences with their 'āina to learn a wider range of content. Of course, there are real challenges that need to be tackled along the way, especially when dealing with a precious commodity like instructional time. Besides that, there are funding concerns, transportation needs, and so on.

However, on the bright side, I see a convergence of agendas shaping up. The latest update to the Hawai'i Department of Education (DOE) Strategic Plan 2011–2018 outlines a commitment to establishing real-world learning environments that will better prepare students for success in college, careers, and citizenship. There is also greater emphasis placed on forging student connections to their 'ohana (family), their communities, and the 'āina. And the DOE realizes that the way to achieve this vision is through strong community partnerships. So why not invest in 'āina-based learning?

In addition, the formation of career pathways in public high schools provides a rich venue for more intensive 'āina-based learning—especially since one of the pathways is Natural Resource Management. This pathway often attracts learners who are interested in agriculture, culinary arts, business, forestry, and archeology, to name a few. Precisely because students choose a pathway that relates to their aspirations and skills, they are more likely to engage other core subject areas when provided by teachers who frame the lessons in the context of the overall career pathway. So this is where the Career and Technical Education strands within the DOE can become really significant in providing access to learners.

In the postsecondary educational landscape, the University of Hawai'i (UH) System has identified several strategic outcomes that link up well with the DOE's objectives. Along with expressing a desire to become a Hawaiian place of learning, UH Mānoa, UH West Oʻahu, UH Hilo, and the Community Colleges have made a commitment to increase degree attainment among Hawaiians, to improve enrollment

rates from local public and private schools, and to produce more graduates in STEM fields. What better resource do we have for accomplishing all these goals than our people, our communities, and our 'āina?

I believe the timing is right, that there's a window now open for us to insert these changes into our educational system. There are obvious connections between STEM, resource management, and 'āina-based learning. Like me, you're probably beginning to see a few compelling themes light up...

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stewardship, ecological literacy, and Hawai'i's potential role as a global leader in sustainability. But again, this is new old wisdom at work. Our kūpuna constructed an ecologically balanced and sustainable society in these islands for generations. They managed to figure it all out.

So I leave these ideas with you today. It's our kuleana to find out what 'āina-based learning can be in the 21st century and beyond. We know what it produced prior to the 19th century, and hopefully we can take it even further in the future.

Mahalo and aloha 'āina.

## ABOUT THE AUTHOR

Born and raised in Kailua, Oʻahu, Brandon C. Ledward developed a love for the 'āina and kai that continues to inform his work as director of Kamehameha Schools' (KS) 'Āina-Based Education Department. He and his team cultivate strategic community partnerships to deliver 'āina-based learning experiences to students and families on KS-owned lands statewide. He is a former senior research associate in the Research and Evaluation Division at KS and a cultural anthropologist by training. He received his PhD from the University of Hawai'i at Mānoa (UHM) in December 2007 and has lectured in anthropology at UHM and Hawai'i Pacific University.