Understanding Collaboration

A journey through the public process of architecture

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For my family, friends, and mentors who have supported me throughout the past seven years.

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Abstract

Architecture is a discipline that has the ability to affect change within the built environment. The built environment is a setting that affects and influences everyday life. The process of creating architecture is about having discourse to discover possibilities. If the built environment is part of people's everyday life and the process of creating architecture is about discourse, can the people affected by the built environment be part of the discourse in creating architecture?

Existing methods in the discipline of planning look at the role of public participation to involve affected individuals and communities in a conversation. Architecture of similar field, explores the built environment at a smaller scale. This project will look at the process of creating architecture through the methods of public participation.

1 Chapter Introduction

On September 7, 2007 with *malasadas* in her hand, a Doctorate of Architecture (D.Arch) candidate and a local Hawaiian focused Charter School formed a collaboration. The collaboration was to be a journey of two actions, to discover possibilities for the schools permanent campus and an exploration of public participation in architecture. This day marked an important point in the project, as it would be the beginnings of a relationship.

BACKGROUND

Nestled in Makiki Valley, the sound of birds, a near by stream and the rustling of trees fill the air. Between those sounds, you can hear chanting in Hawaiian and the sound of a conchshell. These sounds characterize the setting and home of a Hawaiian focused charter school, Hālau Kū Māna (HKM) New Century Charter School. HKM moved into the valley in the summer of 2007. Living in temporary facilities only a few months old, the leaders of the school were already planning for their future. Granted a 30-year lease by Department of Land and Natural Resources (DLNR), HKM saw hope and possibilities as a lease of this land meant longevity.

Just on the other side of the mountain, this author was enrolling in her final year at the University Of Hawaii School Of Architecture. The final year as laid out in the program was a time to explore personal interests within the field of architecture. For many years, the author, believed that the role of architecture could improve social and economic situations of people. A believer in community architecture, she saw the final year as an opportunity to give back. The author knew the impacts of community involvement in architecture from vocal participation of the community at a public hearing, called "after-the-fact."

The intentions of the collaboration between the author and HKM were to provide HKM a road map to explore the possibilities of a future campus. A collaboration set for seven months, with the conditions of the project being set from the very beginning. The conversations between the author, school and the community groups would be an explorative process, with the outcome of the collaboration the production of images and documentation needed to support a future capital campaign.

PURPOSE

Community involvement in architecture is about the process of creating appropriate architecture. In a field where egos runs high and sometimes the product and fame are much more important then the impacts, the author felt changed needed to occur. There is a saying that only 2% of our society can afford the services of an architect. Why is architecture out of reach for most?[1] Architecture should not be privilege, but an aspect of everyday life.

In an attempt to draw a linkage between architecture and everyday life, the author looked at how the role of public participation played in the creation of architecture. In her mind, the creation of architecture is about discourse and discovering possibilities. Too often, the users of the architecture are excluded from the conversation. With public participation in the creation of architecture, those users will be part of the conversation, and more then not, shape the direction and intentions of the final project.

In addition to the role of the public process providing a seat and vehicle for the community to create architecture, the author is also curious if through that process new social networks and relationships can develop. These new social networks and relationships are termed "social capital."

Therefore, it was determined that this D.Arch project would be an opportunity for the author and a community to have a conversation about architecture and possibly start a new relationship.

GOALS

The goals of this project consist of two parts. The first part is about the school and the second part is about the author.

The first goal of this project is about HKM. The intent is through the conversation of a future campus, community groups involved and the school will see the discourse about the architecture as a vehicle for

future communication. In addition, through the public process, the community will develop a proactive attitude toward the future campus, and be able to lead themselves successfully through the architecture process.

The second goal of this project is to provide the author with first hand experience of working with community in architecture. By designing and facilitating a public process, communicating with various community groups, and developing architectural documentation the author will be exposed to some of the challenges and skills needed in this discipline of the architecture field.

METHODOLOGY

The research methodology is a project-based approach. Project based research with community members and organizations emphasizes how to increase the participation of community and organization members in the research.[2] This method looks to the community to guide research topics and contribute research data. Project based research focuses on participation as a tool to engage and collaborate with the community. Information gathered from the community and their interests will be research topics.

In this methodology, the role of the public process and participation becomes critical. Although public participation is the main investigation tool, genuine participation is required. The public process is fieldwork, which requires numerous meetings with the community to gather data needed to move the project forward.

To support the information and topics gathered through the public process, additional research will be conducted through State and University libraries, the internet, newspapers, and archives.

CHAPTER SUMMARY

The Community

Chapter 2 and 3 describe who the school is, the primary player in the public process. Chapter 2 provides background information about Hālau Kū Māna and their community groups. The groups described in this chapter are the stakeholders of the public process. Chapter 3 provides information about the context of charter schools in Hawaii. Since charter schools are atypical education institutions, it is important to understand the setting Hālau Kū Māna sits in and the possible influences that may have affected interaction and the outcome of the project.

The Architecture

Chapter 4 and 5 explore a research interest of the school to be a green facility. Chapter 4 provides background information about the benefits of green facilities in the educational arena. It discusses briefly the unquantifiable measures of success and quantifiable measures that would allow future facilities at Hālau Kū Māna to be considered green. Chapter 5 discusses three precedent examples of green schools who have excelled. With each example, it discusses the context of the school, sustainable strategies used and lessons learned. Concluding this chapter are strategies that are common themes and could be examples for Hālau Kū Māna to follow.

The Public Process

Chapter 6 and 7 explore theories and methods of public participation. Chapter 6 discusses two theories of the possible influences of why people engage in a public participation process. This chapter briefly looks at the theories of influential scholars such as American President James Madison and French scholar Alexis de Tocqueville. Chapter 7 touches upon the factors to consider when designing a public process. The first part of the chapter discusses influences of place, context, culture, and relationships when designing the public process. The second part of the chapter briefly discusses methods to engage people in a public process.

The Design

Chapters 8, 9, & 10 discuss the architectural outcomes of HKM public process. Chapter 8 describes the conditions of the site. The information provided is a combination of both participants and facilitator data. Chapter 9 discusses Hālau Kū Māna public process and the impacts to the design process. Chapter 10 represents a preliminary conceptual master plan to be provided to Hālau Kū Māna as a product of this process.

The Experience

Chapter 11 and 12 discuss the experiences of the facilitator and the challenges that occurred during the project.

Appendix(s)

In this section, Appendixes A-F provides supportive information to the main content of the study. Appendix A-B is additional insight to the role of youth in the public process and context of public participation in Hawaii. Appendix C-E is information used and collected from the HKM public process.

ENDNOTES

1 Bell, Bryan, *Good Deeds, Good Design: Community Service through Architecture*. 9Princeton Architectural Press: New York. 2004),13

2 Stoecker, Randy, *Research Methods for Community Change: A Project-Based Approach*. (Sage Publications. California 2005), 54

Part 1: The Community

CHAPTER 2 HĀLAU KŪ MĀNA

CHAPTER 3 HAWAI`I CHARTER SCHOOLS

2 Chapter
Hālau Kū Māna

Hālau Kū Māna (HKM) is a New Century Charter School based on the Island of O'ahu. Founded in 2001, Hālau Kū Māna has established itself as one of thirteen public Hawaiian focused charter schools in the State of Hawai'i. Like many other Hawaiian focused charter schools, Hālau Kū Māna is here to serve Kanaka Maoli, indigenous peoples of Hawai'i, in their quest to attain rights of self-determination.[1]

THE PURPOSE

"The Mana Maoli 'Ohana aims to build, maintain, and strengthen a family-oriented halau, in collaboration with and for Honolulu communities, that builds upon a foundation of Hawaiian culture, tradition, and epistemology, as well as community resources, strengths, and experiences…[HKM] will be home to pedagogical models that are academically rigorous, culturally grounded and community based and controlled. Comprehensive support networks will also be in place to encourage educational and economic success for our entire learning 'ohana and our host communities, Papakōlea and Maunalaha."[2]

THE VISION

"HKM's vision is to facilitate individual and community healing and empowerment by fostering lifelong learners who think, feel and act in ways that are pono for recognizing strengths and addressing challenges as they seek positive, systemic change in their local, regional and global communities."[3]

The two host communities, Papakōlea and Maunalaha were instrumental at the beginning planning phases of the school. Although Maunalaha and Papakōlea are the host communities, the students who attend Hālau Kū Māna represent communities throughout O'ahu. "In their first year of operation (2001-2001) 32% of the student body resided in Papakōlea and Maunalaha Valley, while approximately 45% came from West Honolulu, lower income areas of Palolo Valley and Kalihi. The remainders were from Windward and Leeward O'ahu."[4]

DEMOGRAPHICS

Hālau Kū Māna attracts a large population of students of Native Hawaiian ancestry. The majority of these students, when in mainstream public school education, were considered "below proficiency." Historically, students of Native Hawaiian ancestry come from challenging economical and social backgrounds. Many of the students are from low-income families and parents without secondary education. With that said, the majority of the schools populations including students, staff, teachers, and families have some Native Hawaiian blood.[5] There are only a small percentage of non-Native Hawaiian students at the school.

THEIR PROGRAMS

Programs offered at Hālau Kū Māna have a strong foundation in the Hawaiian language, culture and values.[6] Unlike other Hawai'i public schools, the school utilizes the teaching methodology of project based-learning. Each Project integrates all the core content areas of Language Arts, Math, Science, Social Studies, Hawai'i Language, Technology, and one of the following: Music, Art, Health, Career Exploration, Values, Environmental Stewardship, and Life Skills.[7] (Table 2.1) Four days of the week, the *`ōpio*, students, are off campus learning at the project sites. Curriculum learned is as equal or greater to students at mainstream public schools. Hālau Kū Māna students spend more hours on core competencies. In addition, an ‘`ōpio spend additional 7 hours per week on physical fitness and health, group literacy learning, and community led classes.

The school works actively with their host communities. Host communities have typically been the residential areas of the students, Maunalaha and Papakōlea, and predominately Native Hawaiian communities. Prior to moving to Makiki Valley, Hālau Kū Māna was located deep within Mānoa Valley. They are now centrally located between their two host communities. A large component of HKM mission is to be community-based, students and their families are required to commit 16

hours annually of Kōkua hours, community service. A community director organizes monthly events and activities for the families to obtain Kōkua hours.

Table 2.1 Hālau Kū Māna Learning Projects

Project	Description
Kō Kula Kai	Hawaiian ocean ecological communities and the ocean as a food source.
Kō Kula Uka	Study of ancient Hawaiian lifestyles and diets.
He‘eia Fishpond	A Partnership with Paepae O He‘eia to better understand traditional and contemporary environmental resource management techniques and philosophies.
Kānehūnāmoku	Students study the Hawaiian art of canoe sailing and non-instrument navigation.
Lo‘i	Students learn modern and ancient techniques of land management through the restoration and maintenance of lo‘i in the ‘illi of Lyon Arboretum.

Source: Hālau Kū Māna New Century Charter School, Educational Framework 2007

Figure 2.1 HKM Kānehūnāmoku. Taken at March 2008 La Ohana. Source: Melanie Wong

RESOURCES

Hālau Kū Māna pride themselves on being one of Hawai'i's Native Hawaiian Schools. Their greatest asset to the State is promoting and providing Hawaiian focused education to youth. Since they opened in 2001, they have educated nearly 7,000 Native Hawaiian youth. Multiple locations in urban Honolulu have allowed them to partner with nonprofit and State organizations of similar missions. In the past, the school has collaborated with an environmental non-profit organization, the Hawai'i Nature Center.

A project that is deeply rooted in Hawai'i's past and current culture is voyaging using Hawai'i's double hull canoes. Hālau Kū Māna students under the guidance of *Kumu* Bonnie *Kahape'a*-Tanner constructed their own double hull canoe in 2006. The canoe is a "floating classroom" that teaches students about the ancient traditions and skills of their ancestors, through math, language, and oceanic awareness. The canoe called *Kānehūnāmoku* allows students to navigate the ocean quarterly in both day and evening settings.

Annually Hālau Kū Māna displays Hawaiian culture and student achievements to the broader community with a Mana Maoli Concert. The Mana Maoli concerts are primarily a fundraising event for the school, but also an opportunity for the school and community to be educated about one another. In the past, they have been able to secure nationally recognized recording artist such as Jack Johnson and Ooklah the Moc. Support from these artists has helped to bring Hālau Kū Māna forcefully into the public eye.

FACILITIES

One of the challenges of charter schools in Hawai'i is the lack of adequate funding to support facilities maintenance, operation and new construction. Since the school opened in 2001, they have moved locations 5 times, ranging from a community center in Papakōlea, unused spaces in the University Of Hawai'i *Kamakakūokalani* Center for Hawaiian Studies, to Lyon Arboretum in Mānoa Valley.

Figure 2.2 Image of HKM current facilities looking towards one of the classroom trailers. Source: Melanie Wong

Figure 2.3 Image of HKM current facilites looking towards the rear of the classroom trailers. Soure: Melanie Wong

Recently in August 2007, HKM officially signed a lease with the Department of Land and Natural Resources (DLNR) to occupy a portion of the Makiki State Park for the next 30 years. The land leased is 5.4 acres adjacent to the Hawai'i Nature Center, Department of Forestry and Wildlife, and the Maunalaha Community. This opportunity has only been granted to a few privileged charter schools. HKM is the first to have a lease agreement with the State of Hawai'i. Many charter school lease land through the Department of Hawaiian Home Lands.

In the history of the school, the Makiki site will be their first permanent home. After living a nomadic lifestyle, the school will finally have a place to call their home. On July 28, 2007, HKM officially opened their doors to a new academic year. Currently, the school is housed in temporary facilities consisting of 7 trailers. Understanding that these current accommodations are only temporary, they have plans to develop a permanent campus within the 30 year lease.

September 2007, collaboration was formed between HKM and a D.Arch candidate to develop a vision and imagery of the future campus. To develop a vision for the school, a public process was designed to incorporate the concerns of their neighbors.

THEIR COMMUNITIES

The communities of HKM are those geographically located near to the school. These three communities are Hawai'i Nature Center, Department Forestry and Wildlife, and the Maunalaha community. All of these communities would be affected by HKM's future campus developments.

In the past these three organizations, in addition to the Board of Water Supply, were part of an Ala Wai Watershed Restoration Project, which was responsible for the Mauka Ala Wai streams. Formed in July 2003, they came together to restore the Ala Wai. The objectives of the project were to bring watershed management awareness to the communities, develop clean-up

1 Hawai'i Nature Center
2 DOFAW
3 Maunalaha Community
4 Hālau Kū Māna

Figure 2.4 Ariel Map of HKM Communities. Source: Google Earth

programs, and to develop a baseline monitoring system.[8] Management and protection of the streams are the only visible connection between these three community groups.

Hawai'i Nature Center (HNC)

Hawai'i Nature Center is a 501c(3) environmental organization focused to offer environmental education to the youth of Hawai'i. Founded in 1981, the organization has developed numerous programs. Such programs include after school programs for youth and weekend education programs for families. They have branches on the Island of O'ahu, Maui, and Kaua'i.

The main office is located on O'ahu in Makiki Valley. This office is one of three northern neighbors to Hālau Kū Māna. This location allows HNC to provide interpretive and education tours through the hiking trails of Makiki valley.

Department Forestry and Wildlife (DOFAW)

The Department of Forestry and Wildlife is a division of the Department of Land and Natural Resources. They are legally responsible to manage all public lands. DOFAW manages all of the state owned forested and natural reserve areas. Their focus extends to watershed protection, natural resource protection, land development, recreation, and rural economic development.

The O'ahu branch located in Makiki Valley is the main station responsible for the management and operations of State owned forested lands. Both DOFAW and HNC share access to Makiki Valley, occupying a piece of land at the base of the valley. The primary responsibility of the O'ahu branch is to provide safe access to all the hiking trails. Primary trails managed by DOFAW are Maunalaha Trail, Kanealole Trail, and the `Ulaka`a Trail.[9]

Maunalaha Valley Community

Maunalaha Valley Community located along the east ridge side of Makiki Valley is one of O'ahu's few primarily Native Hawaiian communities. Rich in natural

resources it is located in a watershed of 200 acres and near geographic landmarks, Pu`u Kakea (located at the rear of the valley) and Pu`u `Ulaka`a (Round Top). Residents are fortunate to receive the rains from the Kōolau Mountains yet be sheltered from winds occurring at the ridge and have access to the Maunalaha and Makiki streams.

The residency of these people traces back to the early 1900s when the first families settled in the valley. The earlier settlers of this community moved in and cleared the land before a Proclamation of the Governor in 1913 declared that all the forested land in Makiki Valley would be a reserve owned by the State of Hawai'i. Since that time, the people have protected the *`āina*, maintained hiking trails, planted vegetation, and created a unique community extending many generations. Many of the residents in Maunalaha are of Hawaiian descent and are offspring of the original settlers in the early 1900s. The generations that currently live in Maunalaha are like many of the families in Hawai'i, they are racially and ethically mixed. During the 1950s, some of the young people moved away and some married individuals, outsiders who were different races.[10]

Today 26 families occupy 30 subdivided 1-acre lots. A one-way road, Maunalaha Road, accessed via Round Top Drive leads into the community. Sitting along the eastern edge of Makiki Stream, the community is susceptible to landslides and other natural disasters. In April 2006, heavy rains caused an avalanche mudslide, 200 feet of mud that destroyed three homes.[11] More then 30 residents were evacuated until safety could be assured by the State of Hawai'i.

In 2000, the Maunalaha Valley Community Association along with the Papakōlea Community Development Corporation received a $333,280 HUD Alaskan Native/ Native Hawaiian Institutions Assisting (AN/NHIA) Communities Program Grant through the University of Hawai'i Mānoa Center for Hawaiian Studies to assist in the construction of a community center.[12] This grant enabled the Maunalaha community to hire the services of an architect to design a future community center.

The community center was intended to be a permanent location for the Maunalaha Valley Community Association (MVCA) meetings, a place where residents could conduct business, and a home for future educational and cultural programs.[13] Conceptualized as a light wood structure building perched along the eastern edge of the Makiki Stream, the building was intended to be the heart of the Maunalaha Community. Due to lack of additional finances, the project was not realized.[14]

ENDNOTES

1 Goodyear-Ka'opua, Jennifer Noelani, *Ku I Ka Mana: Building Community and Nation through Contemporary Hawaiian Schooling*. (Ph.D. Dissertation History of Consciousness, University of California Santa Cruz, June 2005), 232.

2 Goodyear-Ka'opua, *Ku I Ka Mana*, 265.

3 Goodyear-Ka'opua, 265.

4 Goodyear-Ka'opua, 266.

5 Huihui, Micky [Community Director, Hālau Kū Māna]. Personal Conversation. Honolulu, Hawai'i. September 2007.

6 Hālau Kū Māna New Century Public Charter School. "Educational Framework" Our Program. http://halaukumana.org/ourprogram/ (accessed date Oct 20, 2007).

7 Hālau Kū Māna New Century Public Charter School.

8 Sumiye, Jason, Ko'olau Mountains Watershed Partnership Annual 2003-2004 Report: Localized Projects, Ala Wai Watershed Mauka Restoration Project. [June 2004], 7.

9 Na Ala Hele Trail Access System. "O'ahu, Printable Topographic Map" Honolulu Mauka Trail System,5 http://www.Hawai'itrails.org/trail.asp?TrailID=OA+19+008 (accessed date Jan 3, 2007).

10 Altonn, Helen. "Families there 70 years, State Lets Squatters Stay in Makiki Forest," *Star Bulletin*,1977,1.

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12 HUD Hawai'i, "Hawai'i receives over $9 million in HUD grants." *Winter Newsletter* [2000], under "settings" http://www.hud.gov/local/hi/working/nlwin2000.cfm (accessed date Jan 3, 2007),1.

13 University of Hawai'i-Mānoa Department of Urban and Regional Planning. Maunalaha Community Center Draft Environmental Assessment and Conservation District Use Application, 2.1.2 Project Objectives. March 2003, 6

14 Needham, Coco [Vice President, MVCA]. Personal Conversation. Honolulu, Hawai'i. October 2007

3 Chapter
Hawai`i Charter Schools

This chapter will discuss the history of charter schools in Hawai'i and the pedagogy of Hawaiian Education. Hālau Kū Māna is a Hawaiian focused charter school, whose pedagogy is different from typical public education institutions in Hawai'i. The unique culture of the school requires different approaches to the architectural problem of a future campus. The intent of this chapter is to discuss the differences of charter schools, what are Hawaiian focused charter schools and to describe the context.

CHARTER SCHOOLS IN HAWAI'I

Charter schools in the State of Hawai'i are formed through Hawai'i State Legislative Act 62 of 1994, later amended in 1999. Called the "New Century Charter Schools." Under Act 62, it defines charter schools as:

"The legislature finds that as long as a public school complies with the requirements that it be free to all attending students, that its admission policies be nondiscriminatory, and that it comply with statewide performance standards, a school should otherwise be free from statutory and regulatory requirements that tend to inhibit of restrict a school's ability to make decisions relating to the provision of educational services to the students attending the school".

"To nurture the ideal of more autonomous and flexible decision-making at the school level, the legislature supports the concept of new century charter schools. The legislature finds that this concept defines a new approach to education that is free of bureaucratic red tape and accommodating of the individual needs of students to allow the State to dramatically improve its educational standards for the twenty-first century".[1]

From this Act, 27 public charter schools were formed; 14 were Hawaiian focused charters. The charter schools emphasizing Hawaiian culture as their pedagogy saw Act 26 as an opportunity to create a Hawaiian education system that strived to move beyond the conservative traditions of the Western educational system. Leaders and activists saw Act 62 as an opportunity to challenge the traditional Department of Education (DOE) System. They created a learning environment that was innovative and collaborated academic rigor of western education with the indigenous learning styles of the Hawaiian culture.

There are many differences between Hawai'iNew Century Charter schools and traditional Department of Education Public Schools. Jim Shon, former Executive Director of the Hawai'i Charter School Administrative Offices (CSAO) and current Ph.D. candidate at the College of Education, University of Hawaii, created a table characterizing the general differences between Hawai'i charter and DOE schools through his perspectives. (Table 3.1)

According to Shon, the differences between a DOE school and a charter school lie in their organizational structure, pedagogy, and accountability. The charter school phenomena started with grassroots activist in the community who wanted to make a change and control that change. Unhappy with the traditional governance of the DOE system, through the act of legislature, they were able to form their own governing organization similar to the DOE. The organization formed was CSAO. The CSAO comprised of elected officials nominated though the Hawai'i Charter School system family. As the DOE is for public schools, CSAO is the highest governing organization for charters. To support the operations of CSAO, each charter school allocates 2% of their annual funding to support the operations of the CSAO.

The uniqueness of the charter school phenomena is that it allows individual schools to govern themselves; all charter schools are able to make their own approvals and decisions. To support independent decision-making and approvals, each charter school is required to form a school board, known as the Local School Board (LSB). Most charter schools elect concerned members of their community such as parents, teachers, community members, sister/ brother organizations, and students. An independent organization structure at the school level allows charter schools to focus on their own individual needs and resources.

By expanding the organizations power to the LSB,

Table 3.1 Summary of Contrast with DOE Schools[2]

School Function	Traditional DOE School	Charter School
Role of Boards	Advisory to Principal and staff No role as employer. No role in collective bargaining.	Decision makers, Employers, Connections with funding sources and services (like a non-profit BOD) Often blurs role of employees and employers by selecting employees for BOD officers. Serves as employer, plays a role in collective bargaining, grievances.
Role of Principals	All have full rights in ERS, Health, etc. Fringes have no impact on school budget. Minimum role in raising funds or coordinate facility maintenance. No role in leasing or renting facilities. Minimal role in land, permits. Major interaction with DOE. Some interaction with other State agencies. Little interaction with county government. Seldom called on to be business manager or to teach. No role in collective bargaining.	Many still not enjoying these benefits, even though fringes are paid to the State. Cost of fringes deducted from operating funds. Major role in raising funds. Full responsibility for facility maintenance. Major role in leasing and renting. Major role in securing land, getting permits. Intense interaction with multiple State and county agencies. Often involved in all admin functions and frequently involved in instruction. Major role in collective bargaining
Staff Specialization	Highly specialized.	Multiple hats for many if not most staff positions.
Condition of Facilities	Standardized & provided by State.	No funding. No facilities for start-up schools. No standards. Often use tents, converted containers.
Union Role	Standardized Benefits and Rules for all staff.	Unclear, uneven, evolving roles.
Curriculum	Specialized by discipline	Multi-subject project-based
Work Hours	Generally limited by collective bargaining.	Unlimited. Longer hours, Days.
Quality Control	Through personnel MQAs & training	Personnel and whole school.
School Size	Very large – on average among largest in nation.	Very small.
School Safety	Lots of fights, campus violence.	Very safe. Highly disciplined

Source: Jim Shon Ph.D. Dissertation Draft A Charter School Story, July 2007

it enables schools to attract individuals who are interested in the character and culture of the school. Hierarchy beyond the LSB is limited. It is very common to see a "super teacher" performing a multitude of tasks throughout the school. All the staff members are at the same level, no real leader stands out, except for the school principal and executive director. Charter schools are grass root organizations, so everyone is accountable and a structured hierarchy hardly exists.

FUNDING

Funding is one of the main challenges charter schools face. As start-up schools forging their path through the DOE System, charter schools need to juggle finances and curriculum. They are responsible for estimating annual operating cost as well as developing innovative curriculums. Funds allocated to charter schools are determined using the DOE formula stated in the "Consolidated Annual Financial Report." Under the Hawai'iRevised Status Section 302-1185, special conditions are used to appropriate funds for charter schools. Unlike typical DOE schools, funding is calculated on a per-pupil basis. The per-pupil figure is determined by the actual and projected figures of enrollment. This figure determines how much funds will be allocated to the school to support annual operating costs.

Every year charter schools receive a lump sum fund from the state to be used as determined by the charter school. The annual lump sum excludes funding for special education services. Since charter schools only receive a portion of their funding from the state, the annual lump sum anticipates external funding sources provided by federal and private organizations. The formula used to calculate annual funding takes into account the external funding sources. On average a charter schools receive 32% less funding then traditional DOE schools. Funding provided by the state is barely enough to cover the operational and payroll costs.

In an attempt to address the funding difference between traditional DOE schools and charter schools, the Hawai'iState Legislature in 2004 created a new program under the Department of Education, called EDN 600 CHARTER SCHOOLS. EDN 600 CHARTER SCHOOLS is a program developed to separate funding for Hawai'i Charter Schools within the Department of Education. This program is designed to allow charter schools the opportunity to request additional funds during the year to meet current needs and expenses. Some policymakers see EDN 600 as a modified version of the DOE Consolidated Annual Financial Report, since funding is allocated from the same pool as DOE schools. Yet, some policymakers believe there is flexibility with the program because it was developed by separate legislation. Regardless of how the program is interpreted, it begins to recognize charter schools as a separate entity within the Department of Education.

FACILITIES

"For new start-up charters, there are no state facilities. Students learn under trees, in the forest, under tents, in hot converted shipping containers, and in warehouses."[2] In addition to the challenges of inadequate funding, Hawai'i Charter Schools also face the dilemma of meeting facility needs. Since charter schools are not traditional DOE schools, their limited funding translates to limited facilities. As part of charter schools annual aid from the state, part of the money is anticipated for facilities, whether rent cost or lease cost. Most of the charter schools are on their sixth to seventh academic year, having received little funding to improve current facilities or to acquire permanent ones. The nature of charter schools is a nomadic one, moving from place to place as terms end.

Most charter schools house themselves in community spaces, converted trailers and in shared DOE school facilities. Very few charter schools have the opportunity to acquire a lease or construct their own

facilities. Typically, facilities funding is generated by the charter school. The first Hawaiian focused charter school, Kanu o ka `Āina (KANU), has been fortunate to acquire a lease with the Department of Hawaiian Homelands. With land secured, KANU was able to begin the process of dreaming of new facilities, a permanent campus for their students.

ACCOUNTABILITY

Charter schools are community based and family focused so degrees of accountability branch to all levels. The term accountability can be simply defined as the responsibility held upon an organization or person. Much of the structure is at the grassroots level so it is difficult to quantify accountability, as many are start-ups and begin at similar levels. There is more autonomy in charter schools because they are independent schools. Centralized autonomy allows charter schools to have control over their future; requiring greater responsibility and trust for charter schools.

HAWAIIAN FOCUSED CHARTER SCHOOLS

Half Hawaii's Charter School system are Hawaiian focused charter schools. At the beginning phases of the charter school movement, twelve Hawaiian leaders recognized an opportunity to create an educational system based upon indigenous customs and traditions.

According to some, the formation of a Hawaiian focused charter school was part of a much larger movement, a move for Native Hawaiian Self-Determination.[3] In a Ph.D. dissertation of Indigenous Education, Kū Kahakalau, discusses the rebirth of Hawaiian cultural forms, beliefs and values, and language with community interest and support. Particularly the immergence of the Hawaiian language has made the culture a consciousness of everyday life. Nā Lei Na`auao Native, a Hawaiian

Charter School Alliance, was formed to establish a representing organization for Hawaiian education and culture. Nā Lei Na`auao is an alliance that connects Hawaiian communities together, reaching from Ni`ihau to the Island of Hawaii.

These twelve leaders were the architects of a new Hawaiian education based on Hawaiian culture and tradition. They developed educational philosophies, curriculum, wrote grants, developed indigenous methods of assessment, and set standards of Native research methodologies.[4] This work led to the first twelve Hawaiian focused Charter Schools in Hawaii. (Table 3.2)

Not only was the movement a step towards self-determination, but it was also created to fulfill a educational deficiency towards Native Hawaiians existing within the DOE system. Prior to the formation of Hawaiian focused charter schools, Kamehameha Schools, a 116-year old private institution, was the only institution educating select Native Hawaiian students. Students unable to attend Kamehameha School attended schools in the DOE public system. According to Jennifer Noelani Goodyear-Ka'opua Ph.D, in a dissertation about *Building Community and Nation through a contemporary Hawaiian Schooling*, she found that the State of Hawai'i has a 20% population of Native Hawaiians, with 32% of Native Hawaiian youth attending DOE schools.[5] The number in the past 20 years has increased by 44%, more than any other race. By establishing Hawaiian focused charter schools, the educators are attempting to address the large number of Native Hawaiian students in the DOE system.

Hawaiian Focused Charter Schools "is an approach that makes learning relevant and engaging for indigenous students."[6] For a long time, indigenous peoples have recognized that their ways of learning differ from Western structure.[7] In Kahakalau's

Table 3.2. List of Hawaiian Focused and Hawaiian Immersion Charter Schools in the State of Hawai'i(2007)

School	Location
Hakipu`u Learning Center New Century Charter School	Kāneohe, Island of Oahu
Hālau Kū Māna New Century Public Charter School	Makiki Valley, Island of Oahu
Hālau Lokahi New Century Charter School	Waiakamilo, Island of Oahu
Ka `Umeke Ka`eo Public Charter School, (Hawaiian Immersion)	Hilo, Island of Hawaii
Ka Waihona o Ka Na`auao New Century Public Charter School	Wai`anae, Island of Oahu
Kanu o Ka `Āina New Century Public Charter School	Waimea, Island of Hawaii
Kanuikapono Learning Center Public Charter School	Anahole, Island of Kauai
Ke Kula `o Samuel M. Kamakau Laboratory Public Charter School, (Hawaiian Immersion)	Kaneohe, Island of Oahu
Kua o Ka La Public Charter School	Pāhoa, Island of Hawaii
Ke Kula `o Nawahiokalani'opu'u Iki Laboratory Public Charter School, (Hawaiian Immersion)	Kea`au, Island of Hawaii
Ke Kula Ni`ihau o Kekaha Learning Center, Laboratory Public Charter School, (Hawaiian Immersion)	Kekeha, Island of Kauai
Kula Aupuni Ni`ihau A Kehelelani Aloha New Century Public Charter School (KANAKA), (Hawaiian Immersion)	Kekaha, Island of Kauai
Ke Ana La`ahana New Century Public Charter School	Hilo, Island of Hawaii

Source: Information colleted from CSAO website

dissertation, she refers to Brazilian educator Paul Freire. Known as the father of popular education and liberation, he believed education has the potential to bring about social change by assisting the liberation of those who have no control. Hawaiian educators believed that indigenous students should be educated in the framework of their races history, culture, and tradition, as a person's upbringing reflects this outlook. Shon, former director of the CSAO, believed the creation of the Hawaiian Charter school system was an essential element for the survival and prospering culture in Hawaii.[8]

"KANU is based on the following beliefs: Hawaiian knowledge structure differs significantly from the Western system of education. As an indigenous people, Hawaiians have the right to design and control our own education. Hawaiian students can succeed in the 21st century without having to give up their Hawaiian cultural values and traditions. When Hawaiian culture, language and values are incorporated into the pedagogical process at all levels, education has its deepest relevance and meaning for Hawaiian children. As a result, students are able to learn, to grow and to excel both in the academic setting and in life. The integration of the natural environment into a quality Hawaiian curriculum is essential. Systemic educational reform can only be implemented with the support and assistance of the community, including parents and extended family members."[10]

THE PEDAGOGY

The pedagogy for Hawai'i Focused Charter Schools is the relationship between project based learning and traditional Hawaiian education. Project Based Learning is a 21st century teaching approach that believes students can learn certain intellectual skills such as analytical thinking, critical thinking, ability to make judgments, reason quantitatively, and balance opposed points of view through group social interaction in real-world environments.[9] Traditional Hawaiian education also focused on hands-on learning in a real world context. Learners were expected to apply the knowledge acquired through observing elders. Education in pre-contact Hawai'i was part of life, seen as a continuous process.

According to Kahakalau, Hawaiian education always existed, but informally through family education. In developing the pedagogy for Hawaiian focused Charter Schools educators refer back to the teaching methodologies of ancient Hawaii. They looked at skills taught, the relationship to the outdoors, and the physical activity levels to create a pedagogy that met both the requirements of indigenous and western worlds.

The first Hawaiian focused charter school was Kanu o ka `āina (KANU) in 1999, founded by Ku Kahakalau. It was developed out of her quest to understand her heritage and to bring justice to the education of Native Hawaiian peoples. Kanu o ka `Āina is

the representation of years of work. The curriculum developed at KANU has been a foundation for many of the Hawaiian focused charter school pedagogies. The beliefs of KANU are to have Hawaiian self-determination, cultural practice, and academic rigor.

The first foundation, Hawaiian self-determination, which is liberation of political, social and economic affairs, is what Kahakalau discusses as one of the tenants for the formation of Hawaiian education in the 21st century. Kahakalau believes liberation in pedagogy is "a more empowering way refereed to as problem-posing education."[11] "In problem-posing education there is an understanding that knowledge is ever changing, and that "fact" or "truth" is relative to the viewers perspectives."[12] This methodology forces the student to think critically and to be open minded to other views. Problem-based learning starts from the beginning as students enter the KANU education system.

The second foundation, of Hawaiian values, is the very virtue of the school. "Educational foundations including curriculum and instruction, assessment, epistemology, school structure and other facets are aligned with Hawaiian values."[13] The education is divided into five parts: Traditional Values, Hawaiian Language, Intergenerational, Affiliation Orientation, and Cultural Assessment. KANU has developed a set of proverbs that are expected by students, teachers, staff, parents, and community partners.

To maintain connection to culture and identity, speaking the Hawaiian language and intergeneration connection are encouraged. Speaking Hawaiian is encouraged in every aspect of the school day. Intergenerational learning is integrated into the curriculum through cultural workshops and presentations. In addition, students are given continuous opportunities to learn from one another through learning projects and school gatherings. Collaboration occurs in every aspect of KANU education, as it is congruent with project-based

learning and traditional Hawaiian education. Throughout the curriculum, the school encourages students to evaluate themselves and the education received.

The last foundation, academic rigor, is affirming a standard of Hawaiian education to be at least equal to models of Western education.

The four proverbs are:

"Aloha kekahi i kakahi
Love one another

Malama i kou kuleana
Take care of your responsibility

Kokua aku kokua mai
Help one another

Mahalo i ka mea loa`a
Be thankful for what you got"[14]

NATIVE HAWAIIAN STUDENTS AT HAWAIIAN FOCUSED CHARTER SCHOOLS

Hawaiian focused charter schools have received much attention from the Hawaiian community. The support is for "Hawaiian ownership of Hawaiian Education."[15] As a result, a good majority of Hawaiian focused charter schools educate Native Hawaiian students. Figures from the State of Hawai'i Department of Education show that the majority of the student population at start-up charters are Native Hawaiian students. In an article titled "Native Hawaiian Students bloom in Charter Schools", Shawn Kana'ianupuni, Director of Research and Development at Kamehameha Schools, is interviewed regarding a studies Kamehameha Schools has done on Native Hawaiian Student Performance in Charter Schools. He comments that about "1,900 students attending 13 Hawaiian-focused charter schools, about 93 percent of whom are Hawaiian."[16] In a recent study done by Kamehameha Schools Policy Analysis and System Evaluation (PASE) in February 2005, it reports "Native Hawaiian students who attend charter schools preformed better on standardized measures of achievement and were less likely to be chronically absent from school than were comparable students in mainstream public schools."[17]

The Kamehameha Schools PASE study focused primarily on Native Hawaiian students, as they typically have pre-existing challenges; stemming from low academic tests and lower economic incomes. These challenges are from a long line of history within the DOE State education system. The "No Child Left Behind Act" (NCLB) was enacted in 2001 under President George W. Bush, is a measure

of academic progress. Since NCLB, majority of students within the public schools system of Native Hawaiian background were classified as below proficiency. The act was developed to decrease the achievement gap between student performance and national standards.[18] Since the establishment of Hawaiian focused charter schools, Native Hawaiian students attending these institutions have improved academically. Standardized tests in Math and Reading have significantly increased and absenteeism reduced by 74%.

CONCLUSION

The formation of charter schools in the Hawai'i public school system allowed for an alternative education and choice to be possible. Students could attend schools within the DOE system with a Native Hawaiian focus. Charter schools that are Hawaiian focused not only incorporate a great cultural element into the public education system, but solve a deficiency currently existing in the DOE system. Hawaiian focused charter schools are working within the western education system to provide an indigenous based pedagogy to Native Hawaiian students.

The pedagogy for Hawaiian focused charter schools is based upon traditional Hawaiian way of learning using the model of Project based learning. With this combination, students both Native Hawaiian and non-race, are learning in untraditional environments. The new environments are heavily based on the indigenous culture. Instead of learning inside a traditional classroom space, children are working in lo'i, sailing canoes, and learning through nature. An alternative pedagogy attracts many students that are of Native Hawaiian race. The studies done by Kamehameha Schools, found that Native Hawaiian students in Hawaiian focused charter schools, are much more focused and improve academically.

The challenge of charter schools both Hawaiian focused charter or not, is the responsibility of sustainability. Unlike traditional DOE schools,

charter schools must fundraise, campaign, and apply for grants to support annual operations. The greatest challenge is the ability to provide quality facilities for students. Operating under a similar manner as nonprofit organizations, charter schools cannot allocate separate funds for new facilities or improvements. In the hierarchy of priorities, providing innovative education programs is foremost.

ENDNOTES

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11 Kahakalau, *Kanu o ka `Āina-Natives of the Land from Generations Back,* 182

12 Kahakalau, *Kanu o ka `Āina-Natives of the Land from Generations Back,* 182

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Part 2: The Architecture

CHAPTER 4: GREEN SCHOOLS
CHAPTER 5: EXAMPLES OF GREEN SCHOOLS

4 Chapter Green Schools

More recently, environmental stewardship has been in the consciousness of many. As a result, much of the built environment is transforming into energy efficient and sustainable environments. This consciousness has expanded to the development of schools. Not only are architects realizing the benefits of designing greener facilities but educators are also recognizing the advantages. Studies conducted on green schools show that students learning in energy efficient and sustainable facilities are performing better.

As a result, the term Green Schools, has been developed and is coined by many professionals and educators.

> *GREEN SCHOOL /grEn skül / n. a school building or facility that creates a healthy environment that is conducive to learning while saving energy, resources and money.*[1]

The information in this chapter briefly discusses the benefits of green schools student performance and a recent law passed in Hawaii, Act 96.

GREEN SCHOOLS

Creating environments and buildings that are high performance not only reduces demands on energy but also improves quality of life for occupants. Buildings contribute greatly to global warming and government and public buildings make up a large percentage of the figures; initiatives have been developed to encourage buildings to be green. Schools fall into the category of both governmental and public buildings.

High Performance Green Buildings are a combination of two concepts: Green Building + High Performance Building. Green Building is the practice of creating healthier and more resource-efficient models of construction, renovation, operation, maintenance, and demolition.[2] They are designed to improve the overall quality of life for occupants and reduce the impacts on the environment. Design strategies of green building use environmentally responsible products, efficient building systems, and smart design strategies to reduce energy consumption. In return, through many years of research and study, it has been shown that green buildings not only reduce their impacts, but also improve the health of the humans that occupy the buildings.

High Performance Buildings is a practice of holistically creating a building that performs to energy, economics, and environmental excellence.[3] This design looks at the building as a whole systems approach. This systems approach considers all components of a building throughout the design phase. The advantage of a systems approach is it examines the building from the very beginning in hopes of eliminating problems that may arise later in project development. Typically, buildings that are designed to be high performing excel in energy efficiency, material resource conservation, and finances when compared to typical building design. Integration of building systems from the very beginning of a project is economically profitable as well as it creates an efficient functioning building. Common benefits are a reduction by 50% or more in energy, reducing maintenance and capital costs, and increasing user satisfaction.

The marriage of these two concepts results in buildings designed with an integrated systems approach to reduce the impact on the environment. Buildings that are green and high performance reduce energy use by 30%, reduce carbon footprints by 35%, increase water savings by 30-50%, and reduce waste costs by 50-90%. Within the building industry there has been a big movement to design, construct, and finance high performance green buildings.

For the solution to any problem, awareness is always the first step, prevention and education soon follow. Bringing green building design to the forefront of school design educates the next generation to be responsible citizens and creates environments that are learning laboratories.

Nearly 20% of the American population attends school on a daily basis.[4] Children of America spend most of their childhood years until they are 18 years old in closed buildings that, at times are considered substandard and dangerous to occupant health. Creating green schools across America not only addresses the energy problems our nation faces but creates facilities that

are healthy and educational. It has been proven that better learning environments improve student health, academic performance, student and teacher retention, and reduces life-cycle operations costs.

BENEFITS OF GREEN SCHOOLS

A recent trend in green school design is to create "healthy learning" environments. Data collected from existing green schools displayed a 3-5% improvement in learning ability and test scores when learning environments are designed to be healthier and more comfortable. "Green buildings typically involve greater initial cost to achieve important green objectives such as improved energy efficiency, increase use of renewable energy (on site and off site), and diversion of waste from landfills for reuse or recycling."[5] Schools who have made green design a forefront of their agendas are concerned about reducing energy consumption, increasing daylight opportunities, water conservation, and improving the indoor environmental quality.

These design strategies are quantifiable benefits of green schools. "The typical green school uses one-third less energy than conventional schools, a result of better design, use of energy efficient equipment, installation of energy efficient measures."[6] One method of better design involves appropriate site orientation to maximize natural daylighting opportunities and cross ventilation, reducing the buildings demand on energy. Another method is the use of energy efficient equipment rated with the Energy Star label. The Energy Star label, a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy, helps homeowners and business reduce energy consumption through the labeling of equipment and appliances.[7]

One signifier of green building is the use of renewable energies, both on and off site. "Use of renewable energy generally displaces less labor intensive and more polluting energy sources such as imported heating oil, gas, coal burned in power plants to make electricity."[8] A common renewable energy employed in green schools has been the installation of photovoltaic panels.

In some schools, photovoltaics have reduced energy consumption by 100% when spaces were daylight, radiant heated, and cross-ventilated.[9]

A study done by Capital E in October 2006, quantified the benefits of green schools in terms of financial gain in the long term and employment opportunity, titled *Greening America's Schools: Costs and Benefits.* The primary investigator, Gregory Kats, concluded, "Greening school design is extremely cost-effective. Green schools cost on average almost 2% more, or $3 more per ft^2, then conventional Schools."[10] Through a sample of 30 schools, Kats found that being green increases financial savings by 20%, equivalent to an additional full-time teacher.[11] Similarly, he found reduction on the use of oil and natural gas, expands industries in renewable technologies, increasing the demand for jobs. "Expanding renewable energy use to 20% national by 2020 would create roughly 100,000 new jobs nationally."[12]

Increased student performance

Through numerous studies, it has been shown that an increase of daylight in the classroom space improves student performance. Turner Construction in fall 2005 conducted a survey with green schools that "reported that greening the school reduces student absenteeism and improved performance."[13]

Across the board, the greatest concern of teachers in regards to facility design is the treatment of lighting, temperature control, and the indoor air quality. Green design strategies that are beneficial for both teacher and student have been the attention to the indoor environmental quality: daylighting, controlled ventilation systems and temperature, and low-emitting materials.

Providing daylight as the primary light source to classrooms has a dramatic effect on the performance of both teachers and students. Daylight biologically stimulates the hormones that regulate the body's systems and moods. A study conducted by Carnegie Mellon University Center for Better Building Performance

Figure 4.1 Fossil Ridge High School, interior photo of multipurpose space. Photo credit: Architectural Record

in 2005, one of the nations leading institutions on the topic, reviewed 17 studies from1937 to 1997; through a consensus, they found good light "improved test scores, reduced off task behavior, and played a significant role in the achievement of students."[14]

In addition, other design strategies that have improved productivity have been the ability for the occupants to regulate temperature and air quality in space. Similar to daylighting, it is another natural environmental element that psychologically and biological affects human behavior. To assimilate the human body more with nature, designers have when possible integrated natural ventilation into a space, installed individual temperature control systems, and specific interior materials that off gas less toxic fumes. A combination of these design strategies have increased the comfort of a space and thus helped to improve both students and teacher attention retention.

The use of efficient air handling systems and the introduction of natural air have shown a reduction in flu and asthma in school students. A report done by the American Lung Association in 2005 indicated that one out of ten schoolchildren suffers from asthma. "The annual direct health care cost of asthma is approximately $11.5 billion, with additional indirect costs (e.g. lost productivity) of another $4.6 billion."[15] New schools designed to be healthier over conventional schools, have reduced asthma related instances by 25%. These statistics display that schools designed to be healthier, not only reduce the instances of asthma related cases, but also save health providers and families large sums of money annually.

Improved Teacher retention and satisfaction

Not only have healthier schools improved the performance of students; they have also improved the outlook and attitudes of teachers. Teachers across the nation have commented that green schools have improved their outlook on teaching. Many teachers appreciated good indoor air and acoustical properties. Happier teachers mean reduced budgets, lower teacher absenteeism, and fewer turnovers.

In August 2003, the National Clearinghouse for Educational Facilities (NCEF) surveyed teachers in the Chicago and Washington D.C. area regarding school environment conditions and satisfaction to find a link between teacher performances and learning environments. Survey topics included the grading of school facilities, reasons for dissatisfaction, related health problems, and teacher attrition. NCEF discovered that much of the dissatisfaction came from improper design of classroom space; spaces inadequate for the function and not the right size; quality of air and thermal comfort; noise; hygiene of facilities. These deficiencies in the facility attributed to teachers attrition. 40% commented that poor quality of school facilities have caused them to leave, 30% have considered leaving for the same reasons.[16] Numbers increased to 50% when health problems of asthma and other respiratory conditions associated with school were taken into account.[17]

Learning Laboratory

Part of the movement of green schools is to make the architecture the pedagogy. Both designers and educators are recognizing the benefits of utilizing the architecture as an additional teaching tool. Green school have become learning laboratories as the building itself is integrated into the curriculum. Architecture integrated into the curriculum enhances the education experience and raises the overall awareness of students.[18]

Figure 4.1 Fossil Ridge High School, exterior photo of photovoltaic shade devices. Photo credit: Architectural Record

Facilities used as a teaching tool to offer students hands-on learning has astronomical benefits. Examples of architecture integration into the curriculum have been the use of sustainable technologies such as photovoltaics, water catchment, and daylight to support lessons in math and sciences. Schools such as Fossil Ridge High School, who received a LEED Silver rating, developed a club for students to educate them about the sustainable features of the buildings. Members offer tours to visitors through the campus.19 Students at the Chartwell School, located in Monterey Bay, conduct and participate in an annual bridge building competition. Since the construction of their

new school facility, students have designed bridges with a greater structural integrity incorporating triangular bracing as seen in the current Chartwell facilities. New school facilities constructed not only educate students about sustainable technologies but also basic building construction. By integrating the architecture into the curriculum, students develop a greater awareness and understanding of the built environment.

Green Building Rating System for Schools

One particular organization, the U.S. Green Building Council (USGBC) established a program within the building sector, Leadership in Energy and Environmental Design (LEED). The USGBC is composed of over 12,000 organizations across the U.S. building industry working to promote the advancement of structures that are environmentally responsible, profitable, and healthy places to live and work. USGBC's primary program LEED is a green building rating system that measures the performance of a building to accepted sustainable design practices. Founded in 1993, it is one of the nationally recognized green building measuring systems within the United States. Having over 10 years of experience, LEED has been a basis for many State and local government green building policies.

LEED is a Green Building Rating System that encourages the implementation of universally accepted and understood tools and performance criteria. LEED was created as a benchmark in the design of green high performance buildings. There are seven rating systems within LEED: Homes; Neighborhood Development (in pilot); Commercial Interiors; Core and Shell; New Constructions; Schools, Retail, Healthcare; Existing Buildings. Among each rating system are six categories that measure building performance. Those categories are sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation and design process. There are four levels of certification: LEED Certified, LEED Silver, LEED Gold, and LEED Platinum.

More recently, the USGBC has developed a separate rating system for LEED Schools that recognizes the unique nature of the design and construction of K-12 schools.[20]

"Based on the LEED for New Construction rating system, it addresses issues such as classroom acoustics, master planning, mold prevention and environmental site assessment."[21] In the LEED for School, categories designer and schools must achieve are: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation and Design Process. (Figure 4.1)

STATE OF HAWAII ACT 96

The State of Hawaii most recently passed a bill approved by Governor Linda Lingle, Act 96 codified as HRS §196. It "requires all state buildings and new residential facilities receiving state funds to meet LEED Silver Certification or Two Green Global Rating Systems."[22] Signed in May 2006, Act 96 has gained much momentum within state agencies and the building industry. To expedite the process each county under HRS §46-19.6 (2006) must priority process building permits for projects that incorporate energy and environmental design strategies.[23] Additional points of the Act are to support a holistic approach to Hawaii's energy self-sufficiency. The State of Hawaii considers the following to be energy efficient and green building.

- "Design and build State buildings and facilities requiring State Funding to be LEED Silver certification or two Global Green rating Systems.
- Utilize energy efficient materials, particular with buildings over 3-stories. Use of high-performance materials and systems (those with greater R-value) to reduce the heat island effect.
- Install solar water heater systems. Multi-storey buildings with a central HVAC system use heat recovery for hot water systems.
- Maximize daylight and natural ventilation strategies when possible.
- Utilize water and energy efficient practices to reduce waste of resources.
- Reduce waste through waste management programs and recycling.
- Use life-cycle analysis to purchase energy

Figure 4.1 LEED School 2007 Registered Project Checklist

LEED for Schools 2007
Registered Project Checklist

Project Name:
Project Address:

Yes	?	No	Sustainable Sites	16 Points
Y			Prereq 1 **Construction Activity Pollution Prevention**	Required
Y			Prereq 2 **Environmental Site Assessment**	Required
			Credit 1 **Site Selection**	1
			Credit 2 **Development Density & Community Connectivity**	1
			Credit 3 **Brownfield Redevelopment**	1
			Credit 4.1 **Alternative Transportation**, Public Transportation Access	1
			Credit 4.2 **Alternative Transportation**, Bicycle Use	1
			Credit 4.3 **Alternative Transportation**, Low-Emitting & Fuel-Efficient Vehicles	1
			Credit 4.4 **Alternative Transportation**, Parking Capacity	1
			Credit 5.1 **Site Development,** Protect or Restore Habitat	1
			Credit 5.2 **Site Development,** Maximize Open Space	1
			Credit 6.1 **Stormwater Design**, Quantity Control	1
			Credit 6.2 **Stormwater Design**, Quality Control	1
			Credit 7.1 **Heat Island Effect**, Non-Roof	1
			Credit 7.2 **Heat Island Effect**, Roof	1
			Credit 8 **Light Pollution Reduction**	1
			Credit 9 **Site Master Plan**	1
			Credit 10 **Joint Use of Facilities**	1

Yes	?	No	Water Efficiency	7 Points
			Credit 1.1 **Water Efficient Landscaping**, Reduce by 50%	1
			Credit 1.2 **Water Efficient Landscaping**, No Potable Use or No Irrigation	1
			Credit 2 **Innovative Wastewater Technologies**	1
			Credit 3.1 **Water Use Reduction**, 20% Reduction	1
			Credit 3.2 **Water Use Reduction**, 30% Reduction	1
			Credit 3.3 **Water Use Reduction**, 40% Reduction	1
			Credit 4 **Process Water Use Reduction,** 20% Reduction	1

Yes	?	No	Energy & Atmosphere	17 Points
Y			Prereq 1 **Fundamental Commissioning of the Building Energy Systems**	Required
Y			Prereq 2 **Minimum Energy Performance**	Required
Y			Prereq 3 **Fundamental Refrigerant Management**	Required
			Credit 1 **Optimize Energy Performance (2 pt minimum)**	2 to 10
			14% New Buildings or 7% Existing Building Renovations	2
			17.5% New Buildings or 10.5% Existing Building Renovations	3
			21% New Buildings or 14% Existing Building Renovations	4
			24.5% New Buildings or 17.5% Existing Building Renovations	5
			28% New Buildings or 21% Existing Building Renovations	6
			31.5% New Buildings or 24.5% Existing Building Renovations	7
			35% New Buildings or 28% Existing Building Renovations	8
			38.5% New Buildings or 31.5% Existing Building Renovations	9
			42% New Buildings or 35% Existing Building Renovations	10
			Credit 2 **On-Site Renewable Energy**	1 to 3
			2.5% Renewable Energy	1
			7.5% Renewable Energy	2
			12.5% Renewable Energy	3
			Credit 3 **Enhanced Commissioning**	1
			Credit 4 **Enhanced Refrigerant Management**	1
			Credit 5 **Measurement & Verification**	1
			Credit 6 **Green Power**	1

continued...

Yes	?	No	Materials & Resources	13 Points
Y			Prereq 1 **Storage & Collection of Recyclables**	Required
			Credit 1.1 **Building Reuse**, Maintain 75% of Existing Walls, Floors & Roof	1
			Credit 1.2 **Building Reuse**, Maintain 95% of Existing Walls, Floors & Roof	1
			Credit 1.3 **Building Reuse**, Maintain 50% of Interior Non-Structural Elements	1
			Credit 2.1 **Construction Waste Management**, Divert 50% from Disposal	1
			Credit 2.2 **Construction Waste Management**, Divert 75% from Disposal	1
			Credit 3.1 **Materials Reuse**, 5%	1
			Credit 3.2 **Materials Reuse**, 10%	1
			Credit 4.1 **Recycled Content**, 10% (post-consumer + ½ pre-consumer)	1
			Credit 4.2 **Recycled Content**, 20% (post-consumer + ½ pre-consumer)	1
			Credit 5.1 **Regional Materials**, 10% Extracted, Processed & Manufactured Regionally	1
			Credit 5.2 **Regional Materials**, 20% Extracted, Processed & Manufactured Regionally	1
			Credit 6 **Rapidly Renewable Materials**	1
			Credit 7 **Certified Wood**	1

Yes	?	No	Indoor Environmental Quality	20 Points
Y			Prereq 1 **Minimum IAQ Performance**	Required
Y			Prereq 2 **Environmental Tobacco Smoke (ETS) Control**	Required
Y			Prereq 3 **Minimum Acoustical Performance**	Required
			Credit 1 **Outdoor Air Delivery Monitoring**	1
			Credit 2 **Increased Ventilation**	1
			Credit 3.1 **Construction IAQ Management Plan**, During Construction	1
			Credit 3.2 **Construction IAQ Management Plan**, Before Occupancy	1
			Credit 4 **Low-Emitting Materials**	1 to 4
			Credit 5 **Indoor Chemical & Pollutant Source Control**	1
			Credit 6.1 **Lighting System Design & Controllability**	1
			Credit 6.2 **Thermal Comfort,** Controllability	1
			Credit 7.1 **Thermal Comfort**, Design	1
			Credit 7.2 **Thermal Comfort**, Verification	1
			Credit 8.1 **Daylight & Views,** Daylighting	1 to 3
			75% of classrooms (*required for either points below*)	1
			90% of classrooms	2
			75% of other spaces	3
			Credit 8.2 **Daylight & Views**, Views for 90% of Spaces	1
			Credit 9 **Enhanced Acoustical Performance**	1 to 2
			Credit 10 **Mold Prevention**	1

Yes	?	No	Innovation & Design Process	6 Points
			Credit 1.1 **Innovation in Design**: Provide Specific Title	1
			Credit 1.2 **Innovation in Design**: Provide Specific Title	1
			Credit 1.3 **Innovation in Design**: Provide Specific Title	1
			Credit 1.4 **Innovation in Design**: Provide Specific Title	1
			Credit 2 **LEED® Accredited Professional**	1
			Credit 3 **School as a Teaching Tool**	1

Yes	?	No	Project Totals (pre-certification estimates)	79 Points
			Certified: 29-36 points, **Silver:** 37-43 points, **Gold:** 44-57 points, **Platinum:** 58-79 points	

efficient and Energy-Star products.
- Purchase environmentally responsible products.
- Employ vehicles that use alternative fuels."[24]

An important point of the Act is the requirement it imposes on the Department of Education (DOE). In Section 2 of the Act, it requires Hawaii's public schools to be energy efficient and to utilize renewable energies. In support of that requirement, the DOE has appropriated $5,000,000 of general revenue funds for the 2006-07 fiscal year to implement photovoltaic pilot metering programs to the public schools. There will be at least one project in every county. The projects will include the installation of photovoltaics on roof renovations and repairs, net energy metering to offset cost, and utilize third party leases and purchase programs.

To addition to the Act 96, the state required each agency and department to develop a "Leading by Example" report that would outline future energy initiatives. The Department of Education "Leading by Examples" Report for the fiscal year 2005-2006 outlines strategies specific for schools. Two main strategies are a commitment to sustainability by devoting a separate line item to new and renovated projects and the development of a Hawaii High Performance School Guideline document for design consultants.[25]

CONCLUSION

The recent Act 96 imposes a standard for schools constructed in the DOE System reinforcing the importance of creating a better environment for youth. Act 96 creates a baseline for all DOE to strive for, creating public facilities that are energy efficient. A trend that has occurred nationally, Hawaii has finally progressed forward by committing to be more environmentally responsible. Documents such as the Hawaii High Performance School Guideline (HPSG) will help schools and designers to understand the steps to develop greener facilities. The guide, developed as a toolkit, explains step by step, how energy efficient ideals and strategies can be integrated into acquiring an architect and contractor to construction procurement.

Studies done both by Capital E and other national companies, found that green facilities do improve a students academic performance. Developing new school facilities to be green, energy efficient and sustainable, not only helps to reduce damage to the environment, but it begins the process of integrating environmental education and stewardship to the next generation. Passive strategies that have dramatically improved student performance have been those that respond to the human body. Such strategies have been improved air quality, daylight, and temperature which naturally help the human body assimilate to built conditions.

The greatest benefit of Hawaii's Act 96 and national movement for green schools is the integration of environmental stewardship into education. Simple steps such as making the building an educational tool first, exposes students first hand to how the built environment and nature integrate with one another. The design of school facilities are becoming part of the learning environment, it not just a home, but a learning tool.

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5 Chapter Examples of Green Schools

Designing schools to be energy efficient and sustainable is a trend that is occurring in school design and at the school level itself. Both designers and educators recognized that green schools have the potential to both enhance students learning opportunities and create buildings that are environmentally responsible. The buildings that are being produced have brought environmental consciousness and stewardship to the forefront of secondary education by highlighting such features that make the buildings unique.

Recently, three schools have excelled in the category of meeting education and sustainable needs. These schools are:

1. Chartwell School
    a. Location: Seaside, California
    b. Architecture firm: EHDD Architecture

2. Sidwell Friends Middle School
    a. Location: Washington, D.C.
    b. Architecture firm: Kieran Timberlake Associates

3. Hawaii Baptist Academy Middle School
    a. Location: Honolulu, Hawaii
    b. Architecture firm: Group 70 International, Inc.

CHARTWELL SCHOOL
Location: Seaside, California
School District: Private
Grade Level: K-8
Architecture Firm: EHDD Architecture

ABOUT THE SCHOOL

Chartwell School is located in Seaside, California; a private K-8 institution serving students with dyslexia. Two mothers concerned about educational standards founded the school in 1983. These mothers took action by addressing the record numbers of high school seniors who were functionally illiterate. Mainstream education was increasingly unsatisfactory and not meeting the job.[1] Understanding that reading is not an innate ability and must be learned, the mission of Chartwell School is to educate children with a wide range of language-related visual and auditory learning challenges in a way that provides them with the learning skills and self-esteem necessary to return successfully to mainstream school education.[2]

Their philosophy is to educate students in a unique and valuable way that is individually tailored to students learning styles. Students learn through a project-based content emphasizing developing self-worth and strengthening of awareness. They are taught to become active responsible learners. Therefore, Chartwell strives to provide their students with highly structured learning environments both academically and physically.

In December of 2000, a project began to develop a new campus for the school. Acquiring 29 acres of land of the former Fort Ord, the Chartwell School Board of Trustees formed a capital campaign. The campaign aimed to stimulate funds to build a new campus, expand student enrollment, and provide spaces for outreach education. Board trustee, an architect, and USGBC member John Boecker spearheaded the effort. Boecker became the medium between the faculty, parents, students, and Chartwell Board of Trustees.[3] EHDD Architecture, a San Francisco firm was hired to design the future school.

DESIGN OBJECTIVES

Taking pride in their educational achievements to understand factors that can enhance student learning, Chartwell Schools made sustainability the forefront of the project. A team of architects and

expert trustees worked closely with the school to develop a design that would benefit the students. They developed the site to be an educational tool to enhance the learning capabilities for students. The collaboration between architect(s) and school resulted in a shared vision to "create an exceptional, high-performance learning environment."[4] The vision is broken into six strategies:

1. "To create the best possible learning environment for the students by providing exceptional daylighting, views, indoor air quality, and thermal comfort
2. To make the sustainable design strategies a visible part of the student's education and develop the site as a teaching tool
3. To landscape with native and food producing plants and natural drainage
4. To achieve a high level of sustainable design to inspire and excite the community and generate support and private funding
5. To reduce energy use as much as possible, with the goal of supplying all the remaining electrical demand with photovoltaic
6. To reach these goals with only a modest cost premium."[5]

Modeled to meet the established measures of sustainability, the US Green Building Councils Leadership in Energy and Environmental Design (LEED) Protocols, the school features environmentally friendly elements such as net zero energy use, water conservation, and sustainable building materials.[6] In 2007, the school received a LEED NC Platinum rating. In addition to meeting LEED standards the Chartwell Schools also met standards of excellence for national schools, the Collaborative for High Performance Schools (CHPS)[7].

A main component of the design was based upon an existing design philosophy of EHDD Architecture that is deconstruction. Given an opportunity to conduct extensive research for the Environmental Protection Agency (EPA), the design team

incorporated many of the deconstruction strategies in the design development of the Chartwell Schools. Deconstruction, according to EHDD Architecture, "is to responsibly manage end-of-life building materials to minimize consumption of raw materials. By capturing materials removed during building renovation or demolition and finding ways to reuse them in another construction project or recycle them into a new product, the overall environmental impact of end-of-life building materials can be reduced.[8]

Strategies applied to the Chartwell School's project looked at the flexibility and change over time for a school facility. EHDD focused on creating a structural system that would allow for expansion and a change of architectural program. Examples include creating an interior wall separating classrooms spaces to be non-load bearing and separating utilities from the main structural system by exposing them and creating a utility raceway along the wall surface.

SUSTAINABLE FEATURES

School facilities change over time, so the architects designed the facilities to be adaptable. Combining the focuses of sustainability and flexibility, Chartwell's new facilities are designed to demonstrate the concept of deconstruction. The concept of deconstruction is the basis for many of the design decisions made. To facilitate a building that is both deconstructable and sustainable, the green design strategies utilized were selected to offer the highest outcome in student performance.

Figure 5.1 Elevation of the Multipurpose building.
Source: EHDD Architecture

Site Considerations

The project site for the new Chartwell School is located on a former military base situated along the Central California coast. A master planning process was first conducted with the objective to maximize views overlooking Monterey Bay and to preserve the native landscape of the site. In keeping with the natural beauties of the site, the new campus is built on the existing footprint of the former military buildings, reducing new site development.

Construction was scheduled into two phases, with buildings organized around a central courtyard. The buildings are oriented to maximize exposure to northern sunlight and the architectural form provides daylighting opportunities through large north facing windows and clerestories.[9]

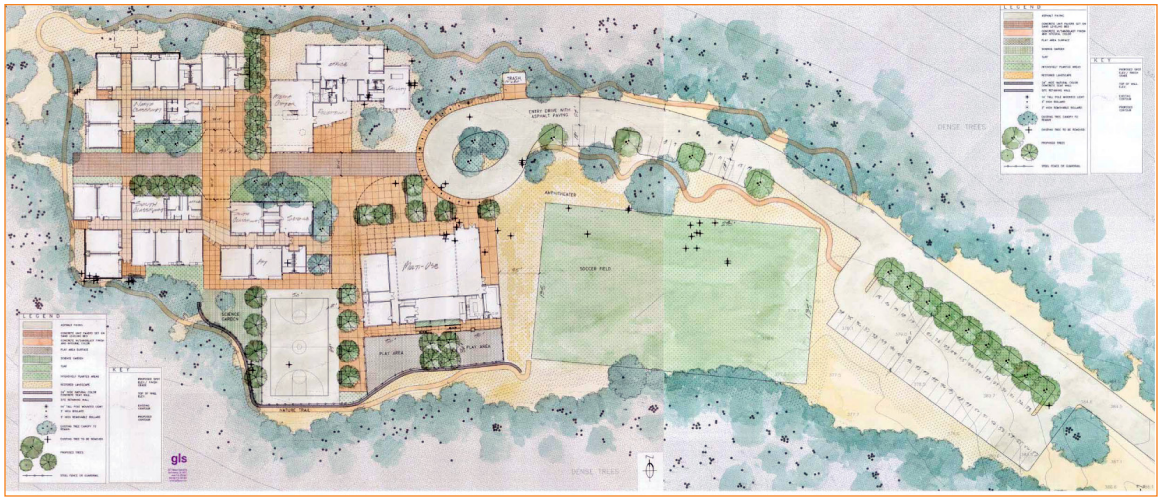

Figure 5.2 Site Plan of the Chartwell School Source: EHDD Architecture

Water Efficiency

Rainfall on the site is managed through a rain catchment system of cisterns and science gardens. Classroom rooftops collect the water and divert it to above grade cisterns for storage. Excess water unable to be stored is funneled through a sluice that is connected to student operated science gardens. The sluices demonstrate water flow dynamics to the students. The science gardens are important components of the curriculum as they teach students about a plant's life cycle and composting.

Figure 5.3 Image of the water catchment system and the sulice. Source: EHDD Architecture

The catched water is used for two purposes, to flush toilets during the months of September to June and to irrigate landscape. Providing landscaped areas was a major component of the project. Recognizing that non-indigenous plants require more water, native landscaping is used throughout. A high efficient irrigation system with multiple program controls and an integrated evaportraspiration gauge[10] maintains

many of the open fields. This system is also designed to handle future use of recycled water. The native landscape is also designed to manage excess stormwater not collected through the classroom rooftops. "Stormwater not captured in the cistern is collected and taken away from the building foundations to be discharged and infiltrated 100% on site."[11]

Energy Efficiency

The designers understood that lighting and thermal comfort demand the greatest electrical load, so the building was designed to maximize passive lighting and thermal opportunities. The design goal of the buildings was to generate the lowest possible energy load, so the buildings are oriented and designed to maximize daylighting opportunities. All of the northern elevations have large windows and clerestory conditions, providing 30% daylight, exceeding California's Title 24. California's Title 24 is an code regulation developed through legislation to reduce the energy consumption of residential and nonresidential buildings.[12] In addition to northern glazing, daylight in also provided in two other strategies, an internal hallway of skylights reflects light to the classroom spaces; and corner glazing in each classroom washes light across two walls providing a balanced reflected light, reducing contrast and glare.

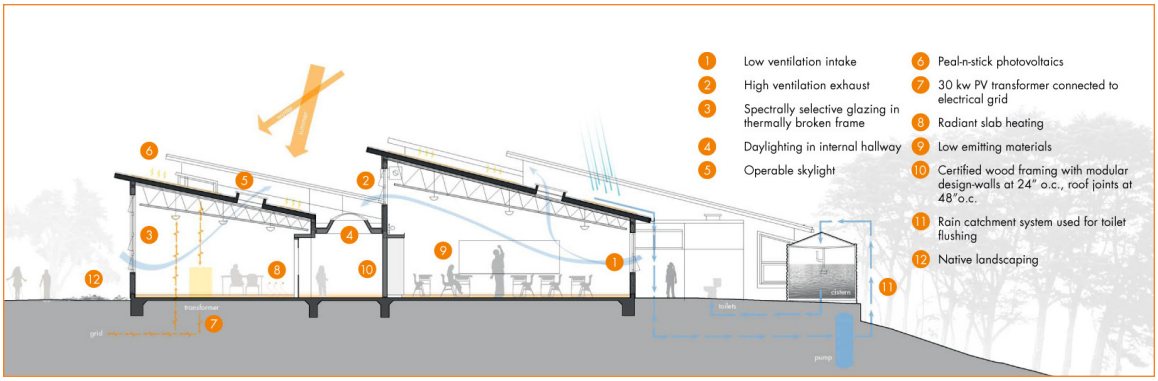

Figure 5.4 Chartwell School Sustainable Strategies Diagram Source: EHDD Architecture

Figure 5.5 Interior photo of the Multipurpose Room. Source: EHDD Architecture

Figure 5.6 Inteior photo of the classroom spaces. Source: EHDD Architecture

Each classroom space is conditioned using natural air. The classroom spaces are conditioned using a passive system by creating negative pressure around the perimeter of the building, increasing air circulation. By providing operable windows on opposite ends of the classroom, at both high and low conditions, cross ventilation occurs throughout. In addition, each classroom has a 30 Kw Photovoltaic panel, totaling 32,000 kW of Photovoltaics on campus.[13] Employing photovoltaics on each classroom allows the school to meet its electrical demand on site without requiting the need for municipal power, allocating only the minimal numbers of photovolticas to achieve self sufficiency. A monitoring system and lighting controlled sensor helps to reduce energy consumption. This system allows students to monitor energy use and production of photovoltaic power through the web.

Indoor Environmental Quality

Qualities of the interior spaces were carefully thought of as windows are strategically placed for views out, daylight in, and to provide natural ventilation. While inside the building, there is always a connection to the outdoors. Windows were selectively sized and located to optimize views to the native landscape. The spaces are ventilated through a low intake and high exhaust system with ceiling fans to increase circulation. Daylight is the primary light source. The use of large doors also maximizes the connection to the outdoors, acting as a viewing window.

Heating for the buildings is provided through radiant heating located in the flooring system. This system gradual increases temperature, responding to heat lost from the human body. This allows occupants to assimilate steadily to the interior conditions. Sound mitigation is isolated at the classroom level through resilient channels and sound insulation. Each classroom space is designed to expand; interior walls are non load bearing, so when needed, they can be removed to accommodate a larger classroom size.

Building Materials

The construction methodology used, deconstruction, utilized a modular building system of light wood material. Rather then using the traditional 16 o.c. stud layout, the architects found that a 24 o.c. stud layout provided the similar support and used 30% less framing lumber.[14] The difference between selecting a 16 o.c. vs. 24 o.c. stud layout system allowed the architects to utilize FSC certified lumber throughout the school.[15] Using this methodology allows each building element to be reusable in future projects. The designers developed their own system to install the exterior siding to maintain the integrity of the material.

Figure 5.7 Image of the science gardens. Source: EHDD Architecture

Both the interior and exterior building materials are made of recycled content, rapidly renewable, or salvaged material. The exterior siding is made from salvaged redwood of wine aging tanks. The interior spaces utilize linoleum, cork and bamboo flooring. Non-emitting and low emitting paints and adhesives were also used in the interior spaces.

Learning Environment

The entire campus was designed to be an extension of the curriculum. As one of the objectives of the design, all of the green technologies used are strategically placed on site to be an educational tool. Walking paths and large walkways are provided to these green technologies, making them accessible for both student and teacher. Science gardens that are fed through sluices are located on large walkways outside of classroom spaces. The wide walkways act as an extension of the classroom space, provide areas for students to play and invite them to explore. The sluices have been used to explain how water flows.

Conservation and reduction of energy use was a main objective of the project. Teachers have integrated photovoltaic technology into the curriculum by utilizing the web monitoring system. With this system, students are able to monitor daily energy use and compete to be the lowest energy use classroom. Additional educational tools have been the use of vegetation. Walking paths to and within the native

landscaping provides students opportunity for self-discovery. Science gardens allow students to grow their own vegetation and monitor plant growth and composition.

LESSONS LEARNED

A key element of this project is the relationship made between the architect and the school. From the very beginning, they made sustainability a goal for the school. Identifying a goal early in the project allowed the architects and school to develop green strategies that were both beneficial for the building but also contributed greatly to the students education. Focusing on being self-sufficient, the design looked at reducing the energy demand of the whole campus by utilizing passive technologies.

The greatest strength was focusing on the self-sufficiency of each building first. With the concept to designing each building to support itself, it creates a campus that is self-sufficient. Each classroom space was designed to have proper daylight, to have natural air circulation, to collect rainwater, and to generate its own electricity using photovoltaics. These strategies compounded together, allowed the school to become a net-zero campus.

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SIDWELL FRIENDS MIDDLE SCHOOL
Location: Washington, D.C.
School District: Private
Grade Level: 7-8
Architecture Firm: KieranTimberlake Associates, LLP

ABOUT THE SCHOOL

Founded in 1883, Sidwell Friends School is a co-educational Quaker Day School with two campuses located in Washington, D.C. and Bethesda, MD. Committed to be an institution that is an ideal setting for diversity; inspired by the values of the Religious Society of Friends, the school believes each student should be offered a rich and rigorous interdisciplinary curriculum designed to stimulate creative inquiry.[1] The curriculum is designed to provide their students with the best opportunities possible, focusing on developing consensus, diversity, and environmental stewardship.

When the Board of Trustees decided to expand the existing Middle School, they made Environmental Stewardship a top priority of the project. With a curriculum grounded to teach students about how natural works and the human relationship to it,[2] it seemed only natural to design the expansion and renovation of the Middle School as a green building. The Trustees commissioned Kieran Timberlake Associates, LLP located in Philadelphia to design the addition.

The expansion of the Middle School began with a Master Plan for the entire Sidwell Friends School, completed in 2001. The master plan outlined a phased transformation of the buildings along the Wisconsin Avenue. The intent of the future developments was to focus the campus by connecting existing landscape to the new by developing the landscape into a unifying feature. The Middle School expansion was the first phase of the master plan.

DESIGN OBJECTIVES

The existing Middle School facility, a fifty-year-old structure, sat awkwardly on an undersized site. Expansion of the facility enhanced the existing building into an indoor-outdoor teaching environment for the students, enlarging the footprint by 39,000 square feet. The construction of the Middle School addition was an integral part of the school's environmental science curriculum. The building was designed to be a

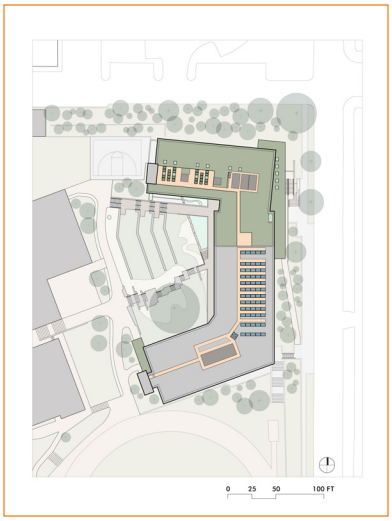

Figure 5.8 Site Plan of the Sidwell Friends Middle School. Source: Kieran Timberlake Associates, LLP

teaching tool demonstrating how nature and human systems interact. The goal of the project was to create a high performance hands on learning school facility. Students are able to interact with the building by monitoring and measuring the health of the facility. They were exposed to mechanical, electrical, and structural systems and had direct access to the outdoors at all levels of the building.

The school's goal was to achieve LEED NC Platinum Rating and to be a demonstration building for future school facilities in the nation. In 2006, the school achieved a LEED NC Platinum rating, becoming the first nationally platinum rated school facility.

SUSTAINABLE FEATURES

Sustainable Sites

Built as an extension of the existing middle school, the new facility reestablishes a connection to the local ecology. It is situated on a ridge between two watersheds.[3] Strategizing the building siting allows the architects to maximize the opportunities for natural daylight, stormwater management, and ventilation.

Water Efficiency

Figure 5.9 View of the Wetland Courtyard. Source: Kieran Timberlake Associates, LLP

A courtyard space was created between the existing and new Middle School to unify the two facilities. The courtyard spaces act as a learning laboratory for the students, meeting the disciplines of biology, ecology, and chemistry. The wetland is designed to be three large terraces, handling both the kitchen and restroom wastewater. Rainwater on the site is captured through green roofs. The roofs are connected to a series of scuppers and open downspouts that lead to storage cisterns. The stored rainwater is used for irrigation of native landscape and to support the ecology of the wetland.

Energy Efficiency

The facility is designed to achieve energy efficiency through passive systems and renewable energies. The strategies used are natural daylight, the stack

effect, and photovoltaics. Each building façade was designed independently to respond to cardinal conditions. Northern facades have windows providing daylight, southern facades have horizontal screens over windows to reduce glare and heat, and east/west facades have vertical sunshades to reduce low angle glare.[4]

Each classroom space is individually conditioned using these strategies. Daylight provided from the north has reduced the building's lighting demand by 55%. Solar chimneys at each classroom help to facilitate passive ventilation in the building. Southern facing glazing heats the air within causing convection currents from the north to draw in cooler air, resulting in natural air circulation. The chimneys are also designed to operate with mechanical ventilation systems. The chimneys have monitors that activate a mechanical cooling system. During the cooler months, the solar chimneys allow the school to utilize natural air and temperature.

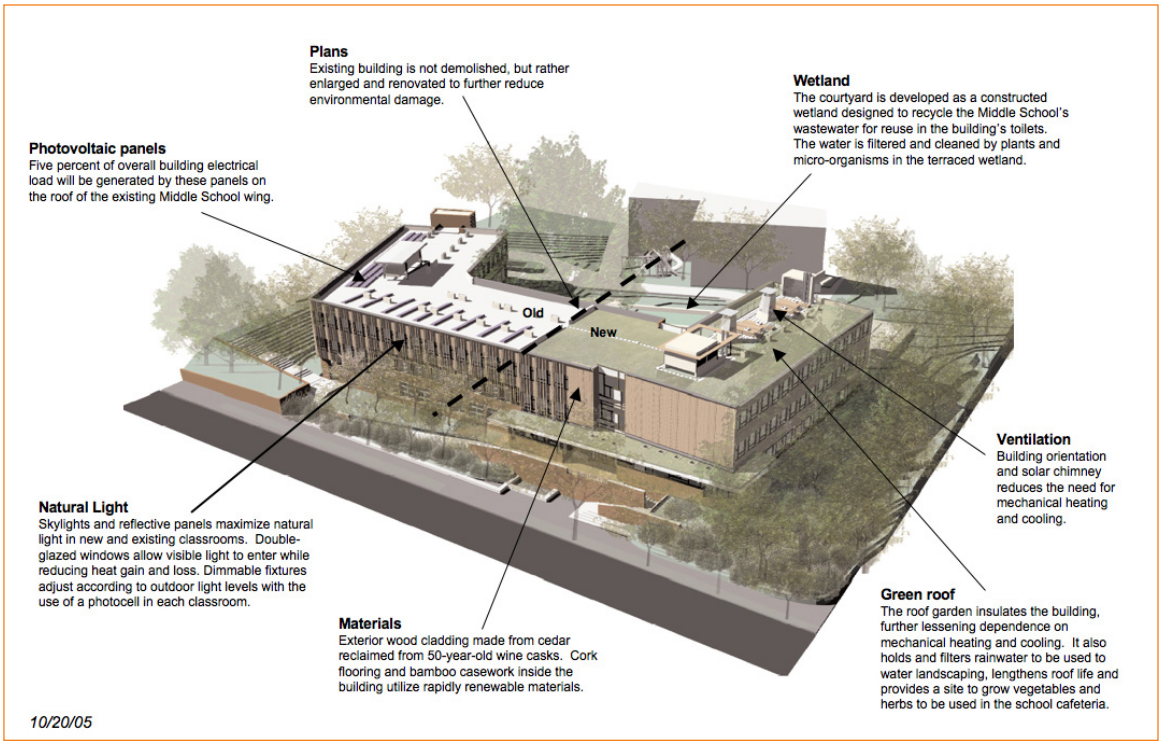

Figure 5.10 Sidwell Friends Middle School Sustainable Strategies. Source: Kieran Timberlake Associates, LLP

The building also utilizes photovoltaics. The roofs of the existing facility have roof mounted photovoltaics and the new facility have building integrated photovoltaic (BIPV) on the southern façade. Employing photovoltaics was more of an educational tool then to reduce the use of nonrenewable energies. The photovoltaics in total only contribute to reducing 5% of the overall building electrical load. A roof garden provides access to the photovoltaics for student learning. Students regularly visit the container garden, so they have the opportunity to monitor the PV panel performance.

The Middle School contributes to meeting the energy needs of the rest of the campus in an economically effective manner by housing a central utility plant in the basement of the addition.[5] The central plant uses extremely high efficiency pulse boilers and modular chillers sized to take advantage of the diversity factors when supplying other campus buildings.[6] It was more energy efficient to select a smaller centralized system then stand-alone building units when attempting to meet diverse mechanical needs of the buildings. Combination of passive systems, appropriate site orientation, and strategic selection of mechanical systems has reduced the building's energy demands by almost 50% of the existing energy demands.

Figure 5.11 Interior Hallway with informal study areas and viewing windows. Source: Kieran Timberlake Associates, LLP

Indoor Environmental Quality

Great thought was put into the design of the interior spaces. A perimeter hallway connects the classrooms to one another. Within the hallway are viewing windows to the outdoors, informal studying and gathering spaces, and natural daylight. Automatic sensors control lighting levels, utilizing artificial light when daylight is insufficient.

Interior surfaces selected are low and non emitting materials. The materials were selected to be locally available, recycled, and rapidly renewable. Those materials are cork flooring, bamboo casework, and exposed raw material.

Building Materials

Priority of the building materials were given to native and local material species. Majority of the exterior facades are made from reclaimed 50-year-old wine casks used as wood cladding throughout. The aged silver grey color of the wood allows the building to blend into the landscape. Wood sunscreens are used on both the existing and new building façades. Prefabricated panels integrated with R-30 value insulation are used on the addition.

Learning Environment

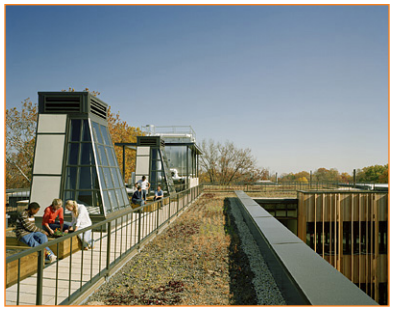

Figure 5.12 Science gardens and celestories are located on the roof of the addition building. Source: Kieran Timberlake Associates, LLP

One of the main strategies of the design was to develop the new addition as a learning tool for the students. All of the green and structural technologies are exposed. Access is provided to the rooftops where students can monitor the photovoltaics and container gardens. The wetland courtyard is a good example of how the designers made educating students a top priority. They created a system that processes the schools wastewater, allowing teachers and students to have a first hand experience of the biology of nature.

As the first school to achieve such a high sustainable rating, the school has made it their mission to educate others about their successes. Students led tours through the facility educating visitors about the sustainable features and learning tools of the building.

LESSONS LEARNED

The lesson learned from this project is maintaining school identity while achieving excellence in sustainability. Fortunate that one of the tenents is environmental stewardship, educating the staff about sustainability and the built environment was a simple task. Therefore, exploring new green technologies was not a challenge, rather meeting sustainable innovation and education was the challenge.

One of the successes of the project was the development of the wetland courtyard. Not only did the courtyard act as unifying feature for the school architecturally, but it also had a utilitarian purpose,

it processed the schools wastewater and acted as laboratory of the students. The courtyard is just one example of how the sustainable technologies have been used as educational tools. The designers made educating students first through architecture a design priority.

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HAWAII BAPTIST ACADEMY MIDDLE SCHOOL

Location: Honolulu, Hawaii
School District: Private
Grade Level: 7-8
Architecture Firm: Group 70 International

ABOUT THE SCHOOL

Hawaii Baptist Academy Middle School is situated in Nuuanu Valley on the Island of Oahu. It is one of Hawaii's many college preparatory schools, whose motto is "Christ for every nation."[1] Found in 1949 the school has stayed true to their Christian mission of preparing young people in Hawai`i to honor God with their lives.[2] In 2004, the school began a project to develop a new middle school facility. They hired local architecture firm, Group 70 International.

DESIGN OBJECTIVES

One of the goals of the project was to create a campus that was LEED certified. In 2007 the school received a LEED NC 2.1 Gold rating. Collaboration between leading architecture and engineering firms made the goal achievable; Hawaii Baptist Academy Middle School is one of two Gold rated Schools in the State of Hawaii.

SUSTAINABLE FEATURES

Sustainable Sites

The middle school campus is surrounded by a wetland stream and dense natural forest, so the building placement was an importance factor of the design. One of the main considerations was to minimize site disturbance by concentrating the building footprint and maximizing the amount of open and landscaped area. In total, the design preserved 89% of the existing open space, including the wetland stream and 90% of the existing trees on site.[3] Maximizing green open space helped to preserve the surrounding natural environment and provided areas for students to play.

Other site considerations were the promotion of alternative transportation sources and reduction of light pollution. Located near a freeway access and exit, the school addressed transportation needs by encouraging carpooling, bicycling, and electrical vehicles through the construction of shower and changing facilities. To reduce light pollution, luminaries were selected to fall within the building envelope.

Exterior lighting sources larger then 1000 lumens utilized light shields. The lighting intent was to reduce the disturbance of light on the surrounding wetland and forest area.

Figure 5.13 Conceptual Site Plan of Hawaii Baptist Academy Middle School Campus. Source: Rocky Mountain Institute, Rowland High School/Middle School Powerpoint

Water Efficiency

The project site is located in a valley that receives 0.57 feet of rainfall monthly, the designers recognized an asset and made capturing water a priority. The site is designed to manage 0.5 feet of rainfall monthly, using native landscaping, water catchment systems, and cisterns to collect the water. Rainwater is primarily catched using the rooftops and is stored in 20,000 gallon cisterns. The collected water is used for irrigation of landscaping that does not require the need of municipal water for irrigation. In addition, the site also handles the stormwater using native landscaping. Located near the stream, the banks have native plants to control site erosion.

Figure 5.14 Interior Photo of a classroom space. Source: Group 70 International

In addition, the bathroom facilities incorporate waterless urinals and automated faucets, reducing the potable water consumption by 42%.[4]

Energy Efficiency

Reducing the buildings energy consumption was the main concern. To reduce the electrical load, employing daylighting techniques was the primary strategy. The middle school is sited to maximize daylight opportunities. The use of daylight as the primary light source reduced the energy consumption by 45%. Spaces that do not receive direct daylight have light piped in harvested from the roof.[5] The electrical lighting is controlled with light sensors that monitor daylight levels to adjust electrical lighting accordingly. Conditioning of spaces is provided through a central mechanical systems. The system utilizes a refrigerant system with less CFC to reduce the emission of CFCs.

The middle school has a 10kW Photovoltaic array that provides 15,919 kwh annually. The single array located on the southern face of the multipurpose room is directly connected to an electrical metering system. The system has the ability to earn income for the school by selling excess power generated to the city.

The project employed a commissioner to verify the mechanical and sustainable systems. Commissioning is a third party who reviews and verifies the installation of mechanical, ventilation, plumbing, and electrical systems. The role of the commissioner is to ensure that the building systems specified were installed properly. Much of incurred building cost and inefficient building systems stems from improper installation and incorrect purchase of materials, so a commissioner reduces the chance of error and educates the building owner through a series of training workshops about operation and maintenance.

Indoor Environmental Quality

The project employed a Construction IAQ Management Plan. The theory behind an IAQ plan is it prevents the spread of hazardous substances

created during the course of construction before building occupancy. All ductwork was sealed and the building's ventilation system was flushed out two weeks prior to occupation using high performance Minimum Efficiency Reporting Value (MERV) filters. In addition, the building was designed to control the spread of pollutants. Entry grills were installed at each entrance of a classroom or corridor; science chemistry rooms have direct exhaust ventilation systems to prevent recirculation of air; a separate plumbing line was dedicated for chemical waste to prevent contamination to the main plumbing system.

All of the interior materials were selected to contain no VOC or low VOC value. Those materials are paints, carpet, adhesives, and sealants.

Building Materials

The materials selected were chosen on their basis of renewability, recycled content, and locality. As much as possible the materials selected had the Hawaii Seal of Quality™ symbol, ensuring products were produced and harvested in Hawaii. Other materials used in the building contained at least 5% recycled content. These materials were reinforcing steel, precast concrete, GFRC, structural steel, cold form metal framing, steel doors, gypsum wallboard, carpeting, lockers, and acoustical ceilings. All of the exposed woods were selected from sustainable harvested forests. These woods were used as glulam beams and for casework.

The project also had a construction waste management program. It required the contractors to creatively reuse existing materials and properly dispose of construction waste. The program specified reusing existing materials for new construction on or offsite, how to properly dispose recycled material to plants, and how to reuse excess new material.

Learning Environment
Sustainability was a new concept at the school. Strategies used in the design of the facility were integrated into the curriculum.

LESSONS LEARNED

In the approach of this project, the designers looked at holistic methods of making the school sustainable. Their main goal was to become LEED certified, so their objective was to achieve points in every LEED category. In doing so, the school is able to efficiently manage all of the resources on site.

The strategy that is unique to the project is the respect for the natural setting. Both the school and the designers recognized the stream and forest as an asset to the site, they sitted the buildings to minimize impact to the natural surroundings and to maximize views of the natural beauty surrounding the built environment. Management of water is also another successful strategy of the project. Located in a valley that rains constantly, the site is able to collect all of the rainwater and store it during the drier seasons.

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CONCLUSION

The three schools discussed represent institutions that have taken the initiative to integrate environmental stewardship into education. The commonality among the projects is an awareness and understanding of specific identity and establishing a commitment to be energy efficient and sustainable from the very beginning. As a school, establishing these two elements first, dictated the steps to follow; selection of architecture firm, design and sustainable strategies, and integration into the curriculum.

The sustainable strategies common in all three schools are:

Sustainable sites

- Ability to understand and respect the natural features of the campus.
- To protect and restore the natural habitat.
- To minimize the building footprint and maximize open dedicated green space.
- To properly orient and site the buildings to maximize passive sustainable opportunities.

Water Efficiency

- Manage stormwater onsite through low impact methods: utilizing native landscaping, mitigating water away from building foundation, onsite filtration.
- Collect and store rainwater in cisterns for use during dry season and irrigation of landscape.
- Utilize water efficient fixtures such as low-flush toilets and waterless urinals.
- Design plumbing systems to handle grey water for future use.

Energy Efficiency

- Reduce energy demand first through passive systems such as daylight, natural ventilation and the stack-effect.
- Use daylighting to reduce energy demand.

- Strategically place lighting windows to provide a balanced glare reduced light. Such locations include corner windows, utilizing light shelves, and internal hallways to reflect light in.
- Stack effect of low intake and high outtake to create circulation of air during non-wind conditions.
- Naturally ventilate spaces to reduce energy demand.
- Utilize renewable energies when possible. Photovoltaic arrays were commonly placed on classroom building to reduce the schools need on non-renewable energy sources.
- Select systems that have low or non CFC if utilizing air conditioning systems.
- Hire a commissioner, a third party consultant, to review, verify, measure, and certify all green systems.

Indoor Environmental Quality

- Provide daylight in all classroom and educational spaces.
- Provide viewing windows to the outdoors.
- Select interior materials that are low or non emitting VOC. This includes all paints, adhesives, and finished material.
- Develop an Indoor Air Quality (IAQ) management plan during and after building occupancy.
- Install entry grills and mats to control the spread of pollutants.

Building Materials

- First select materials that are regionally available. Local seals verify harvesting and manufacturing of material help in the selection process.
- Select materials that are recycled, rapidly renewable, or reused.
- Select woods that have been harvested from sustainable managed forests.
- Develop a construction waste program to appropriate dispose and donate excess materials.

Learning Environment

- Design the building first to be an educational tool for the students. Expose structural, mechanical, and electrical systems to educate students about the construction of the facility.
- Strategically place green systems, such as cisterns with waterways, gardens, and energy monitoring systems in public areas to provide exposure for learning opportunities.
- Select sustainable strategies that will help to enhance curriculum existing within the school. For example, create a wetland area to support biology and chemistry courses.
- Have students lead tours of the facilities sustainable features.

Part 3: The Public Process

CHAPTER 6: WHY DO WE ENGAGE?
CHAPTER 7: HOW TO ENGAGE?

6 Chapter
Why do we engage?

Humans have a natural tendency to form relationships. Some people form relationships with those of similar ideals and views. After World War II, there was a large push in American society to move out to the suburbs and to purchase a single family home. This movement caused many things. One was a collective behavior to accept particular ideals. What would seemed like the underlying message in this movement: create a family and take care of yourself, really was a form of a group activity. Americans moving into a suburb, purchasing a home, and starting a family were the basis of how community organizations formed; people coming together to meet other of like mind. During national holidays, whole blocks were shut down for neighborhood block parities, stay-home mothers shared cups of sugar with one another. The actions of living in an organized community, forming relationships based upon common values, and sharing were the basis of what characterizes the beginnings of establishing social networks.

SOCIAL CAPITAL

The term social capital, simply defined is the social connections between humans, the networks we establish to form commonality.[1] It is also the establishment of core values that catalyst social connection.[2] We use social capital as a measure to gauge the depth of civility and human engagement. Robert Putnam, Professor at Harvard University and author, describes social capital as "social networks that have value"[3] and "connections among individuals-social networks and the norms of reciprocity and trustworthiness that arise from them."[4] Social capital is characterized as the norms and values established in the connections we make, the social networks. Another political scholar, James Coleman, describes "social capital as defined by its function. It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions.[5]

Social capital, regardless of the definition, is a result of an action. It is important to understand what the motives are. In a national website, called Better Together, they describe 150 things to build social capital. (Table 6.1) Ways to improve social capital in a community can be

TABLE 6.1 WHAT TO DO: 150 THINGS YOU CAN DO TO BUILD SOCIAL CAPITAL [7]

1. Organize a social gathering to welcome a new neighbor
2. Attend town meetings
3. Register to vote and vote
4. Support local merchants
5. Volunteer your special skills to an organization
6. Donate blood (with a friend!)
7. Start a front-yard/community garden
8. Mentor someone of a different ethnic or religious group
9. Surprise a new neighbor by making a favorite dinner–and include the recipe
10. Tape record your parents' earliest recollections and share them with your children
11. Plan a vacation with friends or family
12. Avoid gossip
13. Help fix someone's flat tire
14. Organize or participate in a sports league
15. Join a gardening club
16. Attend home parties when invited
17. Become an organ donor or blood marrow donor.
18. Attend your children's athletic contests, plays and recitals
19. Get to know your children's teachers
20. Join the local Elks, Kiwanis, or Knights of Columbus
21. Get involved with Brownies or Cub/Boy/Girl Scouts
22. Start a monthly tea group
23. Speak at or host a monthly brown bag lunch series at your local library
24. Sing in a choir
25. Get to know the clerks and salespeople at your local stores
26. Attend PTA meetings
27. Audition for community theater or volunteer to usher

as simple as calling an old friend or holding a barbeque. Either way, the methods described by Better Together, represent indicators that measure current and past trends of a community. Indicators are measurements that reflect the interplay between social, environmental, and economic factors affecting a region or a community's well-being.[6] Outcomes of social capital in a community are an indication that communication and connections in a community exist.

MOTIVES AND COMMUNITY

Public engagement is the result of both the attitudes of the individuals and the environments we live in. The communities we live in shape our outlook and perspective on life. Communities provide their own set of traditions, values, and culture. People choose to live in certain communities for many reasons, to be around others of like minds, to have opposition, for the natural environment, or for location. Whatever the reason may be, communities are categorized as two types, homogeneous and heterogeneous.

A scholar, David Campbell, an assistant professor of political science at Notre Dame, wrote *Why We Vote: How Schools and Communities Shape Our Civic Life*, an outcome of his doctorate dissertation at Harvard University. In the book, he attempts to make a connection between civic engagement and the environment using voter turn out as an indicator. Campbell refers to the early theories of James Madison and Alexis de Tocqueville of civic engagement. James Madison (1817), fourth president of the United States, best known for the writing of *Federal No.10*, discusses government and public participation. Madison believed communities engage to protect self-interest and passion.[8] The binding agent in the area of civic engagement is passion and self-interest.

Alexis de Tocqueville (1859), a French political thinker and historian, wrote the book, *Democracy in America*, based upon his observation of American society in the 1830s. In his book, he discusses his observations

28. Give your park a weatherproof chess/checkers board
29. Play cards with friends or neighbors
30. Give to your local food bank
31. Walk or bike to support a cause and meet others
32. Employers: encourage volunteer/community groups to hold meetings on your site
33. Volunteer in your child's classroom or chaperone a field trip
34. Join or start a babysitting cooperative
35. Attend school plays
36. Answer surveys when asked
37. Businesses: invite local government officials to speak at your workplace
38. Attend Memorial Day parades and express appreciation for others
39. Form a local outdoor activity group
40. Participate in political campaigns
41. Attend a local budget committee meeting
42. Form a computer group for local senior citizens
43. Help coach Little League or other youth sports – even if
44. Help run the snack bar at the Little League field
45. Form a tool lending library with neighbors and share ladders, snow blowers, etc.
46. Start a lunch gathering or a discussion group with co-workers
47. Offer to rake a neighbor's yard or shovel his/her walk
48. Start or join a carpool
49. Employers: give employees time (e.g., 3 days per year to work on civic projects)
50. Plan a "Walking Tour" of a local historic area
51. Eat breakfast at a local gathering spot on Saturdays
52. Have family dinners and read to your children
53. Run for public office

for the foundation of American society, democracy. Volume 2 of the book, discusses, the Influence of democracy to motivate people to engage in civic society. Yet, in the first line of Volume 1, "Tocqueville emphasized equality: "No NOVELTY in the United States struck me more vividly during my stay there then the equality of conditions."[9] Shocked by America's need for equality and the promotion of individualism, Tocqueville believed the new rights bestowed to the citizens motivated public engagement. During a time of equality, he observed men at a common level of uniformity, trusting the masses and expressing public opinion.[10]

Out of these theories, protection of ones interest[11] and fulfilling one's duty[12] is the classification of community types, heterogeneous and homogeneous communities. These two types of communities help Campbell to understand which motive is stronger. Homogenous communities support the belief that people of like mind associate with one another, which legitimize themselves together.[13] Heterogeneous communities are opposite, communities are fragmented. Members of these communities do not share similar backgrounds and have greater diversity. The diversity in heterogeneous communities is identified as the difference of ethnicity, race, and economics.

Social norms and sanctions are tools social researchers use to investigate motives behind individual and community engagement. Putnam characterizes social norms as a regulatory behavior accepted by a group, a frequency of interaction.[14] Social norms are indicators to associate individuals to particular groups or organizations. The term social sanctions used by Campbell, refers to signals people sent out to one another in everyday social interactions.[15] These sanctions are typically subtle nonverbal communication, used to enforce and regulate social norms within a community, often used in settings to recognize negative behavior of a community member. This is commonly known as the stink eye.

54. Stop and make sure the person on the side of the highway is OK
55. Host a block party or a holiday open house
56. Start a fix-it group–friends willing to help each other clean, paint, garden, etc.
57. Offer to serve on a town committee
58. Join the volunteer fire department
59. Go to church...or temple... or walk outside with your children–talk to them about why its important
60. If you grow tomatoes, plant extra for an lonely elder neighbor – better yet, ask him/her to teach you and others how to can the extras
61. Ask a single diner to share your table for lunch
62. Stand at a major intersection holding a sign for your favorite candidate
63. Persuade a local restaurant to have a designated "meet people" table
64. Host a potluck supper before your Town Meeting
65. Take dance lessons with a friend
66. Say "thanks" to public servants – police, firefighters, town clerk…
67. Fight to keep essential local services in the downtown area–your post office, police station, school, etc.
68. Join a nonprofit board of directors
69. Gather a group to clean up a local park or cemetery
70. When somebody says "government stinks," suggest they help fix it
71. Turn off the TV and talk with friends or family
72. Hold a neighborhood barbecue
73. Bake cookies for new neighbors or work colleagues

Social norms and sanctions are ways of characterizing community. Yet these two characteristics are not always seen hand-in-hand. Social sanctions are supportive to social norms, and social norms are only effective if sanctions are acceptable in a community. According to many scholars, the "mechanism of enforcing norms is through social sanctions has been labeled as social capital."[16]

In homogenous communities, social norms and sanctions are popular regulating components. Social sanctions are a way to keep members in line, legitimizing existence, and identify noncommittal members. As Putnam says, "A society characterized by generalized reciprocity is more efficient then a distrustful society, for the same reason that money is more efficient that barter."[17] Homogeneous communities are based on shared values, resulting in a better ability to form consensus on decisions. This equals greater presence of social norms and enforcement of social sanctions. The formula, that social norm + social sanction = legitimacy & relationship, is the facilitation of networks and the beginnings of trust.

When there is an acceptance of social norms and sanctions, a greater sense of public participation exists. In this type of community, public participation becomes a social norm. Referring back to Tocqueville's theory of public engagement, citizens engage because they feel it is their duty. The investigations done by Campbell show homogenous communities in general have high rates of civic engagement.[18] Communities similar in race, ethnicity, and income can measure their civic participation by membership in voluntary associations.[19]

In heterogeneous communities, social norms and sanctions are based upon different commonalities. Diversity in these communities is a variable economics, race and ethnicity. If it is true, that individuals interact with those of similar backgrounds, then friendships and social networks do not exist in heterogeneous

74. Plant tree seedlings along your street with neighbors and rotate care for them
75. Volunteer at the library
76. Form or join a bowling team
77. Return a lost wallet or appointment book
78. Use public transportation and start talking with those you regularly see
79. Ask neighbors for help and reciprocate
80. Go to a local folk or crafts festival
81. Call an old friend
82. Sign up for a class and meet your classmates
83. Accept or extend an invitation
84. Talk to your kids or parents about their day
85. Say hello to strangers
86. Log off and go to the park
87. Ask a new person to join a group for a dinner or an evening
88. Host a pot luck meal or participate in them
89. Volunteer to drive someone
90. Say hello when you spot an acquaintance in a store
91. Host a movie night
92. Exercise together or take walks with friends or family
93. Assist with or create your town or neighborhood's newsletter
94. Organize a neighborhood pick-up – with lawn games afterwards
95. Collect oral histories from older town residents
96. Join a book club discussion or get the group to discuss local issues
97. Volunteer to deliver Meals-on-Wheels in your neighborhood
98. Start a children's story hour at your local library
99. Be real. Be humble. Acknowledge others' self-worth
100. Tell friends and family about social capital and why it matters

communities. Yet, social norms and sanctions do exist; it is the diversity and difference between the members that cause interaction. According to Eric Oliver, author of *Democracy in Suburbia*, conflict is essential in fueling civic participation. The social norm of heterogeneity communities is not the common link of similar values and interest, but the diversity and liberty to protect one's own interest.[20] Heterogeneous communities promote diversity as a social norm.

Diversity can be a motivation in heterogeneous communities to participate. Even though members of these communities do not have visible commonalities to legitimize themselves with one another, the desire to protect one's own interest legitimizes members. Public participation in heterogeneous communities is a result of an established social norm, diversity.

CONCLUSION

Social capital is seen a result of an action, as it describes the benefits of human interaction. Throughout our daily lives, social capital is evident in the workplace environment by business networking or chatting with a co-worker at the copy machine. Our workplace is one community of everyday life; it represents a type of homogenous community. The challenge is can evidence of social capital occur outside of the workplace and in our "other communities"?

The theories presented by Campbell, relating environmental conditions to the thought of two classic theorists, may be true; the environments we live in may influence our engagement in civic life. In communities were the social norm is public participation, members are obligated to perform. Whereas in heterogeneous communities, engagement exists because of diversity, members are protecting individual ideas. Both of these communities develop their own distinct culture that is characterized by the social norms and sanctions. The social norms and sanctions that exist in any community is a better indicator of how and why public engagement occurs.

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7 Chapter
How to engage?

PUBLIC PARTICIPATION

One method of engaging people is through public participation. "Public participation is the process by which public concerns, needs, and values are incorporated into an external decision making process."[1] A process requires the involvement of people affected by future decisions. Public participation is typically a preconceived process organized specifically to gather information, make decisions, and to have a certain outcome. Essential to the process is getting the people involved to be part of the procedure in a legitimate and meaningful way. Most public processes are during the "after hours" of a workday, during the weekends, and evenings. These hours are considered personal time and asking stakeholders to volunteer may be a difficult challenge if the process is not perceived to be meaningful and worthwhile.

WHAT IS PARTICIPATION?

The term participation is defined in many ways as it regards the public process. The essentials of participation are the act of decision-making, role of affected peoples, and method of engagement. Typically, participation in the public process involves people affected by decisions that would influence their lives.[2] These people participate in a process that is based ideally upon building democracy,[3] by equally respecting and representing diverse opinions. In the public process, the act of participation shifts the power of decision making to the participants, the stakeholders. Participants can be of any race, ethnicity, or age, what defines them as participants is whether or not the decisions made would affect and/or influence their lives. This process causes intervention to existing conditions and dialogue, creating influential engagement and significant change.[4]

Roger Hart Ph.D., a professor of environmental psychology at University of New York Graduate School of Psychology, developed a ladder, Hart's Ladder, describing the levels of participation as it relates to youth. Through that ladder, he categorized participation levels into two categories, non-participation and participation. Many scholars have used Hart's Ladder to understand how youth are involved in the public process. Using a similar concept, participation can be measured regardless of

age, as the roles in the public process are similar, with only the characters changing. Table 7.1 is a modified version of Hart's ladder, explaining how involvement can be measured for stakeholders. (Table 7.1)

Table 7.1 Levels of Participant Involvement

Category	Level	Description
Non Participation	Manipulation	The lowest level of interaction in the public process. Stakeholders are assumed non-contributive but are highly encouraged to participate.
	Decoration	Stakeholders market the process, but are little informed and showcased to the highest degree.
	Tokenism	Stakeholders are highly involved but have none or little decision-making power.
Participation	Assigned and Informed	Stakeholders are fully aware of the process, involvement, and role, they volunteer.
	Consulted and Informed	Stakeholders are asked opinions that are seriously considered.
	Stakeholder initiated and shared decision making	Stakeholders and professional collaborate in the decision making process.
	Stakeholder runs the show	Stakeholders initiate the process and make all decisions. Professional are support.

Source: Authors modifications to Hart's Ladder

WHO ARE THE PLAYERS/STAKEHOLDERS?

Stakeholders are individuals and groups directly affected or influenced by future decisions. Determining stakeholders in a public process is a difficult situation to navigate as an outsider. One method of identifying stakeholders is by speaking with community leaders. Community leaders can be found within non-profit organizations, local community boards, schools, and religious organizations. Establishing a relationship with community leaders will allow outsiders to get a better sense and perspective of the context of the public process. Some questions that can be asked are:

"Who will be the most affected by this project?
Are there any outspoken neighbors?
Are there existing relationships with community groups and organizations?
What is the physical reach of your organization?
Whose opinions are you concerned about?"[5]

These questions will help both the outsider and community leader to think beyond the boundaries of the problem, deeply analyzing possibilities. Stakeholders are commonly those responsible for decision-making and affected by the decision. They support to the decision and expertise to the issue. Once stakeholders have been identified a process can be developed to outline the decision-making method.

MAKING FRIENDS

Part of the public process is not only identifying stakeholders but also understanding who the stakeholders are. The public process is really about building a relationship with the participants.[6] Building a relationship is about making friends. It is a process that cannot be rushed and must be on going. Friendship requires having trust, communication, understanding, support, optimism, and hope for one another.

Building Capacity

The capacity of an individual or organization is essential in the public process. Capacity is an individual's or organization's ability to leverage resources to participate in a public process. Community capacity is the interaction of human capital, organizational resources, and social capital existing within a given community that can be used to collectively solve or improve a community's well-being.[7] The capacity of a community can be characterized as (1) the sense of community, (2) commitment to the community among its members, (3) ability to solve problems, (4) and access to resources.[8] The capacity of every community varies, communities are unique and different in their own ways. The function of the community's capacity is to engage and mobilize members to fulfill the needs of a community. In the case of the public process, a community having the capacity to participate is important, as many processes require the use of resources, members' time, and numerous hours of discussion and decision-making.**(footnote)**

Many of the core components of a community's capacity lie in leadership, organizational structure, and ability to organize as a collective group. The first tenet leadership focuses specifically on individuals. Some people believe leadership can be taught, while others believe it is an innate skill. Strong leadership is an organization enhances the human capital. A leader will have both the skill and ability to engage members towards legitimate causes and actions.

The leadership of a community is directly related to the organizational structure. Roles of organizations are to provide the support needed for a community through resources, advocacy, reinforcement of identity, and developing human capital.[9] Organizations that represent such services are schools, churches, and non-profits.

Culture

Diversity is becoming much more evident as a characteristic of communities. Communities are now multiracial or distinctly a singular race. How communities identify culturally, largely influences how relationship building will and can occur. In more situations, professionals are outside the culture of the community they collaborate with. Having cultural awareness and understanding, is an important skill to posses when establishing a relationship with a community of a different cultural background.

Some researchers believe that culture does not separate the professional from the community but the epistemologies separate them. Epistemologies are the differences in experiences and the processing of those experiences. Since communities are different and the environments we live in help to shape our outlook and perspective, the role epistemologies play in relationship building defines if a relationship can occur and how in depth it may be. Much of epistemology differences speak of the collective memories each community group may have about historical and current events and stereotypes of outsiders. When building a relationship with communities not of a professional's culture, it is critical that the professional respect and navigate through the host culture with interpretive lenses and confront otherness. [10]

COMMON METHODS

Once a professional has an understanding of the community, designing a public process is the next step. There are generally two strategies to engage with stakeholders, gathering and informing. [11] These techniques create a basic tool-kit for the public process. Table 7.2 will illustrate the common methods.

The methods listed in Table 7.2 illustrate common ways to gather and inform a community. Combining both the knowledge and culture of a community to this tool kit, will make a process unique and specific to that community group.

Table 7.2 Common Public Process Methods

Category	Process	Description
Informative	Mailings	Intended to reach a large audience and to get information to the people in a timely manner.
	Newspaper Listings	Designed to inform a whole community
	Media Events and Briefings	Intended to market and encourage audience buy-in by making key members of the community the face of the process.
	Internet	Uses the internet to reach audiences at their convenience. The use of blogs and websites allow for up-to-date information to be provided.
Gathering	Citizen Groups and Task Force Groups	Represents concerned members to act as the "glue" between professional and at large community. They are also used to gain public involvement during a process.
	Focused Group Meetings	Involves a facilitator or mediator to navigate a conversation of a specific topic. Designed to gather specific information.
	Public Meetings	Gathers a broad spectrum of community concern through the formal process of speeches.
	Workshops	Resolves a problem that is more complex requiring dedicated time.
	Charrettes	Uses a method typically practiced in the architecture and planning field. Created an intense environment to develop a visible product at the end. Typically last from 1-4 days.
	Polls and Surveys	Offers anonymity to participants in a process. Designed to seek specific information from a broadd range of community members.
	Community Walks and Field Trips	Allows both the community and the professional to be expose and learn first hand from real life conditions.
	Speak Out	Fair like atmosphere designed to gather and inform the community in an casual non intimidating manner. Organized with specific times, the community has the convenience to participate at their own leisure.

CONCLUSION

The process of working with community is a delicate process that requires commitment of both professional and community group. The public process is designed to involve stakeholders in decision-making process that is legitimate and meaningful. Participation is described as the involvement of people affected and influenced by a similar situation. Understanding who those people are is a process that involves many facets of the community. Identification of stakeholders is a critical component of the public process and certain stakeholder help to make a process meaningful and legitimate. Lack of such stakeholders wastes both the time of the community and the professional.

The public process is not only about getting the right people involved; it is also about building a relationship so that a process can occur. Building a relationship is as critical as involving the right stakeholder. Through relationship building, a professional and the community begin to understand one another's background, develop lines of communication, develop trust, and develop support. The outcomes of relationship building determine the reach of a public process and the impact it may have on a community group.

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8 Robert J. Chaskin, et al, *Building Community Capacity*, 14

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10 Umemoto, Karen. "Waling in Another's Shoes, Epistemological challenges in Participatory Planning," *Journal of Planning Education and Research,* Vol 21 *(*2001), pg 19

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Part 4: The Outcomes

CHAPTER 8: THE SITE
CHAPTER 9: HKM PUBLIC PROCESS
CHAPTER 10: CONCEPTUAL MASTER PLAN FOR HĀLAU KŪ MĀNA NEW CENTURY CHARTER SCHOOL

8 Chapter The Site

The site is located in the heart of Makiki Valley between Tantalus and Makiki Heights. Situated along the Makiki Stream, the site occupies three parcels of land (TMK: 2-5-019:008; 2-5-020:003, 005) (See Figure 1). Parcel 1 TMK 2-5-019:008 is the northern most portion of the site. Neighboring that parcel are residents of the Maunalaha Community and Hawaii Nature Center. Parcel 2 TMK 2-5-020: 003 is the center of the site and most visible portion. Makiki Heights Road, the stream, and a trash enclosure at the southern most portions define the boundaries. Parcel 3 TMK 2-5-020: 005 is situated on a down-slope cliff that supports Round Top Road. Makiki Stream and Round Top Drive mark the east boundaries; Makiki Heights Road marks the west boundaries, Hawaii Nature Center and State of Hawaii Conservation Land mark north boundaries and the Board of Water Supply Makiki Pumping Station marks the south boundaries. In total, the site is 5.4 acres.

TOPOGRAPHY AND CONTEXT

The topography of the site is a moderate slope with man-made terracing at the northern portion of the site. As the site meets the stream there is a change in topography. The eastern boundary of the site has the greatest topographical difference as cliff ways form to support the upper Round Top Drive. Previously a state park, the site is forested with both indigenous and invasive plants.

The context of the area is mainly single-family residents of both upper and lower economic classes. Within a ¼ mile of the site are a private educational institution, a local Board of Water Supply Pumping Station, State forestry agency, and an environmental non-profit organization. Physical characteristics are modest; limited by a majority of residential housing that is no more then 30 feet in height. Dominating most of the streetscape are large canopy trees and views toward the valley. The main roads to the valley and mountaintops are Makiki Heights Road and Round Top Drive. Both of these roads are circuitous two-lanes with traffic in both directions. Vehicular traffic is minimal, with peak traffic during morning and evening commute hours.

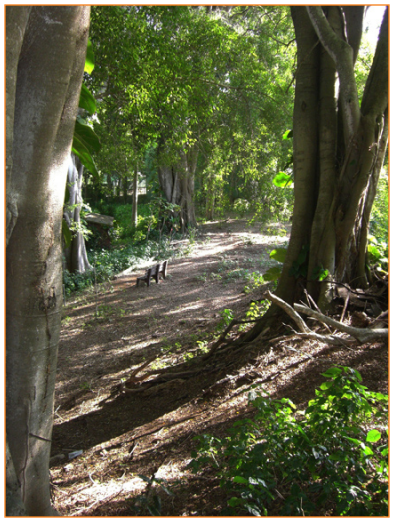


Figure 8.1 Image of the southern portion of the site. Source: Melanie Wong

CLIMATE

Located in one of Oahu's valleys, Makiki Valley receives moderate weather. Daytime temperatures are usually between mid-70s and 80s degrees. As a valley, it is sheltered from many of the winds prominent on the island, receiving moderate tradewinds from the northeast. The median annual rainfall in the area averages between 60 and 70 inches.

As Makiki Stream runs directly through the site, there is concern of annual and 100 year flooding. According to the Federal Flood Insurance Rate Map (FIRM), the area is located in a Zone X Floodplain. Zone X are areas with 0.2% annual flood chance. Through oral history, residents have not observed a flood through the site or area.

Figure 8.2 Image looking towards Makiki Stream. Currently the path to the stream is covered with overgrown invasive vines. Source: Melanie Wong

VIEWS

Located at the foot of the valley and along the stream, the site is advantageous to view up the valley and through Makiki Stream. At the center of the site, there are great views to the surrounding mountains. At the streambed, overhead trees frame views toward the mountain and south. There are no views of the ocean at the site.

CURRENT CONDITIONS

The school is currently housed in 7 modular trailers. Located in the central portion of the site, the school is sited to reduce its impact on the natural environment.

In the HKM Community Site meeting, the participants were asked to partake in a Group Site Analysis. As part of the exercise, each group was asked to identify positive and negative features of the site. Through this exercise a description of the current site conditions were developed by the sites users, the Hālau Kū Māna Ohana.

Positive features

The positive features of the site were identified as potential developable areas, edges along the stream, tree canopies, and viewing areas towards the stream and mountain. The developable areas were identified as the current location of the school, the playfield, and portions of the northern site. Most participants considered the site the greatest asset of the site as it offered great views.

Negative features

The negative features of the site were identified as the edge conditions along Makiki Heights Drive, the amount puddling occurring throughout the site, and the length of the site.

Figure 8.3 Image of the existing gravel drop-off/pick-up area. Source: Melanie Wong

Figure 8.4 Image of the current play area for HKM. Located adjacent to the current drop-off/pick-up area. Source: Melanie Wong

Figure 8.5 Image of the edge condition to the stream. Note the amount of over grown vegetation preventing easy and safe access to the stream. Source: Melanie Wong

Figure 8.6 Image of the current play field. Overhead is a tree canopy that shades the area. Source: Melanie Wong

Figure 8.6 Image of the current facilities, marking two of three classroom spaces. Source: Melanie Wong

Figure 8.7 Image of the only courtyard space and heart of the classroom buildings. Source: Melanie Wong

Figure 8.8 Image of an existing terrace area and the administration trailer. Source: Melanie Wong

Figure 8.9 Image of current dining area. Source: Melanie Wong

Figure 8.9 Image of a public path guided by HKM planted ti leaves. The public path is located between the edge of the stream and HKM facilities. Source: Melanie Wong

Figure 8.10 Image taken from the northern portion of the site looking towards the HKM Hālau. Source: Melanie Wong

Figure 8.11 Image looking towards the stream from the norther portion of the site. Source: Melanie Wong

Figure 8.12 Image of the edge condition at the northern portion of the site. The image is taken from one of the man-made terraces. Source: Melanie Wong

Figure 8.13 Image of the northern handle of the site. This portion of the site begins to interact with the residences of the Maunalaha community. Source: Melanie Wong

9 Chapter HKM Public Process

The design methodology used to plan Hālau Kū Māna (HKM) permanent campus is based upon the concepts of public participation. A public participation process was designed to investigate the possibilities for the future permanent campus of HKM. The public process involved individual stakeholder meetings, large community meetings, HKM specific Lā Ohana, working meetings with HKM community director, and field trips.

PUBLIC PROCESS

The public process was designed to engage the affected stakeholders located near HKM. Situated in a unique and public area, any future development on HKM site might be controversial. Involving the stakeholders in a conversation early on were the intentions of the public process. Those stakeholders were DOFAW, HNC, and the Maunalaha community.

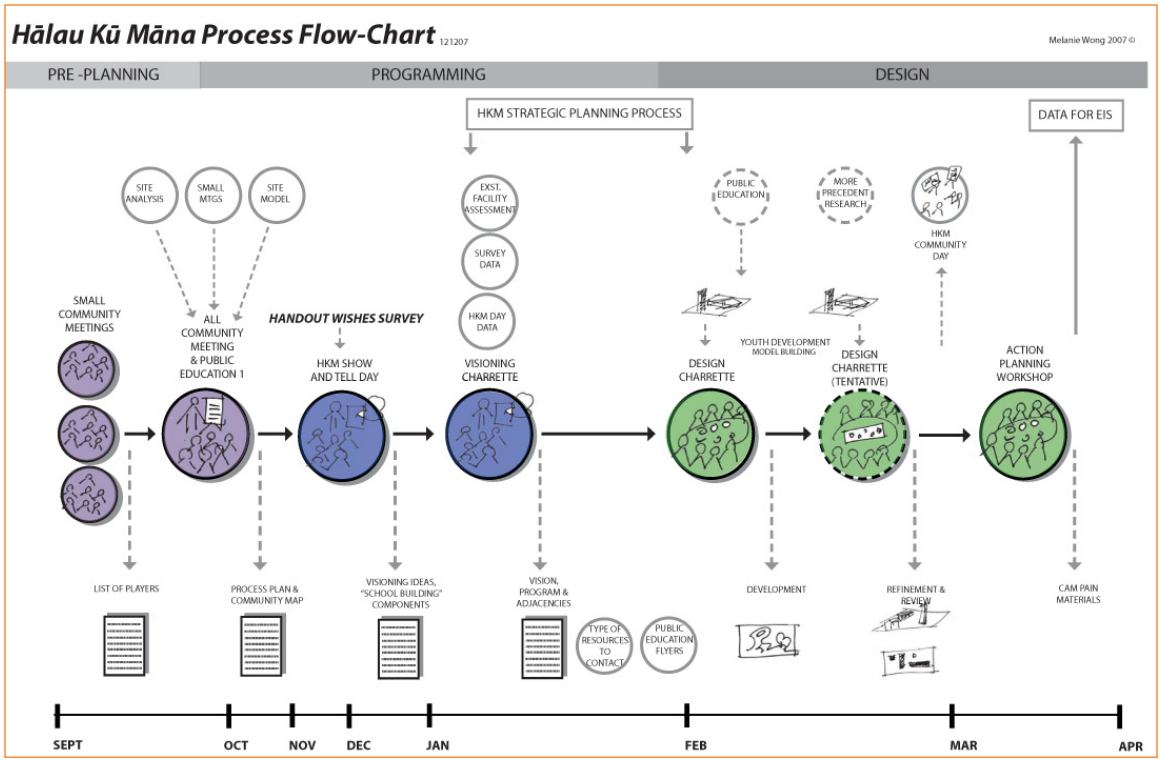
The facilitator of the process developed a method to gather information that would be a road map for the seven months of the project. The process is divided into two sections, community activities and individual activities. The community activities were intended to be the main arena for community interaction, while individual meetings were intended to gather and develop specific information for the process. Table 9.1 and Figure 9.1 illustrate the public process designed for HKM future campus.

Public processes are only frameworks for public participation. Utilizing a public process as a methodology to gather information for an architectural design required flexibility upon the part of the facilitator. Activities within the public process were only placeholders, as many of the activities did not turn out as anticipated. The challenge of the process was strategizing stakeholder participation. Stakeholder participation in the process was limited; participation mainly came from select members of the HKM community. As a result, the facilitator relied on the community director to provided information needed rather then the community.

Table 9.1 Halau Ku Mana Public Process

Method	Description	Intentions
Preliminary stakeholder meetings	Individual face-to-face meetings.	• To develop a list of stakeholder and levels of participation in the process • To understand the perspective and agenda of the stakeholders.
Weekly Meetings with HKM Community Director	Informal casual meeting discussing future activities and information gathering.	• To educate the community director about architectural and sustainable trends. • To develop processes and information for upcoming meetings.
Site Community Meeting	First large community meeting. Designed to familiarize participants with the site. Scheduled on a Saturday morning for 3 hours.	• To conduct a SWOT analysis (Strengths, Weakness, Opportunities, Threats) • To conduct a group site analysis
HKM December La Ohana	Fair like setting with a booth specifically for site development. An established HKM event.	• To issue a site survey • To conduct a headliner exercise. • To understand the depth of sustainable knowledge within the community. • To establish a rapport with the community.
Pre Planning/ Visioning Meeting	Community meeting involving stakeholders in a discussion about a vision for the site. Scheduled on a Saturday afternoon for 3 hours.	• To develop a vision for the future campus, design and sustainable directions. • To develop a draft architectural program.
Preliminary Design Meeting	Formal presentation for invited stakeholders	• To present two design schemes for comment and feedback from stakeholders.
HKM March La Ohana	Fair like setting located off site. A separate booth was allocated for site development. An established HKM event.	• Present two design schemes and vignettes to the HKM ohana for feedback.
Action Planning Workshop	Small meeting with stakeholders and decision makers.	• To develop a roadmap for HKM future site development process

Figure 9.1 Halau Ku Mana Public Process



Source: Melanie Wong

DESIGN PROCESS

The information collected through the public process provided essential data needed to develop a design direction for HKM future campus. Exercises particularly useful were the group site analysis, data from the site survey, the headliner exercise, and data from the pre-planning/visioning meeting, and responses from the vignettes. This information collected was presented in meetings with the community director. In these meetings, the facilitator and the community director explored design possibilities and discussed sustainable objectives.

The level of participation by the community and stakeholder was not as anticipated, so the process of developing the design shifted from community meetings to multiple meetings and conversations with the HKM community director. The method used to develop the design was as follows.

- exercised issued to community for feedback and data
- information collected was processed and filtered through the facilitator
- processed information was then presented to the community director
- discussion occurred between facilitator and community director regarding the important aspects of the information(s)
- that information was then reprocessed by the facilitator
- outcome from the second round of analysis was represented in the form of drawings and documents
- drawings and documents were reviewed by the community director

To support the meetings, the facilitator provided documents that would be educational for the community director. These documents were resources used by the facilitator to justify designs and to provide technical data. Typically, with every resource document, the facilitator and the community director would discuss the intentions and purpose of each resource. In addition to educational resources, the facilitator and community director also went on field trips to sites that were inspirational for the community director. The intentions of the field trips were to gain insight into the architectural styles and quality of space appreciated by HKM.

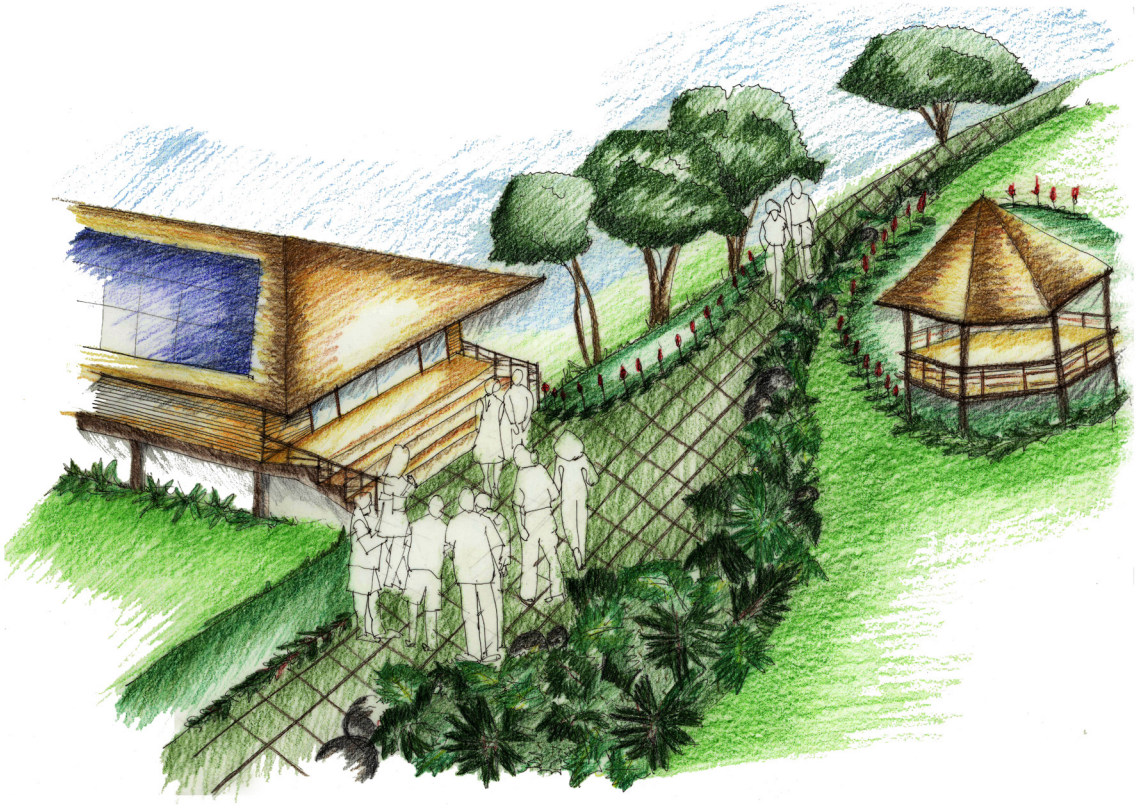
Through this process, the facilitator had to make many judgment calls and assumptions on the design. Those assumptions included the size of spaces, adjacencies, and sustainable strategies. Outcome of this process was the development of a:

- Conceptual Master Plan
- Conceptual Master Plan document
- Vignettes
- Sustainable strategies

CONCLUSION

The public process was designed to discover the possibilities for HKM future campus. It allowed the facilitator and community to explore options without the restrictions of money, time, and obligation. The methods used in the public process were specifically done to gather information needed to develop a design for the campus. Those exercises included the site survey, headliner exercise, and presentation of vignettes.

10 Chapter
HKM Conceptual Master Plan



Hālau Kū Māna
Conceptual Master Plan

Table of Contents

Executive Summary

The conceptual Master Plan for Hālau Kū Māna New Century Charter School is to develop the site into a demonstration campus that connects sustainable practices and community relationships together. As a school founded on a project based pedagogy, HKM envisions creating architecture that teaches ʻōpio and educates the community about sustainable and Hawaiian values.

Hālau Kū Māna
& their Communities

Figure 10.1 Booth at the March 2008 La ʻOhana. Source: Melanie Wong

Figure 10.2 Image of HKM students on Kānehūnāmoku. Source HKM

HĀLAU KŪ MĀNA

Hālau Kū Māna (HKM) a New Century Charter School was founded in 2001. One of 14 Hawaiian focused charter schools, HKM is an entity of the State of Hawai'iand part of the Mana Maoli organization. The purpose of HKM is to be the pedagogical home of Mana Maoli, building upon Hawaiian culture, tradition, and epistemology. Serving as the center for community resource, HKM is a school that is academically rigorous, culturally grounded and community based.[1]

Located in urban Honolulu, HKM is centrally situated on ʻOahu. Students from all sections of the island attend HKM, as far as Wai'anae and the North Shore, to the near by Maunalaha community. Providing a unique pedagogy, the majority of the staff, teachers and students are of Native Hawaiian background.

HKM pride themselves on being one of Hawaii's Native Hawaiian Schools. Their greatest asset to the State is promoting and providing Hawaiian focused education to youth. Since they opened in 2001, they have educated nearly 7,000 Native Hawaiian youth. Multiple locations in urban Honolulu have allowed them to partner with nonprofit and State organizations of similar missions.

Figure 10.3 Image of students dancing hula at HKM La ʻOhana, March 2008. Source: Melanie Wong

VALUES OF HĀLUA KŪ MĀNA

The values of HKM are collective and recognized by members of the Mana Maoli and HKM ʻohana. The values were established to create an identity for its members as a faculty of traits, attitudes, and actions. The values are known as ʻAe Like.

ʻAe Like

"Kū I ka Māna, Kulia I ka nuʻu, Kūpono
Strive for Mana, Reach for your highest potential, and be pono!

Mālama
Demonstrate care, concern, and understanding towards all members of out learning ʻohana.

Makawalu
Always be open to new perspectives and ways of learning

Laulima
Accept responsibilities and contribute to the ʻohana.

Kokua, Mahala, a Aloha kekahi I kekahi
Help, respect and appreciate, and show aloha to one another"[2]

PROGRAMS

Programs offered at HKM have a strong foundation in the Hawaiian language, culture and values. The school utilizes the teaching methodology of project based-learning. HKM has multiple project locations throughout ʻOahu, so students commute daily to and from the Makiki and the project locations, learning off of and from the land.

Table 10.1 Hālau Kū Māna Learning Projects

Project	Description
Kō Kula Kai	Hawaiian ocean ecological communities and the ocean as a food source.
Kō Kula Uka	Study of ancient Hawaiian lifestyles and diets.
Heʻeia Fishpond	A Partnership with Paepae O Heʻeia to better understand traditional and contemporary environmental resource management techniques and philosophies.
Kānehūnāmoku	Students study the Hawaiian art of canoe sailing and non-instrument navigation.
Loʻi	Students learn modern and ancient techniques of land management through the restoration and maintenance of loʻi in the ʻilli of Lyon Arboretum.

Source: Hālau Kū Māna New Century Charter School, Educational Framework 2007

THEIR COMMUNITIES

The communities of HKM are those geographically located near to the school. These three communities are the Hawai'iNature Center, the Department Forestry and Wildlife, and the Maunalaha community. All of these communities would be affected by HKM future campus developments.

Hawai'iNature Center (HNC)

Hawai'iNature Center is a 501c(3) environmental organization focused to offer environmental education to the youth of Hawaii. Founded in 1981, the organization has developed numerous programs. Such programs include after school programs for youth and weekend education programs for families. The main office, located in Makiki Valley, provides interpretive and educational tours through the hiking trails of the valley.

Department Forestry and Wildlife (DOFAW)

The Department of Forestry and Wildlife is a division of the Department of Land and Natural Resources. They are legally responsible to manage all public lands. DOFAW manages all of the state owned forests and natural reserve areas. Their focus extends to watershed protection, natural resource protection, land development, recreation, and rural economic development.

The ''Oahu branch located in Makiki Valley is the main station responsible for the management and operations of State owned forested lands. Both DOFAW and HNC share access to Makiki Valley, and occupy the piece of land at the base of the valley. Their primary responsibility is to provide safe access to all the hiking trails.

Maunalaha Valley Community

The Maunalaha Valley Community located along a ridge of Makiki Valley is one of ‘‘Oahu’s few primarily Native Hawaiian communities. The settlement traces back to early 1900s. Before the Proclamation of the Governor in 1913, declaring the forested land of Makiki Valley as reserve owned by the State of Hawaii, the settlers lived free on the land.

Today, 26 families occupy 30 subdivided 1-acre lots. A one-way road, Maunalaha Road, leads into the community.

Site Conditions

Figure 10.4 Image of HKM current play field. Source: Melanie Wong

CONTEXT

The site is located in urban Honolulu, in Makiki Valley. Situated in a neighborhood that is predominately single-family residents of upper and lower economic classed, the school is one of two educational institutions in the valley. Within a quarter mile of the school is a private educational institution, a local Board of Water Supply pumping station, a state forestry agency, and an environmentally focused nonprofit organization.

TOPOGRAPHY

The topography of the site is a moderate slope with fabricated terracing at the northern portion of the site. As the site meets, the stream there is a change in topography. The eastern boundary of the site has the greatest topographical difference as cliff form to support the upper road, Round Top Drive. Previously a state park the site is forested with both indigenous and invasive plants.

Dominating most of the streetscape are large canopy trees. The main roads into the valley are Makiki Heights Road and Round Top Drive. Both of these roads are circuitous two-lanes with traffic in both directions. Vehicular traffic is minimal with peak traffic during morning and evening commute hours.

WIND PATTERNS

Hawai'ireceives trade winds from the northeast direction, (90% of the time in the summer and 50% of the time in the winter), with an average velocity of 15-20 mph. Kona winds or southern winds occur during the months of October and April. The trade winds occurring at the site come down from the surrounding mountains, providing a cool wind.

Figure 10.5 Image of the stream from the northern portion of the site. Source: Melanie Wong

Figure 10.6 Image of the stream from the northern portion of the site. Source: Melanie Wong

CLIMATE

Located in one of ‘‘Oahu’s valleys, Makiki Valley receives moderate weather. Daytime temperatures are usually between mid-70s and 80s degrees. As a valley, it is sheltered from many of the wind prominent on the island, receiving moderate tradewinds from the northeast. The median annual rainfall in the area averages between 60 and 70 inches.

As Kanealole Stream runs directly through the site, there is concern of annual and 100 year flooding. According to the Federal Flood Insurance Rate Map (FIRM), the area is located in a Zone X Floodplain. Zone X are areas with 0.2% annual flood chance and are not part of the 100-year floods.

SOLAR LOADS

Hawai‘iis located at 21 north latitude, allowing the tropical sun to have a drastic affect on the building’s heat load. The insolation for Hawai‘iwinter is east 780 BTU/hr, south 1381 BTU/hr, west 780 BTU/hr, north 197 BTU/hr, horizontal 1374 BTU/hr; in the summer east 950 BTU/hr, south 309 BTU/hr, west 950 BTU/hr, north 591 BTU/hr, horizontal 2051 BTU/hr.

In the winter the south facing walls and roofs receive the greatest solar load, while in the summer, the sun’s path becomes higher, resulting in a greater solar load to the roof of buildings. Also in the summer, the north facing walls receive twice the solar loads as a southern facing wall. The insolation for Hawai‘itells us that typical assumptions of south facing walls receiving a greater solar load is not true in Hawaii, northern facing walls also receive the same or even greater amount of solar load.

VIEWS

Located at the foot of the valley and along the stream, the site is advantageous to views up the valley and through Makiki Stream. At the center of the site, there are great views to the surrounding mountains. At the streambed, overhead trees frame views toward the mountains and south. There are no views of the ocean at the site.

A Vision for the Campus

"Halau Mana graduates prove to be effective leaders and creative problem solvers in the Hawaiian community and community at -large."
– Hālau Kū Māna 'Ohana

"Maunalaha kupuna will teach visiting students to Hawai'iNature Center in Hālau Kū Māna facilities about the history and culture of the valley"
– Hālau Kū Māna 'Ohana

"HKM has a unique curriculum, which brings back old Hawai'iTradition (Hawaiian Values and Morals). The DOE has followed the trend that HKM has set."
- Hālau Kū Māna 'Ohana

"HKM achieves sustainability"
- Hālau Kū Māna 'Ohana

THE VISION STATEMENT

A vision was developed by the 'ohana at HKM and their communities: they envision developing the school into a leading educational institution for the keiki of Hawai'i through a pedagogy in Hawaiian culture, environmental stewardship and academic rigor. To lead by demonstration is a motto spoken by school and community.

Developing permanent facilities is part of a larger goal to become a "premier public school and the first choice for many families in Hawaii."[3] These facilities will enhance the education provided at HKM by reflecting the unique culture and respecting values of community and sustainability. Recognizing the strength of indigenous teaching pedagogy, 'ohana at HKM, desire to create facilities that will support 'ōpio excelling in both Western and Native worlds, by furthering their knowledge with higher education.

THE FOUR TENETS

The objectives of the permanent campus are in four parts: to promote sustainability, to promote Hawaiian Culture, to promote a sense of community, and to promote architectural innovation.

Sustainability

One of the values of HKM is to mālama. The HKM ʻohana envisions developing the campus into a demonstration site by expressing the identity and culture of the school through the methods of sustainable practice. By respecting the inherent characteristics of the site, the sustainable practices will preserve and utilize the strengths by developing the campus to be contextually appropriate.

Hawaiian Culture

The foundation and strength of HKM is their practice and celebration of the Hawaiian culture. As one of a few Hawaiian focused Charter Schools in the State, HKM believes the facilities and spaces constructed on the site should support and reflect the essence of the Hawaiian culture. Their pedagogy of project-based learning lends the members of the school to lead by example, therefore, they also envision the facilities doing likewise, to demonstrate the values of the Hawaiian culture.

Community

Situated in Makiki Valley, HKM recognizes the importance of creating spaces that can be used and shared by the communities. Adjacent to organizations such as Hawai'iNature Center, DOFAW, and the Maunalaha Community, HKM envisions the site becoming a shared community space. In addition to creating facilities for the school, HKM sees the remaining facilities on the site as places for baby lū'au, family celebrations, hula performances, and a place to share knowledge of the valley.

Architecture

The architecture of the campus should embody the three tenets: sustainability, Hawaiian culture, and community. The mission and purpose of the school is unique and based very much on the interactions and relations established. The facilities created should be a marriage of the three tenets and reflect the identity of the school. As a Charter school with a unique culture of working both in the outdoors and indoors, HKM envisions the facilities being small in building footprint, open air, and connecting to the outdoors. Having the ability to learn and work in both the indoors and outdoors is a requirement for the architecture.

Guiding Design Principles

CLASSROOMS

HKM practices a project-based learning pedagogy that is rooted in learning through the values and traditions of the Hawaiian culture. All of the five projects conducted at HKM are land and water based. Future classrooms at HKM should address the connection to the outdoors by creating spaces that bridge the gap between the indoor and the outdoors. Both visually and sensorally, students and teachers should have a connection to the outdoors.

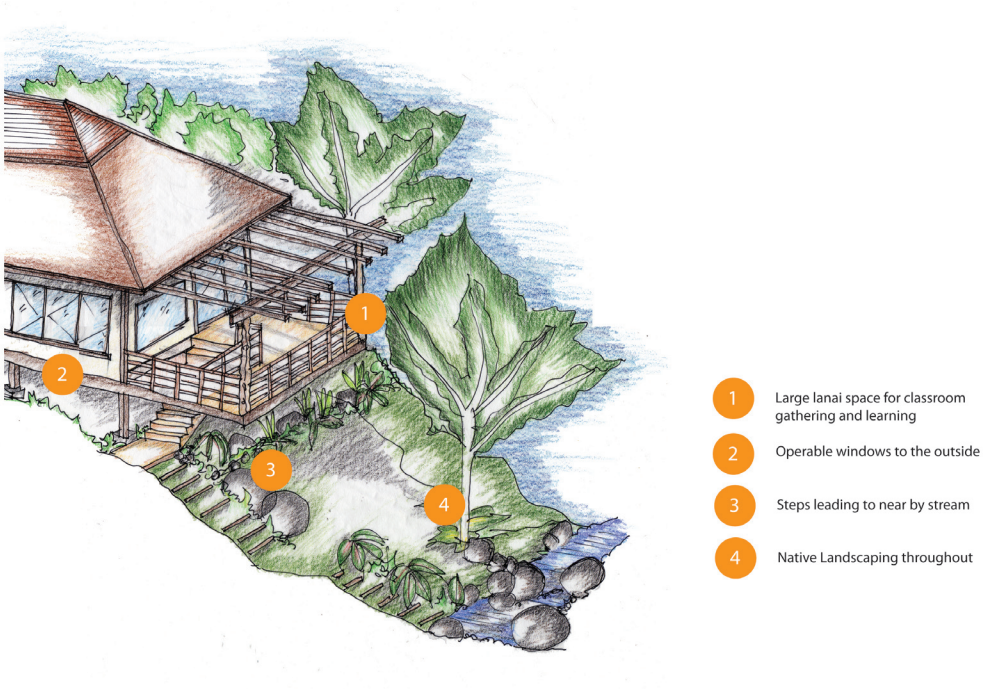
The school images classroom spaces that are filled with natural daylight, comfortable temperature with cross ventilation, and flexible spaces for multi use between staff and community. These spaces are intended to be shared spaces and will require ample storage for both project and teacher.

Learning at HKM is not prohibited to the traditional style of indoor classroom learning, but the school does require that each project receive a classroom type space.

Table 10.2 Classroom Space Architecture Program

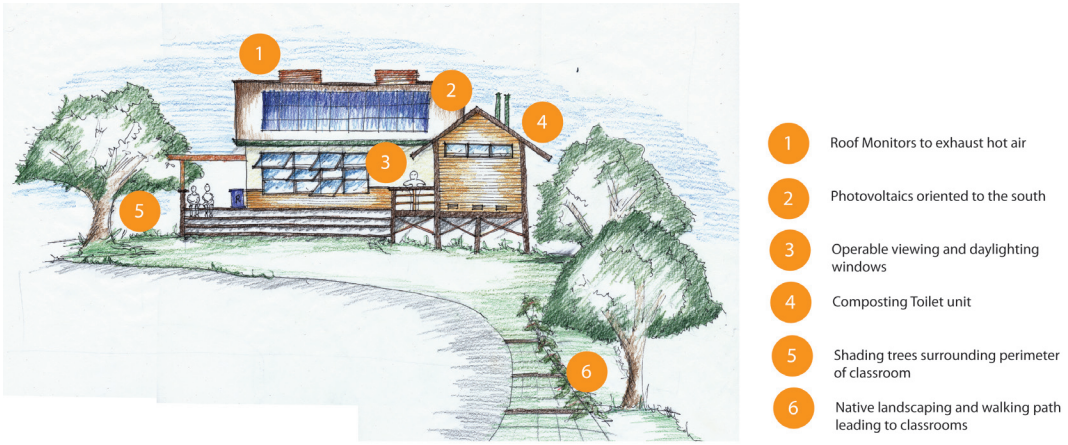
Space	Existing	Proposed
Kai	960 SF	1024 SF
Uka	960 SF	1024 SF
Fish Pond	0 SF	1024 SF
Kanehunamoku	528 SF	1024 SF
Lo'i	0 SF	1024 SF
Storage	832 SF	900 SF
Restrooms	288 SF	1840 SF
Janitor Closet	0 SF	56 SF
Subtotal	3568 SF	7916 SF

Figure 10.6 HKM Classrom connection to the Makiki Stream



Source: Melanie Wong

Figure 10.7 Elevation of Classroom Buildings



Source: Melanie Wong

ADMINISTRATION

Unlike other Hawai'ipublic schools, the organization structure at HKM involves fours management tiers. Currently these four offices are disconnected; the intent of the permanent campus is to create a facility that will connect the four levels of management in an efficient and harmonious way that works with the culture of the school.

The four levels of management are:
Kakea: This is the main office includes the principal, Dean of students, and the head counselor. This office runs the day-to-day operation of the school. These offices require individually enclosed spaces as each member conducts student counseling.

Ohia: This office is the support for HKM . The three full-time members of this office are in charge of *Ho'oholo*, which means, "to make go." The responsibilities include visitor check in, admissions and records, secretarial work, school lunch programs, technical services, and trouble shooting community situations. In addition to organizing the day-to-day operations of the school, their office also includes a common staff work area, mailing, and staff check-in.

Poloke: Currently, this office includes community relations and accounting services, a total of two full-time staff members and two part-time members. Responsibilities for the community relations office include communications with parents, host and neighboring communities, and site relations. Members of this office also coordinate fundraising events, annual Makahiki and quarterly La 'ohana events. Currently the two staff members share a common space with individual workstations. Individually enclosed office space is desired but layout and storage space is a greater priority.
The accounting office manages both the finances of HKM and their non-profit parent organization *Mana Maoli*. This office will require an enclosed office space.

Ka'Iwi: This office is the home of the Executive Director of the school and the parent non-profit organization. Support to the director includes two assistants. This office will require privacy for the director's office.

In addition to the four management levels other supportive administrative spaces include a conference room, small meeting room, an informal work area, a meeting/work space for the Papa Ku Mana, storage, and a uni-sex ADA restroom.

Table 10.3 Administration Space Architecture Program

Space	Existing	Proposed
Kakea Office	480SF	360 SF
Ohia Office	672 SF	192 SF
Poloke Office	288 SF	324 SF
Ka'Iwi Office	120 SF	320 SF
Conference Room	120 SF	192 SF
Staff Work Room	204 SF	204 SF
Copy Area	0 SF	48 SF
Informal Work Area	0 SF	180 SF
Counseling Room	0 SF	64 SF
Storage	528 SF	600 SF
PKM Room	0 SF	120 SF
Unisex Restroom	0 SF	50 SF
Subtotal	2411.5 SF	2654 SF

Figure 10.8 Turn Around area

Source: Melanie Wong

LEARNING RESOURCE CENTER

One of the main goals of developing the permanent facilities are to provide the *ʻōpio* with quality education that will enable they to graduate high school and move on to higher education. Such spaces are lacking in the current facilities. The Learning Resource Center would be supportative to the curriculum providing a library space, computer lab, student production center, and study space.

The current library is an under utilized space as it lacks the resources and amenities to provide proper research services to the students. The school would like to see the library become a center for research and study. To become a center of the school, it is envisioned connecting technology and production together. Connecting the computer lab space near or part of the library would be desirable as with a student production center.

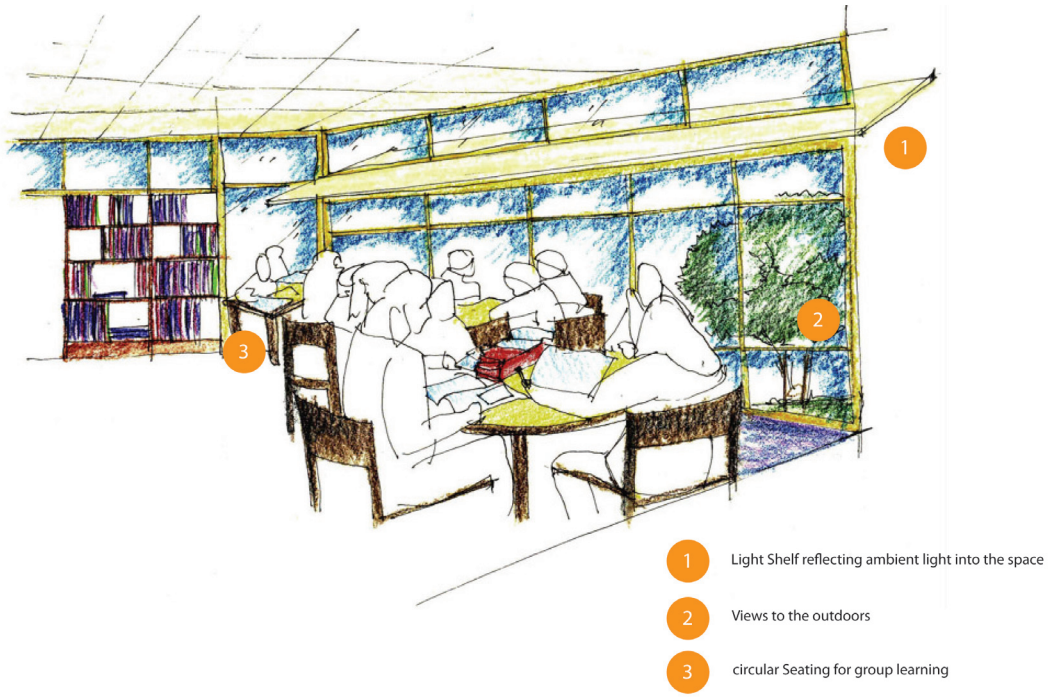
The computer lab should be of similar size to a typical class room space, seating up to 20-25 ʻōpio. Part of the HKM curriculum requires computer tech classes once a week.

The student production center, inspired by Kamehameha School Kapalama Campus's student production center, is a space that supplies students with the materials needed to produce material for class projects. This space should have computer access and layout space.

Table 10.4 Learning Resource Center Architecture Program

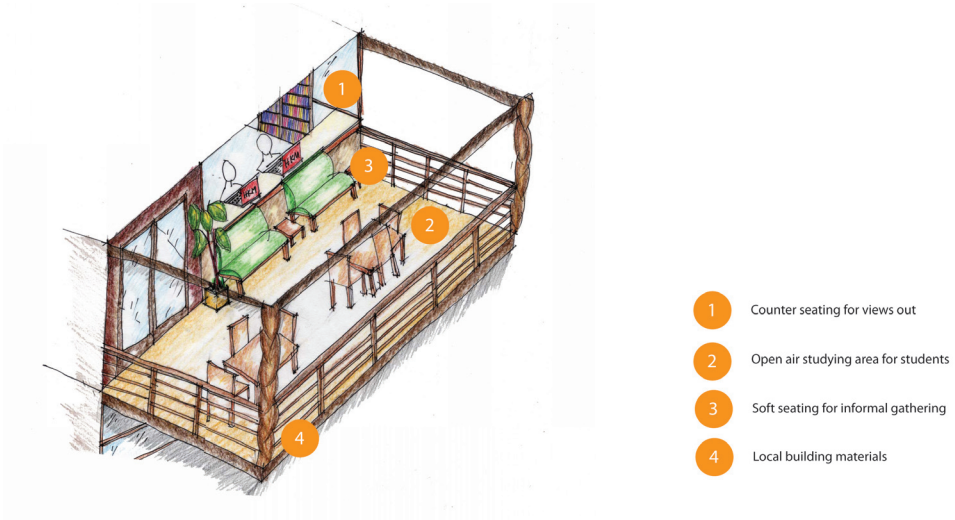
Space	Existing	Proposed
Library	360 SF	1296 SF
Computer Lab	832 SF	832 SF
Student Production Center	0 SF	832 SF
4 Study Rooms	0 SF	224 SF
Subtotal	1192 SF	3184 SF

Figure 10.9 ʻŌpio Study area in the Learning Resource Center



Source: Melanie Wong

Figure 10.10 Learning Resource Center Lanai Area



Source: Melanie Wong

RECREATION AREA

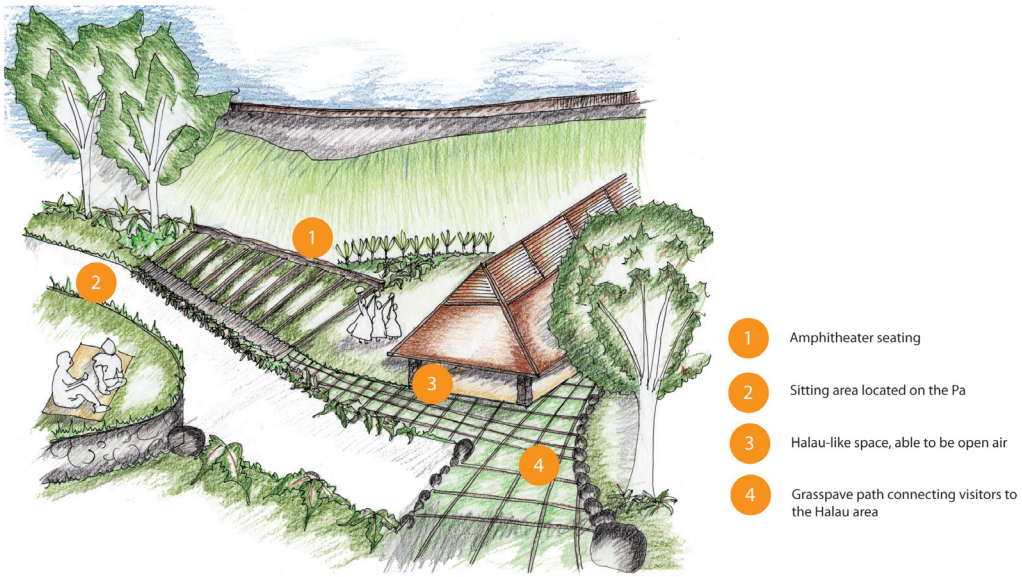
The Recreation Center is envisioned to be space that supports the cultural activities and values of the school. Members of the community would like to celebrate Hawaiian cultural events at the Makiki site rather then renting spaces. Spaces that would be needed include a multipurpose space similar in size to an existing Halau, storage for sports and music equipment, a canoe hale, an amphitheater and proper locker/shower facilities.

This center is seen as a dual use space for both the community and school.

Table 10.5 Recreation Area Architecture Program

Space	Existing	Proposed
Multipurpose Space	2400 SF	2400 SF
Recreation Area (Storage)	0 SF	150 SF
Music Area (Storage)	0 SF	150 SF
Canoe Hale	0 SF	2592 SF
Amphitheater	0 SF	- SF
Locker/Shower	0 SF	824 SF
Restrooms	0 SF	1840 SF
Janitor Closet	0 SF	56 SF
Subtotal	2400 SF	8012 SF

Figure 10.11 Amphitheater and Halau Area



Source: Melanie Wong

Figure 10.12 An outdoor space where Kupuna can teach ʻōpio

Source: Melanie Wong

CAFETERIA AREA

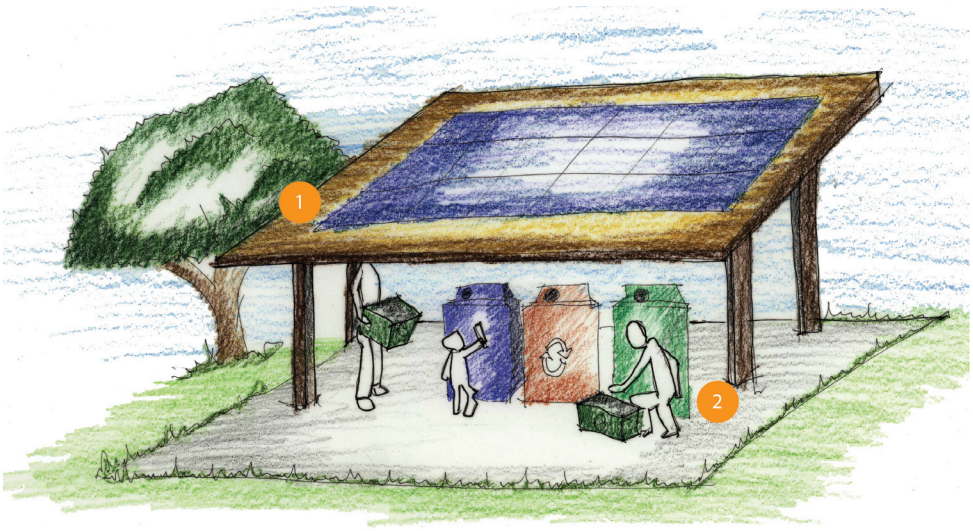
The cafeteria area is one of the essentials lacking in the current facilities. In the future campus, the school would like to produce their own lunch program serving Hawaiian foods potentially grown from the site. The cafeteria would require a certified kitchen area, a dining area large enough for 100 students, and a recycling area.

Ideally, the cafeteria area would be located near the recreation center for dual use between community and school.

Table 10.6 Cafeteria Area Architecture Program

Space	Existing	Proposed
Dining Area	400 SF	2050 SF
Certified Kitchen	0 SF	513 SF
Storage	0 SF	228 SF
Cleaning	0 SF	197 SF
Compost Storage	0 SF	100 SF
Recycling Area	0 SF	112 SF
Subtotal	450 SF	3200 SF

Figure 10.13 Recycling Area

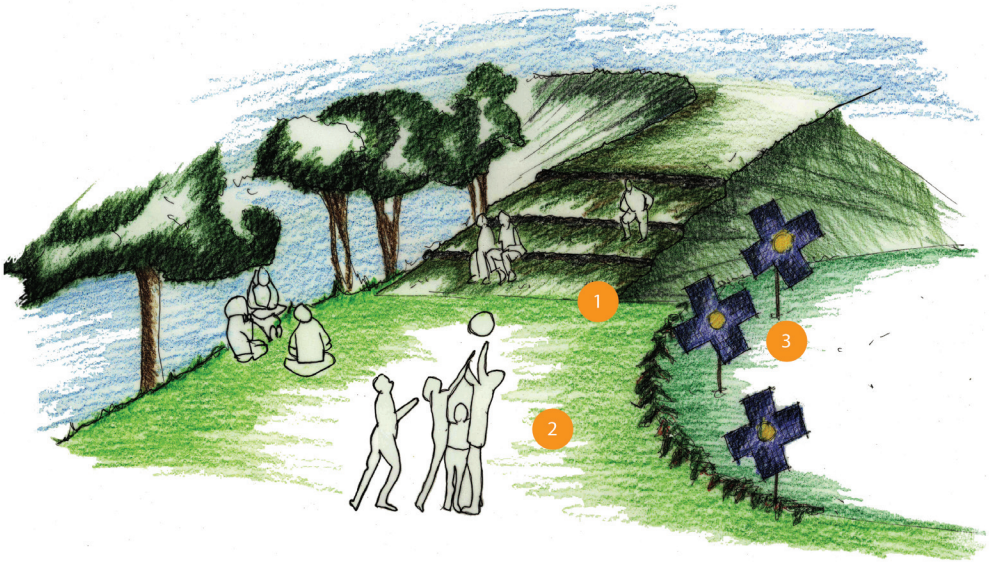


1 Photovoltaic Panels

2 Recycle Bins

Source: Melanie Wong

Figure 10.14 Play field and gathering area



1 Terraced seating for social gathering

2 Open Play field

3 Photovoltaic Solar Dials

Source: Melanie Wong

LANDSCAPE

Providing areas for native landscaping throughout the site is a requirement of the school. Dedicated areas for native landscaping should be created for both student project learning and staff planting. The landscaping is envisioned as a tool to educate the public about indigenous and native plant as well a help in the retention of water onsite. Native project gardens developed and maintained by the HKM students will enable the students the ability to test and monitor plant life.

Additionally, walking paths guiding by native landscape should be provided throughout the site to allow for controlled public access. These paths should connect the public to shared communities spaces and existing hiking trails.

PARKING AND PICK-UP

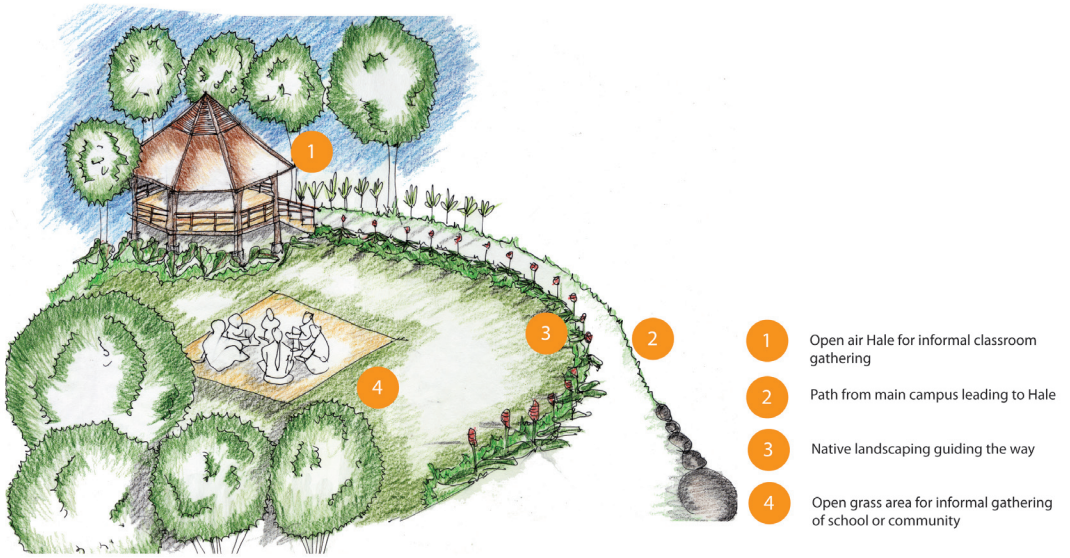
The HKM site is a linear site adjacent to an organization with heavy vehicular access. The need to create ample parking and pick-up/drop-off areas is critical in the development of the campus. Ideally, parking would be located on campus, allowing both staff and students parking opportunity. Realistically due to the nature of the site, parking could be located off site, allowing only carpool vehicles and alternative energy vehicles priority to park onsite.

To alleviate traffic during peak morning and evening hours, creating a pick-up/drop-off area would be ideal. The pick-up/drop-off area should be located within walking distance to the heart of the campus.

Table 10.7 Landscape & Parking Architecture Program

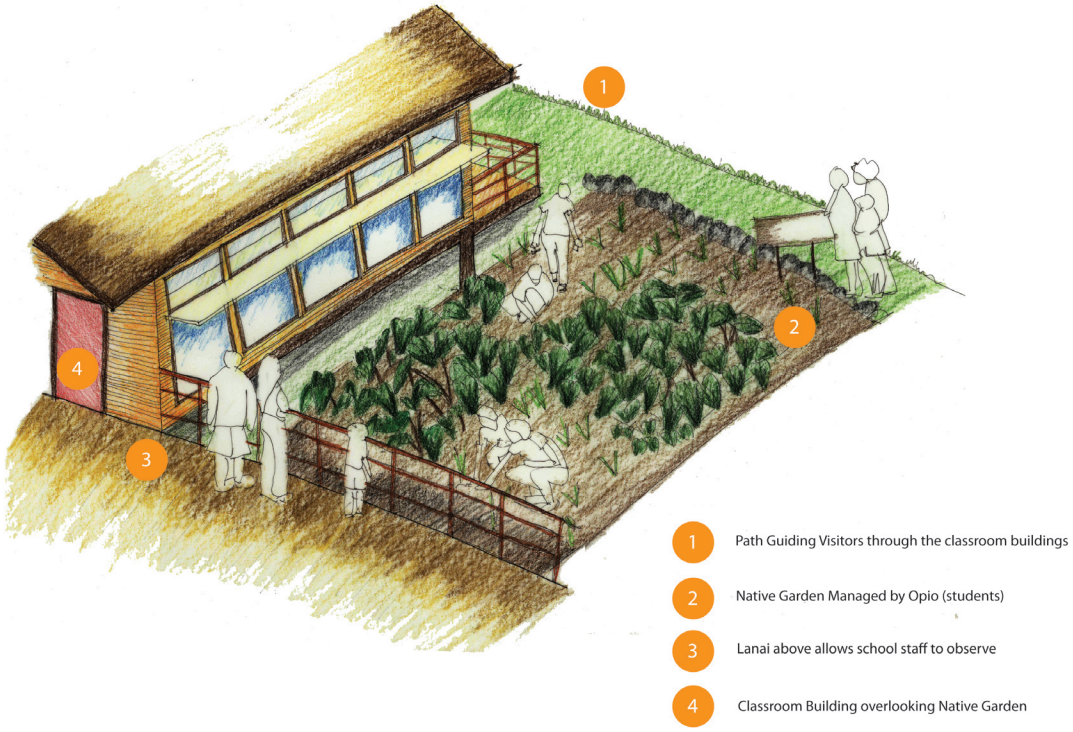
Space	Existing	Proposed
Native Garden	- SF	- SF
Parking	20 Stalls	40 Stalls
Subtotal	- SF	- SF

Figure 10.15 Outdoor Hale for gathering with a dedicated landscape area



Source: Melanie Wong

Figure 10.16 Project Learning Garden of Native Plants managed by the ʻŌpio



Source: Melanie Wong

Sustainable Strategies

SUSTAINABLE SITES

The site should create a learning environment that allows neighboring and partnering organizations the ability to share, converse, and learn from one another.

Objectives

Develop the site into a demonstration area for Makiki Valley

- Dedicate areas for public learning and gathering.
- Use and select sustainable technologies that are innovative and appropriate to the site and HKM.
- Develop partnerships and collaborate with neighboring community groups.

"Develop the site into a showroom for Makiki Valley, Makahiki in Makiki "
– Hālau Kū Māna ʻOhana

To protect and restore the natural habitat of the area that is unique to the site.

- Protect large indigenous trees of good health.
- Promote the growth of native vegetation currently existing on site by remove invasive species that threatens their existence.
- Restore public access to the stream by creating dedicated path ways using native vegetation.
- Develop Kanealole Stream into a vital and usable asset of the community by creating a purpose for the stream.

We should be sharing resources…the larger valley should be a demonstration site for the city"
– Hawaiʻi Nature Center ʻOhana

Promote the planting of native vegetation along the perimeter and throughout the site.

- Create open space throughout the site by dedicating the areas for native plantings only.
- Encourage the development of native learning gardens for both school and public education.
- Create a green fence along the perimeter of the site.

Develop the site to become a community center for the residents of Maunalaha community, Hawai'iNature Center, and DOFAW.

- Create facilities for joint and extended use for the community and school.
- Create facilities where various community groups can come together to have discussion and make decisions collaboratively
- Collaborate with respective community groups, the local school board (Papa Ku Mana), and other decision makers to share school spaces for public use.

Minimize building footprint and maximize open space.

- Develop in areas that are easily assessable for construction equipment and minimize damage to natural landscape.
- Maximize open space to be at least 50% of the project site or equal to the building footprint.
- Create open green space that fosters ownership and *Mālama* from the community. Develop spaces to be dedicated and programmable.

Manage stormwater on the site through low impact design.

- Create bioretention fields made with water tolerant native landscaping to control runoff on the site.
- Connect stormwater collectors to cisterns for storage.
- Design a gutter and downspout system to collect and mitigate water infiltration on the site.
- Use permeable pavements and surfaces for roads and pathways on the site.

Reduce the heat island effect

- Provide shading over hard surfaces within the next five years.
- Install roofing material that is below the SRI.
- Use open pave surfaces rather then solid hard surfaces for roads and pathways.

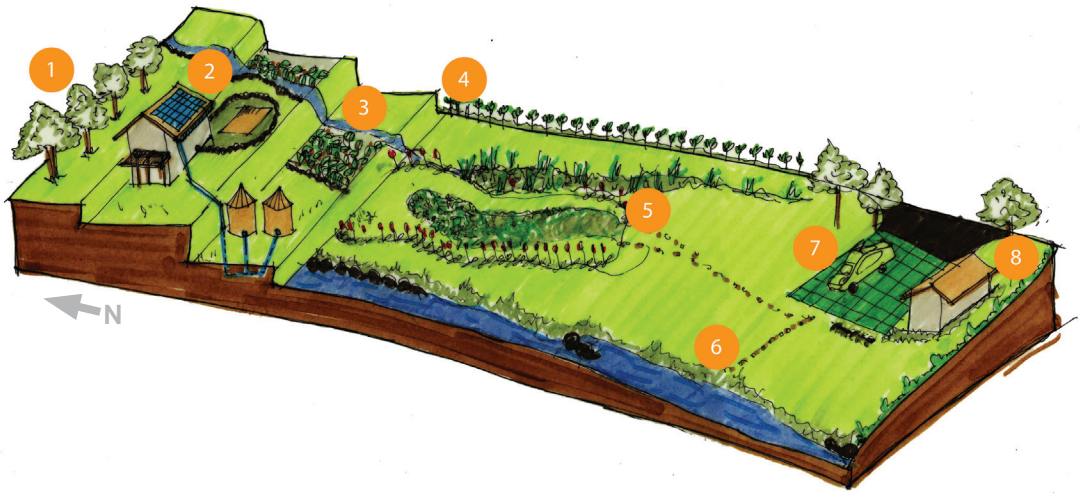
Encourage the use of alternative transportation on site and to HKM project site locations, and excursions

- Create a shower and locker facility dedicated to staff members who bicycle, walk, and hike to and from the school.
- Offer on-site parking for carpool and alternative energy vehicles.
- Partner with car dealerships who have alternative fuel vehicles for the use of vehicles between project sites and the Makiki location.
- Design parking for the minimal parking capacity only per the zoning ordinances.
- Create a walking path along the perimeter of Makiki Height Drive for pedestrian use.

Require the development of a Campus plan for the next 30 years by an architecture/planning firm

- Recommend developing a future use and construction development plan.

Figure 10.17 Sustainable Sites Strategies



1. Shading trees to reduce the heat island effect
2. Community building oriented and designed to collect solar rays, to capture tradewinds, and to catch rain water. Also provides a cultural learning area.
3. Dedicated green space for native landscaping
4. Green fence to reinforce the edge and manage stormwater
5. Bioswale made of native landscaping to collect and filter stormwater
6. Path providing access to the stream. The stream is protected by a green belt.
7. Priority parking for alternative energy vehicles, located on grasspave.
8. Locker and shower facility for staff bicycling to work.

Source: Melanie Wong

WATER EFFICIENCY

Ho'omoe wai kahi kao'o Mohala I ka wai ka maka o ka pua Ka Wai a Kane – the sacred fresh waters of the akua Kane, symbol of life and prosperity. Wai, its care and its abundance, dictated the success or failure of a community in ancient times. The word for wealth in 'olelo Hawai'i is 'waiwai,' a reduplication of the most precious substance on Earth – water.

"Have native landscaping throughout"
– Hālau Kū Māna 'Ohana

The Makiki site is advantageous to be located near Kanealole Stream. The stream gives life to the 'aina and is a constant reminder of the delicate ecosystem HKM lives in and is kuleana for. The future site will reduce its use of portable water by selecting systems and strategies that are water efficient, catching rainwater for future use, and utilizing native drought resistant landscaping throughout.

Objectives

Encourage the use of water efficient landscaping

- Promote and give preference to the use of native landscaping.
- Recommend the use of high efficient irrigation systems connected to timers and sensors for water conservation.
- Utilize catched water for the irrigation system of edible vegetation.
- Utilize grey water for the irrigation of non edible vegetation.

Promote the use of innovate waste water technologies

- Recognize and connect to existing successful innovative waste water systems within the area.
- Encourage the use of composting toilets on site for both public and school use.
- Encourage developing a separate on site waste water treatment system.

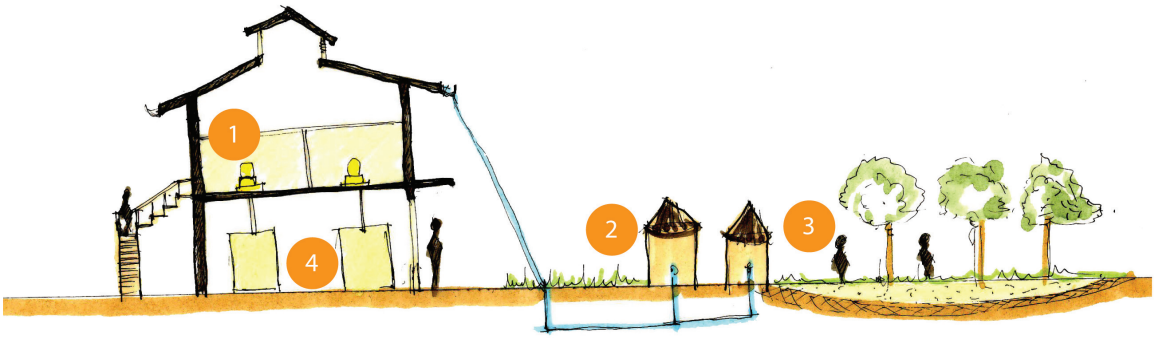
Reduce the use of potable water by 30%

- Recommend the installation of plumbing fixtures that are low flush, water efficient and water less urinals.
- Design the plumbing system to handle grey water.

Reduce process water use

- Encourage composting of edible and non edible vegetation to reduce the need of a garbage disposa.
- Develop a water management plan for the washing and sanitation of kitchen and cleaning equipment.
- Select high efficiency equipment to reduce the need for potable water.

Figure 10.18 Water Efficiency Strategies



1 Install composting Toilets to reduce the reliance on potable water.

2 Collect and store rainwater in cisterns for use during the dry season and for irrigation of landscapes.

3 Native Landscaping to manage stormwater on site.

4 Utilize water efficient fixtures such as low flush toilets and waterless urinals.

Source: Melanie Wong

ENERGY EFFICIENCY

Mālama ‘Aina is a guiding principle at HKM and extends to all aspects of student learning. Developing the campus to be both energy efficient and a learning tool for students is a priority. The new facilities created must reduce energy consumption by 40% or more and utilize alternative energy sources when possible. Foremost are creating facilities that are properly oriented to maximize daylighting, cross ventilation, passive cooling, and solar power collection opportunities.

"Never want to pay for water or electricity again"
– Hālau Kū Māna ‘Ohana

"Nothing should leave the campus and a percentage that does should be recycled"
– Hawai‘iNature Center ‘Ohana

Objectives

Require the use of renewable energies on site

- Equip each classroom and community facility with a Photovoltaic array.
- Use solar hot water for kitchen and restroom facilities.
- Use solar power for all landscape lighting fixtures and street lamps.
- Use onsite battery storage and net metering.

Require all classroom and educational spaces to be naturally daylight

- Target daylight to 90% of classroom spaces, 70% of non classroom space.
- Orient buildings to maximize daylighting opportunities.
- Create opportunities to reflect light into and throughout a space creating balanced and reduced glare light.
- Reduce the amount of direct light and heat entering a space. Provide daylighting windows above vertical heights of 7’-6”.

Reduce the need to air conditioning spaces by maximizing the opportunities for natural ventilation

- Design all facilities for natural ventilation with the exception of spaces requiring humidity control.
- Orient the buildings to maximize cross ventilation opportunities. Create opportunities were negative pressure will be created to increase air flow around the perimeter of the building.
- Utilize the stack effect of low intake and high outtake to promote air circulation during humid conditions.
- Reduce site disturbance around the perimeter of the building to promote air circulation.

Recommend treating the building envelope to respond independently to orientation and elevation conditions.

- On north and south envelopes because of higher sun angles use horizontal shading conditions. On east and west because of lower sun angle use vertical shading or fins.
- Select material and treatment of exterior skin to reduce solar radiation levels.

Reduce the need for electrical lighting to only task lighting

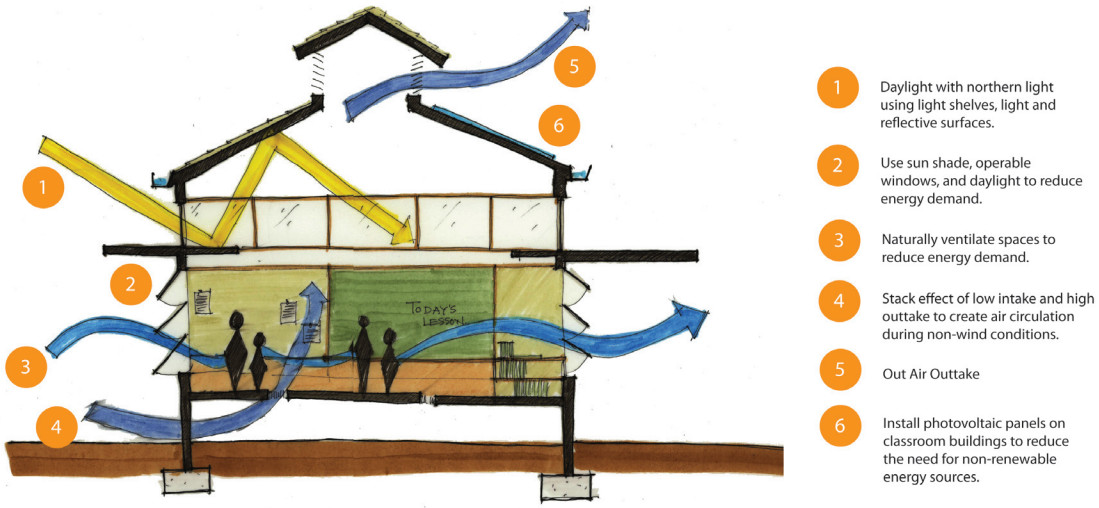
- Recommend an electrical lighting program that monitors daylight levels. Use sensors for electrical lighting during overcast days.
- Install occupancy sensors in non-daylight spaces.
- Control individual control lighting systems.
- Zone lighting systems.

Facilities requiring an air-conditioning system, recommend selecting systems that are zero use of CFC based refrigerants.

Recommend the use of a commissioner for all sustainable technology systems.

- Use a thrid-party commissioner to measured, certified, reviewed, and verified all systems.

Figure 1Figure 10.19 Energy Efficiency Strategies



Source: Melanie Wong

INDOOR ENVIRONMENTAL QUALITY

It is important that facilities created allow the ʻōpio the opportunities to enjoy the benefits of excellent cross ventilation, indoor air quality, daylighting, and views to the outdoors. The indoor environmental quality should reflect the identity and culture of the school.

"Trees provide shade and cool temperatures"
– Hālau Kū Māna ʻOhana

Objectives

Promote acoustical performance

- Reduce noise transmission within classrooms and between classroom spaces.
- Isolate noise disturbance at the point of source.
- Use acoustical insulation in classroom spaces and private areas to reduce reverberation
- Provide one angled vertical surface to improve noise travel within a space to reduce human strain.
- Strategically program spaces to prevent the travel of unwanted noise and isolate sounds at the source.

Reduce opportunities of off-gassing and pollution of interior space

- Select interior materials that are low VOC or no VOC, including paints and adhesives
- Develop a Green Cleaning Material Plan discussing types of cleaning produces, directions for use, and disposal to reducing emission of toxic gases and site pollution.
- Install entry grills and mats at the entrance of all classroom, large community spaces, and community learning spaces.
- Install humidity monitors in all spaces to prevent the growth of mold.

Provide views to the outdoors in all occupied space

- Provide 90% of views to the outdoors in classroom and non classroom facilities.
- Create a connection to the outdoors through viewing windows and outdoor lanai.
-

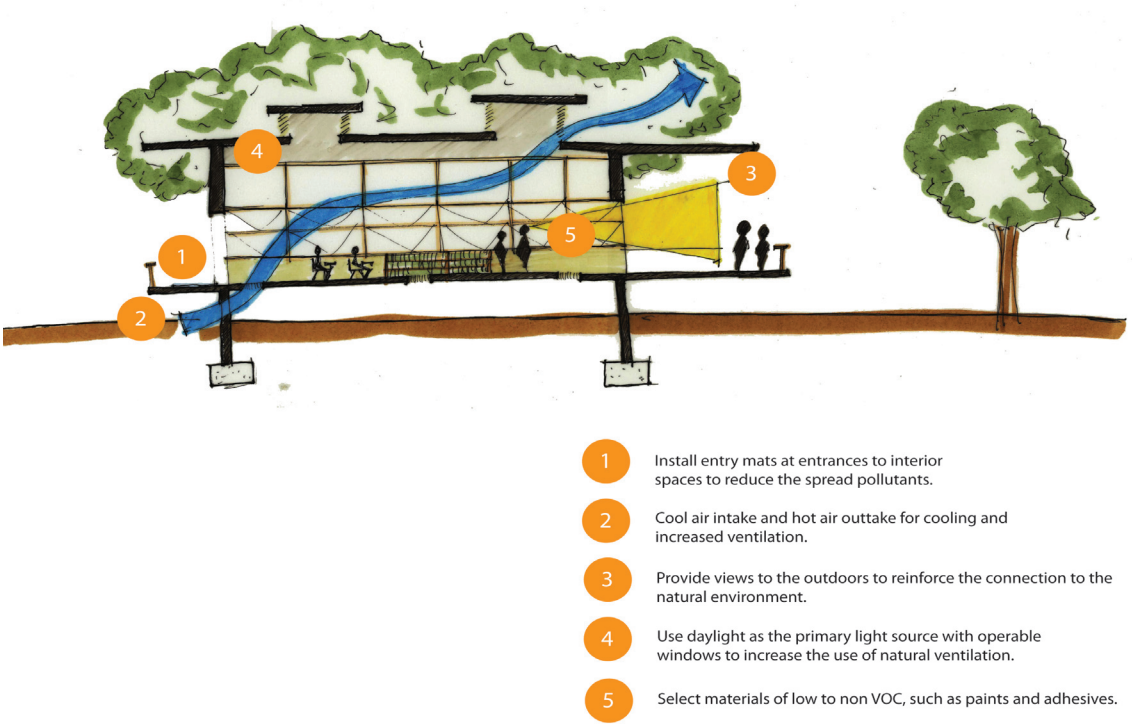
Provide quality natural ventilation

- Monitor the outdoor air intake by installing co^2 monitors 3 and 6 feet above the floor in naturally ventilated spaces.
- Use openings at opposite ends of spaces to increase cross ventilation opportunities.
- Install operable window and doors for individual controllability.
- Install ceiling fans to encourage air circulation.

Construction IAQ Management Plan

- Develop an Indoor Air Quality (IAQ) management plan during and after construction
- Prohibit smoking in the building during construction and 25 feet away from building perimeter.
- Protect absorptive materials during construction.
- Provide fillers to air handling systems and flush out any air conditioning systems before occupancy.

Figure 10.20 Indoor Environmental Quality Strategies



Source: Melanie Wong

BUILDING MATERIALS

Located in an island nation, it is important to select materials that are produced locally. Materials should also be made of recycled content, of renewable materials, or reclaimed materials. The nature of the materials utilized in the facilities should reflect the identity of the school and the extended communities.

"Benches should be made of recycled material or material reclaimed from the community and site" – Hawai'iNature Center 'Ohana

Objectives

Promote the use of regionally available materials in the State of Hawai'i

- Specify materials that are Hawai'iMade first before selecting other regional and continental materials.
- Encourage the use of native and indigenous materials.
- Encourage the use of locally produced and manufactured materials.
- Select FSC woods grown in Hawai'i.

Recommend the use of recycled and rapidly renewable materials

- Use 10-20% recycled content materials.
- Use salvaged materials for non-structural conditions and certify and verify for structural conditions.
- Use materials that grow rapidly such as bamboo and eucalyptus.
- Use woods that are certified and sustainable harvested, such as FSC woods.

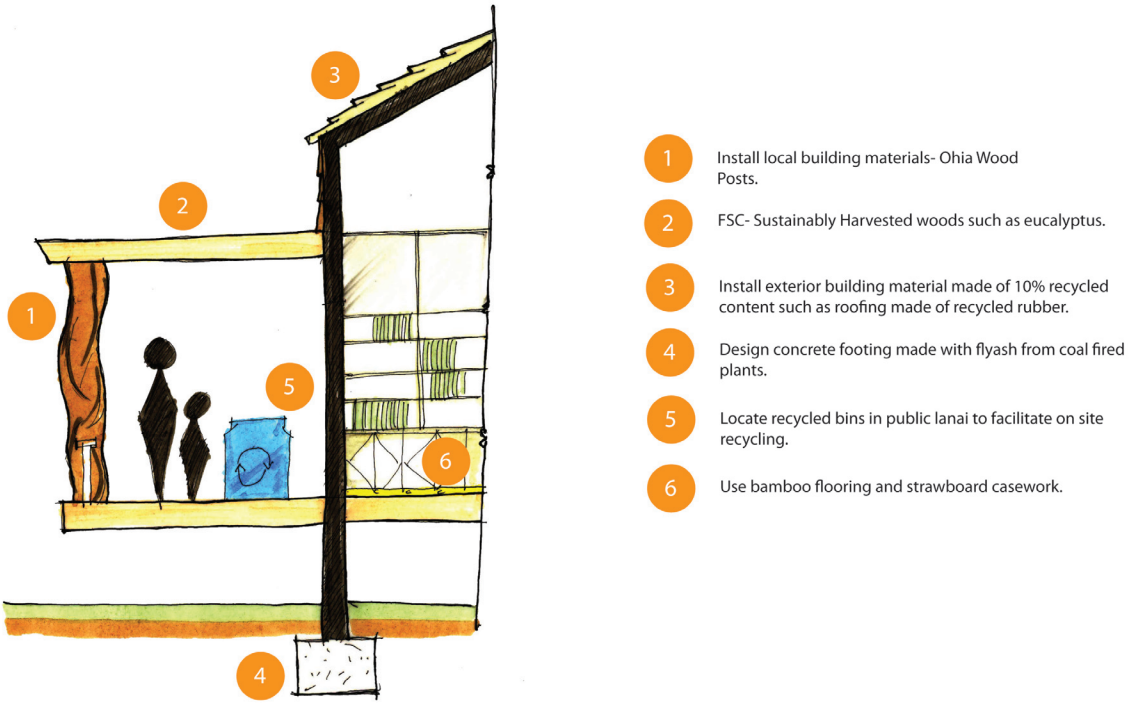
Evaluate using existing building elements for reuse

- Reuse elements of existing facilities on site by 75%, such as maintaining existing walls, flooring systems, and roofs.
- Select and verify salvaged materials from other project sites for use.

Require developing a construction waste management program

- Develop a construction waste management plan of materials to be salvaged, reused, recycled and taken to landfills, management of site clearing and storage of materials
- Create an onsite recycling area during construction
- Donate any salvageable material to charitable organizations

Figure 10.21 Building Materials Strategies



Source: Melanie Wong

CULTURE AND DESIGN

The HKM community would like to develop the campus into a demonstration site of Hawaiian cultural values, sustainability, and education. The facilities are imaged to work with the innate features of the site perching "lightly" to the ground and maintaining open green space. Located in an area easily assessable by the public, developing learning and education tours for the public highlighting features of the site is desired.

"Retain the Hawaiian culture as a strength of the school. Construct facilities that support that"
– Hālau Kū Māna 'Ohana

"Facilities should meet the challenges of the environment"
– Hālau Kū Māna 'Ohana

Objectives

Design the facilities as a learning tool for students and teachers first

- Integrate the architecture of the facilities into the teaching curriculum.
- Label all materials that are sustainable and native throughout the facilities.
- Expose all structural, mechanical, and electrical systems.
- Develop green systems into an educational tool by diagramming the physics and ecological aspects of the technologies.
- Create opportunities for students to access above and below grade situations.

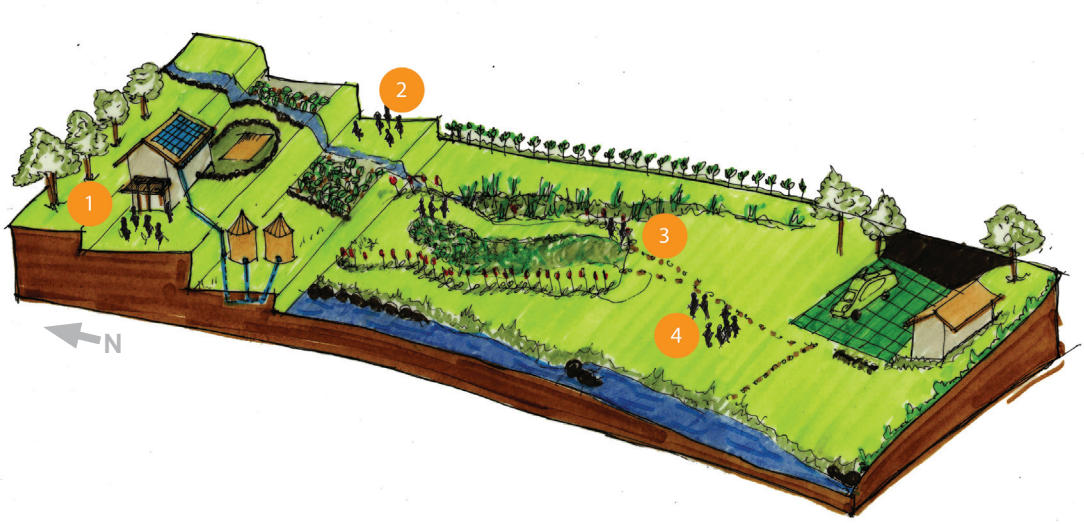
Develop a workshop and program were students, teachers, administrators, community members, and visitors can learn about the sustainable strategies of the project

- Develop one-day and two-hour programs about the sustainable strategies of the school.
- Develop tours for the community and visitors led by HKM students.
- Promote the school as a center for sustainable learning from grades 6-12 by hosting science competitions between public schools and hosting monthly demonstrations.

Design the architecture of the site to represent a marriage between the Hawaiian culture and sustainable practices

- Create dedicated areas within the site that promote the practice of Hawaiian culture and its relationship to sustainable practices.
- Use the essence of Hawaiian sense of space to create architectural spaces that are culturally and environmentally appropriate.
- Develop dedicated native gardens with self-guided paths and labeling of plants.

Figure 10.22 Culture and Design Strategies



1 Have students lead tours of the facilities sustainable features.

2 Create self guided tours through native garden and water efficient features.

3 Create tours through student project gardens of edible and non-edible landscapes.

4 Create self guided tours throughout the site, pointing out connection to the stream, sun path, and water flow.

Source: Melanie Wong

Part 5: The Experience

11 Chapter Culture in the Process of Architecture

Cultural awareness is increasingly becoming part of our society's consciousness. Cities, towns, and schools are seeing people of diverse backgrounds conversing and interacting with one another. The way we choose to engage has a lot to do with where we grew up, the influential people in our lives, and the role of history. Our context shapes and influences our perspectives of the world. How we perceive and make sense of things defines our epistemologies. "How we think affects how we act, and our thinking is often biased against collaboration."[1] The role of culture has a great impact on how decisions are made.

Within the architectural field, culture is used as a reference, it defines the characteristics of a place. In architectural education, we are taught the differences between cultures as they relate to the built environment, but we are not traditionally taught how culture relates to the process of how architecture is created. The linkage between the culture of a person, say the client and architect, in the process of creating architecture are loosely acknowledged in architecture education. The profession expects architects to recognize cultural differences and respond appropriately.

This essay discusses the role culture plays in the process of creating architecture. It recollects the experiences of the facilitator in the public process with a Hawaiian focused charter school. Culture played a critical role in the process, as it influenced many of the decisions and directions made. A timeline will illustrate the sequences of events, the players, topic(s) discussed and outcomes. Following the timeline, is an explanation of the cultural challenges faced when working with a group of a different cultural background and epistemology.

THE SETTING

For the first time in the history of Hawaiian focused charter schools, a charter school acquired a 30-year lease with the Department Land and Natural Resources (DLNR). The land, formally the state park of Makiki Valley is situated in urban Honolulu. Hālau Kū Māna (HKM) New Century Charter School, the school, moved into their new home in July of 2007.

Granted an opportunity such as this was a magnificent gift to a charter school, as charters are traditionally lack facilities and financially challenged.

During the time of HKM moving into Makiki Valley, the facilitator, a D.Arch candidate, was seeking a project with a community group. The intentions of the future collaboration were the basis of the facilitator's D.Arch project. The goals set by the facilitator were to acquire knowledge and understanding of working with a community in a public process on an architectural problem.

In early August, the facilitator called HKM inquiring and offering conceptual architectural services. The facilitator spoke with the school's community director about the proposition. Later in the week, a face-to-face meeting occurred, and both the facilitator and the community director were enthused about the possible collaboration. The project would be visioning for HKM future permanent campus. Understood from the beginning, were the intentions of the project, the facilitator would be gaining real-life experience as part of a D.Arch project and the school would get a preliminary conceptual master plan and capital campaign images. In the weeks to follow collaboration was formed between the facilitator and HKM.

As a community-based school, it was important to gain information from HKM's neighbors. HKM identified their neighbors as the stakeholders of the school. The stakeholders of the project were the native Hawaiian community of Maunalaha; environmental non-profit organization Hawaii Nature Center (HNC); Department Forestry and Wildlife (DOFAW); and Hālau Kū Māna Ohana. Among the stakeholders, Maunalaha was identified as the prime stakeholder group, holding the respect as the original settlers of the land. As the only native Hawaiian community in the valley, following proper protocol and etiquette was vital to establishing a connection.

The project was seven months long, from August 2007 to March 2008. The public process had ten meetings ranging from individual meetings with the stakeholders, large community meetings, and HKM La Ohana presentations. In total there were 59 participants excluding presentations at the HKM La Ohana.

TIME LINE OF EVENTS

Two weeks following the face-to-face meeting, the community director stewed over the possible collaboration, consulting with HKM Executive Director and the schools designer of the temporary facilities. Near August 20th, the community director made a decision; a project with the facilitator was possible, but first the facilitator needed to acquire the approval of the schools designer of the temporary facilities. The community director was very helpful in lending out the designer's contact information. Through word of mouth, the facilitator learned that the designer was a lecturer at the School of Architecture. Immediately, the facilitator called up the designer. With no basis to oppose the opportunity, the designer encouraged the collaboration. The next day, word of the decision was sent to HKM's community director.

It was not until September 7th that the facilitator and the community director met face-to-face again. Since the initial meeting, there was no communication between both parties. The facilitator worried that HKM might have changed their mind, so she dropped by for an impromptu visit. Anticipating only saying "hi" with a box of malasadas, the visit turned into an hour and a half-long meeting. During that time, the community director discussed who the stakeholders in the project were and gave a brief overview of the valley's history. Both parties left the meeting with set weekly meeting dates.

In September, the facilitator and community director met every week. In those meetings, a plan was developed for the whole process, outlining individual meetings with stakeholders and large community meetings. During that time, the facilitator and the

community director started to build a relationship with one another. It was understood from the beginning that the process would be a challenge. Some of the challenges mentioned from the beginning were, limited number of staff members and their prior commitments, roles and responsibilities of the organization, culture of the school, and the existing history of the valley. The community director informed the facilitator she was solely responsible for handling plans for the future campus. HKM Executive Director personally informed the facilitator that he would not be involved, but listed the items desired for the future campus.

In late September and early October, individual meetings with the stakeholders began. The intentions of these meetings were to understand the perspective of the stakeholder to the HKM process and to invite them to participate. The sequence of individual meetings went as such: HKM Staff, HKM Kumu (teachers), HNC, HKM Papa Ku Mana (PKM) the local school board, and DOFAW.

September 25 – Meeting with HKM Staff

The HKM staff meeting was brief. The community director was allocated 10 minutes out of the agenda to introduce the facilitator and the project ahead. The HKM staffs were notified that a future meeting with the Kumu would occur when the project would be explained.

September 28 – Meeting with the HKM Kumu

Similar to the HKM staff meeting, time was also allotted for the community director and facilitator. Reintroduced, the facilitator discussed with the Kumu for 20 minutes. The Kumu were all quite young between the ages of the late 20's and early 30's, and most from Kamehameha Schools. The overall mood of the meeting was quite negative. The Kumu did not respond positively to the idea of a public process, voluntary time, and presence of an outsider offering services.

October 2 – Meeting with Hawaii Nature Center

People present at the HNC meeting were the HNC Executive Director and Oahu Program Director, HKM Executive Director, and the facilitator. In this meeting, HNC strongly stated their position about the public process and questioned the timing and intentions of the project. HNC Executive Director informed the facilitator of an existing 1994 EIS/Masterplan for Makiki Valley and the beneficiaries of that document.

October 2 – Meeting with Papa Ku Mana (PKM)

Nine PKM members were present at this meeting. The diversity of the members ranged from community members, teachers, and students. More of a discussion, the PKM offered opposing views to the process. One member felt the timing of the project was inappropriate while another member felt thinking towards the future is always a good idea.

October 4 – Meeting with DOFAW

The meeting with DOFAW was with the Manager of Trails and rotating Director of the Branch. The HKM community director was also present. Immediately beginning the meeting the DOFAW manager was supportative of the process because it offers a degree of transparency that does not currently exist in the valley. Limited insight was presented as to if DOFAW would be a player in the process; they suggested state agencies that the facilitator should contact to gain a better perspective of the valley's context.

November 3 – Site Community Meeting

After the series of individual meetings, the site community meeting was limited to HKM ohana at the request of the community director. Thirty members of the *ohana* were present at this meeting, ranging from parents, students, and a teacher. In addition were two members from the School of Architecture, a fellow D.Arch candidate and a student of Native Hawaiian background.

The intentions of the meeting were to conduct a SWOT Analysis (Strengths, Weaknesses, Opportunities, and Threats), to discuss the public process, and to

conduct a group site analysis exercise. In an attempt to bridge the gap between architecture and its users, the facilitator stressed the importance of thinking about the future by requesting the participants to look beyond their current problems. The SWOT analysis and the site exercise helped the participants to visualize future possibilities. As a result, a list of concerns and opportunities developed. A week following the meeting, the facilitator sent out the outcomes of the meeting to all the participants, as the group memory for the day. A group memory was sent out for verification and confirmation of the information gathered. Unfortunately, no response was received from the participants as to whether this group memory was correct.

Between the time of the site community meeting and the meeting to follow, communication between the community director and the facilitator was limited. The community director informed the facilitator in November of an upcoming HKM event. The event, HKM La Ohana, would be an opportunity to reach a large majority of HKM Ohana and extended community members.

December 8 - La Ohana

Preparation for the event took one week. The facilitator was informed that a booth would be provided. Materials produced for the event were a site survey to be included in a packet for all guests, a green map exercise, and a headliner exercise. Of the three exercises prepared, only two were used, the site survey and the headliner exercise. La Ohana is a quarterly event held by the school to display the project and lessons learned by the *ʻōpio* (students). Parents are required to attend the event and are given an agenda for the day. The agenda is their roadmap, laying out the sequence of booths to visit.

Held on a Saturday morning, guest participation was limited due to unpredicted weather conditions. Present at the booth were the facilitator and a fellow colleague a past D.Arch graduate. Not programmed into the days activities, guests engaged with the booth

during transition periods. A new feature to the La Ohana, many of the guests were curious. Their inquiry helped to initiate engagement. The exercise that received the most response was the headliner exercise. Participants were asked to create a statement or headline that could be featured in the local paper, 5, 10, 20 years from now. These headliners would be the basis of vision statements for the future campus. In total, 30 responses were received. In terms of surveys, 200 were printed, yet only 6 were received.

January 26, 2008 – Pre-planning/Visioning Meeting

The pre-planning/visioning meeting was developed to gather more information from the community to develop a direction for the future campus. Unlike the site community meeting, this meeting was open to all stakeholders. Held on a Saturday afternoon, six members of the community participated, an HKM grandmother, the community director, the HNC Oahu Program Director, 2 HKM staff members, and a colleague of the facilitator. Intended to be an interactive workshop, the agenda of the meeting was altered after it was apparent that only six people were attending. As a result, the meeting was unintentionally divided into two parts, the first, a meeting with HNC Oahu Program Director and the second, a meeting with HKM participants.

Figure 11.1 Image of the Participants at the Visioning Meeting Source: Melanie Wong

Figure 11.2 Image of the community director leading the meeting. Source: Melanie Wong

The first part of the meeting, HNC offered input about how HKM could be sustainable in a future development. He discussed how the school should not act as a single entity within the valley; rather the development should consider impacts to the whole valley. The overall message from HNC was that HKM should look at existing partnerships and refer to the 1994 EIS/Masterplan of Makiki Valley. During the second part of the meeting, the facilitator requested information from HKM to move the project forward.

Outcomes of the meeting were a list of architectural program spaces, design and sustainable objectives.

February 12 – Meeting with Maunalaha Valley Community Association (MVCA)

The meeting with MVCA was pre-arranged a month in advance to secure the attendance of the MVCA board members. The facilitator initiated contact with the MVCA Vice President. Recognizing that an interaction with the Maunalaha community had not occurred yet in the process, the facilitator worked with the time schedule of that community.

Held on a Tuesday evening, only one member of the MVCA board attended, the VP who was a coordinator of the meeting. Similar to the intentions of the pre-planning meeting, the goals of the meeting were to find visible collaborations between MVCA and HKM.

February 26 – Preliminary Design Presentation

A formal meeting, RSVP's were sent out to all the stakeholders inviting them to a preliminary design presentation. Organized by the facilitator, it would be a presentation of two preliminary design schemes.

Held on a Wednesday evening at HKM, no one attended the presentation.

March 8 – La Ohana

The La Ohana was a 5-year birthday celebration for the double-hull canoe. Similar to the last La Ohana, the facilitator had a booth. Five drawings were presented that day and discussion was informal. A wide range of community and school members engaged with the facilitator. The use of drawings and vignettes helped to evoke emotional response from the community. In addition the drawings, helped to bring clarity to the project.

Figure 11.3 Image of the facilitator speaking with a community member. Source: Melanie Wong

REFLECTIONS

The experiences of the facilitator are structured in a similar format, a timeline of events. This portion of the essay offers the perspective of the facilitator during this process.

September 25 – Meeting with HKM Staff

At a first glance, the facilitator was able to get a glimpse of the schools culture. A small charter school, teachers and administration greeted and communicated with one another as if they were of the same family. Everyone hugged and kissed, and touched foreheads.

September 28 – Meeting with the HKM Kumu

The facilitator had a different experience at the Kumu meeting; she felt there was opposition towards the idea of future campus planning. The age similarities between the facilitator and the Kumu were evident. The younger Kumu in particular tried to assume power in the meeting by spouting words quickly in Hawaiian. The facilitator interpreted this behavior as a sign of insecurity and mistrust. Overall, the Kumu were not inclined to participate in the process, they responded that it was not their responsibility, "they are not paid to think about the site," and were not willing to give up their free time. Laughter was the response when voluntary participation was discussed.

October 2 – Meeting with Hawaii Nature Center

The meeting with HNC was an informative meeting for the facilitator. It exposed the facilitator to the confidence of the HNC Executive Director as a leader of the organization and an assumed ownership for the valley. In this meeting, the facilitator had no choice but to take a back seat and hear the perspectives of HNC. The general message from HNC was that this process would jeopardize HNC future development plans and they were not participating in HKM public process. Throughout the meeting, HNC tried to persuade

the facilitator to keep the project as an academic exercise, as gathering community input in this valley would be difficult.

The facilitator learned that strategy is critical when communicating with this group. Although the facilitator came into the meeting to share ideas and to have an open discussion, such an opportunity would not be presented to the facilitator or the school until HNC felt they were recognized as the main power players in the valley. The facilitator sensed a power struggle occurring between HKM and HNC was emerging.

October 2 – Meeting with Papa Ku Mana

The meeting with the PKM exposed the facilitator to the organization style of HKM, a very relaxed style. At the time of the meeting, no board president existed and the meeting seemed unplanned. The comments offered by the board were insightful as it reflected the nature of the organization and their style of conducting business. The facilitator was only present at the meeting for 45 minutes, but during that time it became evident again that since no leader existed, conversation became power battles between members trying to express personal opinion and control.

October 4 – Meeting with DOFAW

The Manager of Trails presented himself as a friend of HKM. From the beginning of the meeting, he openly spoke his opinion about the presence of HKM in the valley. He gave the impression that DOFAW was not particularly happy with how previous decision was made in the valley, but were optimistic towards the future. This meeting, unlike the HNC meeting, was a conversation between DOFAW, HKM community director, and the facilitator.

November 3 – Site Community Meeting

The site community meeting was the first interaction the facilitator had with the community. In this meeting, the facilitator learned to find the balance between the differences of cultural norms in western and indigenous cultures. Some of the cultural norms

of HKM that were evident at the meeting were the use of silence as a form of response and the identity of a group mentality. Many of the responses for the participants were group responses, individuals confirming and agreeing with members with a stronger personality, or silence. The challenge for the facilitator was to become comfortable with the silence and to accept the response as characteristic of the culture. Another cultural norm evident in the meeting was the participants perception and awareness for the land. Many of the participants had the ability to create a connection between verbal and physical concerns for the site. As the users of the land, the leaders of the community, had a personal connection to the land and were able to bring awareness to certain features of the site.

To make a cultural connection, the facilitator brought someone of the same cultural background to the meeting. Bringing someone of the same background brought ease to some of the participants as they found a commonality. In addition, the facilitator was impressed by the amount of diversity present at the meeting. There was a large amount of youth participants at the meeting. Many of the youths were motivated to attend the meeting because of one youth's particular interest in the topic.

December 8 - La Ohana

The booth the facilitator managed for the day was not programmed into the events agenda. A lot of the interaction made between the facilitator and the community were self-initiated. Mostly parents responded to the exercise and many of they hoped project themselves to become a culturally based school with academic rigor. The insight the facilitator gained was the parents were taking a risk by sending their children to HKM. All of them have great faith and belief in the school, but want to see more progress occur academically. The overall concern, although not voiced, was can their children excel in both the western and indigenous worlds with the education provided at HKM.

The challenge for the day was communicating with the community. The facilitator had to learn to read body language, understand silence, and to sense the energy of the crowd. Hardly any participants approached the booth individually, most were in pairs or in groups. This showed to the facilitator that a sense of security and conformability had to be established before a communication could start. The facilitator learned to simply terminology by removing technical words common in architecture language. It took a lot of effort and self-awareness on the facilitator to make these changes to communicate with the community. The facilitator had to beware of the communities' energy and think through what was being asked to the community. Throughout the day there was a lot of self checking and conversations with the facilitators colleague on the days interactions.

January 26, 2008 – Pre-planning/Visioning Meeting

The Visioning Meeting evolved into learning lesson about community dynamics then a meeting about an organizations vision for the future. From the beginning, the facilitator had to learn to adapt quickly to unintended conditions. Those conditions were mainly the lack of participants present at the meeting. The meeting was really a two part meeting with individual stakeholder groups. Rather then, the meeting being a dialogue, it was an arena of one stakeholder group to assert power and control.

From this expression of power, the facilitator understood the dynamics that existed in the community and public process. The process is very much a battleground of power and politics expressed by stakeholders and it is the duty of the facilitator to mediate and neutralize the situation.

February 12 – Meeting with Maunalaha Valley Community Association (MVCA)

This meeting was a disappointment for the facilitator. Arranged to be a conversation with the MVCA Board members, it became an uncomfortable situation with only one MVAC board member. The frustration from the meeting was not from the lack of MVCA

presence, but the recognized lack of effort and interest of a stakeholder group. The facilitator coordinated the meeting months in advance to work with an existing MVCA schedule. The lesson learned was communication and understanding is critical in the public process. It was assumed by the facilitator that the MVCA member understood the importance and intentions of the meetings, rather then assume, the facilitator needed to have confirmed and reconfirmed the intentions and importance of the meeting.

February 26 – Preliminary Design Presentation

The Preliminary Design Presentation was a low point of the project. Out of request from a stakeholder group, the intentions of the meeting shifted to become a presentation. The turnout of the meeting indicated that a lack of capacity and interest existed in all the stakeholder groups as no one attended.

March 8 – La Ohana

The facilitator participated in another of HKM La Ohana events. At this particular event images of the design were presented to the HKM community. What lacked throughout the process was reassurance from the community that the direction taken by the facilitator and the community director was the right one. At the La Ohana, the facilitator received the responses needed to continue the process optimistically.

Figure 11.3 Image of the facilitator explaining the designs to two HKM staff members.

Various forms of drawings were presented, all evoking a response that was not apparent in the previous methods. The facilitator realized that possibly the methodology used previouly was wrong. There was greater involvement and participation as the HKM La Ohana. In addition, a reappearing at an established HKM event showed the community the commitment of the facilitator.

CULTURAL CHALLENGES

The cultural challenges experienced by the facilitator extend beyond the racial differences between the school, the stakeholders, and the facilitator. Although race contributed to and may have been the basis of the challenges to follow, race did not determine the success of the project's outcome. The challenges expand farther into organizational structure and capacity, inability to build a relationship, empathy and communication, and power and respect.

Table 11.1 Five Cultural Challenges

1. Evident differences of cultural backgrounds and epistemologies
2. Organizational structure and capacity
3. Ability to build a relationship – Honesty, trust and willingness
4. Empathy and communication
5. Power and respect

The first challenge, an evident difference of cultural background and epistemologies set the tone of future relationships and the project in many ways. The facilitator of Chinese-Austrian background, born and raised in Hawaii; the members of the school were of Native Hawaiian race, majority also born and raised in Hawaii; the Mauanalaha community was the original Native Hawaiian settlers; DOFAW and HNC members were ethnically mixed. The racial mixture of all groups was an evident challenge for the facilitator or any other outsider. Diversity in the valley meant difference of epistemologies. "Epistemological challenges are those arising from the existence of multiple world views rooted in history and culture."[2]

When working with a community that is not of the same cultural background, it is difficult to fully understand the culture and perspectives of it members. The individual and group epistemologies create identities and boundaries to form cognitive models that help individuals and groups to understand others and the world around them.[3] In situations where people are of different cognitive models, it makes communication and joint actions difficult as people understand the situation differently.[4] As a facilitator collaborating with a community group of a different cultural background, it is difficult not be characterized and stereotyped. In the case of this project, the facilitator was stereotyped as an outsider. Using stereotypes to understand an outsider in many ways is concept people use to protect themselves. The protection of self in many ways is an indicator of mistrust affected by past interactions with those

stereotypes. In this process, the facilitator might have been perceived as a threat and risk, and separating the facilitator from the heart of the culture was a method of self-preservation and protection.

The unfortunate circumstance of the situation was the facilitator was unable to get out of that categorization. The created boundaries prohibited the facilitator from fully making a connection with the community and possible helping them to their fullest capacity. The stereotypes polarized the situation making the collaboration a dynamics of us verse them.[5] The situation can be described as knocking on the front door of your neighbor's house. You are knocking, but no one is answering, yet they see you, but are not ready to let you in, so you hang out at the front step until you are welcomed into their home.

The second challenge is the organizational structure and capacity of the groups involved. Capacity is a reflection of the ability to leverage existing human interactions, resources, and social capital to make decisions and solve problems to improve or maintain the well being of an organization.[6] How an organization structures themselves is a reflection of the culture and resources available. The facilitator was at an advantage, being an outsider to the culture. She was able to perceive the challenges that may not be evident to its members.

The fact that HKM is a charter school had much to do with their style of organization and capacity. Traditionally, charters in Hawaii are representations of grassroots organizations; staffing and funding is limited and responsibility and duty is great. It is challenging to be a facilitator in a public process with a grassroots organization, especially if the project is not a priority of the organization or supported by the leadership. As grassroots organizations, being aware of opportunities is a necessity, but having the ability to manage and prioritize those opportunities is a skill.

In the case of HKM public process, the school had a limited number of staff managing multiple responsibilities and duties. They were fortunate to have a community director devoted to the development of the future campus, but having a dedicated role was not enough. Nonprofit organizations as part of a public process often face greater constraints on staff and resources as they struggle to find time to devote to participating and becoming informed.[7] The downfall of the process was the lack of support throughout all levels of HKM. Commitment to collaboration must be supported from all levels of leadership to be successful. Leadership in organization capacity is a core component. "They facilitate and give direction to the work of community organizations."[8] For collaboration to occur with nonprofit organizations, both capacity and leadership must exist.

The third challenge was the inability to build a relationship. Building a relationship is the foundation to the pubic process because the process is about discourse and communication. For collaboration to work the process must build upon understanding, trust and relationship between groups.[9] The combination of different cultural backgrounds and lack of capacity made building a relationship with the HKM community challenging. Mistrust associated with the stereotype of an outsider made risk taking improbable. "At times a fear of taking risks hampers us from building linkages."[10]

Building a relationship requires will and desire from both parties. If equal desires are not reciprocated, it becomes difficult to have a relationship based upon honesty and trust. The facilitator felt she took a risk by constantly engaging in communication with the school and its community groups. The facilitator confronted the difference by offering references to professionals for situations not related to the future site and admitting help. Even well intentioned efforts can be compromised in situations where perceptions of others cannot be ignored. The facilitator through constant interaction with HKM community director was able to build a relationship where both parties were willing to take a risk by getting to know one another.

The fourth challenge was empathy and communication. Like the other challenges, cultural played a defining role. The backgrounds and the epistemologies of each party affected how communication and the sharing of information would occur and be understood. The epistemologies of a person are really the individuals views of the world of how each perceive things, share, and receive information.

In this process, the facilitator, associated the epistemologies of HKM as a mentality perceived by the groups culture, Native Hawaiian. Communication between both parties was kept at a surface level. Discourse revolved around the topic of the site development only. Communication maintained at that level throughout the project because both parties did not have a clear understanding of where one another stood and lacked the knowledge about one another's backgrounds to develop trust. Without the understanding of one another's background, both the facilitator and the communities could not understand each other's perspective. As a result, communication was poor or misinterpreted. Since there was not an understanding for one another, both the facilitator and the community groups learned to be flexible about the process and meetings. The facilitator released a lot of control over the process to engage members of the community.

The fifth challenge was power and respect. Power and respect were amongst the largest challenges for the facilitator. Throughout the meetings, there was always a constant power battle or struggle occurring between neighboring community groups or internally at HKM. The competition for power regarded positions within the valley, rights to development plans, and priorities of organizations. The desire for control may have prevented some stakeholder groups from participating in HKM public process. The role of power affecting the public process was an indication that no collaboration takes place in a vacuum. External issues conflicting partnering organizations may strain collaborations.[11]

CONCLUSION

Culture is the most critical piece in the public process of architecture, as the dynamics of a project may affect the outcome. Unlike, traditional projects, were collaboration and discourse between a client is limited, in a public process the opportunities to engage, educate, and discuss are magnified. The exaggeration, allows factors like culture to define how engagement, education, and discourse will occur. The cultural implications occurred in the project relates to the topics of trust, cultural differences, protocols and backgrounds, capacity, and empathy.

The five challenges (1) differences of cultural backgrounds and epistemologies, (2) organizational structure and capacity, (3) relationship building, (4) empathy and communication, (5) power and respect, represent the dynamics that occurred in the collaboration between the facilitator and HKM. Differences in culture and epistemologies set the tone and boundaries for the public process ahead. The facilitator in this situation was fighting a stereotype image and perception of as an outsider. The image as an outsider made building trust with the community taxing. The capacity of HKM made collaboration and difficult as it was not supported by all levels of leadership. Basis of much of the mixed perception and lack of capacity was the inability for the facilitator and HKM to understand one another. Since they were unable to "exchange shoes," some of the challenges and dynamics evident during the public process could not be addressed or discussed. Lastly, the role power played in the process indicated to the facilitator that no public process works in isolation. Regardless of the merit of the intentions, collaboration is a complex game between two parties.

The dynamics that occurred in HKM public process affected the anticipated architectural outcomes. The intentions of the collaboration were to involve

the communities in the decision-making and process of creating architecture. Due to the challenges that were unintended and not anticipated, the facilitator heavily influenced the architectural outcomes produced. Through the project, rather then focusing on the outcome, the facilitator learned the importance of how culture and capacity affects collaboration. When collaborating with community in the process of creating architecture, facilitators need to understand the identity of the community and their capacity to participate.

ENDNOTES

1 Wondolleck, Julia M, Yaffee, Steven Lewis. *Making Collaboration Work: Lessons from Innovation in Natural Resource Management.* (Island Press, Washington D.C., 2000), 58

2 Umemoto,"Waling in Another's Shoes, "17

3 Wondolleck & Yaffee, *Making Collaboration Work,* 59

4 Wondolleck & Yaffee, *Making Collaboration Work,* 59

5 Wondolleck & Yaffee, *Making Collaboration Work,* 59

6 R. Chaskin, P. Brown, S. Venkatesh, Avis Vidal. Building Community Capacity. Aldine De Gruyter: New York., 2001, 7

7 Wondolleck & Yaffee, *Making Collaboration Work,* 57

8 R. Chaskin, P. Brown, S. Venkatesh, Avis Vidal. Building Community Capacity. Aldine De Gruyter: New York., 2001, 27

9 Wondolleck & Yaffee, *Making Collaboration Work,* 68

10 Wondolleck & Yaffee, *Making Collaboration Work,* 62

11 Wondolleck & Yaffee, Making Collaboration Work, 65

12 Chapter
The Role of Capacity in the Public Process

The role of architects is changing where the next generation desires to become more active in the community. Architecture is about creating through a process. Community can be incorporated and be an active part of the process. Understanding how to work with a community is a vital component to create architecture.

This project discussed a specific community in a conversation about a future school campus. A public process was designed for the project to involve all the stakeholder groups that could be potentially affected by the future development. The assumption was if communities were more actively involved in the conversation about the architecture, the architecture created would be more appropriate, contextual, and everyone would have a greater sense of ownership. However, through the course of designing the public process, the intentions of the project altered, focusing more on how community and architects can work together rather then measuring the architectural product produced.

COMPONENTS OF THE PUBLIC PROCESS

Levels of Participation

Understanding the levels of participation in a public process is an important tool. It is a way to measure the success and outcomes of a process. The levels of participation are categorized into two parts, non-participative and participative. Non-participative levels are described as stakeholders who are visually evident in the process, but lack the position to make decisions. Their participation levels are greatly controlled by the organizers of the process and the structure and capacity of the organization. Participative levels look at how stakeholders can be come more greatly involved in the decision making process. Levels of participation increase as stakeholders become more involved in the decision making and initiating of the public processes, until finally professionals are utilized as resources.

Designing the public process

There are three elements to consider when designing the public process: methods of engagement, capacity of parties, and host culture. Combining these three components together creates a process that is appropriate for a community. It is also important to know that since each community is different, every project and process will be different. Therefore, it is important to understand the identity of the community, their values, traditions, and histories.

Common methods used to engage participants are divided into two categories, informative and gathering. The informative category is about getting community buy in and providing background information. The informative process is considered a marketing opportunity until the gathering process begins. The gathering process is about developing different methods to gather information needed to make decisions. There are varying ways to gather information ranging from small citizen groups who act as a filter between the community and the facilitator, to intensive workshops/charrettes with an evident product produced. Of all the methods, any one can be used for varying reasons, but it is important to consider who the community is first before designing a process.

One way of perceiving a community is by understanding their capacity as an organization. Capacity is described as (1) sense of community, (2) commitment to the community by its members, (3) ability to solve problems, and (4) access to resources. Capacity is also how a community is able to mobilize human and social capital and resource. Another essential component of capacity is the role of leadership. Critical to an organizations capacity is leadership. Leadership has the ability to provide the needed support and legitimacy to organizations. The support and legitimacy helps organizations prioritize and mobilize members to their best capacity for the betterment of the organization.

Another way to understand a community is by understanding their culture and epistemologies. Diversity is becoming more evident in communities, and culture has a great influence on how processes are designed. When working with communities that are of different backgrounds, it is important to recognize and be aware of the differences. Professional must be open-minded and understanding of the host culture by understanding their past as it may affect future relationships and decisions; to be aware of traditions and protocols; to be willing to accept the difference and take the risk. When working with communities where culture is a critical defining element, vulnerability and risks taking are essential components to becoming aware and empathetic of the host culture.

LESSONS LEARNED FROM HKM PUBLIC PROCESS

The methods selected to design the HKM process were based upon the types of information needed to produce an architectural outcome. Unique to the process were two existing HKM activities, La Ohana, quarterly events. The importance of capacity building was not recognized until the facilitator encountered challenges in the middle of the project. Therefore, the majority of HKM public process included meetings designed to produce a product.

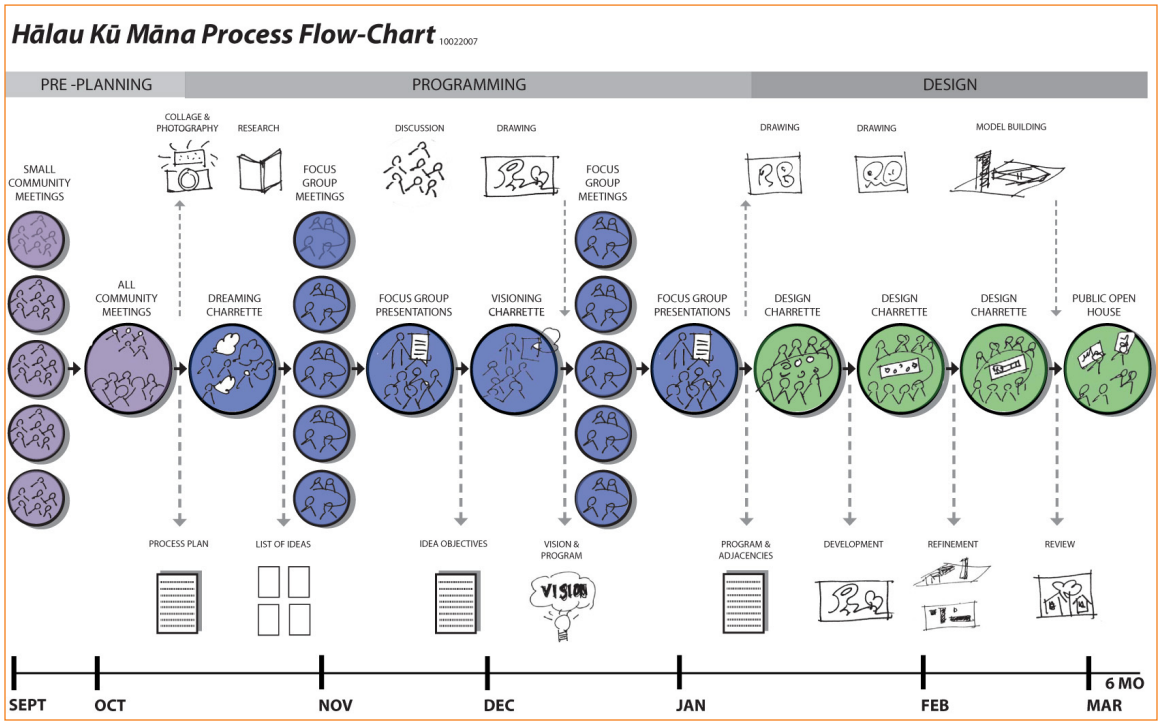
As the nature of community participation is not linear, so is the process of decision making. There are a lot of twists and turns in the public process. In designing the process for HKM, the facilitator went through three series of processes, until a process that met the culture of HKM was designed. The three processes all include a series of community meetings ranging from small to large. As the public process for HKM was refined, the intensity of the meetings and the activities decreased.

The first process designed looked at developing an intensive procedure that was a series of large meetings followed by focus meetings. In the first round of stakeholder meetings, the facilitator met with each stakeholder group to understand their

capacity to participate. The message from a few of the stakeholder groups was a hesitation towards the public process. The hesitation was in part a reflection of the stakeholder's capacity to participate and their desire to have control. Participation in a community can release The experience from the stakeholders meetings resulted into two of the challenges: Power and Respect and Organization and Capacity.

Evident in the stakeholder meetings were the political dynamics existing between the three stakeholder groups and HKM regarding issues of power. It appeared that each stakeholder group was attempting to improve their political standing within the valley. The determination for power may have prevented some stakeholder groups from not participating in the process. Since the facilitator was an outsider to the communities, through the stakeholder meetings, in both a passive and aggressive manner, each stakeholder group demanded a certain degree of respect from and by

Figure 12.1 HKM Public Process 1



Source: Melanie Wong

the facilitator. The demand for respect translated into the stakeholder's desire for control.

The intent of these meetings were to understand a group's capacity to participate in the process. Unanimously across the board, the groups were not keen to the idea of an intensive process. Capacity was measured by time and attendance. Most groups did not see the value in devoting personal time to such a process. At the time, the facilitator, was unfamiliar with the culture of the organizations and saw the lack of support and interest in the process as a reflection of the organizations structure and capacity. At first glance, it appeared that the structure of the organization, the defined roles and responsibilities, were preventing some to partake in the process. Particularly expressed by the sub groups within HKM, was the lack of responsibility and obligation to plan for the future of the school.

HKM requested that the first all community meeting became a HKM meeting only, the site community meeting. This request was asked for two reasons, first to protect themselves from future power battles that may occur within the meeting and second, to build the capacity of the HKM community first. Allowing the meeting to be only a HKM meeting, the school was able to protect themselves and to build their capacity.

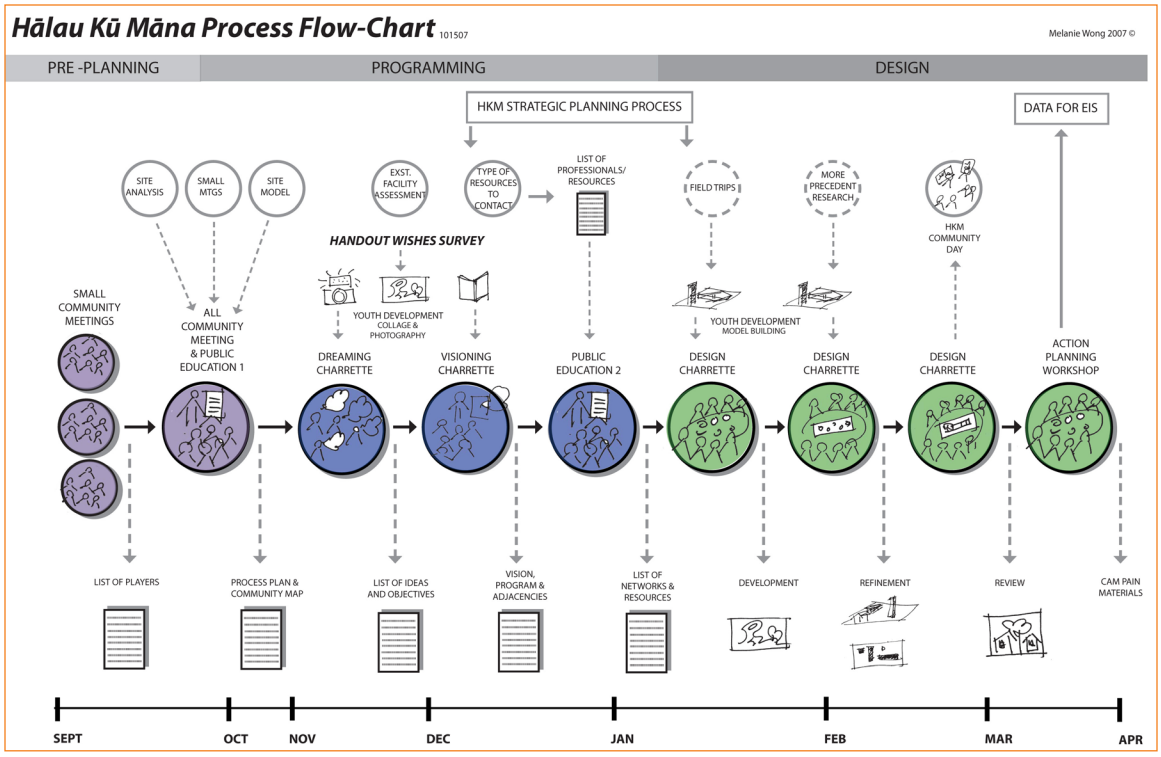
Immediately, following the individual stakeholder meetings, the facilitator modified HKM public process to be less time intensive, therefore, eliminating the focus meetings. The focus meetings were eliminated from the process because of all the interactions, the focus meeting required the most personal time, devotion, and knowledge. Removing the focus meetings in many ways decreased the level of critical thinking and refinement in the process. These modifications became the second iteration of HKM public process.

Following the HKM Site Community Meeting, the facilitator followed up with all the participants by sending a collection of the day's group memory. The

intent of sending the group memory was to verify the information collected. Sent out immediately after the meeting, no response was received from both participants and the HKM community director to the facilitator. Between the time of the initial HKM community meeting and the next interaction with the community, there was minimal communication for a time span of roughly 1 month. The facilitator was able to understand some of the forces that may have influenced these events.

The first force was attempting to understand why no response was received from the group memories. It was not until the end of the month, that the facilitator was able to make sense of the situation. The facilitator understood the situation as a condition of culture. It was understood that possibly not responding to the group memory was an indication of a cultural norm. Lack of response meant the community had

Figure 12.2 HKM Public Process 2

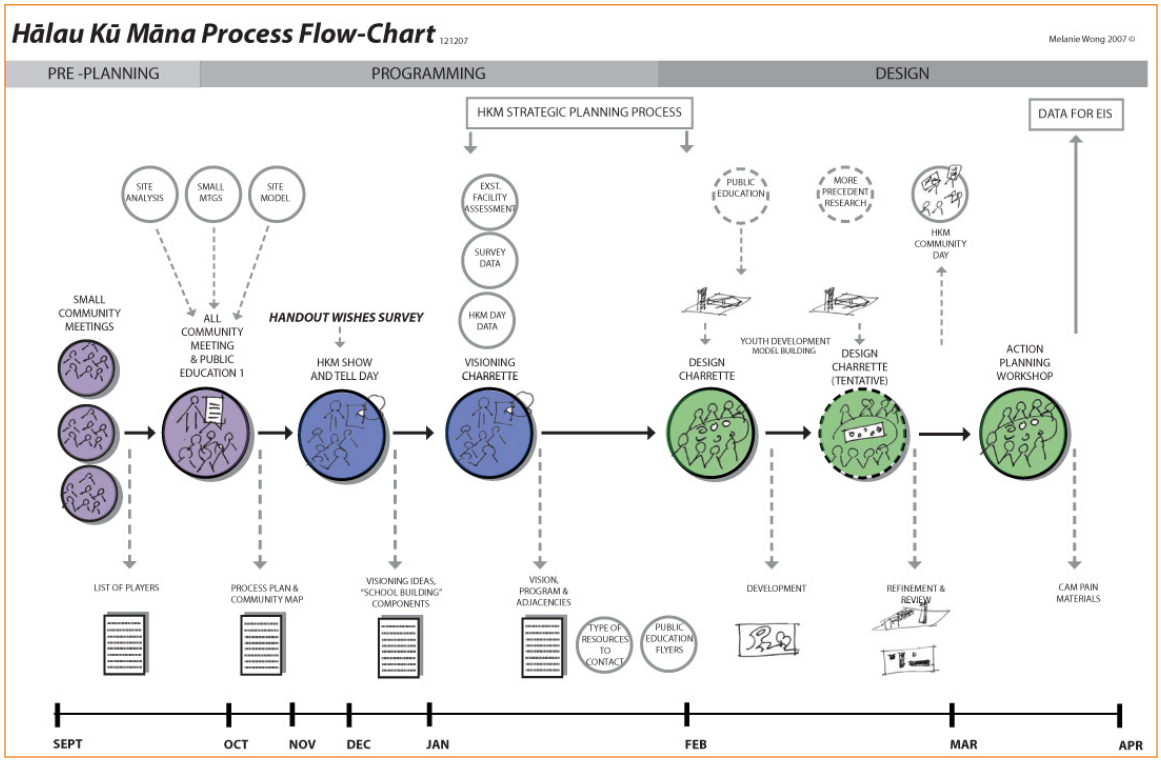


Source: Melanie Wong

no problem with the information collected and not responding was confirming the information was correct. Whatever the reason may be, the facilitator needed to learn the role of patience and empathy.

The second force evident was again the organizational and capacity of both parties. From the perspective of the facilitator, capacity was limited on the HKM side, which made communication and momentum building difficult. The facilitator only had only one point of contact, the community director. It was presumed that both the facilitator and the community director had many responsibilities during that time and were unable to prioritize those responsibilities to accommodate one another. The result of the 1-month time span was the canceling of a dreaming charrette and many organizational meetings between the community director and the facilitator.
Towards the end of the 1-month time period,

Figure 12.3 HKM Public Process 3



Source: Melanie Wong

communication reestablished between the facilitator and the community director. The facilitator expressed to the community director the importance of gathering information to move the project forward. Understanding the position of the facilitator, the community director invited the facilitator to participate in the schools La Ohana in December.

The quarterly La Ohana was an opportunity for family and community to learn more about HKM. An organized event and school day, the facilitator was exposed to the culture of the school and became more empathetic to the situation as more members of the community were present.

After the La Ohana, the facilitator learned the value of participating in existing community activities. Additional the experiences gained at the La Ohana brought importance to the roles of communication and capacity in the public process. Following the La Ohana, a third interaction of HKM public process was created, the final process. This process greatly reduced the number of interactions between HKM and the facilitator. The interactions maintained were redesigned to gather more specific and meaningful information.

The last interaction with the community was the HKM quarterly La Ohana in December. Occurring before the holidays, it was a great opportunity for the facilitator to gather information needed to prepare for the following meetings. A public education meeting planned to give information back to the school was cancelled to accommodate the New Year. Therefore, all of the energies between the facilitator and the community director were focused on future a visioning and designing charrette.

The next meeting was a visioning meeting intended to develop a vision statement, design and sustainable objectives. All of the stakeholders were invited to this meeting. On the day of the event, unexpected circumstances came up and the meeting shifted into a two part meeting with one stakeholder group

and HKM members. The unexpected circumstance was the lack of participants present at the meeting, which shifted the intentions. First intended to be a workshop of small group breakouts with an evident product produced at the end, due to the lack of people present, the methods for gathering information changed. As a result, in part due to the lack of and diversity of participants the meeting became a two part individual stakeholder meetings. The experience from this meeting reinforced to the facilitator the power struggles existing within the valley, the role capacity and organization structure play in the public process, and the elements needed to build relationships.

For the first time in the course of this project, two stakeholder groups were in the same room as one another. It was clear that the situation was uncomfortable for everyone. The visiting stakeholder groups aggressively took control of the first part of the meeting by asserting their power by reinforcing the roles of individuals. The facilitator could only observe the situation, but realized that the expression of made others participants uncomfortable. The result was HKM members appeared threatened and could not participate in the conversation.

The expression of power was a result of many things. One factor was the limited number of participants at the meeting. This indicated the lack of capacity of HKM and other community groups. They were not able to mobilize members to attend the meeting or leverage any resources. In terms of offering information, not many of the members were able to contributive. Lack of contribution by HKM members in many ways was a result of an intimidating and non-neutral environment.

Power positioning and lack of capacity indicated that it would be difficult to continue the relationship building process. It was clear that at least one stakeholder group was not interested in a team

building dialogue and members of HKM were just not able to see value and devote time to the process.

At the end of the meeting, it was very clear to the facilitator that the information-gathering portion of the process had ended. The lack of participation and information was an indication that something different needed to occur in the public process to reestablish interest. The next meeting, anticipated to be a design charrette was changed to a preliminary design presentation. Stakeholders were requested to RSVP.

Prior to the meeting, no invited stakeholder group had responded to the invitation. The facilitator was hesitant that a meeting could occur. They continued to hold the meeting at the request of the community director. Sure enough, no one appeared at the meeting. It was an evident indication that a problem existed in the process. At that point, it was difficult to move the process forward because it had not gained any momentum.

With the intention of getting a response to the design, the facilitator participated in the March La Ohana. At this La Ohana, the facilitator presented two schemes and several vignettes. Both were well received by the HKM community. Comparing the turnout of both La Ohana it was clear that to gather input from the HKM community, the facilitator needed to work with the HKM community calendar. The HKM interest was evident, but it was apparent that additional meetings had overtaxed their capacity.

UNDERSTANDING THE EXPERIENCE

The primary influence to the process that created most challenges was capacity. The indicators defined and explained the capacity of HKM and their communities by measuring participation and attitude of the members.

HKM as the primary stakeholder group was analyzed the most. As the group essentially hosting the public process, it was critical for HKM to have the ability to do such an endeavor. Indicators such as participation decreasing as the project progressed, lack of interest and responsibility for the future site, and lack of input at the meetings, expressed to the facilitator that a structure was missing within the school. It was not until, participation stopped, did the facilitator realize the importance of capacity and leadership in the public process.

As the project progressed, the facilitator noticed the lack of interest and participation decreasing from the HKM community. It can only be speculated as to why participation and interest decreased as the facilitator was only able to see one aspect of the school's culture. The assumption of why participation and interest decreased and eventually ended had much to do with HKM capacity and identity as a charter school. Such activities like the La Ohana's indicated that some interest for the future site existed in the HKM community as members engaged and participated with the facilitator. In terms of member turn out, more people participated and attended the La Ohana's because it was required and an established HKM event. To understand how the capacity affected participation, the facilitator can only compare turn outs at the La Ohana events versus the organized "future school" HKM Public Processes.

The greatest advantage the La Ohana's had over the HKM public process was the formal HKM hosting. The La Ohana's were hosted and supported by the school, where as HKM public process was hosted by an outsider and only partially supported by the school. Those two elements greatly affect participant interest and turnout. In many ways, the identity of the school put them at a disadvantage in the public process. Just the nature of charter schools of having a great degree of autonomy and little structure does not lend them to have the capacity to participate in a public process. Through first hand observation and experience, it was evident that during the time

of HKM public process, external events such as school restructuring and influence of other parties, made prioritizing opportunities challenging for the leadership and staff of the school. The ability to prioritize opportunities is reflective of the HKM capacity and leadership.

Charter schools, like grassroots and non-profit organizations, have many things on their plates, and no system to filter the responsibilities and opportunities. The lack of structure makes it difficult for schools to seize opportunities and to prioritize them. Therefore, in any organization the role of capacity and leadership is critical. "Leaders are core components of the community's capacity. They facilitate and give direction…advocate for community interests and catalyze the formation of informal groups to address emerging problems or to capitalize on opportunities."[1] Particularly in charter school structure the role of leadership plays an important part in a schools direction and interest as the nature of charters are autonomous and sometimes taxing on its members.

In the case of HKM public process, the facilitator believed capacity did exist within the school, but it was limited. The HKM members only had the capacity to participate in the existing HKM activities. The addition of the HKM public process may have overtaxed the members and exceeded the capacity of the school. Combination of leadership and organizational capacity made it challenging for HKM to capitalize on the opportunity at hand.

In addition, HKM was challenged to portray a certain image within the public process. That image was to understand the identity and direction of the school. As the host organization for the public process, it is critical and foremost that HKM have the capacity to participate in a public process. In this particular project, the lack of capacity within HKM jeopardized their abilities to make develop better connections with the surrounding community groups. HKM was not

able to legitimize themselves as an asset to the whole valley. Therefore, much of the participation from the stakeholder groups was limited to non-existent.

The lack of capacity and support from the HKM community directly affected the outcome and participation level of the public process. Both HKM and the stakeholders were not participative in the public process. The majority of the participants engaged in the process because of a requirement imposed by the school to fulfill a required number of *kokua* hours (community service). The participation was perceived as decorated or tokenism by the facilitator. Decorated or tokenism participation are when stakeholders are involved in a public process mainly on the basis for imagery. (Table 7.1) This role does not allow many of the stakeholders to have control and power in the decision making process. Although members of the community were visible, they were not engaged to influence the decision-making for the future campus. A few HKM members were exceptional in the public process as they made it a priority to attend both HKM existing events and HKM public process events. Those members included the community director and concerned parents. The participation level received by those members were assigned and informed. The facilitator categorizes these members as assigned and informed because they were aware of the public process and their roles and chose to volunteer.

CONCLUSION

In the process of working with HKM, the role of capacity became the common challenge that was underlying the other four challenges. At first glance, the challenges were characterized as cultural challenges relative to the differences in cultural background between the facilitator and HKM. Through the process of writing this section, the cultural challenges are not based upon the racial cultural differences between the facilitator and HKM, but culture as it defines the identity and organization of the school, their organizational capacity.

Capacity in the public process is a critical element because it determines how, why, and if an organization can participate in such an endeavor. As a person now experienced with working with one community group, it has become clear that intentions can only run so far in the process of working with a community. The strongest component is capacity of both the facilitator and community. The public process is an intensive decision-making process that requires a lot of human and social capital and resources to make a process successful and meaningful. If the organization does not have the capacity to participate in a public process, building their capacity must be the first priority before considering a public process as an option.

ENDNOTES

1 R. Chaskin, P. Brown, S. Venkatesh, Avis Vidal. Building Community Capacity. Aldine De Gruyter: New York., 2001, 7

Appendix(s)

APPENDIX A: YOUTH PARTICIPATION
APPENDIX B: EXAMPLES OF PUBLIC PARTICIPATION IN HAWAII
APPENDIX C: HKM PUBLIC PROCESS EXERCISES
APPENDIX D: HKM GROUP MEMORY
APPENDIX E: HKM PUBLIC PROCESS IMAGES

A Appendix
Youth Participation

If our democracy is to grow in its capacity to solve its weighty environmental, economic, and social problems, it will be because young people are learning to participate effectively in public life. It is because young people are discovering that involvement in public like is not what we leave to a public official to do for us or to us. It is exciting, rewarding dimension of the "good life" we all want.[1]
-FRANCES MOORE LAPPÉ, CENTER FOR THE LIVING DEMOCRACY

The United States is one of the fasted growing nations with a population of over 3 billion. The percentage of youth, under the age of 18 is growing exponentially. Youth by the masses are representing themselves as voices to be heard. The participation of youth in the public process is a growing phenomenon that touches organizations at the federal and grass roots level. The support for youth involvement must be coupled with adult support to sustain their voice. It is shown that civic engagement develops youth awareness about democracy and tolerance, environmental stewardship, civic responsibility, and exposure to resources within the community.

When adults support the involvement of youth in the public process, they foster a learning environment that encourages and motivates people to exercise real citizenship and responsibility. "This take-charge attitude arises from the desire to have a significant voice in issues that affect everyone, to make positive changes in the quality of life, and to create more meaningful roles for themselves in society as effective decision makers."[2] Through a supportative environment, young people will experience genuine and meaningful participation that impart will allow them to become more effective decision makers in the future, and develop a sense of responsibility to affect change.

"Through first-hand experience, young people are building self-reliance, connecting with others, and learning about their inner resources and their own creative potential to forge a new sense of what is possible. They are transforming ideas into pragmatic proposals for action and advocating solutions to the urgent problems confronting communities, their country,

and their world."[3] Exposure to a public process offers young people tangible first hand experience. Meaningful experiences in a public process allow youth to see their role in the project, the clarity of the outcomes, and an opportunity to apply learning. With that mentality, community is a larger version of the classroom. Youth involved in the public process reinforces continued learning and application of knowledge.

There are many reasons why youth should be involved in the public process; a developed awareness of civility, ownerships, and environmental stewardship. None of these reasons are meaningful until a process is created where youth are legitimized and see their value. "The core value is involving young people to ensure genuine and active participation. Opportunities need to be created were youths choose to be involved, assist to solve a problem, and provide solutions. The ultimate goal of youth involved in the public process is to impart a sense of ownership into youths.

LEVELS OF PARTICIPATION

In regards to levels of youth participation, Hart describes the levels of participation through his ladder, Harts Ladder. Hart's Ladder has been an accepted diagram within the planning community to describe the evolution of youth participation in the public process. The ladder developed by Roger Hart Ph.D., a professor of environmental psychology at University of New York Graduate School of Psychology, he has done much research in children's development in relation to the physical environment.

Hart's ladder is broken into eight levels of participation: manipulation, decoration, tokenism, assigned but informed, consulted and informed, adult initiated-shared decisions with children, child initiated and directed, child initiated and shared decision with adults. To create this diagram, Hart looked first at the concept of children's rights.[4] His belief is that participation of young people in a public process

Table A.1 Levels of Youth Participation

Method	Description	Intentions
Preliminary stakeholder meetings	Individual face-to-face meetings.	• To develop a list of stakeholder and levels of participation in the process • To understand the perspective and agenda of the stakeholders.
Weekly Meetings with HKM Community Director	Informal causal meeting discussing future activities and information gathering.	• To educate the community director about architectural and sustainable trends. • To develop processes and information for upcoming meetings.
Site Community Meeting	First large community meeting. Designed to familiarize participants with the site. Scheduled on a Saturday morning for 3 hours.	• To conduct a SWOT analysis (Strengths, Weakness, Opportunities, Threats) • To conduct a group site analysis
HKM December La Ohana	Fair like setting with a booth specifically for site development. An established HKM event.	• To issue a site survey • To conduct a headliner exercise. • To understand the depth of sustainable knowledge within the community. • To establish a rapport with the community.
Pre Planning/ Visioning Meeting	Community meeting involving stakeholders in a discussion about a vision for the site. Scheduled on a Saturday afternoon for 3 hours.	• To develop a vision for the future campus, design and sustainable directions. • To develop a draft architectural program.
Preliminary Design Meeting	Formal presentation for invited stakeholders	• To present two design schemes for comment and feedback from stakeholders.
HKM March La Ohana	Fair like setting located off site. A separate booth was allocated for site development. An established HKM event.	• Present two design schemes and vignettes to the HKM ohana for feedback.
Action Planning Workshop	Small meeting with stakeholders and decision makers.	• To develop a roadmap for HKM future site development process

cannot be discussed until the power relations and struggles for equal rights are understood or at least considered.

In his study, he discovered the relationship between the ideal and the reality of society. Context and family structure play an important role in youth participation in the public process. Hart argues that context and family structure have a greater influence on a youth's willingness and capacity to participate. Therefore, his eight levels of participation look at the ideals. He characterizes youth participation into two models, participation and non-participation. Between those two models are broader categories that measure the level of interaction a youth could have in a public process (Table A.1).

Youth can become involved in many ways, but the underlining factor is the willingness for adults to release power and control. Adults have a great deal of power in the public process their attitude and behavior help to shape experiences.[5] If adults assume superiority over youth in the public process, that attitude makes it difficult for youths to become involved.[6] In our society, youth are programmed at a young age to obey, listen, and follow the directions of adults.

BUILDING YOUTH CAPACITY

Methods that develop their capacity can be in the form of activities, exercises, mentorship, redistribution of power, and leadership. In the ideal world, youth would be encouraged to affect change and to take charge of problems, but in reality, influential adults control a lot. Rather then fight against established norms, adults should work to understand contextual situations. Movements to push for models of meaningful youth involvement in the public process; shared decision making with adults, youth-initiated, and youth informed.

An obvious methodology that would support capacity development is mentorship opportunities with adults. Creating a mentoring environment in the public

process would require shared decision making with adults, an equal role, and willingness to learn from one another. In the public process, a youth will develop a relationship with the adult(s) to inquire further knowledge, consult points of view, and inspire future growth. Mentoring reinforces that the public process in designed to be a learning environment and that actions speak louder.

Activities that direct youth to a more active role are activities that youth have interest in, are inspired by, see clarity in the purpose and their role, and at times initiated by youth. Those activities can come in forms of youth research, charrettes, fieldwork, analysis, and reform. The activities that youth are involved in should be 100% supported by them, motivational, and be activities that could influence decision-making and project outcomes.

ENDNOTES

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5 Ramona Mullahey, et al, "Youth Participation in Community Planning," 1

6 Driskell,

B Appendix
Examples of Public Participation in Hawaii

This chapter discusses aspects of public participation in Hawaii to understand how context may affect community engagement. The information discovered offers the facilitator an understanding of the influences that may effect the peoples in Hawaii to participate. The intentions is with the knowledge of existing public participation processes, the facilitator could comprehend the participation outcomes of the HKM public process.

The State of Hawai'i is one of many diverse States in the United States of America. The diversity in Hawai'i ranges from race, economics, and social status. According to the U.S. Census, Hawai'i residents are racial diverse, 19.4% (2006) of residents are two or more races, 40% are of Asian background, 28.6% are of Caucasian background, and the remaining populations consist of Native Hawaiians, Pacific Islanders, Hispanics, and African Americans.[1] Based on this fact, Hawai'i can be considered a heterogeneous community. Heterogeneous communities are greatly motivated to engage to protect self-interests. Diverse communities have many points of view that cannot be generalized due to various backgrounds.

This chapter will look at organizations and events in Hawai'i that have a public participation component. The investigation will include why public participation occurred, who is engaged and why, and the outcome. Looking at these examples will help to clarify some of the factors that influence people in Hawai'i to participate. The factors identified in this chapter will help to form a link to the interactions with Halau Ku Mana.

The investigation will be a broad survey public participation in Hawai'i. There are many facets to public participation. According to Putnam, he categorizes public participation into the following sections: political participation, civic participation, religious participation, work related, informal connections, and volunteering. For the purposes of the project, examples will look at participation at the political, civic, and informal level. Those examples include Hawai'i 2050, Envision Hawai'i, and Green Drinks.

HAWAII 2050

The first example, Hawai'i 2050, is an example of public participation at the political level. In the book, *Bowling Alone,* Putnam discusses political participation as "ways of expressing our view and exercising our rights."[2] Participating at the political level requires being politically involved. Common ways to exercise that have been through contacting representatives, voting, attending public meetings, and participating in election campaigns.

Hawai'i 2050 is an example of political participation in Hawaii. Its objective is to create a new planning process with communities that will guide policy and decision makers towards a sustainable Hawai'i. It is the states first attempt for a new sustainable plan within the past 30 years. According to their website "Hawai'i 2050 seeks to engage in a dynamic and inclusive process, reaching out to all communities in a variety of settings to ensure maximum participation and communication."[3] The task force seeks to create a new method of gathering and decision making within a State initiated project. Governor Linda Lingle appointed the Task Force, which consists of 25 members. The Task Force represents the four Hawaii counties, State Agencies, educational institutions, and local business persons.

From the very beginning, engaging with the community was an integral part of the process. To ensure that community engagement would be preserved in the planning process, the Task Force assembled a working group, known as the Community Engagement Working Group. This group comprised of members from the Hawaii, Maui, Kauai, and Oahu Counties.

The Community Engagement Working Group developed a purpose at the very beginning. There are two parts to the purpose. The first part is to "solicit

statewide community input to inform all aspects of the Hawaii 2050 Sustainability Plan."[4] The second part was to "begin an educational and motivational process to ensure the community takes responsibility to promoting and achieving greater sustainability."[5] Their purpose was to gather as much community input and to educate the community simultaneously.

To achieve the purpose the Working Group designed a three-part process over a time span of twenty months. The process included a series of community meeting in all counties of Hawaii, surveys through community organizations and the Hawaii 2050 website, and random telephone surveys. The Hawaii 2050 website was a important resource to support the meetings and surveys. The website had downloadable documents such as the Hawaii 2050 Strategic plan, the Issues Book, contact information, and schedule of meetings. In addition to developing a two-part process, the Working Team also assembled community engagement coordinators on each island. The roles of the coordinators were to "conduct outreach on their respective islands. The community engagement coordinators were responsible to gather board representation of input at community meetings and through surveys. Those individuals and organizations were:

Alex Frost (Hawai`i Island)
Kaua`i Planning and Action Alliance (Kaua`i)
Maui Economic Development Board (Maui)
Alberta de Jetley (Lana'i)
Glenn Teves (Moloka`i)
Hawai`i Alliance for Community Based Economic Development (O`ahu)

The first part of the process was to raise awareness about Hawaii 2050 and to start the thinking process of defining sustainability in Hawaii. This portion of the process lasted three months and included ten statewide community meetings. From these meetings, the information gathered helped to shape a vision for a sustainable Hawaii and principles to the public process. In total, 450 people attended the

community meetings between a span of two months. The greatest participants turn out came from the islands of *Kauai* and *Oahu*. Following the meetings, a survey was provided through the Hawaii 2050 website, organizations and associations, employers, schools, and churches for further data collection.[6] The community input gathered in ten statewide meetings help to shape the contents of the survey. The focus of the survey was to define sustainability, develop concepts that would contribute to the Hawaii 2050 vision statements, and create principles to guide the planning effort. Each topic of the survey had multiple-choice answers followed by additional short answers. Only 2,249 surveys were received.

The second part of the process focused on the planning aspect of Hawaii 2050. Similar to the first part, twelve community meetings were held in all of Hawaii's counties. These meetings unlike the first were advertised through media. Such media included "email blasts; newsletters; fliers; and personal outreach" conducted by Island Community Engagement Coordinator. Like the previous meetings, these community meetings also had similar intentions to gather community input. This round of community meetings looked to gather critical input. Participants were asked to review the Hawaii 2050 Issue Book. The draft documents of sustainable definitions, the vision statement, and the guiding principles. To ensure participant input was heard, the meetings had short break out sessions, were facilitators and recorder conducted and documented the sessions. Each breakout session was structured to gather the top five goals for a sustainable Hawaii, explanatory goal statements and strategies to achieve those goals. All participants were asked to make a decision by voting. In addition, recorders marked the frequency of a goal listed to indicate the importance. The five goals of each break out session were consolidated into the top five goals of the community meeting.

The data collected from the last round of community meeting was used to help the Hawaii 2050 Task Force develop a list of general themes representing respective communities and the State of Hawaii. Information gathered throughout the entire process was to refine the Hawaii 2050 Issues book and develop a draft Hawaii 2050 Strategic Plan.

The third part of the process was a series of a summits and community meetings over a time of three months in the winter of 2007. The Hawaii 2050 Summit held in September 2007 was an unveiling event for the all the data collected over the course of twenty months. Attendance to the summit required a fee of $50.00. To reach a larger audience it was televised. Only 1,000 people attended the Summit. In addition to the September Summit, a summit was also held for the youth of Hawaii. At this summit, similar questions addressed at the September 2007 summit were asked. However, the methods used to gather information from the youth were more age specific. Methods used were the use of blog, Kids Voting Hawaii, independent surveys, and focus group meetings. In addition to youth input specific to Hawaii 2050, data was also collected on how to improve the capacity of youth involved in the Hawaii 2050 process, future opportunities for youth in legislation, involvement in non-profit organizations, and greater involvement in civic life.

Similar to parts one and two of the process, a series of community meetings followed the Summit to gather input regarding the Hawaii 2050 Draft Plan. Island Coordinators structured the meetings similar to the other meetings, informing and small breakout sessions. Facilitators and recorders were used to gathering information. The participants were asked to identify the strengths, weakness, and recommendations for the following goals:

Goal 1: A Way of Life
Goal 2: The Economy
Goal 3: The Environment and Natural Resources
Goal 4: Community and Social Well-Being
Goal 5: Kanaka Maoli and Island Values

In addition to the community meetings, residents were also able to offer comments about the draft plan via the Hawaii 2050 website.

Very little data was recorded in terms of the demographics of the participants. The first two parts of the process identified the demographics of the participants. From that, data they found that majority of the participated were over the age bracket of 56 years old, have lived in Hawaii over 25 years, and were Caucasian. The following tables, taken from the Hawaii 2050 Community Engagement Report explain more in depth the demographic break down.

ENVISION HAWAI'I

The second example, Envision Hawaii, is an example of civic participation. According to Putnam, he defines civic participation as involvement in voluntary associations. As he writes, "Many Americans today are actively involved in educational or school service groups like PTAs, recreational groups, work-related groups, like labor unions and professional organization, religious groups, youth groups, service and fraternal clubs, neighborhood or homeowner groups, and other charitable organizations."[7] Envision Hawaii is a network of young career people in Hawaii who are trying to make a difference. Founded in 2003, the network began over the commonality to improve society in Hawaii. Identifying a need in Hawaii, the group of young 20 and 30 years olds, formed the organization, Envision Hawaii. The members of this network represent a diverse background of professions ranging from the private and public sector with careers in arts and education, health and public safety, economic development, and the environment. The organization is "committed to providing young public servants and

social entrepreneurs with opportunities for community building, professional development and collaborative action."[8]

The mission of the organization is to increase public service and social entrepreneurship in Hawaii by bringing together like-minded people. There are four goals:

> Goal 1: "Build a community of young public service professionals and social entrepreneurs that fosters networking and peer support.
>
> Goal 2: Provide young public servants and social entrepreneurs opportunities for professional and career development.
>
> Goal 3: Provide a vehicle for young public servants and social entrepreneurs to speak with one voice, and a vehicle for leaders to address them.
>
> Goal 4: Provide a vehicle for collective service and action by young public servants and social entrepreneurs."[9]

The first goal looks at providing opportunities for young members of Hawaii's professional community to build their social capital. Envision Hawaii acknowledges that little time and opportunity is left in the workweek to branch beyond the confides of an individual's profession, so their role is to provide that opportunity. The second goal seeks to provide individuals interested in entering the career path of civic service opportunities of mentorship, professional development, and skills building. The third goal utilizes Envision Hawaii as a single source networking resource for young professionals. By being an organization formed on specific purposes, their hope is individuals of like mind regardless of professional background will see the Envision Hawaii as an asset. The last goal is to provide their members opportunities to expand social networks through community service and community action activities.

As a young organization fuelled by passion, they consulted with leaders of another young organization in San Francisco, Young Nonprofit Professionals Network (YNPN). Consultations with SFYNPN helped the Envision Hawaii Organizing Committee develop an organizational plan. Out of those consultations came a survey that was distributed to the friends and colleagues of current Envision Hawaii members.[10] The intentions of the survey were to gather data on the interest of the organization in Hawaii, professional services, and to market the organization. Following the survey came a planning meeting were goals and action steps were developed.

The accomplishments of the organization is achieving a seat on the National Young Nonprofit Professional Network Board, having talk story sessions with CEOs of large Hawaii corporations, and participating in service projects. In addition to these achievements, Envision Hawaii has also hosted social events for members and non-members, helped other non-profit organizations in job employment, and conducted Annual Conferences.

The organization requires an annual $20.00 fee to be a member.

GREEN DRINKS

The third example, Green Drinks Hawaii, is an example of informal participation. As Putnam would describes, informal participation as those interactions outside of political parties, civic associations, and unions.[11] He characterizes information connections as "getting together for drinks after work, having coffee with the regulars at the diner, playing poker every Tuesday night, gossiping with the next-door neighbor, having friends over to watch TV, sharing a barbeque picnic on a hot summer evening, participating in a reading group at the bookstore, even simply nodding to anther regular jogger on the same daily route."[12] Putnam discuss two types of informal social connections. The Green Drinks is a connection that he characterizes as schmoozing.

Green Drinks Honolulu is part of an international movement designed for individuals in the environmental fields to meet up for informal sessions.[13] It is an informal network of individual that come together to share drinks, discuss topics, and to bring like-minded individuals together in a social environment. This network reaches a broad range of countries throughout the world, ranging from the United States, Afghanistan, Denmark, India, Hong Kong, South Africa, and Belize to name a few. In total, there are 309 cities who participate in a Green Drinks event.

There is very little structure to a Green Drinks event, the only rules is a networking event occurs every first Tuesday of the month at a venue in a Green Drinks City. Started by a German native, Laurens Laudowicz who owns Buddhawelt an Asian antiques and interior design firm. He began the local chapter because he felt Hawaii should not be excluded from the movement.[14] In Honolulu, the Green Drinks is held at E&O Trading Company in Ward Center. The Green Drinks are inclusive social events, but typically, individuals related to or interested in environmental issues attend. Number of participants range from 50-500 people.

Supporting the Green Drinks event is a blog called Hawaii Green Drinks http://hawaiigreendrinks.blogspot.com. The blog acts as a resource linking Green Drinks to other environmentally conscious websites such as clothing designers, environmental organizations, and environmental cars dealerships in Hawaii, styrophbia, an architecture firm, and Go Green Hawaii to one another.

ENDNOTES

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C Appendix
HKM Public Process Exercises

Sections of Appendix C

1. Site Community Exercise
2. Headliner Exercise
3. Site Survey
4. Recipe for a New School

SITE COMMUNITY MAPPING

Description:
The purpose of this exercise is to understand the natural features and topography of the site. Participants will walk the site as a group and individually document individual reactions and thoughts. Each person will have a topographical map of the site and larger maps of the neighborhood for reference. Using different colors, the community will document their reactions and identify elements that may influence future thought and design of the site. Individual maps will be combined into a larger group map.

Materials Needed:

- Existing map of the site and neighborhood
- Colored pens and markers
- 8 ½ x 11 white paper
- 8 ½ x 11 tracing paper
- Cardboard clipboard

Instructions:
Individual

1. The point of this exercise to understand each other's point of view and influences that frames them. Remembering things that may be important to one person may not be the same for others. Through this exercise sharing and understanding one another's views will help us to understand the site as a group.
2. As you walk through the site please identify and think about the following things:
    - Where you live
    - Route taken to Halau Ku Mana
    - Note important features along that route
    - Strengths of the site (Things we should remember, highlight, and consider when planning for the site).
    - Weaknesses of the site (Things that make you feel uncomfortable; feel need further attention)

Please use the maps and supplies handed out to document your findings. It is important to follow the color codes when documenting. When we come together as a group, the color-coded system will be useful when we are combining the individual maps to a larger group map.

Color - Coded System

Thing to identify	Color
Where you live?	Purple
Route to Halau Ku Mana; features along the way	Green
Strengths of the site	Blue
Weaknesses of the site	Red

3. You will have 45 minutes to walk the site and document your findings. When walking

the site, think about how your 5 senses are reacting and why. This exercise is meant make us more aware of the natural settings and positive and negatives offered.

4. You may use symbols, drawings, words, lines, what ever makes you comfortable when documenting the site.
5. Once you are complete, we will meet at as a group to discuss our findings.

Group

6. Everyone will post their individual maps to the group. Each person will share his or her thoughts, feelings and ideas. The facilitator will record your findings and list them accordingly.
7. Once everyone has shared their individual maps, we will take the list and discuss it as a group. Through the discussion, we will search for similarities and differences.
8. From there, as a group we will place the post-its on the map.

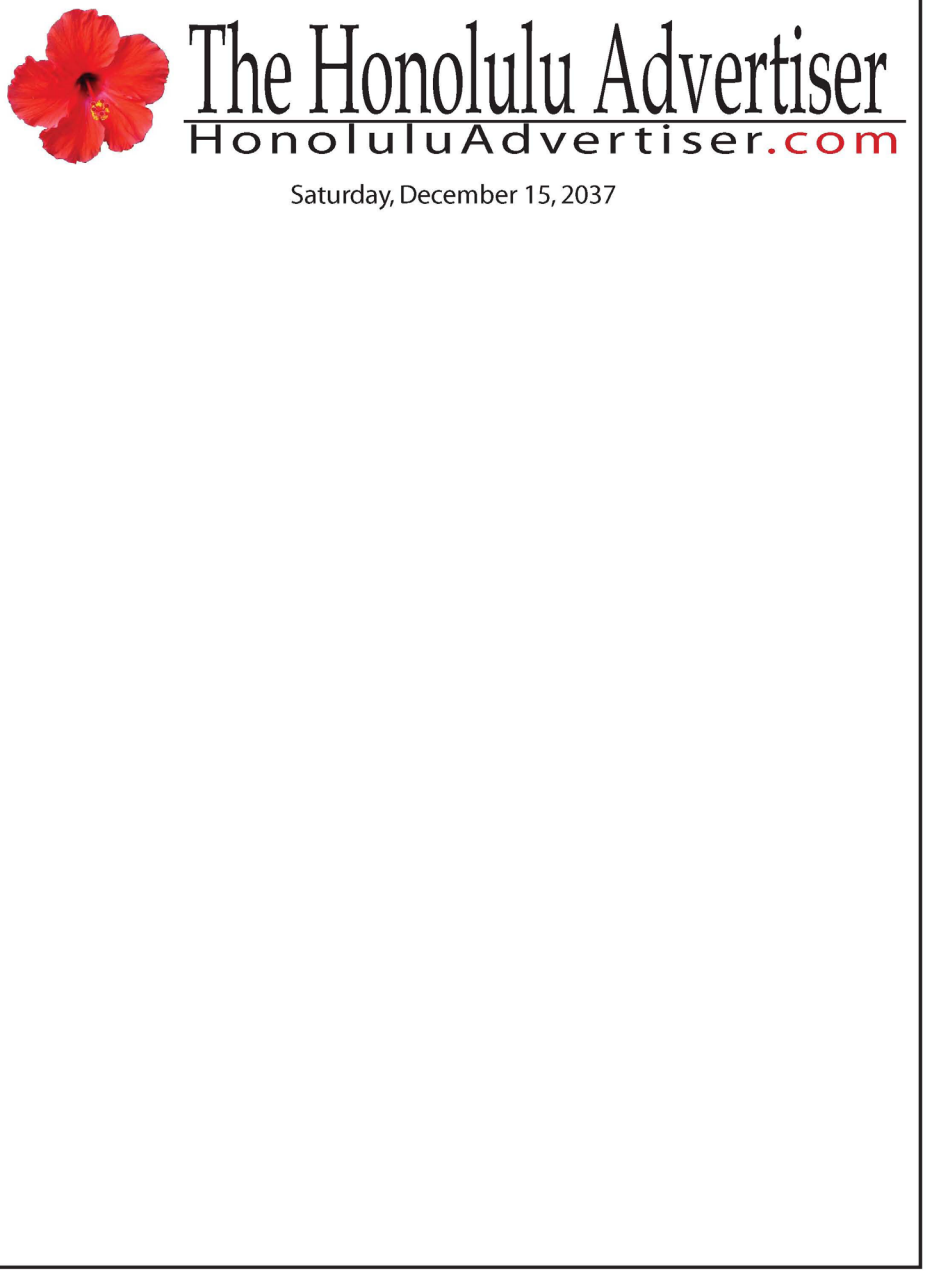
HEADLINER

Used at a December HKM La Ohana. The exercise represents a stimulation of the idea. The local newspaper illustrated did not sponsor the exercise or event.

Image you are reading the Honolulu Advertiser 10 years from now, what will a headline say about Hālau Kū Māna?

Image you are reading the Honolulu Advertiser 20 years from now, what will a headline say about Hālau Kū Māna?

Image you are reading the Honolulu Advertiser 30 years from now, what will a headline say about Hālau Kū Māna?



SITE SURVEY

Issued at a December La Ohana

E kūkulu hale kākou *SURVEY 1*

This survey is the first of two that will explore conceptual ideas to guide Hālau Kū Māna's future site developments. The purpose of this survey is to understand who Hālau Kū Māna is, what are their values, and the direction to take towards building a school. Please answer the questions freely and openly as possible.

COMMUNITY

What does community mean to you?

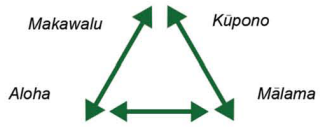
Who is in your community and what community are you part of?

Who is Hālau Kū Māna's community? What community are they part of?

VALUES

Ho`okele
Direction and Connections
(as we voyage through life)

Ho`omana
Nourishment and Empowerment
(of self, others)



Ho`okumu
Grounding and Foundation
(within oneself and one's community)

credit: Hālau Kū Māna

Ho'okumu - Being aware of the strengths and challenges of self, family, community & culture, to nurture a sense of place, esteem, and kuleana, as well as creative and critical thinking/feeling skills, so that we may:

Ho'okele - Explore and connect in ways that allow us to accurately plot and steer a course in the right direction toward fulfilling our highest personal and community goals. Throughout this process, we strive to:

Ho'omana - Nourish all piko (centers) - mental, emotional, and physical – within us and our `aina (land); the empowerment of ourselves, each other, and our communities.

What does Hālau Kū Māna's mission mean to you?

Look at yourself. What is important in your life?

How does Hālau Kū Māna affect you?

Look at your community. What are the values of your community?

How are the values an asset to other communities?

Look at Hālau Kū Māna. What do you value in Hālau Kū Māna?

What is the role of Hālau Kū Māna to you? to the community? to Hawaii?

What are the things that affect you, your communities, and Hālau Kū Māna's quality of life? (Definition of quality of life: Standard of life, our well-being, philosophical concepts, things of importance.)

issue date: 121507

DREAMING

In the next 10, 20, 30 years, what will the headline be in the Honolulu Advertiser about Hālau Kū Māna? What are the possibilities for Hālau Kū Māna?

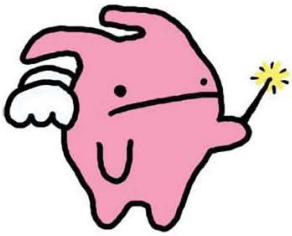
next 10 years ....

next 20 years ....

next 30 years ....

issue date: 121507

3 wishes for the school If you could make wishes for Hālau Kū Māna's future, what would they be?



1

2

3

Why?

DESIGN

How could the currently facilities at Hālau Kū Māna be enhanced? Are there missing components that are essential to a school? Please explain.

In terms of design, what buildings and schools campuses in Hawaii do you appreciate? Please list.

What are the qualities of those buildings and campuses? How should that affect future buildings at Hālau Kū Māna look like?

issue date: 121507

What does sustainability mean to you?

What do you know about sustainability?

What would you like to learn more about?

Please rate and explain the following

How important is the topic of sustainiblity?

least 1 2 3 4 5 6 7 8 9 10 most

Please explain

How important is the topic of fitting into the local context, character of the neighborhood?

least 1 2 3 4 5 6 7 8 9 10 most

Please explain

How important is the topic to represent the culture of Hawaii and Hawaiian culture?

least 1 2 3 4 5 6 7 8 9 10 most

Please explain

20 words

WHAT IS THE "CULTURE" OF HĀLAU KŪ MĀNA?

issue date: 121507

BASIC INFORMATION

Name (Last, first)

_____

Are you a:

student teacher parent administrator neighbor other _____

How many years have you known or been a part of Hālau Kū Māna?

Do you volunteer? Donate time? Part of an organization? kokua? If so, how often?

How often? _____ Days/Months

How many years? I've been volunteering for _____ years.

If you volunteer, why?

Requirement

To help others

Compassion

For the love of it

Always been part of me, it is who I am

Concerned member

Other _____

THANK YOU FOR YOUR TIME. ALL YOUR THOUGHTS AND OPINIONS ARE GREATLY APPRECIATED. IF THERE ARE ANY QUESTIONS PLEASE CONTACT MELANIE WONG AT WONGMELA@HAWAII.EDU.

MAHALO,
MELANIE

issue date: 121507

RECIPE FOR A NEW SCHOOL

Your ohana gives you a list of flavors that they would like to experience in a dish, but they do not know what the dish will be yet. They know you are a great chef and ask you to create a dish based upon those flavors. As a chef, you look back at the flavors you have experienced in the past as well as new flavors you would like to experiment with. With these flavors, you create a list of ingredients needed for the recipe. Creating a dish is similar to creating architecture-both require knowledge of needs and wants and the ability to visualize the product, then finding the components to fulfill those desires.

Ohana Flavors	Needs and want
Ingredients	Type of buildings for a future HKM campus
Directions	Design objectives. The whys and hows
Title	A vision for the future

The concept of developing a recipe for a family will help you develop a list of buildings and objectives for a future Halau Ku Mana campus development. The flavors identified by your ohana are the needs and wants for a future school campus, possibly the piko's or centers. The ingredients you as a chef identify are the buildings and spaces. The directions of the recipe will describe how these buildings work together becoming the design objectives of the new school. The title of the recipe helps the eater visualize what the finished product may be; the title of the recipe will be the vision for a future school campus.

Creating a recipe for the Halau Ku Mana's new campus will help us identify a direction and focus in a future design Charrette.

Materials Needed:

- White paper and markers
- Creative box (colored paper, scissors, balloons, yarn and sticks)
- Blank recipe sheet
- List of ohana flavors
- 1 copy of the directions

Instructions:

Group

1. Each group will be given a kit of materials. The kit will contain all the items necessary to create your recipe for a future school campus. With this list of **Ohana Flavors**, brainstorm as a group, the **type of buildings** needed for a future Halau Ku Mana campus. Express the type of buildings in two parts, use the materials provided to create visual representations and list them in a written format.
2. Once the are identified, describe in words or images how and why they will work together. **The directions** in the recipe will be the **design objectives** for the future

school campus.

3. Last, give a **title** to the recipe. Remember a title tells a lot about what the recipe is in creating a visual image for the dish. The title will be the **vision statement** for your group's recipe of a future school campus.
4. Translate the ingredients, directions, and title onto the large blank recipe sheet. Then post it onto the wall.

Presentation

1. Each group will be given 3-5 minutes to present their recipe.
2. After the group presentation, everyone as a group will develop a master recipe for a new Halau Ku Mana campus.
3. Let's take a 10 minute break to walk around and look at the recipes created.

Master Recipe

1. With all the group recipes posted on the wall, resume to your original groups and take another 10-15 minutes to brainstorm a list of strengths and weakness of each group recipe and write them on the large post-its provided. Once your group has developed the lists, select one group member to present those strengths and weaknesses. Post those strengths and weaknesses on the respective recipe(s).
2. After each group has listed the strengths and weakness of each recipe, as a larger group we will identify the similarities and cluster them. A process of clustering, discussion, voting will help us create a master recipe for the new school campus.
3. After clustering similarities, we will discuss why they are needed components for a future Halau Ku Mana campus. Voting may be needed to resolve any differences that may arise.
4. Finally, a master recipe will be created representing the components and design objectives of a future Halau Ku Mana campus development.

Appendix D
HKM Group Memory

1. Force Field Analysis
2. Headliner Exercise
3. Site Survey

FORCE FIELD ANALYSIS

Force Field Anaylsis

E Kūkulu Hale Kākou
Hālau Kū Māna's Next Step

Best Circumstances*	Sustaining Forces*	Current*	Restraining Forces*	Worst Circumstances*
Safety protocols- police sub station	Visible community events	Need an EIS for the site	Funding for campus and staff	A Flood taking out campus
School interacts with community. Conversations with neighborhood concern through community meetings.	Makiki neighborhood board presence	Only a temporary facility	NCLB	Not enough funding
Involvement with community	Student recruitment. Boost enrollment.	No covered walkways	Night and Day security. Concern for possessions.	Build campus and no extension of the lease
School center of community	More students and staff activities	Lack of parking- a lot MUD	Renegotiate lease for fence for safety of HKM possessions yet maintaining public access.	No guardrail, a car goes over onto campus
Aware of historical background	Keeping mission of the school	Lack of concrete	Retaining students and staff.	River and backfill degradation, causes Maunalaha residents to lose road access
Facility for cultural events	Ohana holds on to belief through culture and value	Lack of maintenance. Need a trained janitor.		Community hostility and no support
Maintain natural environment. Buildings work with the land.		Lack of security		Halau Ku Mana looses Charter Status
Collaboration with UH students. Studnets interact with opio.		Lack of funding		No Ohana support within school
Big Community. Halau Ku Mana becomes a valued resoure for fellow programs.		Need more classroom space with adequte wall space		
Showroom for Makiki Valley		Need to retain students and staff		
Student impact future outcome. Graduate students return back to campus		Need shoe racks		
Partner with Dept of Agriculture, KCC Culinary School		Ball goes into the stream. Need a ball barrier and fenced playground.		
Aware of Indoor/outdoor		More extracurricular activities		
Collaboration		Lack of locker rooms		
Recreation Area- Skate Park		Lack of showers		
Have a student space- there responsibility to maintain		Lack of bike rack		
Yearly cultural events. Example Makahiki in Makiki where communities can interact and Halau Ku Mana becomes a showcase learning environment.		Lack of safe sidewalks or paths along Makiki Heights Road.		
Extend lease		Lack of supply shop		
Access to stream		Lack of wood shop		
More people, more ownership		Need of Jacuzzi		
		Purchase healthy snacks		
		Better school lunches, larger portions		
		Irrigation		
		Need of computer labs. Current laptops damaged.		
		Movie theater		
		Need to hire more staff		
		Students have to be invested in site Malama		
		No appreciation. Toilet door broken		
		Lack of student awareness. Kuleana		
		Lack of health room and health aid		
		Lack of monthly school activity calendar.		
		Lack of school signage		
		Commuting long distances is a challenge for student and families.		

*Generated from a Site Community Meeting November 3, 2007

HEADLINER EXERCISE

Information collected from Halau Ku Mana Lau Ohana Day Saturday, December 15, 2007. I had a booth and asked parents, teachers, students and community members the following question. Image you are reading the Honolulu Advertiser X years from now, what will a headline say about Halau Ku Mana? (Honolulu Advertiser did not sponsor the exercise, used as a fictional local newspaper. Should change the name.)

HKM in the next 5 years…

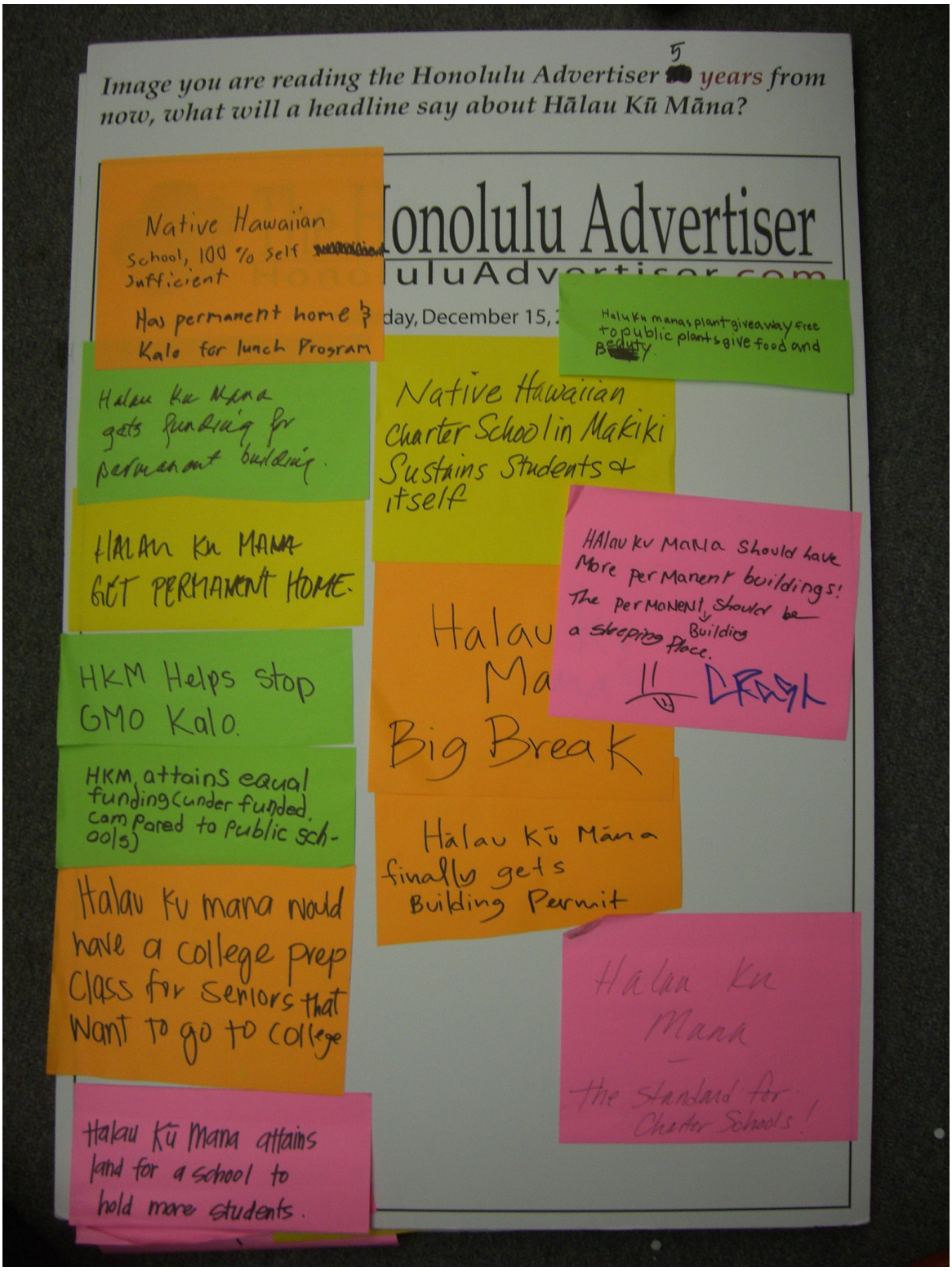
- Native Hawaiian School, 100% self sufficient
- Has permanent home and Kalo for lunch program
- Halau Ku Mana gets funding for permanent building
- Halau Ku Mana gets permanent home
- HKM helps stop GMO kalo
- HKM attains equal funding (under funded compared to public schools)
- Halau Ku Mana would have a college prep class for seniors that want to go to college
- Halau Ku Mana attains land for a school to hold more students
- Halau Ku Mana's plant giveaway free to public plants gives food and beauty
- Native Hawaiian Charter School in Makiki Sustains students and itself
- Halau Ku Mana should have more permanent buildings! The permanent building should be a sleeping place.
- Halau Ku Mana's big break
- Halau Ku Mana finally gets building permit
- Halau Ku Mana- the standard for charter schools!

HKM in the next 10 years…

- Halau Ku Mana graduates prove to be effective leaders and creative problem solvers in the Hawaiian community and community at-large.
- HKM prospers since 2001, Keeping HI culture alive
- Halau Ku Mana produces political leaders of not only the Hawaiian Islands but the United States of America.
- Everyone is happy at school
- HKM is a good school because it is a Hawaiian school. HKM Nāwahi ʻokalanai ʻōpuʻu Halau Ku Mana
- HKM is a premier charter school.
- HKM achieves sustainability
- HKM-Hawaii Nature Center partnership produces new frontier in public education
- HKM has a unique curriculum, which brings back old Hawaii Tradition (Hawaiian Values and Morals). The DOE has followed the trend that HKM has set.
- 80% graduate went to higher education

- A perpetual yearly grant of $1 million for HKM
- Halau Ku Mana surpasses standards in Hawaiian studies in Hawaii
- HKM granted $5 million for dissemination of their successful culture and community- based curriculum.
- HKM students first to complete student-led inter-island voyage (to Kahoolawe)
- HKM finished final phases of permanent campus, now own their property
- Halau Ku Mana the best charter school in Hawaii
- Halau Ku Mana… I would like to see (A safe, clean, sustainable, large, non-muddy, happy location for the new school).


Image you are reading the Honolulu Advertiser 10 years from now, what will a headline say about Hālau Kū Māna?
Hālau Kū Mana graduates prove to be effective leaders and creative problem solvers in the Hawaiian Community and community at-large.
HKM has a unique curriculum, which brings old Hawaiian Traditions (Hawaiian Values and Morals). The DOE has followed the trend that HKM has set.
HKM PROSPERS SINCE 2001, Keeping HI culture
- 80% of graduates went on to higher education.
- A perpetual yearly grant of $1 million for H.K.M.
Halau Ku Mana surpasses standards in Hawaiian Studies in Hawa
PRODUCES FUTURE POLITICAL LEADERS OF NOT ONLY THE HAWAIIAN ISLANDS BUT THE UNITED STATES OF AMERICA.
HKM granted $5 million for dissemination of their successful, culture = community-based curriculum
Hkm is a good because it is a hawaiian
Hkm - Nāwahi'ol
Hālau Ku Mana
everyone is happy at school
students first to student-led voyage inter-island
final phase campus, property
HKM is a prem
HKM achieves sustaina
HKM- Hawaii Nature Partnership produces new frontier in public educatio
School
Aaron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Halau ku mana plant giveaway free to public plants give food and Beauty
HAlau ku MANA Should have More permanent buildings! The permanent Building should be a stepping Place.
Halau Ku Mana – the Standard for Charter Schools!

SITE SURVEY

SURVEY 1
Information collected from survey 1. First distributed at HKM Lau Ohana Day, Saturday, December 15, 2007

COMMUNITY
WHAT DOES COMMUNITY MEAN TO YOU?

- Sharing!
- Extended family
- Friends, family, caretakers, land
- People treat each other with respect and they respect their environment-and support a general mission
- Community is the people, places, and environment that affect me, my family or where I live, work, go school, etc.
- It is the support of ohana and kula
- Involvement-A group working together on a common good.
- Lokahi, security, home
- When a group of people come together or gather together
- The people of an area interacting in support of all that is needed to sustain the area and its people so that they can thrive.
- 2 kinds, geographic and communities of interest.
- The group of people you live among, play with, work with, and worship with.
- Community means all of whom I/we (my family) immediately identify with, affect our lives on a regular basis.
- A group or gathering and ohana.
- It means everyone looking out for each other. Like aloha kekahi I kekahi.
- That means banding together to get things better for everyone.
- Working together
- A group of people working together
- Community means having people you live around, coming together and helping each other
- A neighborhood-a group of people living in a certain area.

WHO IS IN YOUR COMMUNITY AND WHAT COMMUNITY ARE YOU PART OF?

- Moanalua
- We live in Waikiki and are part of the Halau Ku Mana community
- Many communities make up my life. Hawaiian community, environmental community, friends/family
- Myself, my family and friends are in my community. I am part of the community where I live and work and Halau Ku Mana.
- Honolulu-Kaimuki-Halau Ku Mana

- Kapahulu/Kaimuki
- Kaimuki
- I am busy working, don't know.
- I am part of several community ties: Central Oahu where I live and which includes family friends neighbors; Kakaako where I work and includes friends, co-workers; HKM and Papakolea which includes family friends and support for my child to thrive.
- Our geographic community is Kailua. Our communities of interest are Hawaiian, educational, professional.
- Halau KU Mana, Puohala, Kailua, New Hope, Hawaiian Electric.
- Ohana-broad meaning are automatic, selective member are given more or greater associated with.
- The Hawaii community and all Hawaiian
- Honolulu/Makiki-my neighbor, friends, ohana
- Family, friends, neighbors, we are past of Kalihi for many years.
- Nanakuli community
- Kapahulu/Waikiki
- Honolulu/Kalihi area, YMCA, Kokua Kalihi Valley, HIS, Jeanette Weinburg etc.
- Not that sure, kaimuki

WHO IS HALAU KU MANA'S COMMUNITY? WHAT COMMUNITY ARE THEY PART OF?

- The State of Hawaii
- Us and ours
- Makiki Ohana
- Families, teachers
- Makiki/Maunalaha/all communities since students are from all over
- Halau Ku Mana's community is the people and surrounding areas here in Makiki.
- The ohana-their work ohana and their family
- Papakolea, Manunalaha, Hawaii Nature Center
- Makiki, Hawaii Nature Center
- Too busy working.
- HKM is part of Maunalaha, Papakolea, Makiki, Honolulu. He people are the people of the above-mentioned 'ili, ahupua'a and moku plus those who have been welcome in with aloha.
- HKM is in Makiki, Maunalaha communities of interest education, Hawaiian community.
- Papa Ku Mana, Makiki and the communities of those who attend Halau Ku Mana.
- Halau Ku Mana is of the root of my offsprings cultural foundation which expands, fosters, and nurtures that was planted by her mother, father and significant others who help set the platform to all HKM to build upon. Her family (HKM students) is first kumu in her life. HKM offers doors for her to seek out kumu, sources, to continuously enhance her life as intended pre ordain by her family.
- The children and their ohana/Halau Ku Mana

- The parents, students, neighbors, friends and families of students and teachers. The Island of Oahu is their community.
- The students, kumu, administrators people (parents, siblings). They are part of the educational communities and the are around the school.
- Maunalaha
- Makiki/Maunalaha/Papakolea
- Radford/Papakolea and Honolulu
- Makiki, the school-students, teachers and neighborhood area

VALUES

WHAT DOES HALAU KU MANA'S MISSION MEAN TO YOU? (IMAGE AND DEFINITION OF HKM MISSION WAS DISPLAYED NEXT TO THE QUESTION)

- The mission is maika'i. But I didn't always think it manifests in practice especially an level with communication with parents.
- Knowing our sense of place- work through challenges-give back to the aina and our community.
- That our children will have all the knowledge necessary to go forward in life meeting challenges with confidence.
- Bringing Hawaiian cultural values into our communities through education.
- To perpetuate the Hawaiian language and culture
- To have well rounded students that are confident in themselves, that are active in many areas.
- To teach value of Hawaiian culture while maintains academic studies.

LOOK AT YOURSELF. WHAT IS IMPORTANT IN YOU LIFE?

- Education
- Ohana
- My family, Ohana health
- Family
- Creating a sustainable Hawaii for my children
- My children, my family, everyone and myself we come in contact with on a daily basis.
- My ohana, my hula, my community, my hana
- My akna, Ohana, taking care of my ohana, working as hard as I can to be successful.
- Security, home, children, goals, values, accomplishments
- My family is the most important thing in my life. My dreams are to send my children to college and guide them on their path to success.
- Family, education, culture, work.
- God, family, education, Work, play.
- To be a model for my child about what values as a kanaka maoli is- who and what are identity is and what with constant enforcement and practice in

participation are what those ideals are and that it enriches her life. This permeates through all aspects of her life and they are reproducible in the things she does and becomes inspired with.

- Family and friends
- My family, friends, hula
- Family is most important and the activities that happen around the family.
- Family values
- Education, a good job, a home to own, a car paid off, a dog, a happy and healthy family.
- Family, god education
- My kids and family and where I live

HOW DOES HALAU KU MANA AFFECT YOU?

- Caring
- Greatly
- Keeps me on my toes! Makes me think/consider community/education
- Provides a cultural daily experience and grounding for Hina. Also causes some stress. I am often concerned at what I hear and see.
- Halau Ku Mana affects me because this is where my daughter spends most of her day.
- It makes me proud that I am a part of its community. It's the best thing I did for my child.
- Teaching the culture to my ohana and to have appreciation for all that we have.
- If it affects my keiki-it affect me
- Positive, aloha, lokahi
- I am very honored to have the opportunity to send my children to this wonderful school and this affect me in a good way.
- My children have been resistant to Hawaiian cultural learning, HKM has increased their interest.
- Greatly, our kids love it and look forward to their education.
- I hope that it fills the gap where I as a parent was not able to provide.
- It makes me proud that my grand children are being taught in the Hawaiian way.
- It affects my family thru my son. The students will then impact the community in the values they gain.
- The school affects my family in many ways it involves time and commitment on my whole family.
- Giving my child the opportunity to become a better student
- It teaches children about the aina, important history that is valuable
- It makes me feel at ease that my son is getting educated and having hands-on experience, learning values and his culture at the same time.
- A lot because my children are part of it

LOOK AT YOUR COMMUNITY. WHAT ARE THE VALUES OF YOUR COMMUNITY?

- Sharing, giving
- Safety and clean
- This is a hard question. One can have values but it is living them that is challenging.
- Friends and family
- Instant gratification-every person for themselves.
- Building up-getting very commercialized.
- Professional communities are decidedly western, out geographic community is unique blend of Hawaiian and Western values.
- God, family, the land, education, keiki.
- Heritage, legacy, blood, land, a productive economic and social infrastructure, a just sense of self governance and alignment of these goals.
- To raise and perpetuate the Hawaiian way
- Malama, ho'ihi. Kuleana and aloha
- Hard work correct attitude towards situations that come up.
- For my community needs to improve
- Education, healthcare and homeless-being able to reach out and help people in need
- Security, people around me, cleanliness, support

HOW ARE THE VALUES AN ASSET TO OTHER COMMUNITIES?

- Protects and sustainability
- When practiced they give inspiration to all.
- Working together-Alu Like- showing pride
- To learn by, to teach
- Kailua shows that Hawaiian values are important. Western values leave a lot to be desired.
- Values are an asset as they prevail Hawaiian values to all.
- Its reciprocal. Reinforced in HKM ideals and vise versa.
- If we demonstrate or live these values then our community will have a sense of being o which will spread to other communities.
- Values motivate change to our communities. Make things better, keep things organized.
- Different
- Encourages other communities to work together
- We live amongst one another to keep alive

LOOK AT HALAU KU MANA. WHAT DO YOU VALUE IN HALAU KU MANA?

- Education, sharing
- Culture/education

- Teachers & staff! So dedicated!
- Integrated lessons, nature involvement.
- Cultural foundation
- consistent effort to improve
- commitment of staff
- I value the people (teacher/staff) that help and teach my daughter values.
- Malama of na keiki
- Appreciation of the Hawaiian culture, honest and value.
- Learning culture as well as regular/required curriculum, protocol
- I value the knowledge, the wisdom and the discipline that sets these children apart from the rest of the other schools.
- Cultural vales define who we are. Maunalaha is our X of my father.
- Education with aloha.
- Educational ideals are grounded in a "hands on" foundation in learning. In other words, the product of your labors are as powerful as the words you speak and hear by serving the
- The Hawaiian culture
- Kuleana given to students. Malama teacher care for their students. Kulia I ka nu'u everyone (teachers, students, staff) strive to do their best.
- To get a solid education that the student can use to do what they choose in life.
- Values are excellent at Halau Ku Mana
- Paddling, canoe, going to the waterfalls
- Hawaiian culture/language. Teaching responsibility/accountability to ones action.
- The body of it all

WHAT IS THE ROLE OF HALAU KU MANA TO YOU? TO THE COMMUNITY? TO HAWAII?

- Educate in culture/academic. BE examples to other schools (teachers). Education is not bound to a classroom.
- Teaching how to think independently, appreciate and understand where we live.
- To provide a foundation of learning that compliments what Hina gets at home. Produce conscious keiki.
- Enrich the children's lives with lesions and values (in regards to Hawaiian culture) she might not learn in another school.
- To raise my child in becoming a positive role in society.
- To share and give back to the community. Keep Hawaiian pride strong.
- Educating our kids, values, culture, allowing the mana to build.
- HKM is destined to set the path for these students and prep them for their future. HKM's role to the community is to teach everyone on how to respect the aina and help each other to protect everything most people take fore granted.
- It is providing cultural learning for my daughter. It is an important alterative to the kinds of education available in Hawaii.
- The role of HKM is to educate my keiki and to enhance our values from home.

- It fills the long over due, serving undermined and under privileged their rightful claim to inherent intelligence of our heritage where public and private schools ignore.
- To be strong and teach the children the Hawaiian culture.
- It is a role model for other children and other schools in Hawaii who try to integrate the same values in their school.
- To challenge people to change and have the students make a difference.
- Excellent role for my child, needs improvement in community, needs improvement in Hawaii
- To educate children of Hawaii-hawaiian style
- I am really thankful to have my child here. I think everyone should get involved.
- Education, learning, honors tradition, protocol, etc. Respect, helping, malama- a brighter future for Hawaii

WHAT ARE THE THINGS THAT AFFECT YOU, YOUR COMMUNITIES, AND HALAU KU MANA'S QUALITY OF LIFE? (DEFINITION OF QUALITY OF LIFE: STANDARD OF LIFE, OUR WELL-BEING, PHILOSOPHICAL CONCEPTS, THINGS OF IMPORTANCE).

- Giving
- Our children have their own strong opinions. They learn to be respectful.
- I believe in mind/body/spirit and education and ohana= a beautiful community. The involvement of the community in Halau Ku Mana is vital!
- Funding
- Environmental quality
- Participation of families
- City life: traffic, zoning, etc.
- Ability to keep staff-quality staff
- Everything in my children's lives affect me, my communities etc.
- The participation of all parents, teachers, and students.
- Setting the pace and examples for everyone to follow.
- I think I speak on behalf of myself, the community and HKM when I say, that we all need to stand fast, especially when the politicians are not in favor of the education (type) that has been presented. They impose their ways of what and how it should be done. Necessarily it is not the right way, yet we al fall under their command. This is no justice.
- Hawaiians are under represented in the policy making and decision making processes for Hawaiian and Hawaiian Trusts. HKM is forging another path for the expression of Hawaiian values.
- My daughters pursuit of happiness is grounded in her ancestry, ensures her well and safe in all endeavors. When she is prepared and equipped to be a contributing member to society utilizing her skills as a professional and more so, be a model kanaka maoli opio to other in the pursuit of social justice for our nation.
- The ability for me and my husband to provide the bare necessities in life-roof over

head, food, clothing.
- To have a positive growth
- For our community we need to improve. But we as family will improve by heloing out others in our community.
- People being responsible and accountable for their actions. Making right decision in life and being a positive influence in the community.
- All of the above- kulia I ka nu'u

DREAMING
IN THE NEXT 10, 20, 30 YEARS, WHAT WILL THE HEADLINE BE IN THE HONOLULU ADVERTISER ABOUT HALAU KU MANA? WHAT ARE THE POSSIBILITIES FOR HALAU KU MANA?

Next 10 years…
- Permanent Home for HKM
- Halau Ku Mana, keeping tradition alive, a new kind of public charter school
- Halau Ku Mana is set as a long term public school-permanent home and equal funding
- The pioneer of charter schools…Halau Ku Mana
- To grow, to be worldwide and recognized
- Over achievers from Halau Ku Mana makes there way to Washington D.C.
- HKM expanding campus, increasing student enrollment.
- Halau Ku Mana student receives noble peace prize for traditional medicine.
- Established educational center for kanaka maoli excellent in cultural education
- Permanent site completed…Halau Ku Mana, a Hawaiian Charter School just completed building one of three buildings.
- To have a permanent school site for the students.
- Halau Ku Mana will increase in students and great staff
- Halau Ku Mana passes bill for GMO
- New campus at Halau Ku Mana
- More grants more training for kumus and faculty of charter schools

Next 20 years…
- Expands curriculum to include grades K-12
- Halau Ku Mana-standard for education in Hawaii!
- Premier public school-1st choice of many families
- Developing endowment funs through partnership with environmental organizations
- Setting the standard for Hawaiian charter Schools
- To be a castle on the hill with the greatest Hawaiian culture based school.
- Halau Ku Mana now houses more then 5,000 students and expanding.
- HKM opening another campus.
- Class of 2008 and the alumni proceeding 2008 have a reunion and establish a productive and contributive HKM alumni that continues support for HKM.

- Cafeteria Donated…Kamehameha Schools/Bishop Estate Supports chater schools statewide and builds a cafeteria on site.
- To be involved in the education of more students and influence other schools.
- Halau ku mana just built a cafeteria for students and staff
- Halau Ku Mana sets sail on their own voyage!
- Charter school is new to education
- Stat proposes more need of Halau Ku Mana strength of education

Next 30 years…

- 95%-100% of opio go to college
- Halau Ku Mana-100% high school graduation rate!
- HKM curriculum sets foundation for all DOE Schools-and propelled them to achieve multiple locations and immersion program.
- New Lifetime lease for Halau Ku Mana
- HKM graduates high number of leaders in the community.
- Lease extended…30 year lease extended for lifetime of school
- To have more campuses and expand to other communities
- Halau ku mana is #1 for charter school
- Kanahunamoku arrives in Kauai
- 100% graduate and go to college
- Halau Ku Mana more than just a charter school-million invested for more Halau Ku Mana school and land.

3 wishes for the school. If you could make three wished for halau ku mana's future, what would they be? Why

1 2 3 WHY
Home Structures Sustainability It will help
Updated info on website! More info sent via email (?)
Hawaiian Food or Healthy 'Ai Pono. Lunch Program Endowment grant Better lunch area. Better bathrooms
Drier weather Stronger academics Keep the students challenges and in line for college prep.

For HKM to be recognized as one of the top charter schools Receives amount of the grants for HKM To have a permanent home, full facility
Endowment for financial security into the future Facilities that meet the challenge of the environment To be seen as a model of how students can learn
Secure funding Permanent facilities Student exchange HKM should be a permanent educational alternative with a pacific international component.
Better classrooms More coverage from all medias about the schools To make this school grow and prosper.
Permanent facilities More funds from DOE Improve grounds
Permanent site Financial support of state and private sector More campus

Build a cafeteria Build more class for more students Beautify the school The school deserves all the help
Dining hall Office Athletic equipment Etiquette, to think clearly, to be physically fit.
State of the art classrooms State of the art cafeteria Scholarships It would keep students comfortable and able to focus on school.
More kalo for education at HKM HKM invested and worth …best education
Nationally renowned

DESIGN
HOW WOULD THE CURRENT FACILITIES AT HALAU KU MANA BE ENHANCED? ARE THERE MISSING COMPONENTS THAT ARE ESSENTIAL TO A SCHOOL? PLEASE EXPLAIN.

- More space
- Better facilities
- Parking for staff and visitors
- Planting helps with the mud. The recycling area could be bigger-I recycle a lot here.
- Consistent shuttle service-overhang for bad weather.
- Better paths for safe walking
- Another building for gathering
- Better storage in classrooms
- Yes, lanais and cement pathways so the kids don't come home muddy and wet.
- A halau- open pavilion. Boardwalks. Materials that are rust and rot resistance. Mud washing area would be good.
- Permanent facilities
- JPO's, no bully program
- Study hall, library, learning space
- Improve access to road/stairs, missing cafeteria
- Support by state to have permanent site.
- Kitchen/dining, area/assembly hall
- Cafeteria
- Bathrooms, more cement, a better piko for Haumana with a well sheltered building

IN TERMS OF DESIGN, WHAT BUILDINGS AND SCHOOL CAMPUSES IN HAWAII DO YOU APPRECIATE? PLEASE LIST.

- Rooms
- Library, UH Manoa, UH West Oahu
- New to Hawaii-not sure!
- KCC-networks of buildings with open space.
- Punahou
- Samuel Nawahi in Kea'au. The oldest part of Kaala Elementary (Wahiawa) with

deep, covered lanais and a wall that can slide open almost all the way.
- KSBE, RHS
- New portables
- UH, LimeKona school
- Kamehameha Schools, Punahou
- Anything solid in reasonable area.
- The classrooms
- Small, neat and clean
- Kapolei High School
- UH Hawaiian Learning Center, Kamehameha Schools

WHAT ARE THE QUALITIES OF THOSE BUILDINGS AND CAMPUSES? HOW SHOULD THAT AFFECT FUTURE BUILDINGS AT HALAU KU MANA LOOK LIKE?

- In the future-permanent tents/open air type classrooms, possibly more parking.
- Island aesthetic
- Green building-solar, etc.
- Recycle building materials
- Fresh look-organized education
- Different set-up, would not like the same.
- The ability to be and learn indoor/outdoor even during classroom time.
- Cultural features designed in the building.
- New technology, better, cleaner.
- Close to traditional designs, wood and stone.
- Size and architecture
- Kamehameha-longevity of buildings, Punahou-blends into area
- Being able to expand the school if needed.
- Halau ku mana needs improvement for landscaping
- To focus on studies while easy to maintain
- State of the art
- Well build-could be more green house built/desired. Building with land water and environment in mind.

WHAT DOES SUSTAINABILITY MEAN TO YOU?

- Future
- Living within you means-happily and successfully
- Use resources in a way that gives back. Can do most things on your own-not dependent on others.
- Doing enough to get by and stand on your own.
- Being able to thrive interdependently
- Utilization of resources managed for longevity.
- All that is required (social, economic, politics, culture, technical, traditional-universal aspects) needed to ensure its learning center has permanence

in society.
- The length of time something lasts
- To keep going on and on
- To renew
- To learn how to live off the Aina
- Most important
- To be able to do whatever

WHAT DO KNOW ABOUT SUSTAINABILITY?

- Little to none
- In general yes, in terms of HKM no.
- The history of Halau Ku Mana.
- I know that laulima is the foundation
- Work with Hawaii sustainability 2050.
- Includes past/present and future students their parents and their affiliate communities and the broader Hawaiian communities.
- Not much
- Being able to keep things going
- Instead of a pool, we use streams
- Fishing, hunting, planting, hiking
- A little, not sure if the term has changed over the years

WHAT WOULD YOU LIKE TO LEARN MORE ABOUT?

- What can we do?
- Funding-staff retirement.
- Halau Ku Mana's sustainability
- How HKM plans to implement sustainability
- How or what plans to keep the school going
- Nothing
- Plants and uses
- A lot of learning can endure all facets-but my time is so little now.

HOW IMPORTANT IS THE TOPIC OF SUSTAINABILITY?

1	2	3	4	5	6	7	8	9	10
				I			IIIIII	III	IIIIII

Please explain:
- School needs to survive long term
- Without sustainability we cannot survive

- Need to ensure Hawaiian culture
- As it applies to Halau Ku Mana, sustainability means the school will be here a longtime if not forever.
- Sustainability Is very important but not the only factor in planning longevity.
- To learn how to live off the land

HOW IMPORTANT IS THE TOPIC OF FITTING INTO THE LOCAL CONTEXT, CHARACTER OF THE NEIGHBORHOOD?

1	2	3	4	5	6	7	8	9	10
				II	I	II	III	IIII	IIIIII

Please explain:

- It is necessary to create a peaceful/harmonious environment for learning
- Important but being pono is more important
- Neighborhood holds you in the plam of its hand
- Humility is an important quality of island life.
- They should not fit in the community, it should stand on its own.
- It is important to fit in but sometimes change is good for communities.
- Important to live in peace
- Up keeping with overall of the living area , etc. the people, society, ever changing values, and goals.

HOW IMPORTANT IS THE TOPIC TO REPRESENT THE CULTURE OF HAWAII AND HAWAIIAN CULTURE?

1	2	3	4	5	6	7	8	9	10
								III	IIIIIIIIIIII

Please explain:

- Such a beautiful culture, if you live in Hawaii you should form what it means to be Hawaiian
- This is foundation-core difference of HKM
- They need to know the history of their roots and the pride of keeping strong.
- It is what are children are
- It is what makes Hawaii unique
- It is a dying culture and should be taught to the people.
- It is very important to know where you come from and to have connection to it.
- Because that is who we are, where we come from, where we'll go, become.

20 WORDS (WHAT IS THE "CULTURE" OF HALAU KU MANA?)

- Education X 20
- Caring, support interdependence. Helping our children more into the future and be/live ohana.

- Teaching by demonstrating to students what it is to be Hawaiian through culture, i.e. hula, wa'a and values
- To keep a good flow from kumu to student from year to year and keep the culture going.
- The culture of Halau ku mana is knowing to come together to form a group (family and hula) and speaking our native language.

BASIC INFORMATION

Student Parent Teacher Administrator Neighbor Other
IIIIIIIIIIIIII Grandparent

HOW MANY YEARS HAVE YOU KNOW OR BEEN PART OF HALAU KU MANA?

- Day 1
- First Year
- Early on + 2 years with Hina at school
- 4 months
- 3 years
- 4 years (known), ½ year active
- 1 year
- 5 years, unofficially, 4 years since my daughter enter in 2004-05
- 1 year
- First year
- 2 year
- 2 year
- 1 year
- 2-3 years

HOW OFTEN?

- 10 days
- When I can- our boys make it hard
- 4-5 (other organizations)
- 16 hours

HOW MANY YEARS?

- 2 years
- 5 years
- 25+ years
- 8 years
- 1 year

IF YOU VOLUNTEER, WHY?

Requirement To help others
Compassion
For the love of it
Always been part of me, it is who I am Concerned member
Other

IIII IIIIII II III I II

Others

- Need hours

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