

Heritage Documentation as a Preservation Tool

Aloha! We will begin shortly.
Today we will be using the Chat function to
receive your input.
Please enter your name and location to
check in.



Image: Pearl Harbor Mooring Quays preservation project.
Photo courtesy National Park Service.

Heritage Documentation as a Preservation Tool

Tuesday, February 27, 2024
10:00 to 11:30 a.m. HST
Presented by Historic Hawai'i Foundation
and National Park Service



Image: Pearl Harbor Mooring Quays preservation project.
Photo courtesy National Park Service.

HISTORIC HAWAI‘I FOUNDATION



Celebrating 50 Years of
Preserving Hawai‘i’s Places

A statewide non-profit advocacy organization, **Historic Hawai‘i Foundation** encourages the preservation of historic buildings, sites, structures, objects and districts relating to the history of Hawai‘i.

We help people save Hawai‘i’s historic places.

www.HistoricHawaii.org



The **National Park Service** preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations. The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.



American Planning Association
Hawaii Chapter

Creating Great Communities for All

The American Institute of Certified Planners (AICP) is the APA's professional institute providing recognized leadership nationwide in the certification of professional planners, ethics, professional development, planning education, and the standards of planning practice.

<https://hawaii.planning.org/>



The AIA is the voice of the architectural profession and the resource for its members in service to society. Based in Washington, D.C., the American Institute of Architects (AIA) has been the leading professional membership association for licensed architects, emerging professionals, and allied partners since 1857.

AIA Honolulu is a Chapter of the AIA representing and serving members on the island of O‘ahu, Hawai‘i, Kaua‘i and Lāna‘i. Within these islands, AIA Honolulu represents and serves over 800 individual member architects, associates, and allied design professionals.

<https://www.aiahonolulu.org/>

Speakers



Elaine Jackson-Retondo, Region Preservation Partnerships and History Programs Manager, Interior Regions 8, 9, 10 and 12 in the National Park Service Pacific West Regional Office, earned her Doctorate in Architectural History and Masters of Architecture from the University of California, Berkeley and her Bachelor of Architecture from the University of Notre Dame in South Bend, Indiana. She has worked in the National Park Service since 2002.



Scott Keyes is the Chief of the Heritage Documentation Programs (HDP) at the National Park Service. The programs consist of the Historic American Buildings Survey (HABS), Historic American Engineering Record (HAER), and Historic American Landscapes Survey (HALS), which document historic properties for incorporation in the permanent collections of the Library of Congress. Scott holds a BA in History from UCLA and a Masters of Architecture from the University of Toronto.

Speakers



Jay Sturdevant is an archaeologist and the Integrated Resources Program Manager for Pearl Harbor National Memorial and Honouliuli National Historic site. Mr. Sturdevant previously served as an archaeologist for 22 years at the National Park Service’s Midwest Archeological Center. In addition, he has also served at the NPS Southeast Archeological Center, Dinosaur National Monument, and Knife River Indian Villages National Historic Site.



Matt McDermott is an archaeologist and Project Manager with Cultural Surveys Hawaii, Inc., where he is the Principal Investigator for large-scale cultural resource management projects including the Honolulu Authority for Rapid Transportation’s (HART) Honolulu Rapid Transit Project (H RTP) along O’ahu’s south shore, and the Howard Hughes Corporation’s development of its 60.5-acre Ward Neighborhood Master Plan area in Kaka’ako, O’ahu. He has a Master’s degree from the University of Hawaii at Mānoa.

Speakers



Lilia Merrin is from Wailua, Puna, Kaua‘i. She is a Cultural Research Specialist, Field Assistant and Alaka‘i with Nohopapa Hawai‘i, working on various Wahi Kūpuna Stewardship projects across the Pae ‘Āina from Hawai‘i Island to Papahānaumokuākea. She specializes in Ethnohistorical Research, Writing, and Community Ethnography. She also works as a Wahi Kūpuna Internship Program Instructor, Program Coordinator, and Communications Officer for the non-profit Huliauapa‘a. Ms. Merrin has an M.A. in ‘Ike Hawai‘i (Hawaiian Studies) and a B.A. in ‘Ike Hawai‘i and ‘Ōlelo Hawai‘i (Hawaiian Language) from Hawai‘inuiākea at the University of Hawai‘i at Mānoa.

ABOUT THIS COURSE

Learn the purpose and applications for documenting historic properties and heritage sites

Receive an overview of heritage documentation programs and tools

View case study examples of documentation projects in Hawai'i

Interaction

Chat Box: use the chat to ask a question at any time. We will address questions after the presentation is finished.

What is Documentation?

ELAINE JACKSON-RETONDO, NATIONAL PARK SERVICE

HERITAGE

DOCUMENTATION

Intentional collection of information about historic, cultural or heritage resources in the service of preservation, stewardship, the historical record, education and interpretation.



Top: Hanapēpē Salt Pans, Kauaʻi. Bottom Left: Waiʻoli Bridge, Kauaʻi. Bottom Right: Christ Memorial Episcopal Church, Kīlauea, Kauaʻi. Photographer: Elaine Jackson-Retondo

Documentation Tools

HERITAGE

DOCUMENTATION

- Photographs
- Written description
- Sketches
- Architectural drawings
- As well as more technically advanced methods of capturing spatial, physical and visual information such as LIDAR



A woman and child posed in front of 'Iolani Palace. Circa 1922, Unknown Photographer, Hawai'i Volcanoes National Park Museum and Archive Collection Thomas Boles Collection (HAVO 20724), NPS NPGallery Digital Asset Management System.

HERITAGE DOCUMENTATION

- Photographs
- Written description
- Sketches
- Architectural drawings
- As well as more technically advanced methods of capturing spatial, physical and visual information such as LIDAR



The trim is concrete block. The building measures 140' by 100', with the long dimension facing King Street. It is two stories high, above a partially raised basement. It is ornamented by six towers, the central towers rising to a height of 76 feet.

From a large central hall on the main floor, a fine staircase of koa wood leads to the upper story. Throughout the building, doors and paneling are of rare woods—koa, kamani, kou, and ohia, as well as the more usual walnut and white cedar.

(excerpt from NHL nomination)

HERITAGE DOCUMENTATION

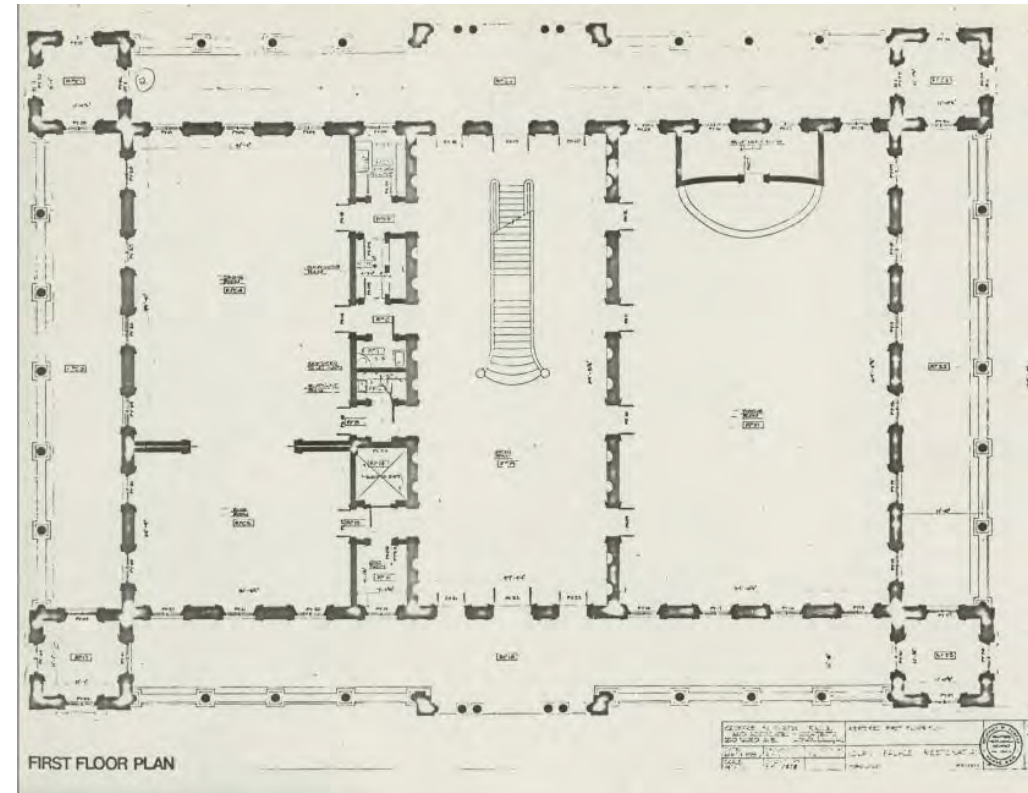
- Photographs
- Written description
- Sketches
- Architectural drawings
- As well as more technically advanced methods of capturing spatial, physical and visual information such as LIDAR



The trim is concrete block. The building measures 140' by 100', with the long dimension facing King Street. It is two stories high, above a partially raised basement. It is ornamented by six towers, the central towers rising to a height of 76 feet.

From a large central hall on the main floor, a fine staircase of koa wood leads to the upper story. Throughout the building, doors and paneling are of rare woods—koa, kamani, kou, and ohia, as well as the more usual walnut and white cedar.

(excerpt from NHL nomination)



HERITAGE DOCUMENTATION

- Photographs
- Written description
- Sketches
- Architectural drawings
- As well as more technically advanced methods of capturing spatial, physical and visual information such as LIDAR

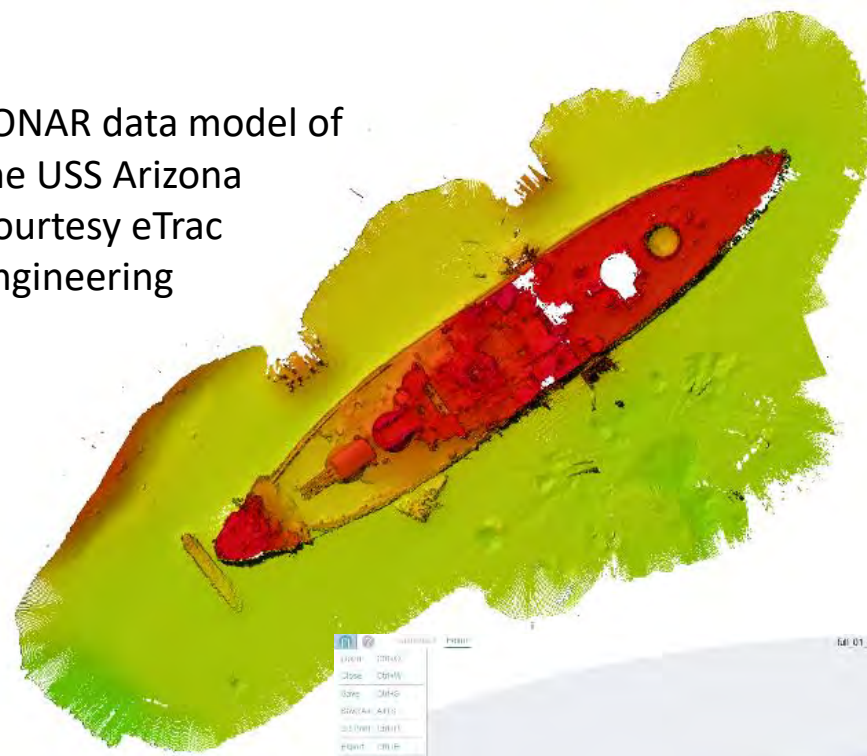


USS Arizona Memorial, Pearl Harbor, Aerial view (Photo courtesy, NPS)

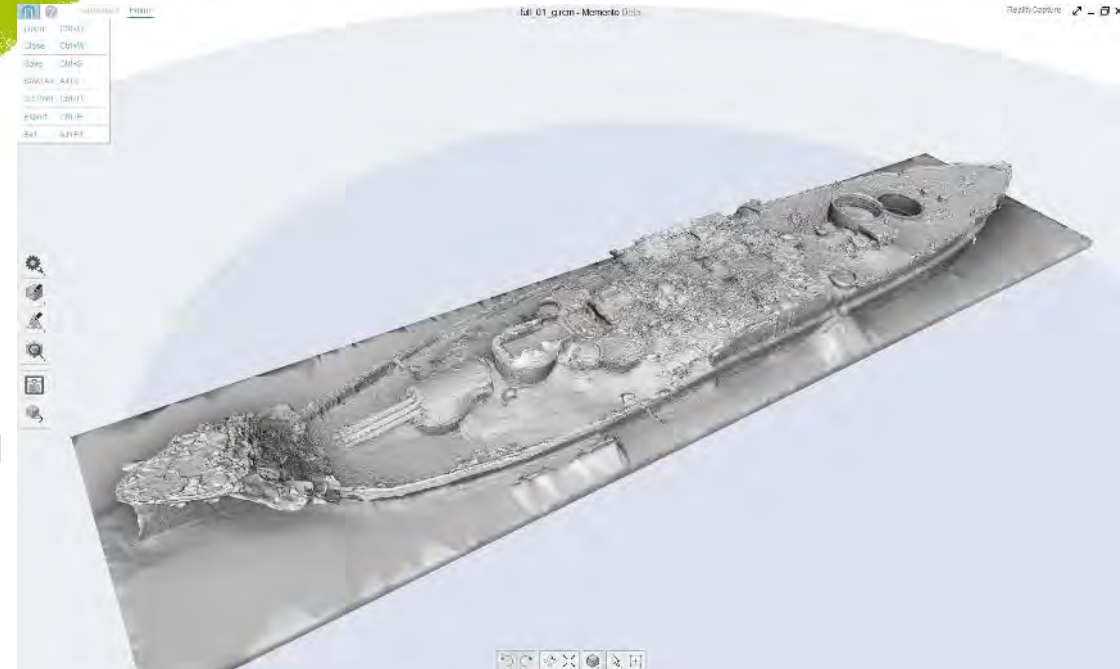
HERITAGE DOCUMENTATION

- Photographs
- Written description
- Sketches
- Architectural drawings
- As well as more technically advanced methods of capturing spatial, physical and visual information such as LIDAR

SONAR data model of
the USS Arizona
Courtesy eTrac
Engineering



3D Computer model
of the USS Arizona
Courtesy Autodesk,
Inc.





Koukou'ai Bridge, between Haiku and Kaipahulu, Hāna, Maui County, HI, HABS HAER HALS Collection, Library of Congress, HAER HI 75-145 (photo credit, NPS.J. Lowe)

PART II. ARCHITECTURAL AND ENGINEERING INFORMATION

A. General Statement:

1. Construction type:
Single span, reinforced-concrete open-spandrel arch-deck bridge.
2. Condition of fabric:
The overall condition of the bridge is fair. The concrete is now spalling and the steel reinforcing bars are exposed and rusted in sections, particularly at the underside of the structure.

B. Description:

1. Overall Dimensions:

number of spans:	one
total length of roadway:	54'-6"
max. span(s):	48'-6"
overall width:	16'-6"
roadway width:	15'-2"
height above stream:	varies (max. 34'-0")
2. Substructure:
The ends of the reinforced-concrete arch rings are cast directly on the bedrock shelf of the gulch. The wing-walls and abutments are constructed from concrete rubble masonry (basalt or "lava-rock"). The pattern of the twelve-inch-wide wood boards used to form the concrete remains evident at the underside of the bridge.
3. Superstructure:
The bridge is a single-span reinforced-concrete open-spandrel arch-deck structure. The superstructure consists of three parallel open-spandrel arches. Each arch ring varies between 18"- 36" deep and is 18" wide; and each supports a series of 18" square reinforced-concrete columns supporting the bridge deck. The arch rings are laterally braced by three 12" x 18" reinforced-concrete struts.
4. Floor/decking:
Asphalt on a reinforced-concrete deck (1'-6" thick).
5. Parapets:
Reinforced-concrete parapets, 3'-0" high, with inset panels and a slightly peaked concrete rail cap.
6. Other features:
"AD 1911" is incised on the outer face of the downstream (south) parapet.

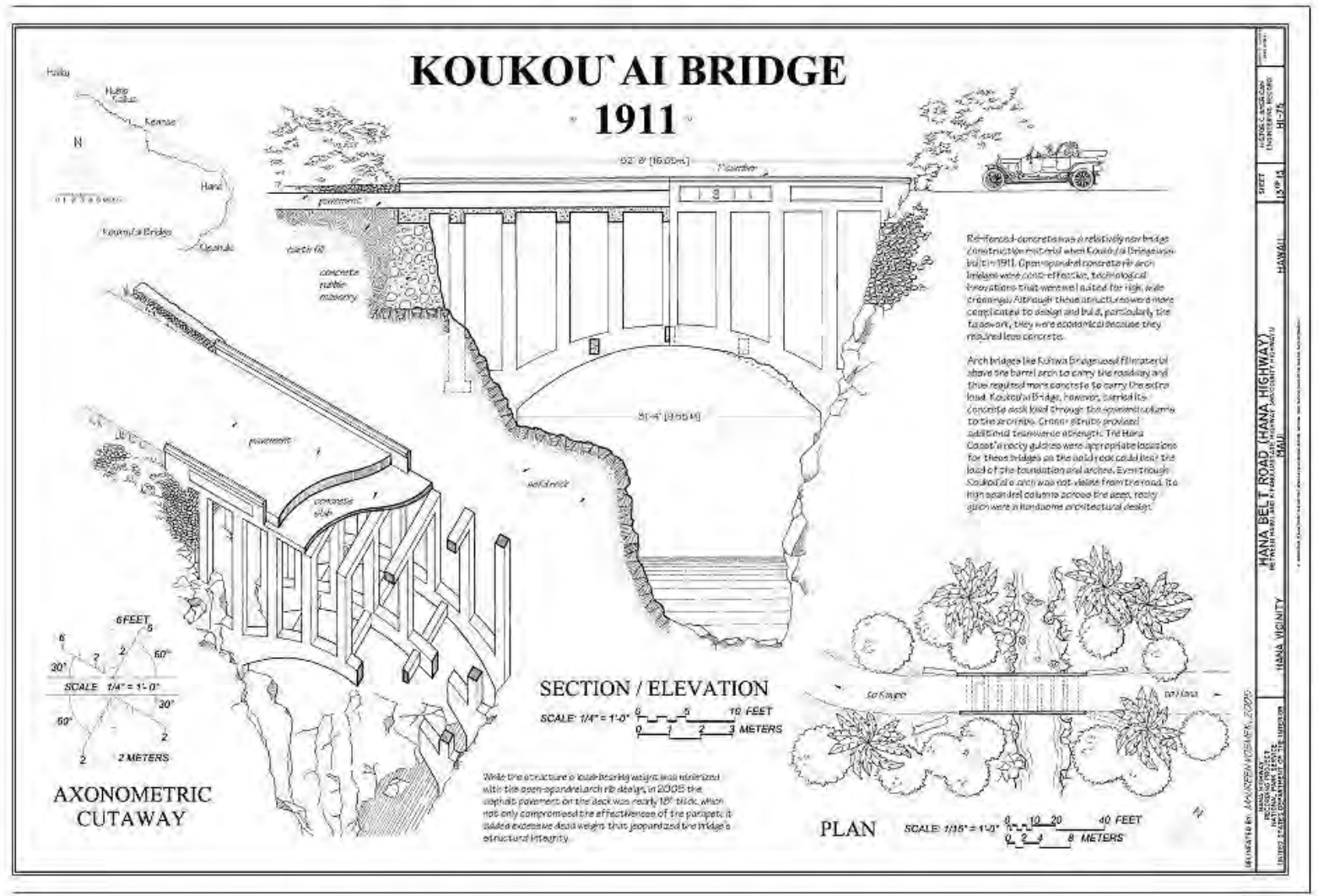


Koukou'ai Bridge was the first open-spandrel arch bridge on Maui and is an excellent example of early twentieth century bridge construction in the Hawaiian Islands.

Koukou'ai Bridge, between Haiku and Kaipahulu, Hāna, Maui County, HI, HABS HAER HALS Collection, Library of Congress, HAER HI 75-145 (photo credit, NPS./J. Lowe); data sheet from HAER report written description.



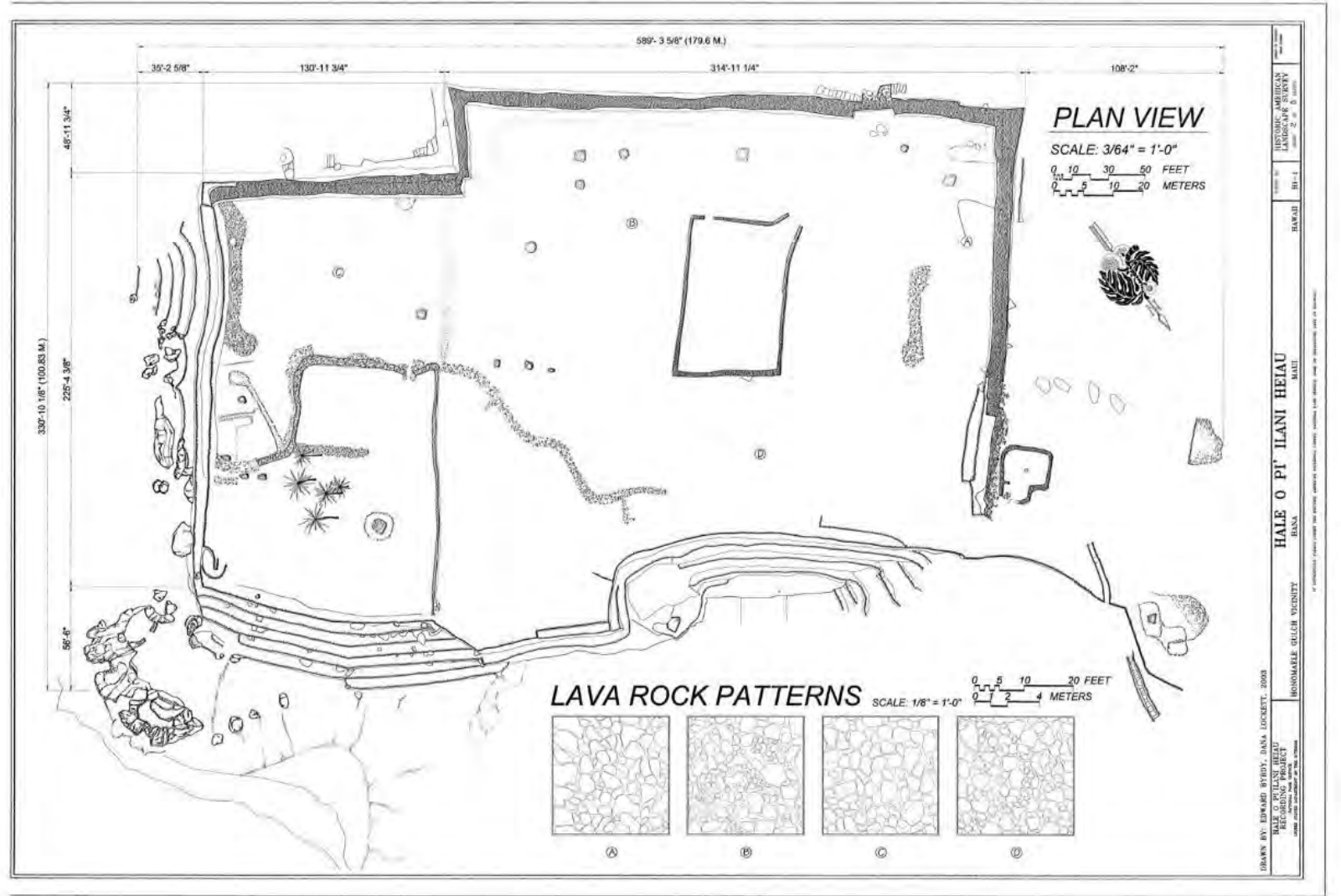
HAER No. HI-75-147



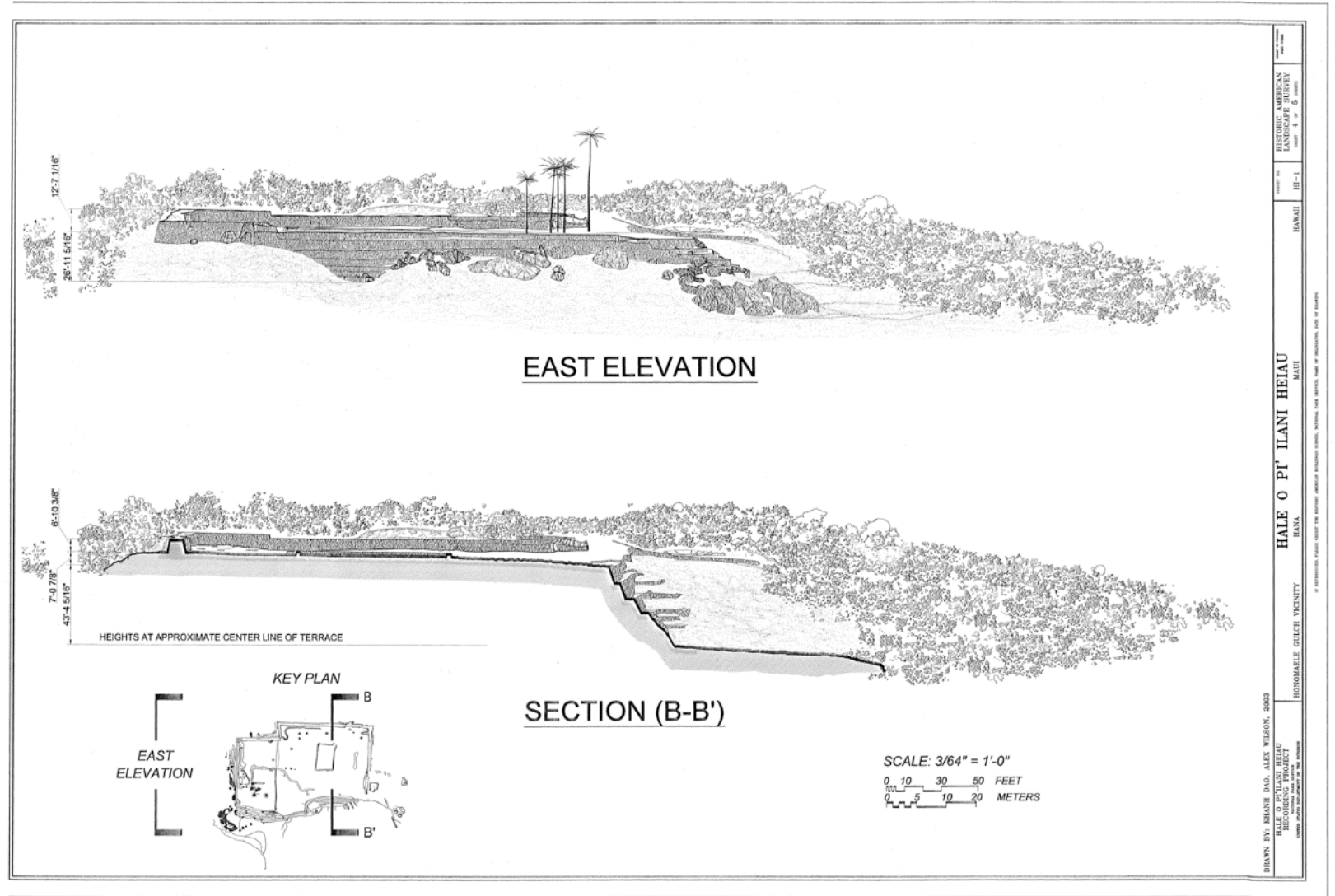
Koukou'ai Bridge, between Haiku and Kaipahulu, Hāna, Maui County, HI, HABS HAER HALS Collection, Library of Congress, HAER HI 75-145 (photo credit, NPS./J. Lowe); measured drawing sheet from HAER report.



Pi'ilanihale Heiau, Kahanu Garden, near Hāna, Maui Island, (Photo credit, Joel Bradshaw 2013 Creative Commons CC0 1.0 Universal Public Domain Dedication)



Left, Pi'ilanihale Heiau, Kahanu Garden, near Hāna, Maui Island, (Photo credit, Joel Bradshaw 2013 Creative Commons CC0 1.0 Universal Public Domain Dedication);
Right, Measured Drawing of Pi'ilanihale Heiau,, HABS HAER HALS Collection, Library of Congress, HALS HI-1



Left, Pi'ilanihale Heiau, Kahanu Garden, near Hāna, Maui Island, (Photo credit, Joel Bradshaw 2013 Creative Commons CC0 1.0 Universal Public Domain Dedication) ;
 Right, Measured Drawing of Pi'ilanihale Heiau,, HABS HAER HALS Collection, Library of Congress, HALS HI-1

Why Document?

WHY DOCUMENT

- Historic designation
- Monitor condition
- Preservation treatment, such as rehabilitation or restoration
- Education and Interpretation
- Regulatory purposes



Mauna Kea Adz
Quarry, Island of
Hawai'i (photo
credit NPS/E.
Jackson-Retondo).

WHY DOCUMENT

- Historic designation
- Monitor condition
- Preservation treatment, such as rehabilitation or restoration
- Education and Interpretation
- Regulatory purposes



Upper left, Hāpaialiʻi Heiau, before restoration.

Bottom left, Hāpaialiʻi Heiau restoration complete.

Upper right, Kealakehe High School and Ke Kula o Ehunuikaimalino, a native Hawaiian Charter School students working alongside cultural and archaeological specialist to compose plane table maps of Kapuanoni Heiau.

Photos courtesy Kamehameha Investment Corporation.

This project was undertaken . . . in order to meet the Navy's obligation to comply with the National Historic Preservation Act and recommendations by the Hawaii State Historic Preservation Officer prior to demolition of historic housing units.

Excerpt from Historic American Buildings Survey report

WHY DOCUMENT

- Historic designation
- Monitor condition
- Preservation treatment, such as rehabilitation or restoration
- Education and Interpretation
- Regulatory purposes



CENTER DRIVE STREETScape FROM B AVE IN FRONT OF FACILITY 209, VIEW FACING NE. - U.S. Naval Base, Pearl Harbor, Housing Area 1, Pearl City, Honolulu County, HI, HABS HI-347-4, Library of Congress Prints and Photographs Division Washington, D.C. 20540 USA <http://hdl.loc.gov/loc.pnp/pp.print>

What Type of
Documentation?

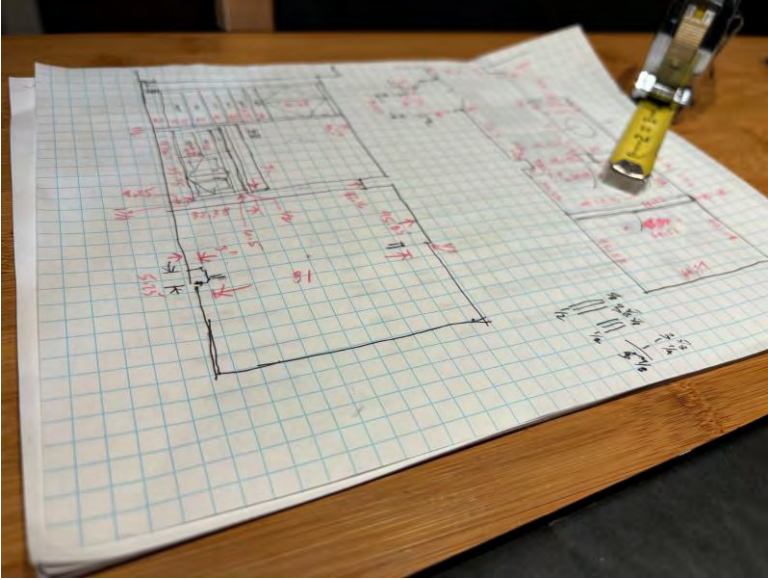
DECIDING LEVEL, MEANS, AND FORMAT OF DOCUMENTATION CAN DEPEND ON:

- the type of resource being documented;
- the intended purpose or reason for the documentation;
- the skill level of the person conducting the documentation;
- the available tools and means for creating the documentation;
- and of course, cost.



Cascade Fountain, Prince Jonah Kūhiō Kalanianaʻole Federal Building and U.S. Courthouse (PJKK), downtown Honolulu. Photos courtesy Sam O. Hirota, Inc.

IT DOESN'T HAVE TO BE FANCY OR A FIFTY-PAGE DOCUMENT

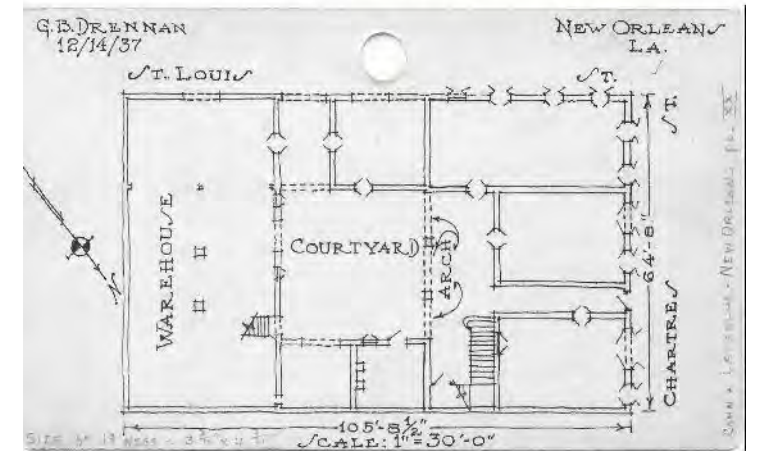
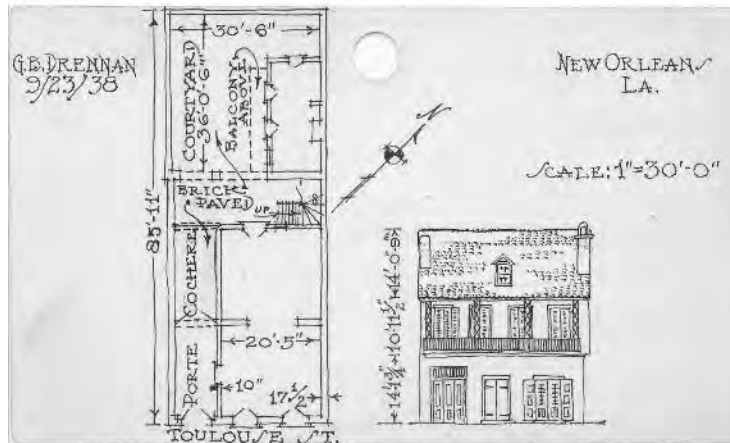
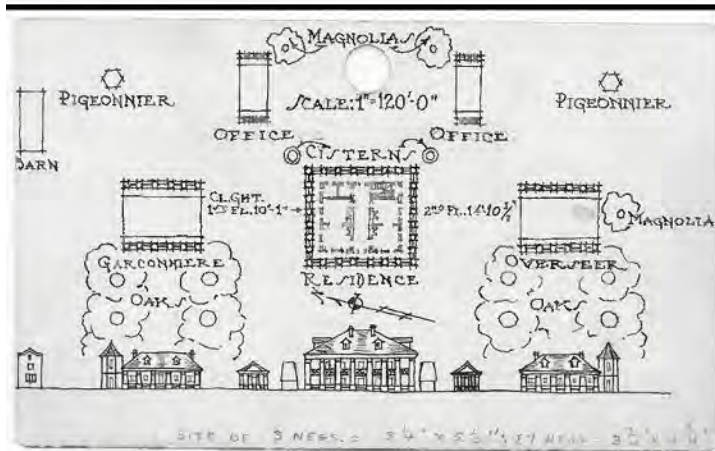


IT DOESN'T HAVE TO BE FANCY OR A FIFTY-PAGE DOCUMENT

STATE	COUNTY	TOWN OR VICINITY
Louisiana	St. James Parish	17s MILE N. 30p Convent vic. 3d
INDEX NUMBER	MONUMENT	
47-CONVY-1	Uncle Sam Plantation	
REPRESENTED IN NEGATIVE FILE	H.A.B.S. SURVEY NO.	History: Built 1841 by Judge Dominique D.A. Tureaud. Rebuilt 1849 after fire by Samuel Façot. Present owner: Hymel Stebbins, Inc.
<input checked="" type="checkbox"/>	LA-74	
PUBLISHED PHOTOGRAPHS		Description: Main bldg: 2 story, brick, stucco. Hip shingle roof. Encircled by porches on both floors wood railing, brick stucco columns. 4 similar one-story buildings. Barn: 2 story brick. Gable roof, shingle. Dove-cote: 2 story brick. Peak roof. Shingle.
<input checked="" type="checkbox"/>		
PUBLISHED DRAWINGS		References: Fred K. Forstall, N.O. Times-Picayune. Lyle Saxon, Federal Writer's Project. Court Records. Edw. T. Waldo.
<input checked="" type="checkbox"/>		OVERVIEW LA PLANTATION HOMES p. 192-19
39-1A-091-99 FN 40 (9)		
*** 6-8869	HISTORIC AMERICAN BUILDINGS SURVEY	

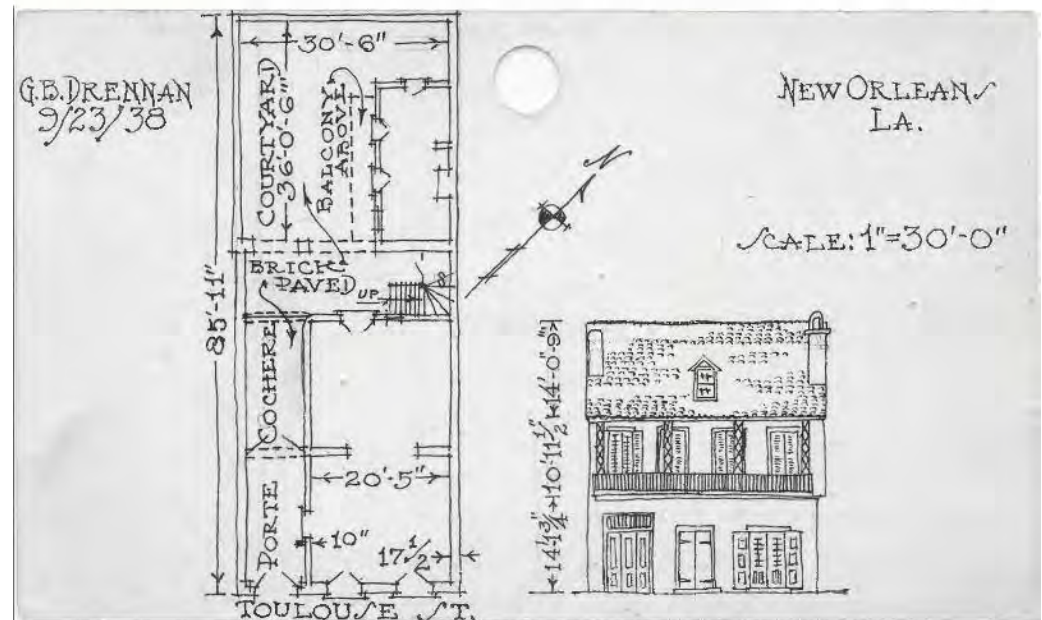
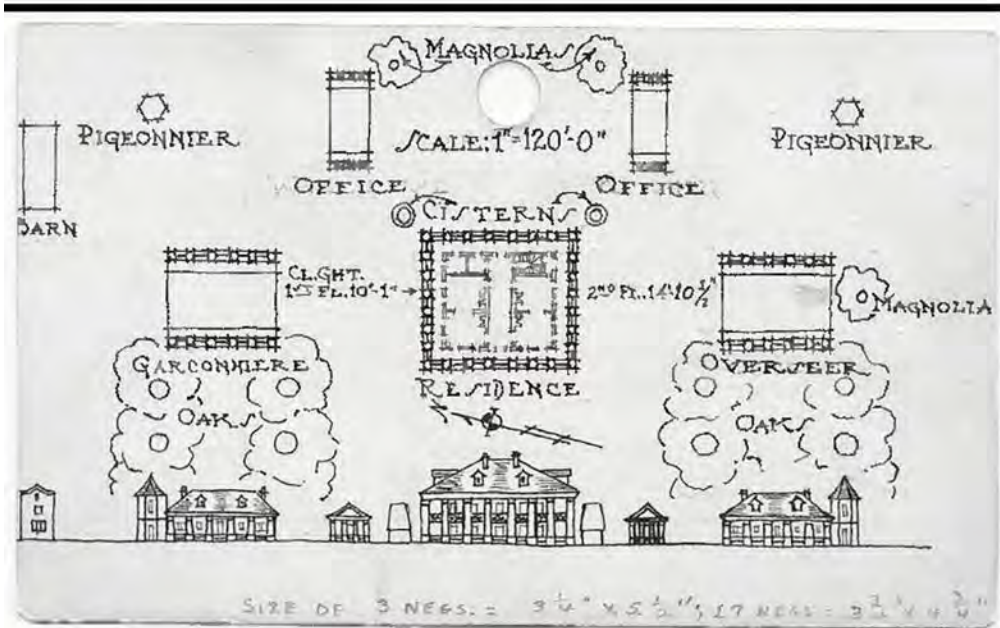
STATE	COUNTY	TOWN OR VICINITY
Louisiana	Orleans	UPDATED New Orleans
INDEX NUMBER	MONUMENT	
LA 36 NewOr 15	Casa Flinard 723 Toulouse Street	
REPRESENTED IN NEGATIVE FILE	H.A.B.S. SURVEY NO.	History: Built circa 1807 by Valery Nicholas. Present owner: William J. J. Elger.
<input checked="" type="checkbox"/>	LA 35	
PUBLISHED PHOTOGRAPHS		Description: 2 Story brick - cemented. Slate, gable roof. Dormer. Wrought iron balcony.
<input checked="" type="checkbox"/>		References: Court Records; Arthur, S. C. - Old New Orleans.
PUBLISHED DRAWINGS		
<input checked="" type="checkbox"/>		
FN-28 (5)		
*** 6-8869	HISTORIC AMERICAN BUILDINGS SURVEY	

STATE	COUNTY	TOWN OR VICINITY
Louisiana	Orleans	32s New Orleans, La. 23d
INDEX NUMBER	MONUMENT	
LA 36 NewOr 8	Mayor Nicholas Girod House (NAPOLEON HOUSE) 500 Chartres St. (2) 11551	
REPRESENTED IN NEGATIVE FILE	H.A.B.S. SURVEY NO.	History: Built bet. 1800 & '16 for Mayor Nicholas Girod.
<input checked="" type="checkbox"/>	18-9	
PUBLISHED PHOTOGRAPHS		Description: Three-story and attic; hipped pan-tile French roof with octagonal cupola; brick, cemented.
<input checked="" type="checkbox"/>		References: W. C. Curtis - "New Orleans, Its Old Houses, Shops & Public Buildings"; Stanley C. Arthur, "Old New Orleans"; Court Records.
PUBLISHED DRAWINGS		Decrease (P. 21) 12-575
<input checked="" type="checkbox"/>		
* 6 WATER EXPOS 10-17-LA-1031 FN-26 (2) (orig. 126) 10-18-575		
*** 6-8869	HISTORIC AMERICAN BUILDINGS SURVEY	



STATE Louisiana	COUNTY St. James Parish	TOWN OR VICINITY 17s 1 MILE N. Convent vic. 3d
INDEX NUMBER LA-47-CON.V. 1-	MONUMENT Uncle Sam Plantation	1837 ?
REPRESENTED IN NEGATIVE FILE ✓	H.A.B.S. SURVEY NO. LA-74	History: Built 1841 by Judge Dominique D.A. Thureau. Rebuilt 1849 after fire by Samuel Fagot. Present owner: Hymel Stebbins, Inc. DEMOLISHED MARCH 1940.
PUBLISHED PHOTOGRAPHS ✓	Description: Main bldg: 2 story, brick, stucco. Hip shingle roof. Encircled by porches on both floors wood railing, brick stucco columns. 4 similar one-story buildings. Barn: 2 story brick. Gable roof, shingle. Dove-cote: 2 story brick. Peak roof. Shingle.	
PUBLISHED DRAWINGS ✓	References: Fred K. Forstall, N.O. Times-Picayune. Lyle Saxon, Federal Writer's Project. Court Records. Edw. T. Waldo.	
Jr-LA-1091-99 FN-40 (9)	OVERDYKE - LA PLANTATION HOMES, p 192-19	
HISTORIC AMERICAN BUILDINGS SURVEY		

STATE Louisiana	COUNTY Orleans	TOWN OR VICINITY New Orleans
INDEX NUMBER LA 36 NEWOR. 15-	MONUMENT Casa Flinard	723 Toulouse Street
REPRESENTED IN NEGATIVE FILE ✓	H.A.B.S. SURVEY NO. LA. 33	History: Built circa 1807 by Valery Nicholas. Present owner: William J. J. Elger.
PUBLISHED PHOTOGRAPHS ✓	Description: 2 Story brick - cemented. Slate, gable roof. Dormer. Wrought iron balcony. References: Court Records; Arthur, S. C. - Old New Orleans.	
PUBLISHED DRAWINGS ✓	FN-28 (5)	
HISTORIC AMERICAN BUILDINGS SURVEY		



HABS/HAER/HALS

What are they?

SCOTT KEYES, NATIONAL PARK SERVICE

A solid blue horizontal bar at the bottom of the slide.

The Heritage Documentation Programs (HABS/HAER/HALS)

The Heritage Documentation Programs (HDP) administer the **Historic American Buildings Survey (HABS)**, **Historic American Engineering Record (HAER)**, and **Historic American Landscapes Survey (HALS)**, which document historic properties through the creation of measured drawings, photographs, and historical reports. Documentation created through the programs is archived in the Library of Congress and is available to the public copyright free.



Historic American Buildings Survey
Chee Kung Tong Society Headquarters, HABS HI-40



Historic American Engineering Record
Haraguchi Rice Mill, HAER HI-3



Historic American Landscapes Survey
Pu'uhonua O Hōnaunau, HALS HI-15

HABS/HAER/HALS and the NATIONAL HISTORIC PRESERVATION ACT

HABS was created in 1933 as a Works Progress Program (WPA) for unemployed architects.

The programs were later codified in the National Historic Preservation Act (NHPA).

Under Section 101 of the Act, the Secretary of the Interior is responsible for promulgating regulations that establish a uniform process and standards for documenting historic properties for incorporation into the national historic architectural and engineering records within the Library of Congress.

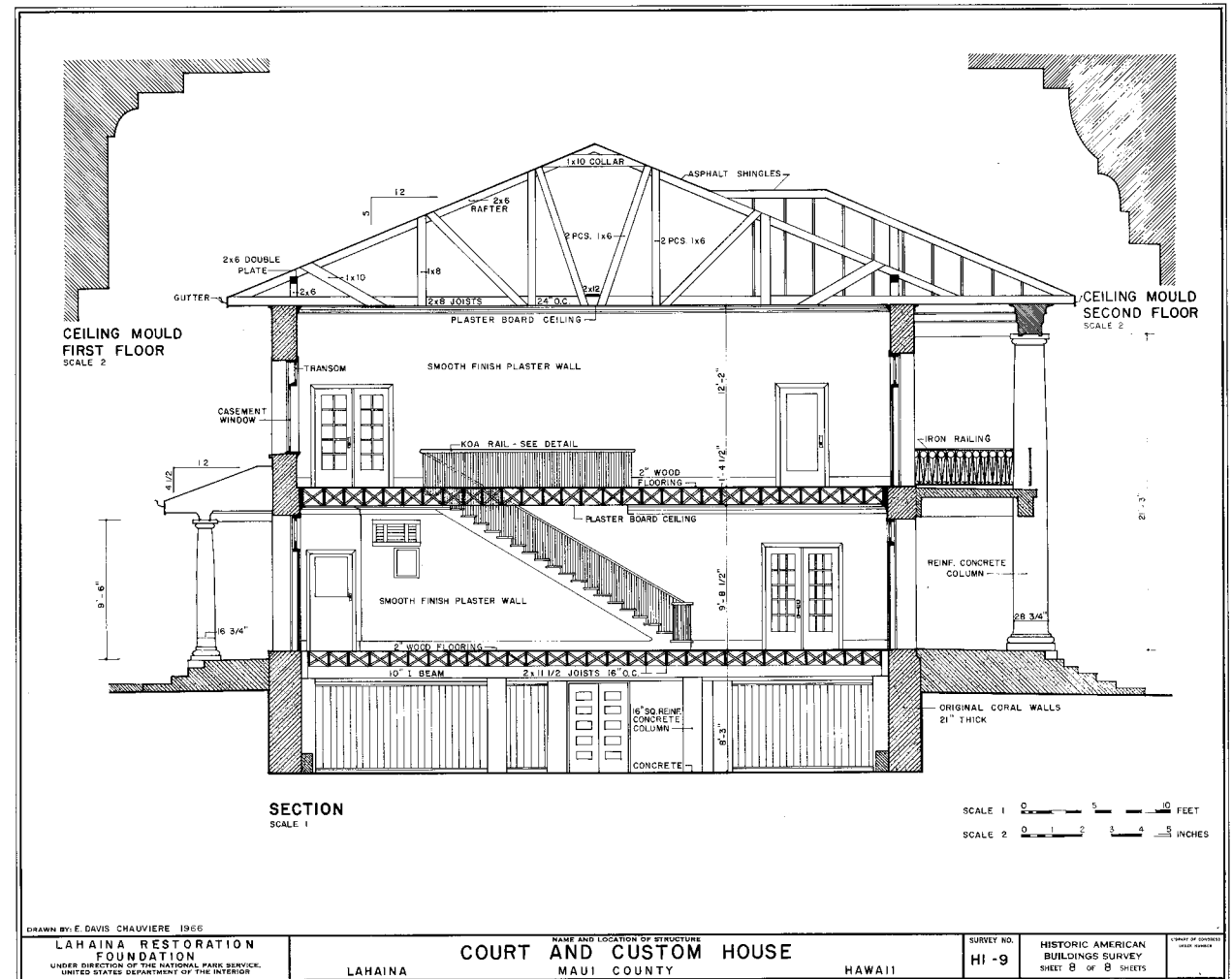
HDP develops and maintains these standards and guidelines.



President Lyndon B. Johnson signing the National Historic Preservation Act, 1966

Measured Drawings

Drawings in the collection consist of either as-built drawings, based on accurate field measurements, or reproductions of original drawings. HABS was created in 1933 as a Works Progress Administration (WPA) program for unemployed architects.



Old Maui Courthouse, HABS HI-9

Large-Format Photography

At present, all photographs in the HABS/HAER/HALS collection are captured on large-format film.

Large-format film is defined as a film with minimum negative dimensions of 4" x 5".

Heritage Documentation Programs, however, is currently working with the Library of Congress to develop standards for incorporating digital photographs into the collection.



U.S. Naval Base, Pearl Harbor, Paint Shop & Rigging Loft, HABS HI-488

Large-Format Photography

At present, all photographs in the HABS/HAER/HALS collection are captured on large-format film.

Large-format film is defined as a film with minimum negative dimensions of 4" x 5".

HDP, however, is currently working with the Library of Congress to develop standards for incorporating digital photographs into the collection.



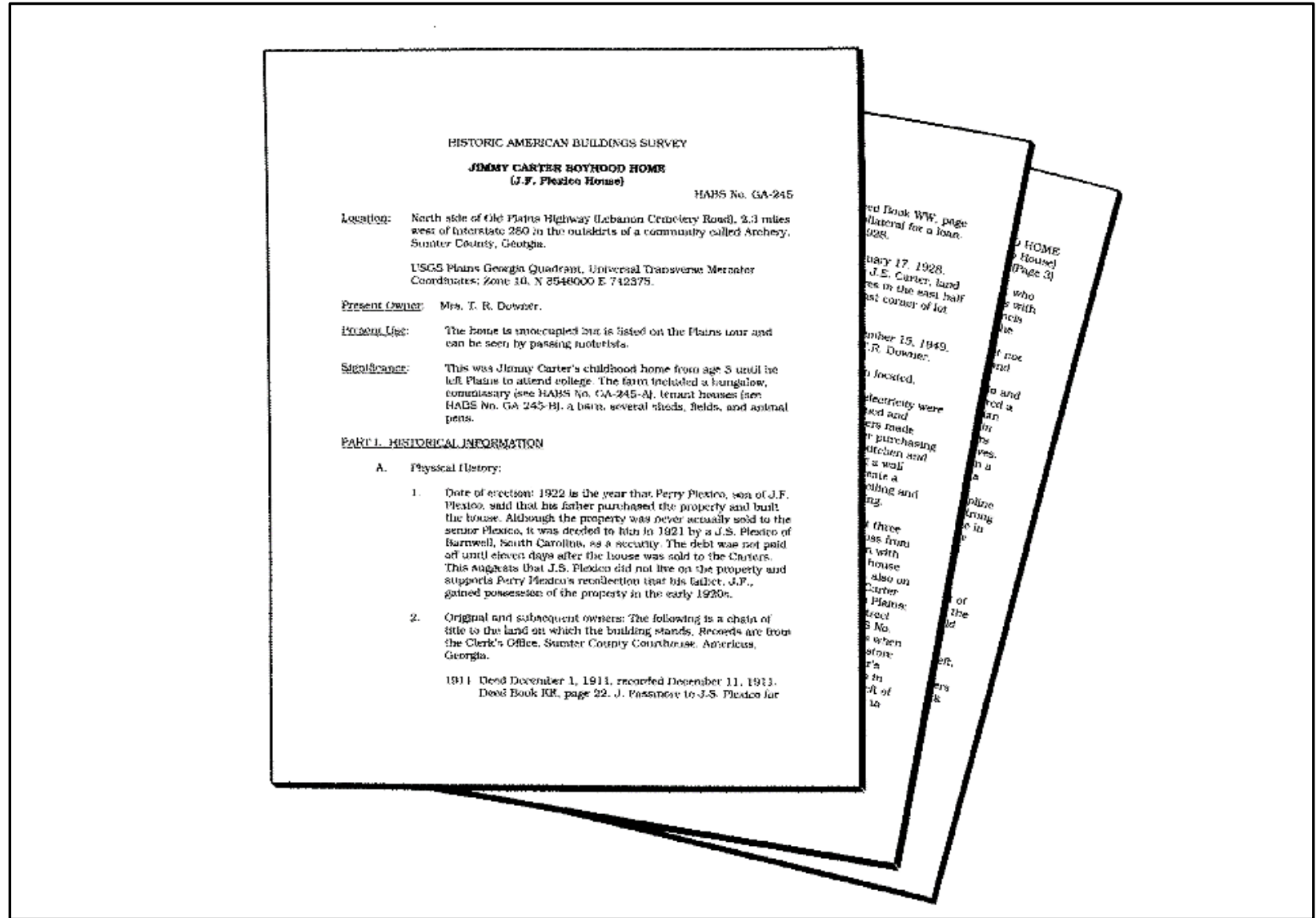
St. Benedict's Church, Hawai'i Island

Historical Reports

Drawings and photographs in the collection are traditionally accompanied by a historical report that provides a physical description of the property and highlights its history and significance.

Historical reports can follow either standard outline or short formats based on the level of documentation being completed.

Templates for historical reports are available for download on the HDP website.



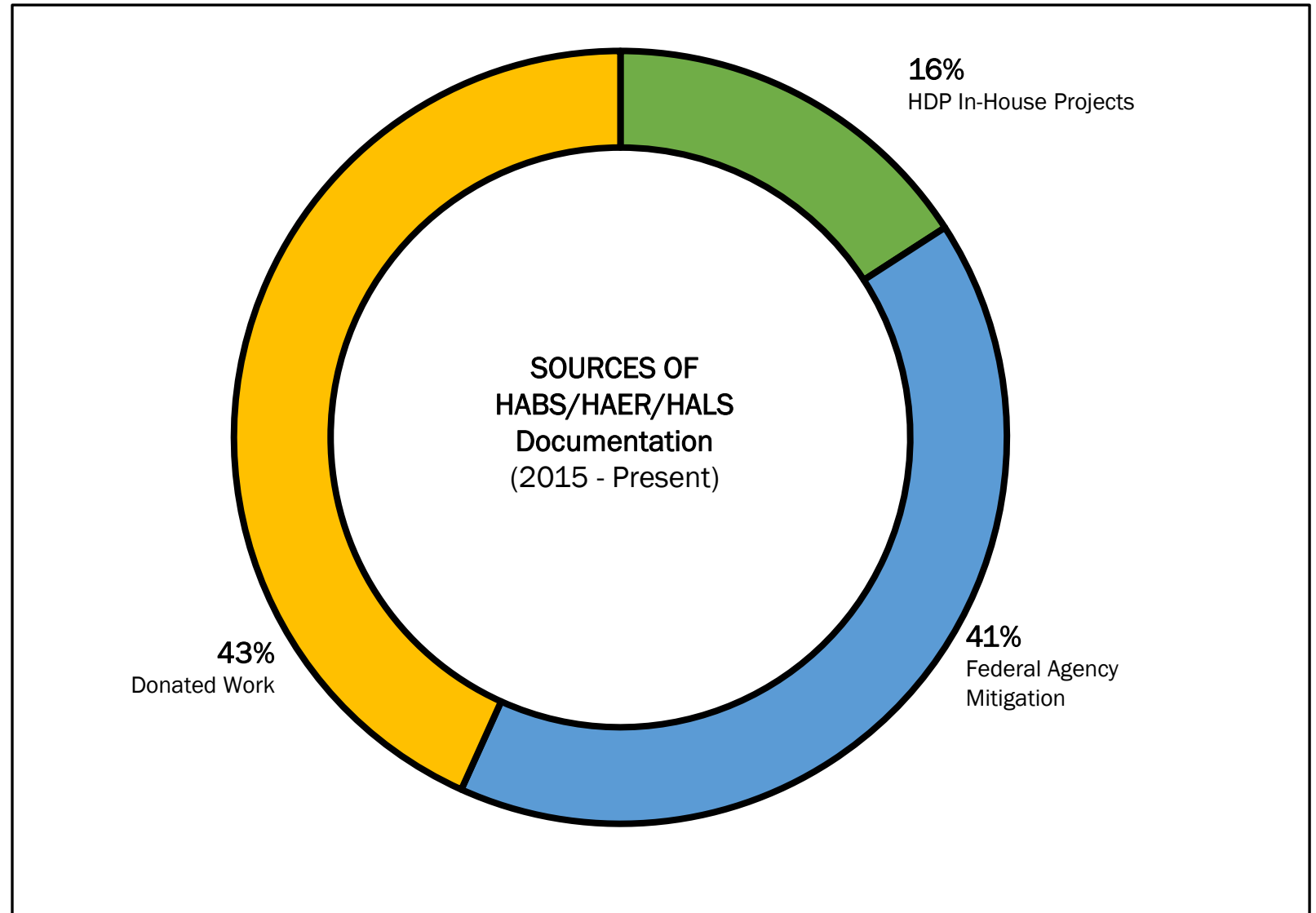
HABS/HAER/HALS

Why use them?

Sources of Documentation in the HABS/HAER/HALS Collections

Documentation in the HABS/HAER/HALS collections comes from three primary sources: federal agency mitigation, HDP in-house projects, and donated work.

Of the three, donated work is currently the largest source of new documentation.



Creating a Permanent, Publicly-Accessible Record

All HABS/HAER/HALS documentation is archived in the Library of Congress.

There is currently documentation of over 45,000 properties in the collections. This includes more than:

- 70,000 Drawings
- 300,000 Photographs
- 250,000 Pages of History

All documentation is in the public domain. Most of the collection is digitized and can be viewed online at:

<https://www.loc.gov/pictures/collection/hh/>



Main Reading Room, Library of Congress, HABS DC-351

Creating Baseline Drawings for Property Management

HABS/HAER/HALS documentation creates accurate architectural plans that can be used by property managers to preserve and rehabilitate the historic resources they manage.

This is particularly useful for management of vernacular buildings that have no existing plans, such as the Weir Farm National Historical Site in Connecticut.

Since there were no accurate plans of the house, the documentation created for the HABS/HAER/HALS collection is also serving as a baseline to plan a historically sensitive rehabilitation of the property.



Weir Farm, Burlingham House, HABS CT-255

Creating Baseline Drawings for Property Management

HABS/HAER/HALS documentation creates accurate architectural plans that can be used by property managers to preserve and rehabilitate the historic resources they manage.

This is particularly useful for management of vernacular buildings that have no existing plans, such as the Weir Farm National Historical Site in Connecticut.

Since there were no accurate plans of the house, the documentation created for the HABS/HAER/HALS collection is also serving as a baseline to plan a historically sensitive rehabilitation of the property.



Weir Farm, Burlingham House, HABS CT-255

Creating Baseline Drawings for Property Management

HABS/HAER/HALS documentation creates accurate architectural plans that can be used by property managers to preserve and rehabilitate the historic resources they manage.

This is particularly useful for management of vernacular buildings that have no existing plans, such as the Weir Farm National Historical Site in Connecticut.

Since there were no accurate plans of the house, the documentation created for the HABS/HAER/HALS collection is also serving as a baseline to plan a historically sensitive rehabilitation of the property.



Weir Farm, Burlington House, HABS CT-255

Using Documentation to Reconstruct Historic Resources

When historic properties are destroyed in fires, earthquakes, or other disasters, HABS/HAER/HALS documentation can be used to accurately reconstruct the property.

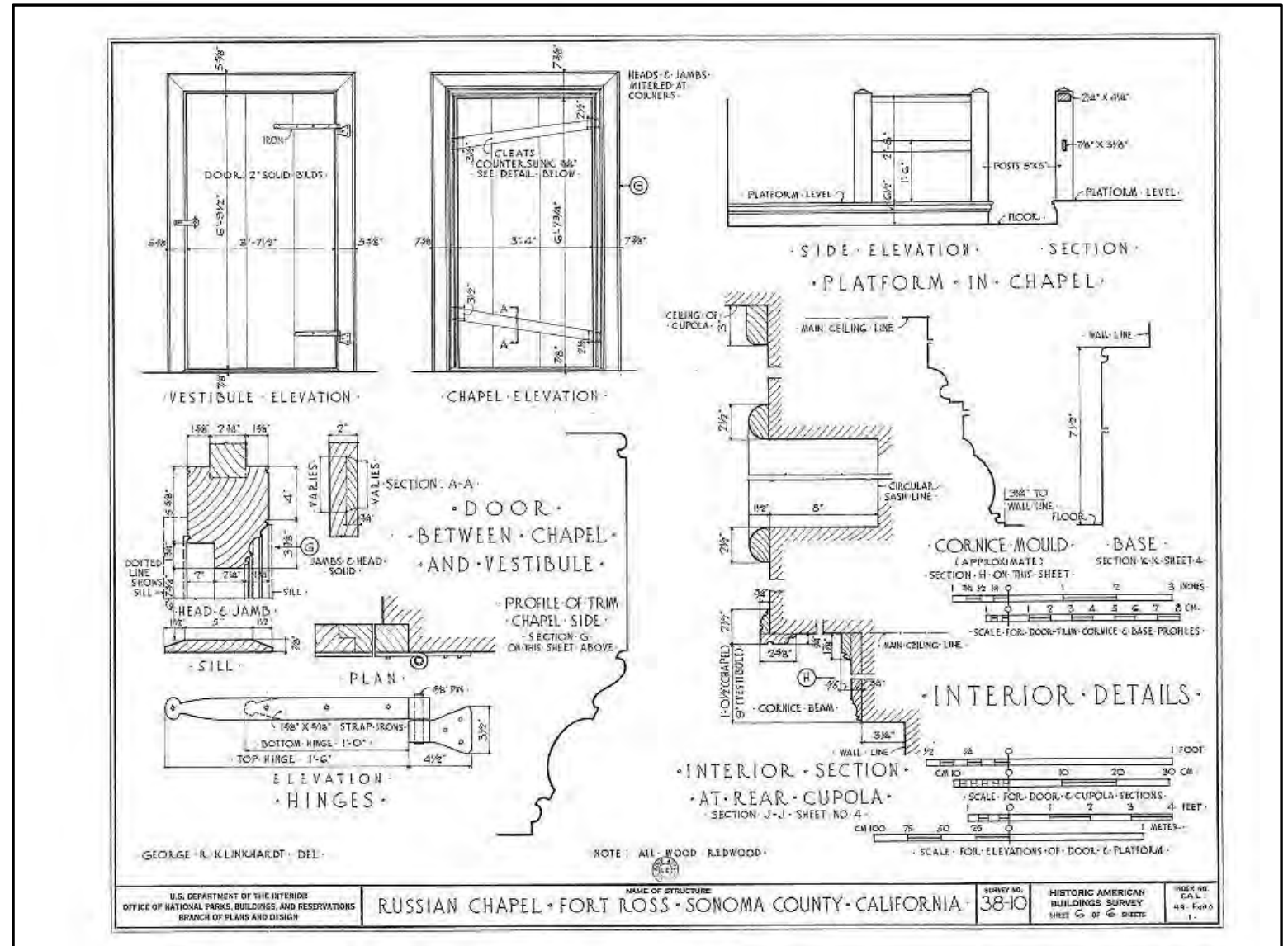
This early 19th century Russian Orthodox chapel in California, for example was destroyed by fire in 1970.

Since the chapel had been documented in the 1960s it was able to be reconstructed from the HABS architectural drawings and photographs.



Russian Chapel, Fort Ross, HABS CA-38-10

Using Documentation to Reconstruct Historic Resources



Russian Chapel, Fort Ross, HABS CA-38-10

Using Documentation to Reconstruct Historic Resources

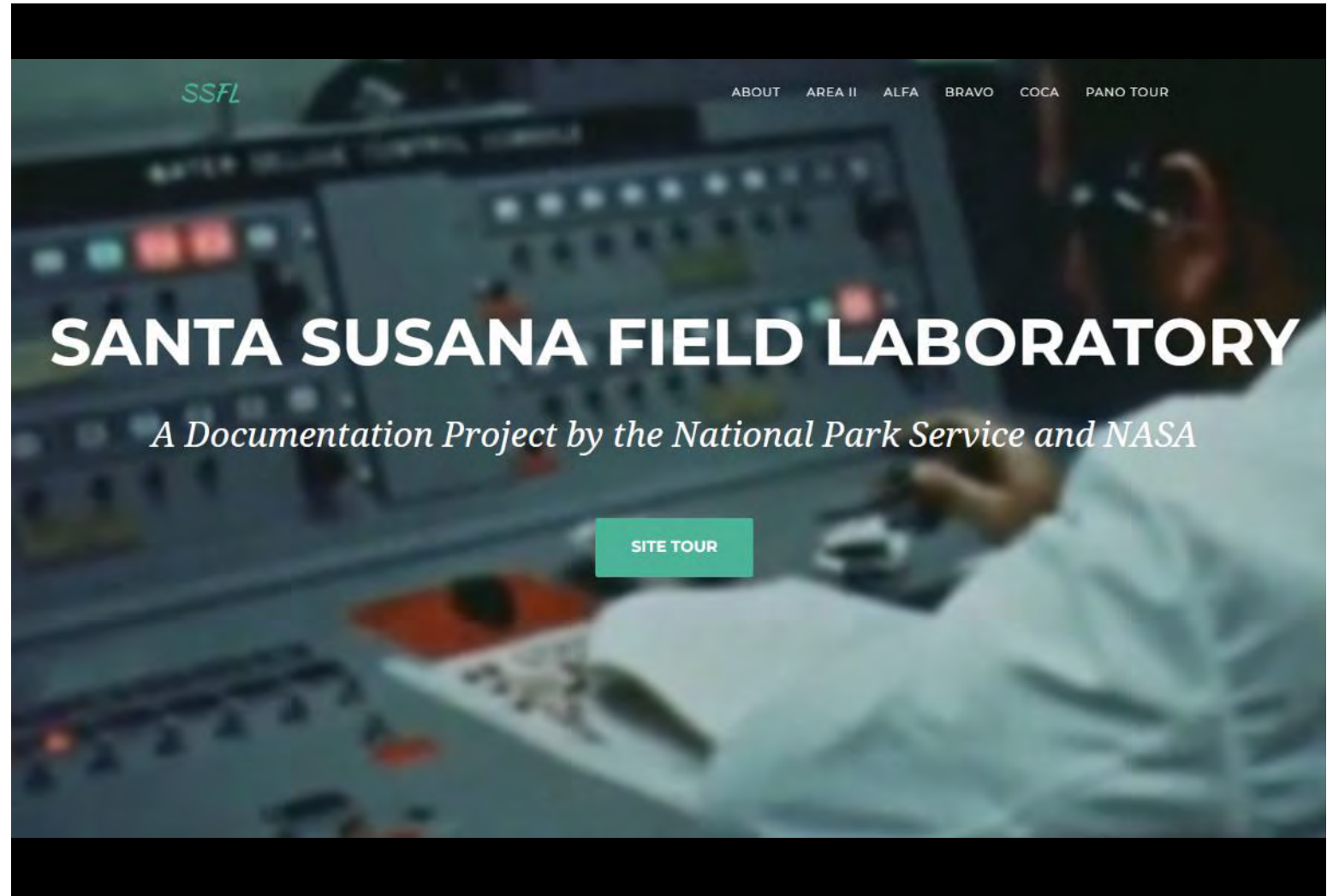


Russian Chapel, Fort Ross, HABS CA-38-10

Interpretation and Interactive Digital Products

Many field surveys now utilize laser scanning, photogrammetry, and other digital technologies to accurately measure historic sites.

In addition to generating field measurements for traditional HABS/HAER/HALS documentation, the resulting point cloud data, 3D models, and pano-photography can be used to create virtual tours, interactive digital models, and other web-based exhibits like the [Santa Susana Virtual Exhibit](#) completed in collaboration with NASA.



Santa Susana Field Laboratory, HAER CA-2284

Documentation Example for Preservation

JAY STURDEVANT, NATIONAL PARK SERVICE

A solid blue horizontal bar at the bottom of the slide.

National Park Service
U.S. Department of the Interior

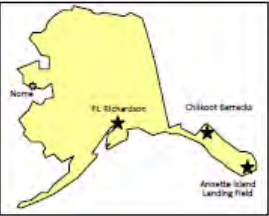


HONOULIULI NATIONAL HISTORIC SITE

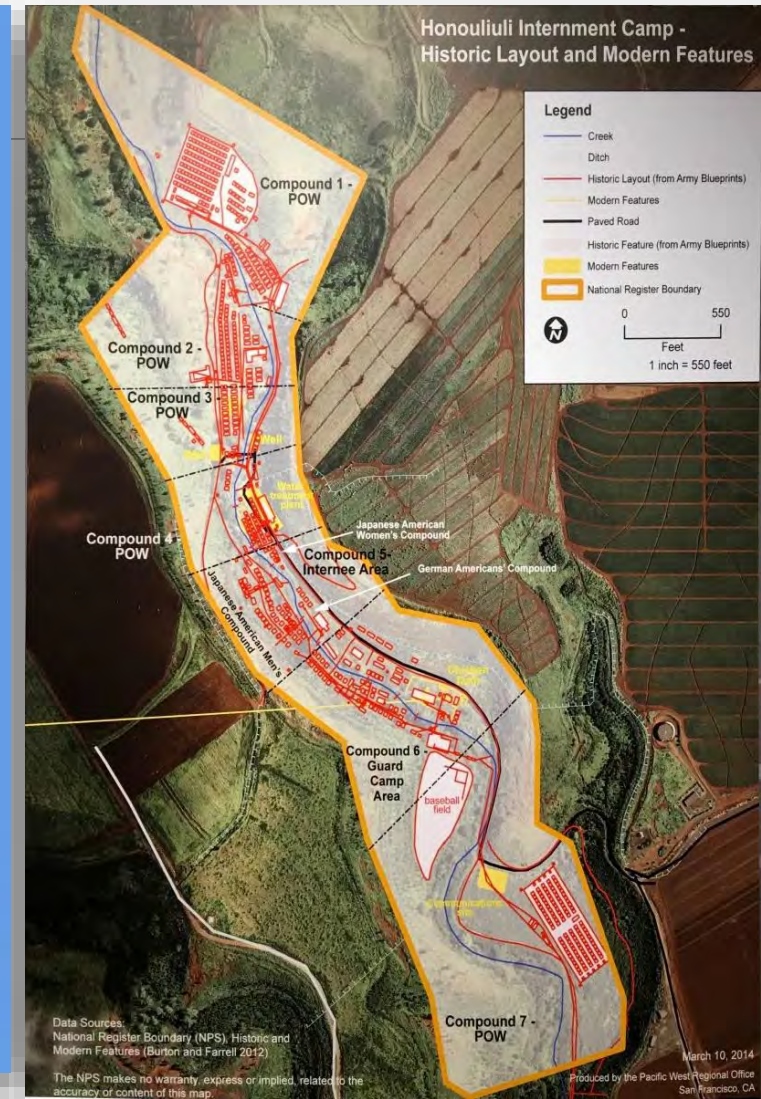


Executive Order 9066

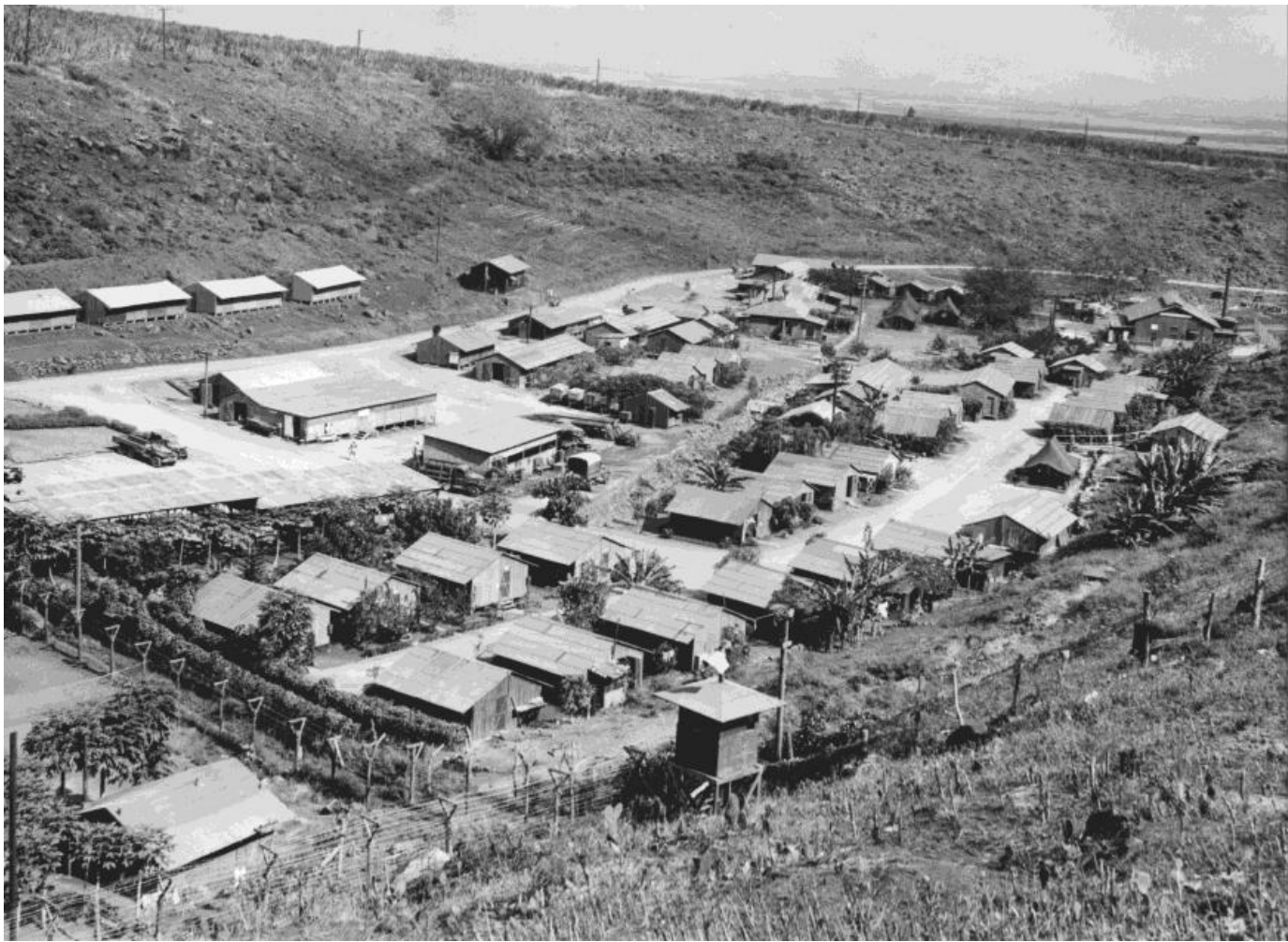
Sites Associated with Japanese Americans During World War II



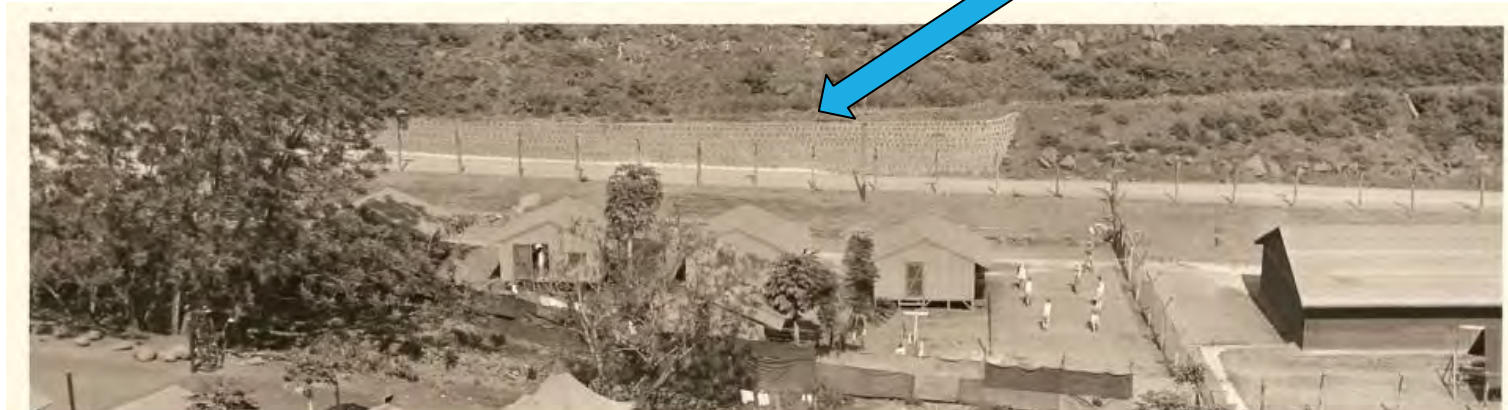
Honouliuli National Historic Site







Stone and Mortar Wall Preservation Project

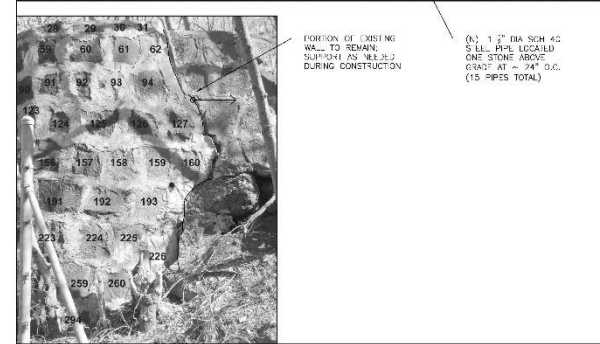
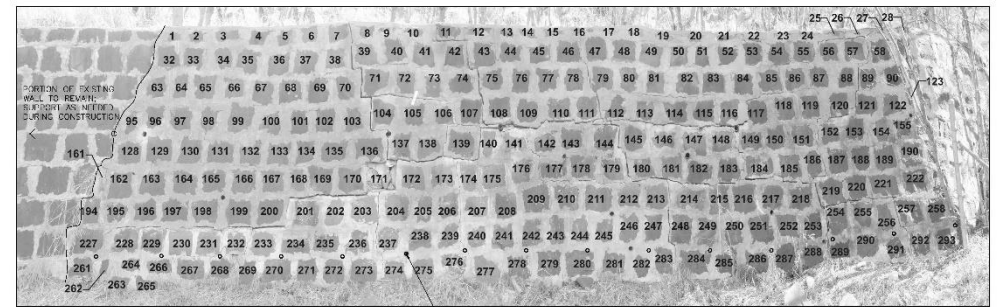




2017

2021

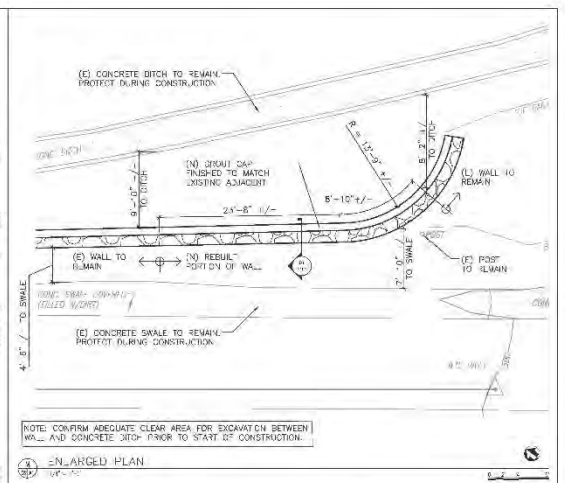
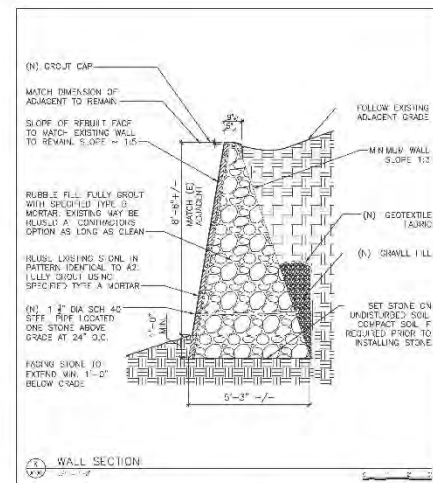




NOTES TO SHEET:

- REMOVE ALL NUMBERED STONES PER THE DRAWINGS. EACH FACE STONE SHALL BE NUMBERED ON ONE SIDE OR FACE, WITH A NON-WHITE SOFT MARKER, IN A MANNER THAT WILL ALSO INDICATE THE ORIENTATION OF THE STONE (EG WHICH EDGE IS THE TOP EDGE). STORE REMOVED FACE STONES IN A DESIGNATED, NUMERICAL YARD OR STORAGE AREA. RECOMMENDATION: IF AN ALTERNATE ORGANIZATION METHOD IS PREFERRED, CONFIRM PLANNED MARKING AND MARKING SYSTEM WITH CONTRACTOR OR OTHER PHASE OF WORKMANSHIP.
- CONTRACTOR SHALL PROTECT EXISTING WALL SECTIONS TO REMAIN FROM ANY FURTHER DAMAGE. IF REQUIRED TO PREVENT PROGRESSIVE COLLAPSE OF ADJACENT WALLS TO REMAIN, SHORE UP THE WALLS. IF REQUIRED TO PREVENT SOIL AND ROCKS OR OTHER DAMAGE TO EXISTING STONE, INSTALL PROTECTIVE LAYER OVER EXISTING STONE FACES.
- PROVIDE PHOTOS OF PROJECT AT VARIOUS STAGES OF COMPLETION, ON A CD TO CONTRACTING OFFICE.

THIS WORK WAS PREPARED BY: **PMIS #239446**
 DATE: 3/14/2018
 DRAWING NO: **A2**
 SHEET NO: **138929**
 PROJECT: **REHABILITATE MORTARED STONE RETAINING WALL**
 SCALE: **AS SHOWN**
 DATE: 02/15/2018



NOTES TO SHEET:

- THE MORTAR FOR THE OUTER ONE (N)-OF MORTAR JOINT SHALL MATCH THE EXISTING MORTAR OF THE WALL TO REMAIN. MORTAR JOINT DIMENSIONS, TEXTURE, AND FINISH TO MATCH ORIGINAL ON EITHER SIDE OF WALL TO BE REPLACED. ANY DIFFERENCES IN COLOR SHALL BE RESOLVED THROUGH EMPLOYMENT OF A JOINT COLOR WORKER. UPON COMPLETION OF THE PROJECT, THERE SHALL BE NO DISCREPANCY DIFFERENCES BETWEEN (S) MORTAR AND (N) MORTAR. ASSURE THAT ALL JOINTS SHALL BE STAINED OR TINTED TO MATCH ADJACENT EXISTING MORTAR COLOR.
- PROVIDED DIMENSIONS ARE FOR PLANNING PURPOSES. IN FIELD MEASUREMENTS OF ADJACENT WALL HEIGHTS, SLOPE, MORTAR JOINT AND (S) MORTAR JOINT SHALL BE USED.
- REFER TO GEOTECHNICAL REPORT BY MASSA FALCONE & ASSOCIATES FOR CONFIRMATION OF WALL SECTION DESIGN, REF. SECTION 0.5. GEOTECHNICAL REPORT IS APPENDED TO SPECIFICATION SECTION 020914.
- CONTRACTOR SHALL PROTECT EXISTING WALL SECTIONS TO REMAIN FROM ANY FURTHER DAMAGE. IF REQUIRED TO PREVENT PROGRESSIVE COLLAPSE OF ADJACENT WALLS TO REMAIN, SHORE UP THE WALLS. IF REQUIRED TO PREVENT SOILING, CHIPS, OR OTHER DAMAGE TO EXISTING STONE, INSTALL PROTECTIVE LAYER OVER EXISTING STONE FACES. CONCRETE SWALES WITH WEIR FLANGES OR SUFFICIENT EARTH TO PROTECT FROM DAMAGE.

ENLARGED PLAN

THIS WORK WAS PREPARED BY: **PMIS #239446**
 DATE: 3/14/2018
 DRAWING NO: **A1**
 SHEET NO: **138929**
 PROJECT: **REHABILITATE MORTARED STONE RETAINING WALL**
 SCALE: **AS SHOWN**
 DATE: 02/15/2018

Recording inscriptions



FOV: 60
FPS: 99.0
BOL: RENDERING

Mesh: Textured on
Vertices: 37,193
Faces: 31,714
Selection: 0 / 1 / 0
F: WT



Step 1: Identify What you Want to Record

- Carefully remove loose dirt and vegetation to make sure you can see the entirety of what you want to record.
- Inspect closely, sometimes inscriptions and impressions can be very subtle.
- Clear an area larger than what you want to record so that you ensure that you capture the margins.

Step 2: Cleaning

- Used sterile water, damp cloths, and compressed air canisters to clean the faces of the inscription and surrounding area.
- Remove all loose dirt, rocks, plant material, or other materials that may obscure inscription or adhere to the latex cast.



Step 3: Digital Photographs

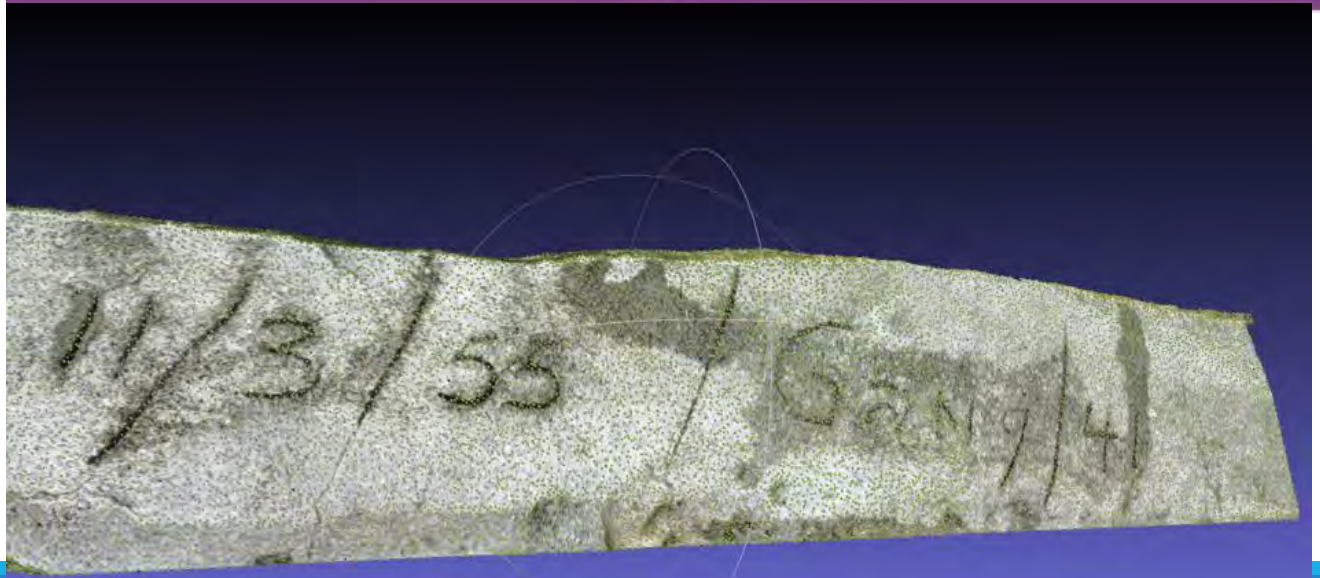
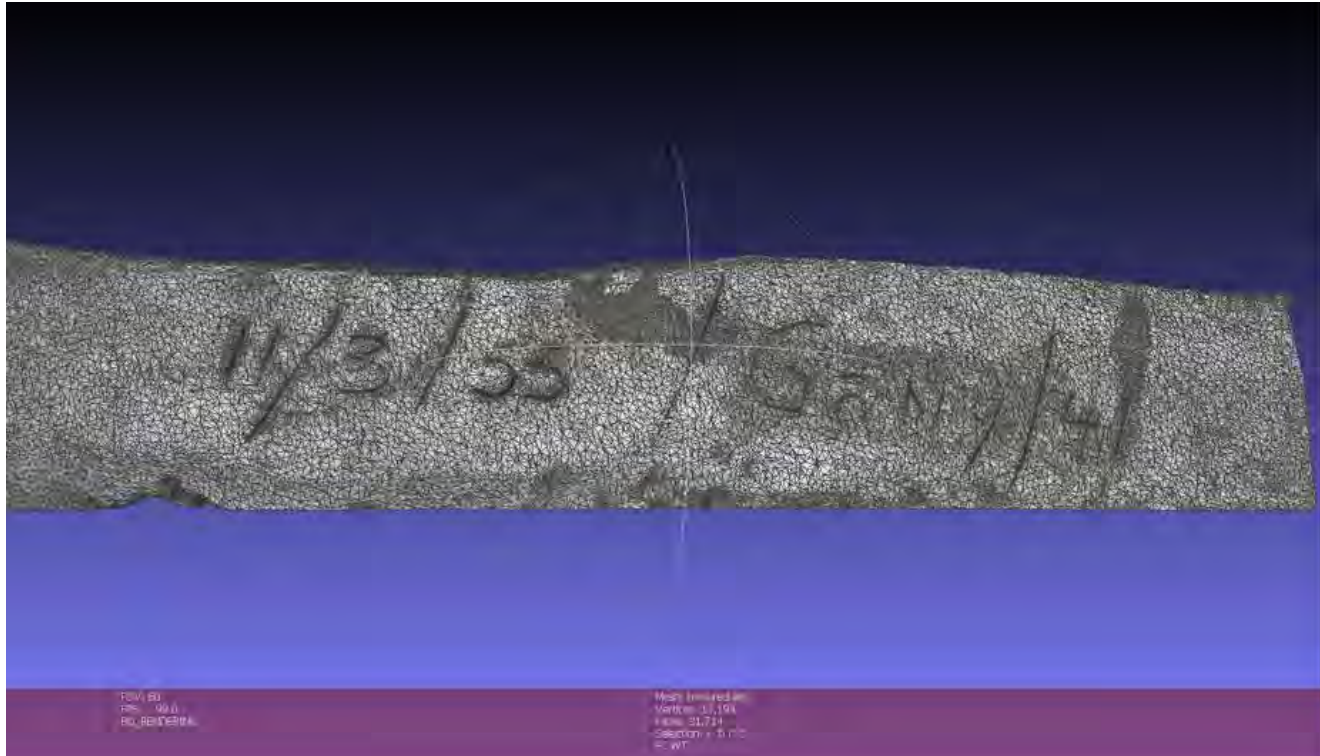
- Digital photographs are a good way to document a resource.
- Take lots of photos, make a photo log, document what you are seeing in the photos so that it's clear what is documented.
- Create backup and long-term storage plan.



Step 4: Digital Scanning

- Utilize a tablet computer and apps that can collect and process LiDAR or photogrammetry data.
- The goal of scanning is to create a 3-D image of the inscription.
- Captures the surface and produces a photo realistic image of the item being scanned.
- With current technologies, you can create a render in 3-5 minutes.





Step 5: Latex Casting

- Use liquid latex to make a cast of the inscription surface.
- Used to make a physical record of the inscription.
- Can be used to make new molds of the inscription so it can be recreated in various materials (ex. concrete, plaster, mortar, etc.).



Step 5: Latex Casting

- Apply a liberal amount of latex and allow to dry.
- Apply multiple coats and allow to dry between coats.
- Create a pronounced lip, or use a form, to create the outer edge of the applied latex. This allows for easier removal.
- Once several coats are applied so that the latex does not look “thin” anywhere.
- Begin by peeling back the margins.
- Slowly remove the latex cast by peeling back until it releases completely.



Step 6: Remove Inscriptions

- Try to remove as intact as possible.
- Make a removal plan before you start
- Consider what elements may need additional support or care during the removal process.
- Ensure that you have a proper repository or curation facility to store the original inscriptions after they have been removed.
- Follow recommended protocols for conservation treatments and packaging for the materials under consideration.

So it begins....



And finishes...



Documentation Example for Interpretation & Access

MATT MCDERMOTT, CULTURAL SURVEYS HAWAI'I

ArcGIS Story Maps



Preparing for sea level rise



Urban change 1992-2020



Community-led conservation

What is ArcGIS StoryMaps?

ArcGIS StoryMaps is a story authoring web-based application that allows you to share your maps in the context of narrative text and other multimedia content. You can use ArcGIS StoryMaps to do the following:

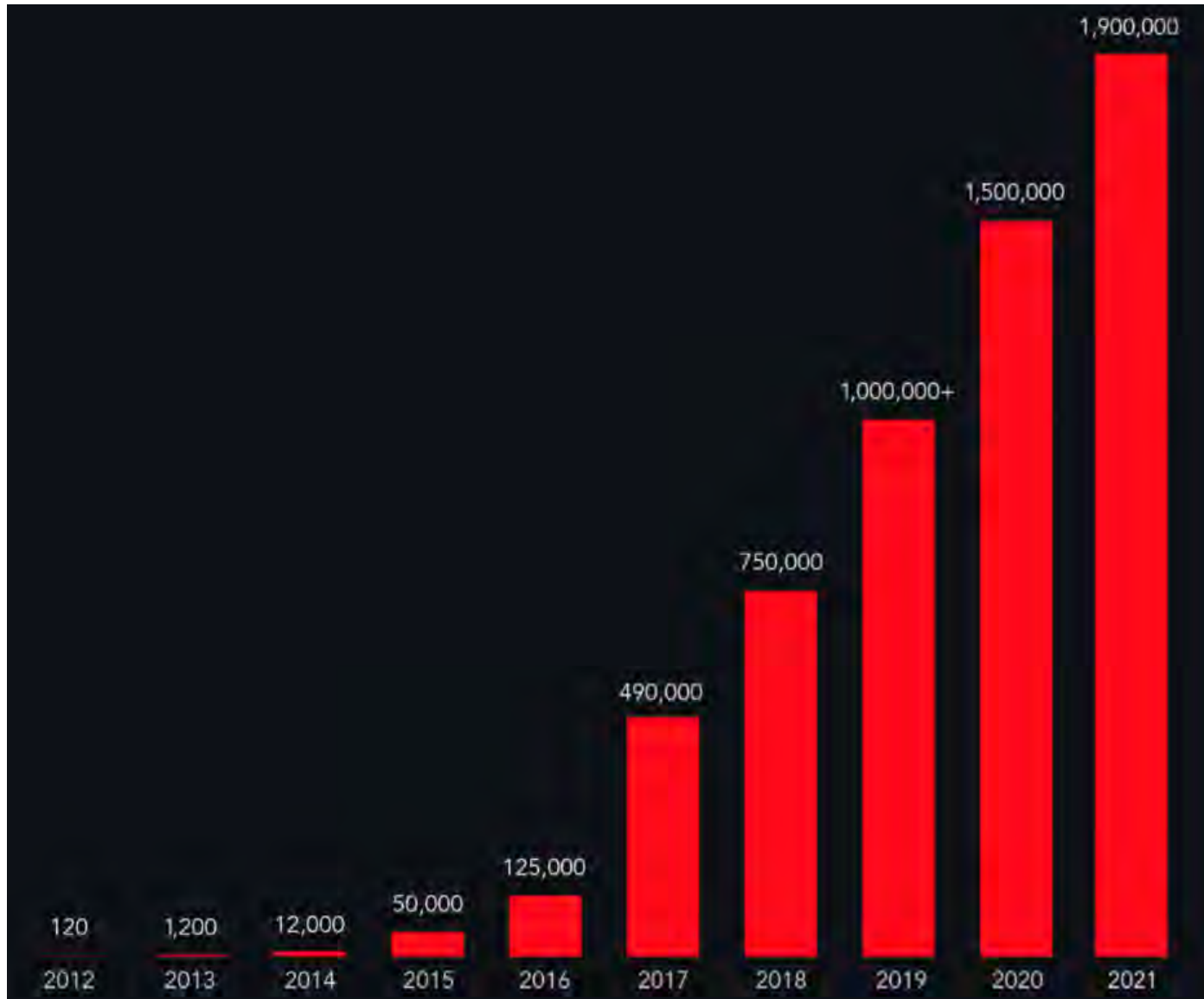
- Author stories with the story builder. Stories can include maps, narrative text, lists, images, videos, embedded items, and other media.
- Author and present dynamic presentations with briefings. Seamlessly integrate live maps, real-time data, multimedia, and more within a slide-based format.
- Publish and share your stories and briefings. Published stories and briefings each have their own URL, and you can use these URLs to share your stories within your organization, to specific groups, or with everyone.
- Create and publish collections. Collections can include stories and ArcGIS web apps bundled together for easy sharing and presenting.
- Manage your stories. View and edit your stories from the **Stories** page, find stories authored by others in your organization, and add stories to your favorites list.



Story maps are a relatively recent technological innovation that can fill the role of more traditional public interpretation measures, such as physical interpretive signage and self-guided tours with informational placards. Story maps are an application/platform for accessing information and incorporating geographic location data based on GPS and GIS through mobile devices such as smart phones, laptop computers, and tablets.



Innovation and Growth of Story Maps



ArcGIS StoryMaps have grown rapidly in popularity.

Currently 2.2 million ArcGIS StoryMaps are hosted on Esri's cloud service.



Cautions:

1. Think about your content and its impact
2. Responsibilities of information dissemination
3. Potential for mis-use
4. Copyright
5. Cite all sources



Explore the storied places of Hilo, Hawai'i between the Wailoa and Wailuku Rivers with stories and histories from earliest settlement, through the sugar plantation era and major events of the 20th century.



HistoricHawaii.org/storymap-hilo

Hilo Story Map is produced by Historic Hawai'i Foundation and Cultural Surveys Hawai'i. Mahalo to partners University of Hawai'i at Hilo, Lyman Museum and ASM Affiliates. Funding support was provided by the Hawai'i State Foundation on Culture and the Arts.



Ua Hilo 'ia i ke Aho a ke Aloha

The intertwining stories of Hilo

A Historic Hawai'i Foundation Story Map with Cultural Surveys Hawai'i & UH Hilo

December 10, 2021

<https://storymaps.arcgis.com/stories/b378b80d74054f51816d820581905ba4>

HistoricHawaii.org/storymap-hilo

Historic Hawaii Foundation

Started its Hawai'i Historic Districts Story Map Program in 2019



CULTURAL SURVEYS HAWAI'I
ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL
DOCUMENTATION SERVICES - SINCE 1982



UNIVERSITY
of HAWAI'I®
HILO



ASM
affiliates
Archaeology • History • Ethnography • Architectural History



**Lyman
Museum**
and Mission House
ZOO



HAWAI'I
STATE FOUNDATION on
CULTURE and the ARTS

Why Hilo is Ripe for a StoryMap



"Ua hilo 'ia i ke aho a ke aloha"

Braided with the cords of love | Held in the bond of affection

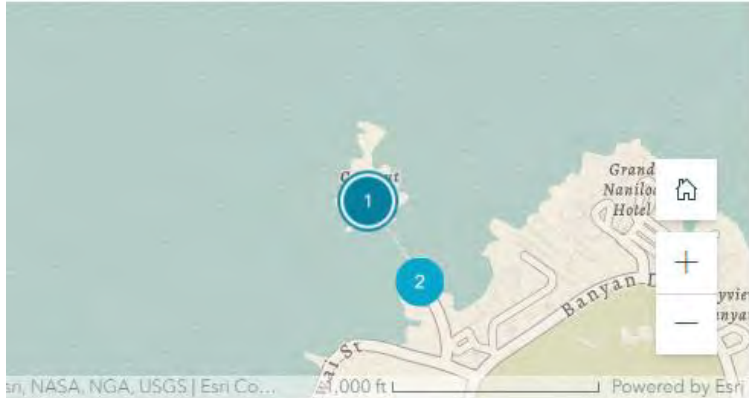
Historic Hawai'i Foundation developed the Hilo Story Map in collaboration with project partners, Cultural Surveys Hawai'i; the University of Hawai'i at Hilo, History Department and Professor Kerri Inglis; ASM Affiliates senior archaeologist Lokelani Brandt; and Lyman Museum. Students from UH Hilo contributed to the research and content of the map as part of their history course curriculum under the direction of Professor Inglis. The project also enlisted three student interns who worked closely with Professor Inglis and contributed research, contextual essays, and photography.

The result is a familiarizing, remembering, and intertwining of the intimate stories of Hilo



Nā Wahi Pana o Hilo

Learn, remember and share the intimate stories of Hilo



1 Mokuola

‘Ōlelo No‘eau #473: Hanu‘u ke kai i Mokuola.

Ka Ua Kanilehua o Hilo

The Kanilehua rain of Hilo | Hilo, where the rain moistens the lehua blossoms

Just as the rain, the voices of Hilo spread across the land, satisfied in the resonance

An Early History of Hilo, Hawai'i

by Jacob Perry

Situated on the eastern slopes of Maunakea, the moku of Hilo on the island of Hawai'i has been a place of cultural, political, economic, and historic significance ever since humans first inhabited the area over a thousand years ago.



E Ho'omalū i ke Kupa'a no ka 'Āina

“Continue to be steadfast in your love for the land”

Ever evident in the words of Iosepa Kaho'oluhi Nawahi-o-Kalani'opu'u (1896), Hilo is a place of forceful peace, of immovable devotion



A Nineteenth Century History of Hilo

by Jacob Perry

After Kamehameha defeated Kalanikūpule's army in the Battle of Nu'uuanu, a rebellion on Hawai'i Island forced him to return home in the fall of 1796. Nāmākēhā, a chief of Ka'ū

Hilo 'Ai Lū'au

Hilo, eater of taro greens | When storms came... it was impossible to obtain fish...people had to be content with taro greens

Hilo continues to thrive--soaked in the rain of Kanilehua and nourished between the waters of Wailuku and Wailoa



Nā Wahi Pana o Hilo

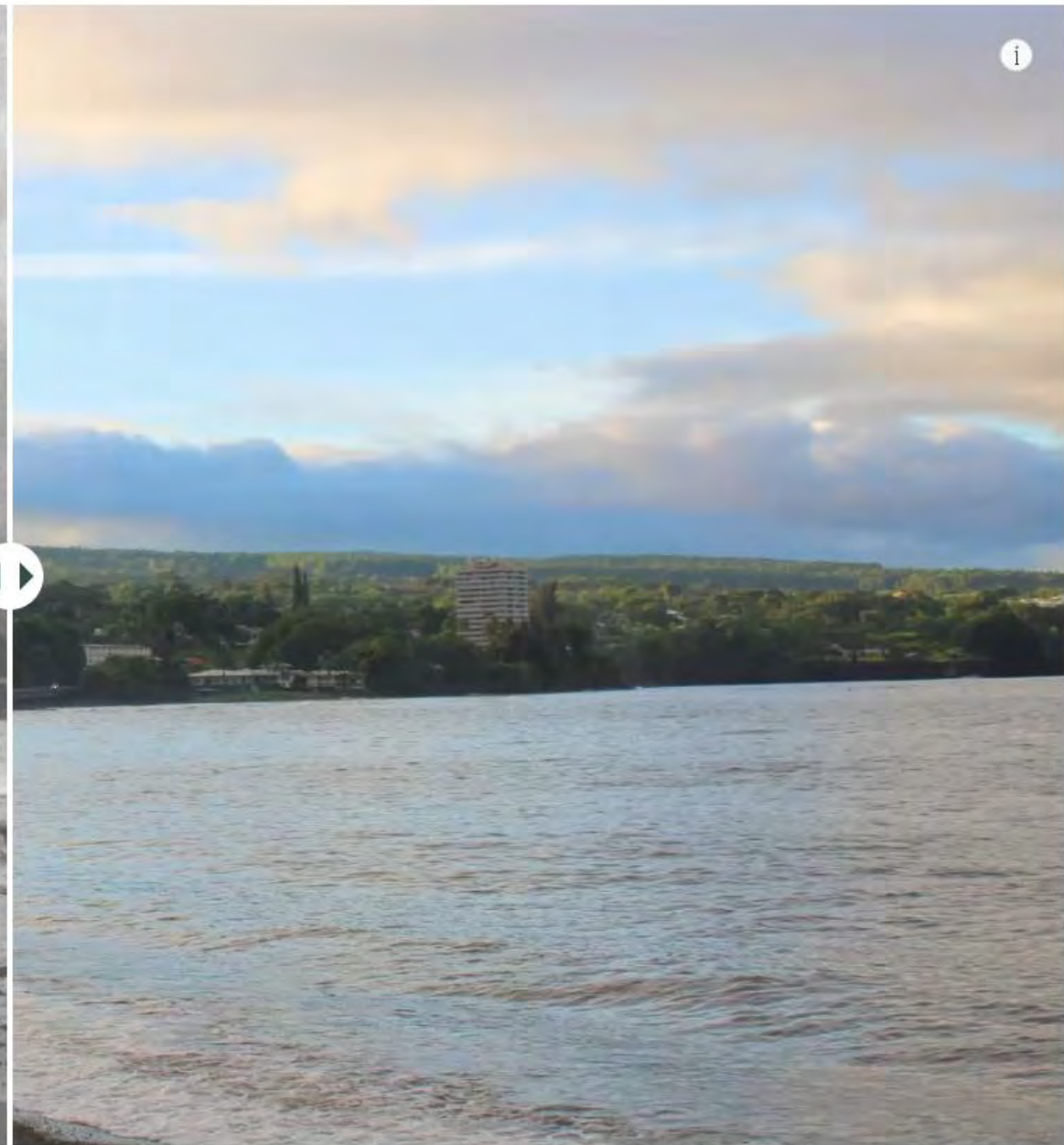
Learn, remember and share the intimate stories of Hilo



1 Mokuola

'Ōlelo No'eau #473: Hanu'u ke kai i Mokuola.

The sea recedes at Mokuola. Now is the

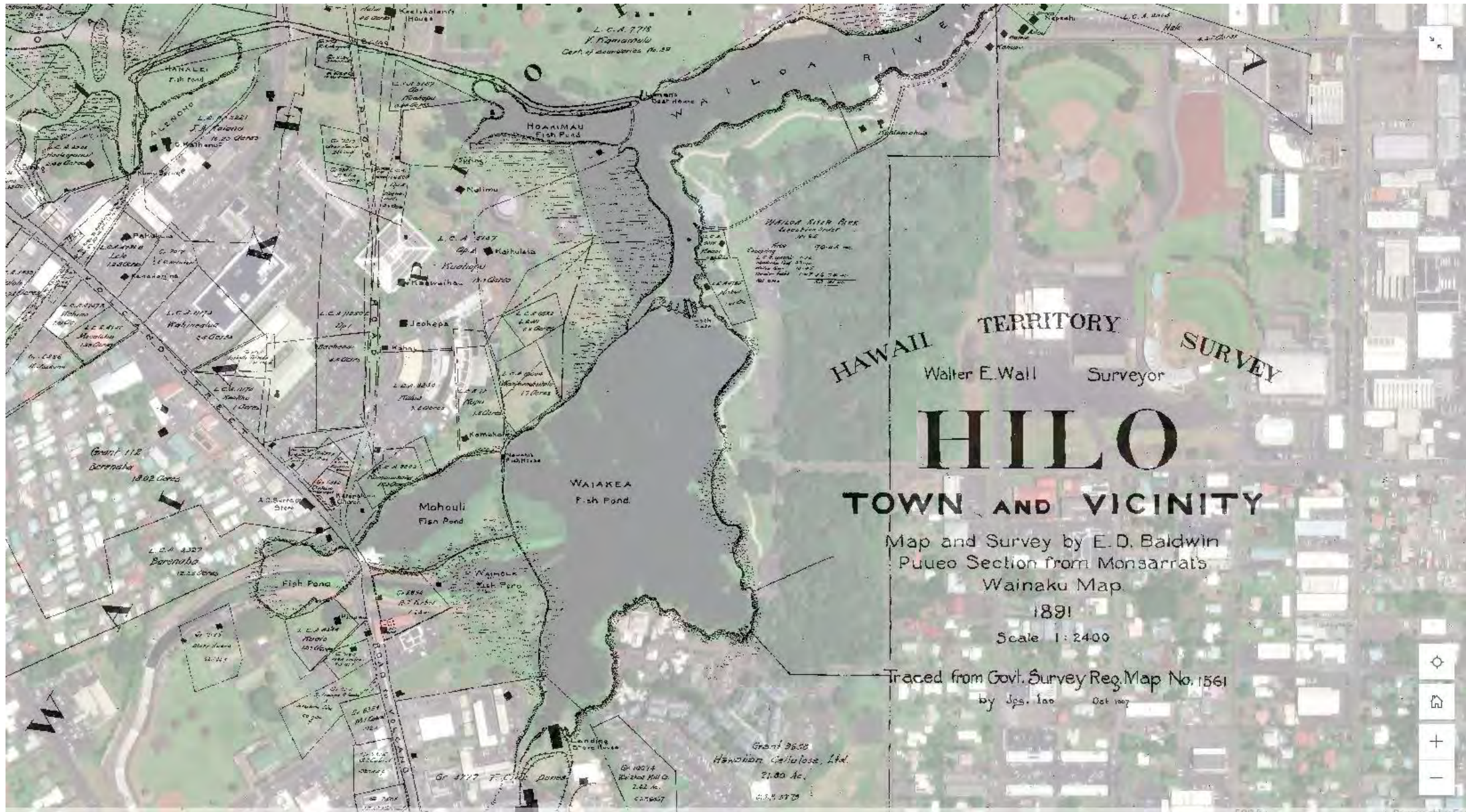


Nā Koa'e o Hāmākua | *Voices of Honoka'a*



John J. Andrade was born in 1918. When John was a young man, his father was killed by a wild horse. Following the accident, John and his siblings helped their mother keep the family businesses running. They had several businesses in Honoka'a Town, which included a slaughter house, meat market, restaurant, bar, hotel dance hall and bus routes. John Andrade became friends with service members during World War II, through his family businesses and his frequent trips to the Marine Training Facility in Waimea.

▶ 00:00 / 01:08 🔊



L.C.A. 778
V. Pihimanulu
Cert. of accuracy No. 29

HANALEI
Fish Pond

HOAKIMAU
Fish Pond

HAWAII TERRITORY SURVEY
Walter E. Wall Surveyor

HILO

TOWN AND VICINITY

Map and Survey by E. D. Baldwin
Puueo Section from Monsarrat's
Wainaku Map.

1891

Scale 1:2400

Traced from Govt. Survey Reg. Map No. 1561

by Jgs. Iao Oct 1907

L.C.A. 1221
J. H. Fainoa
16.20 Acres
C. Mathews

L.C.A. 2147
K. K. K. K.
K. K. K. K.

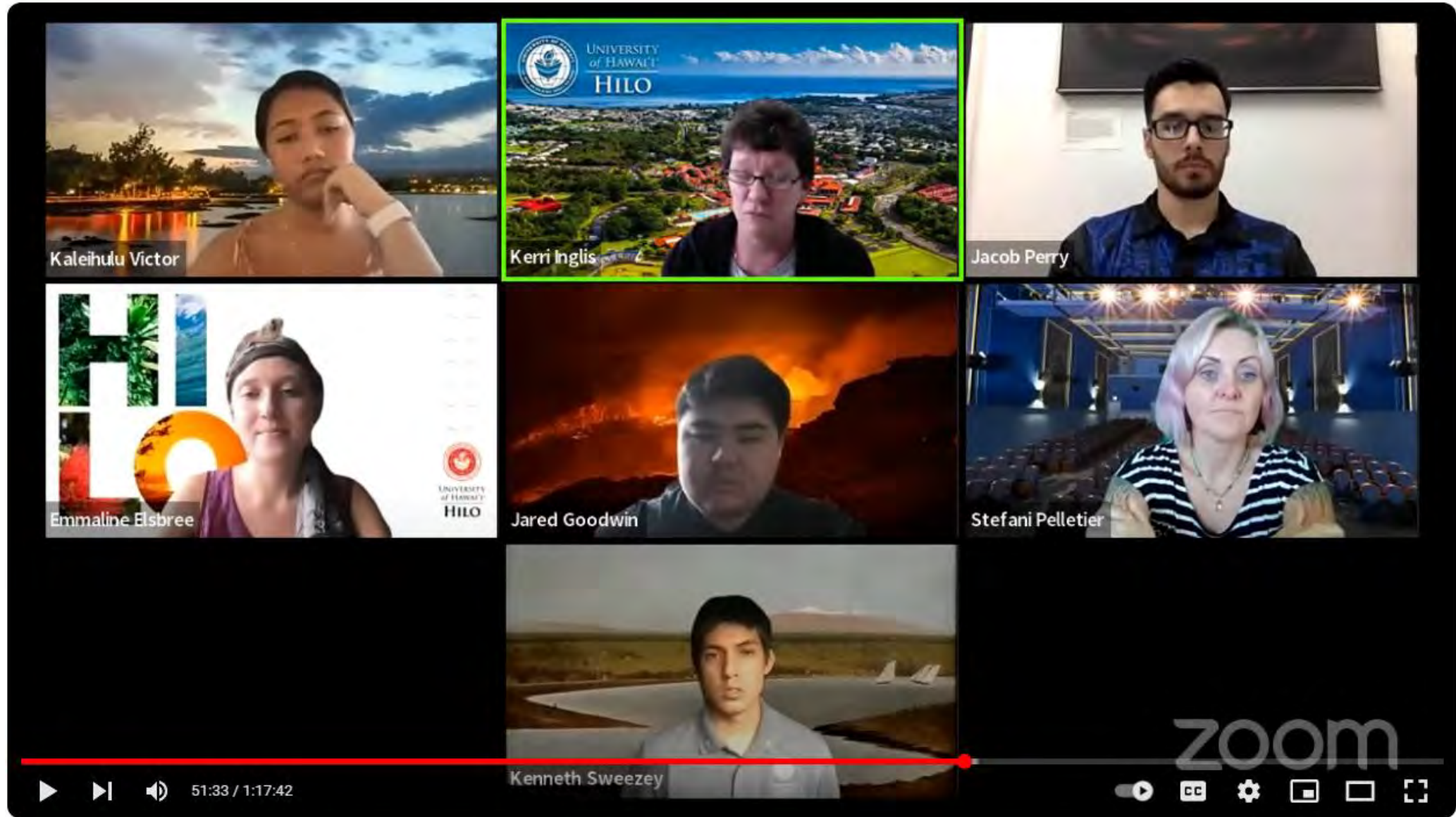
WAIKAEA FISH POND
Location 1891
18.52
Area 79.44 ac.
L.C.A. 1174
L.C.A. 1175
L.C.A. 1176
L.C.A. 1177
L.C.A. 1178
L.C.A. 1179
L.C.A. 1180
L.C.A. 1181
L.C.A. 1182
L.C.A. 1183
L.C.A. 1184
L.C.A. 1185
L.C.A. 1186
L.C.A. 1187
L.C.A. 1188
L.C.A. 1189
L.C.A. 1190
L.C.A. 1191
L.C.A. 1192
L.C.A. 1193
L.C.A. 1194
L.C.A. 1195
L.C.A. 1196
L.C.A. 1197
L.C.A. 1198
L.C.A. 1199
L.C.A. 1200

WAIKAEA
Fish Pond

Mahouli
Fish Pond

L.C.A. 4327
Baroniba
12.25 Acres

Grant 2650
Hawaiian Cellulose, Ltd.
21.00 Ac.
L.C.A. 1174



The Hilo Story Map Project: Presentation and Panel Discussion

View here: <https://www.youtube.com/watch?v=oBNkluyC2SM>

Wrap Up: StoryMaps as Tools for Documentation and Access

- StoryMaps use growing
- A way to get “gray literature” out into the community
- StoryMaps allow for intertwining of various types/sources of information:
 - a. academic
 - b. CRM/historic preservation
 - c. Community/Stakeholder
- Low-cost—wide dissemination of information
- Easy to provide links for further investigation—sources
- No specialized computer or coding skills needed
- Lilia Merrin’s upcoming presentation will provide more discussion of StoryMaps and their utility



Kanukuokamanu (literally translated as the-beak-of-the-bird) is a point of shoreline marking the easternmost extent of Hilo Bay. Photo credit Hawai'i State Archives.

Documentation Example for Stewardship, Education & Restoration

LILIA MERRIN, NOHOPAPA HAWAI'I

WAHI HO'ŌLA INVENTORY 'EWA MOKU, O'AHU



CONTACT:

Scott Keyes

Chief, Heritage Documentation Programs

National Park Service

scott_keyes@nps.gov

office: (202) 354-2186

cell: (202) 313-8690

<https://www.nps.gov/subjects/heritagedocumentation/index.htm>

Jay Sturdevant

Integrated Resources Program Lead

jay_sturdevant@nps.gov

Pearl Harbor National Memorial /

Honouliuli National Historic Site

1 Arizona Memorial Place, Honolulu 96818

Phone: 808-295-7673

<https://www.nps.gov/perl/index.htm>

Elaine Jackson-Retondo, Ph.D.

Preservation Partnerships &

History Program Manager

National Park Service

Interior Regions 8, 9, 10, & 12

Elaine_Jackson-Retondo@nps.gov

Office: 415-623-2368

<https://www.nps.gov/history>

Lilia Merrin

Cultural Research Specialist, Field

Assistant and Alaka'i

Nohopapa Hawai'i

lilia@nohopapa.com

<https://www.nohopapa.com/>

Matt McDermott

Project Manager, Principal
Investigator

Cultural Surveys Hawai'i, Inc.

mmcdermott@culturalsurveys.com

(808) 262-9972

<https://www.culturalsurveys.com/>

Kiersten Faulkner

Executive Director

Kiersten@historichawaii.org

Historic Hawai'i Foundation

680 Iwilei Rd. Ste. 690

Honolulu, HI 96817

Office: 808-523-2900

www.historichawaii.org

HABS/HAER/HALS Resources

Resources for Completing HABS/HAER/HALS Documentation

HDP develops standards, guidance, and tools to facilitate the completion of HABS/HAER/HALS documentation.

All materials can be found on our new website:

<https://www.nps.gov/subjects/heritagedocumentation>

Available resources include sample projects, guidelines, instructions on submitting documentation, templates, frequently asked questions, and points of contact.

The screenshot shows the National Park Service website for Heritage Documentation Programs. The header features the National Park Service logo and navigation links: Home, About, Guidelines & Resources, Submit Documentation, Our Work, Internships & Fellowships, HABS/HAER/HALS Collection, and Contact Us. The main content area is titled "Documenting America's Built Environment" and includes an introductory paragraph: "The Heritage Documentation Programs (HDP) consist of the Historic American Buildings Survey (HABS), Historic American Engineering Record (HAER), and Historic American Landscapes Survey (HALS). The programs document historic sites and structures across the United States through the creation of measured drawings, large format photographs, and historical reports. Documentation is archived in the HABS/HAER/HALS Collection at the Library of Congress and is available to the public without restriction. HDP is part of the National Park Service's Cultural Resources, Partnerships, and Section Director's Office." Below this are nine featured sections, each with a representative image and a brief description: "About" (Learn about HDP - HABS, HAER, and HALS), "Guidelines" (How to create HABS/HAER/HALS documentation), "Submit Documentation" (How to submit HABS/HAER/HALS documentation), "Our Work" (HDP projects and publications), "Internships & Fellowships" (Student employment opportunities), "Competitions" (Past HDP's documentation's contests), "Virtual Content" (Virtual tours of historic sites across the country), "Collection" (Explore the HABS/HAER/HALS Collection), and "Contact" (Contact HDP or an NPS regional office). The footer indicates the page was last updated on October 31, 2023.

Initiatives to Improve the HABS/HAER/HALS Program

- Update and consolidate existing drawing, photography, and history guidelines to be more user friendly.
- Issue guidelines to incorporate digital photography into the HABS/HAER/HALS collections.
- Produce templates for drawing sheets and historical reports that will be available for download on the HDP website.
- Issue written guidance that establishes a uniform process for submitting documentation for incorporation in the LOC collections.



Kōloa Sugar Mill, HI

GENERAL RESOURCES

Further Reading and Reference Materials

- Heritage Documentation Programs: <https://www.nps.gov/subjects/heritagedocumentation/index.htm>
- Virtual Content: <https://www.nps.gov/subjects/heritagedocumentation/virtual-content-overview.htm>
- About the Historic American Buildings Survey/Historic American Engineering Record/Historic American Landscapes Survey <https://www.loc.gov/pictures/collection/hh/>
- Historic Property Project Documentation Overview: <https://www.nps.gov/articles/000/hppd-overview.htm>
- About HABS and Hawai'i Examples: <https://historichawaii.org/2021/07/01/the-historic-american-buildings-survey/>

Audience Questions

MAHALO FOR
SUPPORTING THE
PROGRAMS AND
ACTIVITIES OF
HISTORIC HAWAI‘I
FOUNDATION

E-NEWSLETTER SIGN-UP

<https://historichawaii.org/newsletter-signup/>

JOIN

<https://historichawaii.org/join-us/>

GIVE

<https://www.paypal.com/paypalme/historichi>

CONTACT

Member@historichawaii.org

808-523-2900
