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BOARD OF LAND AND NATURAL RESOURCES

FOR THE STATE OF HAWAI'I

IN THE MATTER OF A Contested Case Hearing Re Conservation District Use Permit (CDUP) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Kaohe Mauka, Hamakua District, Island of Hawaii, TMK (3) 4-4-015:009	Case No. BLNR-CC-16-002 **TMT INTERNATIONAL OBSERVATORY, LLC'S SIXTH AMENDED EXHIBIT LIST and ADDITIONAL EXHIBITS C-43 to C-47; CERTIFICATE OF SERVICE**

PARTY: TMT INTERNATIONAL OBSERVATORY, LLC

Exhibit No.	Description	Received Into Evidence
C-1	Testimony of Ed Stone	
C-2	Testimony of Gary Sanders	

Exhibit No.	Description	Received Into Evidence
C-3	Graphic showing Mitigation Measures Reduce Size and Visibility of TMT	
C-4	Testimony of Mike Bolte	
C-5	New York Times article: From Hawaii's Mauna Kea, A Universe of Discoveries (October 3, 2016)	
C-6	Testimony of David M. Callies	
C-7	Testimony of James Hallstrom, including Curriculum Vitae	
C-8	Testimony of Dr. Heather Kaluna	
C-9	Testimony of Naea Stevens	
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C-11	Testimony of Robert B. Rechtman	
C-12	Thirty Meter Telescope Archaeological Report, prepared by Genevieve Glennon and Robert Rechtman (October 2013)	
C-13	Letter to Robert Rechtman from DLNR Historic Preservation Division, approving TMT Archaeological Report (December 16, 2013)	
C-14	Thirty Meter Telescope Monitoring Report re: Groundbreaking, prepared by Samuel Plunket and Robert Rechtman (September 2014)	
C-15	Field Reconnaissance of TMT Development Site	
C-16	Updated Field Reconnaissance of TMT Development Site	
C-17	Testimony of Paul Coleman	
C-18	Aerial Graphic showing distances from cultural practice areas to proposed TMT Observatory	
C-19	Aerial Graphic showing that TMT does not block/impinge on view of Haleakala from Poli'ahu	
C-20	Graphic showing TMT and Pu'u Poli'ahu Elevation Difference	

Exhibit No.	Description	Received Into Evidence
C-21	Graphic of Pu'u Wekiu View Plane Cross-Section with Elevation – TMT Not Visible	
C-22	Graphic of Pu'u Wekiu View Plane Cross-Section – TMT Not Visible	
C-23	Graphic of Size Comparison Chart of TMT with other Telescopes	
C-24	Written Direct Testimony of Clarence Kukauakahi Ching (2011)	
C-25	Hearing Testimony of Clarence Ching (2011)	
C-26	Written Direct Testimony of E. Kalani Flores (2011)	
C-27	Hearing Testimony of E. Kalani Flores (2011)	
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C-29	Hearing Testimony of Paul K. Neves (2011)	
C-30	Written Direct Testimony of Hawane Rios (2011)	
C-31	Hearing Testimony of Hawane Rios (2011)	
C-32	Written Direct Testimony of Deborah Ward (2011)	
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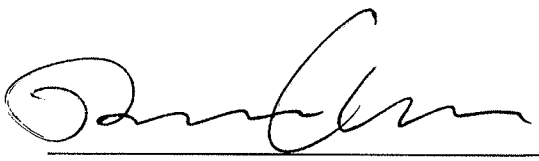
C-34	Hearing Testimony of Deborah Ward (2011)	
C-35	Mauna Kea Summit aerial photograph	
C-36	Mauna Kea Summit USGS Map	
C-37	Map of Honokohau Harbor Area	
C-38	8/22/2014 Letter to William Aila (DLNR) from Bob Rechtman	
C-39	TMT International Observatory, LLC Initial Decommissioning Funding Plan (April 2014)	

Exhibit No.	Description	Received Into Evidence
C-40	October 6, 2016 Hawaii Supreme Court Decision in Re Kilakila O' Haleakala, SCWC-13-3065	
C-41	12/22/1992 Disciplinary Board of the Hawaii Supreme Court Decision regarding suspension of Clarence F. T. Ching from the practice of law	
C-42	4/14/1993 Hawaii Supreme Court Order of Suspension regarding Clarence F. T. Ching	
C-43	FEIS Response to MKAH Comments	
C-44	TMT EIS, Figure 3-3: Historic Sites	
C-45	Pua Case Facebook page, November 9 at 8:44 a.m.	
C-45a	Duplicate of Pua Case Facebook page of November 9 at 8:44 a.m., dated November 9, 2016	
C-46	Article by Gregory Johnson: Authenticity, Invention, Articulation: Theorizing Contemporary Hawaiian Traditions from the Outside	
C-47	Article by Gregory Johnson: The Newark Earthworks – Caring for Depressed Cultural Sites, Hawaiian Style	

DATED: Honolulu, Hawaii, February 17, 2016.



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FINAL ENVIRONMENTAL IMPACT STATEMENT

Volume 2 – Section 8.0

Thirty Meter Telescope Project

Island of Hawai'i

Proposing Agency:
University of Hawai'i at Hilo

This Environmental Document was Prepared Pursuant to Hawai'i Revised Statutes, Chapter 343, Environmental Impact Statement Law and Chapter 200 of Title 11, Hawai'i Administrative Rules, Department of Health, Environmental Impact Statement Rules

May 8, 2010

8.0 Responses to Comments

This chapter provides individual responses to all substantive comments received during the Draft EIS comment period. Table 8-1 provides an index of all comments received and where they can be found within this chapter. This section is formatted to provide the comments and responses in a side-by-side format; however, in some cases the length of the responses prevents the comment and response from appearing on the same page, especially for longer submissions. The comment number is provided to the left of the comment and above the response. Due to software limitations, the line indicating the location of the comment in the left margin sometimes does not completely bracket the entire comment.

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To: TMT Observatory Project
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235 South Beretania Street, Suite 702
Honolulu, Hawai`i 96813

(Sent via electronic mail and/or U.S. Postal Service Certified-Return Receipt, postmarked 7/7/09)

DATE: July 7, 2009

RE: The Thirty Meter Telescope Draft Environmental Impact Statement

Aloha Pumehana Chancellor, TMT Board Members and Representatives,
Please find enclosed comments regarding the TMT Draft Environmental Impacts State (DEIS) filed on behalf of Ms. Kealoha Pisciotta, Mauna Kea Anaina Hou, Mr. Paul K. Neves, Royal Order of Kamehameha I and Mr. Clarence Kukauakahi Ching. We thank you for your time and consideration.

I. Introduction

Mauna Kea Anaina Hou (MKAH) represented by Ms. Kealoha Pisciotta, The Royal Order of Kamehameha I, Moku O Mamalahoa, Heiau Mamalahoa Helu `Elua (ROOK I) represented by Ali`i Aimoku Ali`i Sir Paul K. Neves, and individual Hawaiian Practitioner Mr. Clarence Kukauakahi Ching (Ching) are dedicated to preserving, protecting and perpetuating Native Hawaiian Traditional and Customary practices, including cultural and religious practices relating to Mauna Kea.

Mauna Kea Anaina Hou (MKAH), The Royal Order of Kamehameha I (ROOK I), Sierra Club (SC), individual practitioner Clarence Kukauakahi Ching (Ching) and others have been actively involved in legal action for the protection and conservation of Mauna Kea since 1995. We participated in two audits called by the State Legislature, recording 30 years of mismanagement on Mauna Kea at the hands of the State' Board of Land and Natural Resources (BLNR) and University of Hawai`i (UH). The State Auditor, found that Mauna Kea's resources had suffered at the expense of unregulated astronomy development, stating in relevant part,

1. **"[T]he University of Hawai'i's management of the Mauna Kea Science Reserve is inadequate to ensure the protection of natural resources, and that the Department of Land and Natural Resources [DLNR] needs to improve its protection of Mauna Kea's natural resources."** (1998 Audit of Management of Mauna Kea and Mauna Kea Science Reserve, P.15.)

We also participated in two major lawsuits in the US. District Court (Hawai`i), and the Third Circuit (Hilo) relating to the conservation of Mauna Kea. The cases were brought against the University (UH), University's Institute for Astronomy (UHIFA), State of Hawai`i's Board of Land and Natural Resources (BLNR), The University of California (UC), The California Institute of Technology (Caltech), the William M. KECK Foundation (KECK) and The National Aeronautics and Space Administration (NASA).

The NASA Federal Environmental Impact Statement (EIS) compelled by the federal court (OHA v. NASA, Civil No. 02-00227 (SOM/BMK), 2003) determined that the cumulative impact of thirty years of astronomy development had resulted in "substantial, adverse, and significant" impacts on the cultural and natural resources of Mauna Kea." (Please see NASA FEIS, 2005, at p. *xxi*).

Last year we provided extensive scoping comments relating to the proposed Thirty Meter Telescope Project (TMT). These comments included concern over TMT's compliance with, among other things, relevant state and federal laws, such as the National Environmental Policy Act as amended 1969

1

1

The obligation to evaluate and disclose environmental impacts under the National Environmental Policy Act (NEPA) is triggered by a major Federal "action." A major Federal action, as defined in 40 CFR Section 1508.18, includes actions with effects that may be major and which are potentially subject to Federal control and responsibility, such as:
1. A project funded (including grants and loans) by a Federal agency,
2. A project located on Federal land, and/or
3. The issuance of a Federal permit, license, or other approval.

The Thirty Meter Telescope Project is not a Federal action because it (a) has not received funding or pledges of support from any Federal agency for the physical construction, operation, or decommissioning of any facility; (b) has no facility planned on Federal land; and (c) has not applied for and does not require a Federally-issued permit, license, or approval for the construction, operation, or decommissioning of facilities. Therefore, there is no extant major Federal action, and, thus the United States' obligations under NEPA have not been triggered.

Similarly, Section 106 imposes obligations only on a Federal "undertaking", which is defined as a project, activity, or program carried out under the jurisdiction of a federal agency.

The Project, as defined in Chapter 2 of the Draft EIS, is not a Federal undertaking because it is not being carried out under the jurisdiction of any Federal agency. Thus, Section 106 consultation requirements have not been triggered. The Draft EIS addressed consultations with Native Hawaiians and cultural practitioners through the Cultural Impact Assessment and HRS Chapter 6E Historic Preservation processes, as discussed in Sections 3.2, Cultural Resources, and Section 3.3, Archaeological/Historic Resources. Additional information has been included in these sections in the Final EIS.

The Project will comply with all applicable rules and regulations. A description of the land use plans, policies, and controls is described in Section 3.10 of the EIS.

(NEPA) the National Historic Preservation Act (NHPA), Section 106 (Consultation with Native Hawaiian Organizations), Hawai`i Revised Statutes 183C (HRS 183C), Hawai`i Administrative Rules 13-5 (HAR 13-5) relating to Conservation, HRS 343 and HAR 11-200 (relating to environmental and cultural preservation), Hawai`i State Constitution Article 12, Section(s) 1, 9 (relating to environmental protection and conservation), Section 7 (relating to certain Hawaiian traditional and customary practices).

In our scoping comments we also formally requested that TMT begin NHPA, Section 106 Consultations. The TMT DEIS fails to address the issues previously raised in our scoping comments, therefore, we incorporate by reference our previously filed scoping comments (October 22, 2008).

2

II. GENERAL ISSUES

Wasting public funds, and burdening the courts and the public

To be clear, UC and Caltech were parties (along with NASA and KECK) of the Outrigger Telescope(s) Project proposed for Mauna Kea in the 1990s. The Outrigger Telescope(s) project was opposed and eventually challenged in two courts of law (federal and state). We too were involved those lawsuits and the courts found in our favor in both cases.

The federal court ordered NASA *et al*, to comply with the National Environmental Policy Act (NEPA). The state court vacated the Conservation District Use Permit, for construction of the four to six Outrigger Telescope(s) and ordered a Comprehensive Management Plan (CMP) be competed prior to considering any further development on Mauna Kea. The Outrigger Project was not built here in Hawai`i.

There is no question the TMT Project must comply with both state and federal law. The TMT Project currently is complying with neither. Taking the same path the courts previously rejected is unreasonable.

3

2
As discussed in response to an earlier comment, NEPA and other Federal requirements, such as Section 106, have not been triggered.

3
The TMT Project is in the process of complying with HRS Chapter 343. As disclosed in Section 3.10.3 of the Draft EIS, the Project will comply with applicable land use plans, policies, and controls. In addition, Section 3.1.3 of the Draft EIS lists some of the applicable rules, regulations, and requirements with which the Project will comply. As discussed in response to an earlier comment, NEPA and other Federal requirements, such as Section 106, have not been triggered. If any of these federal requirements are triggered in the future, it will be the United States' obligation to comply with them, which presumably it will do.

Good Science-but at what cost?

TMT Representatives, (particularly UC and Caltech) your institutions are important academic institutions to the nation and the world. You have achieved great academic success. With greatness, comes great responsibility also. This responsibility, we hope includes caring for the land and its people. We have always supported good science. The TMT will produce good science, but, the real question is at what expense.

4 Is it good science to destroy the habitat of plant and animal species found
5 nowhere else on earth—including those on brink of extinction? Is it good science to destroy the landscape used in traditional Hawaiian ceremonies that provided the knowledge for our navigators to traverse, more than 10 million square miles of the Pacific, before the birth of Christ? Is it good science to build such a large
6 telescope atop our temple? Is it good science if the rule of law must be ignored to
7 achieve it? Is it good science, to push to built the TMT in Hawai`i, when you have already identified an environmentally preferred site (a site with less impact then Mauna Kea)—in Chile?

This DEIS is *not* representative of your past academic achievements and we pray, not your future academic achievements.

III SPECIFIC ISSUES

The TMT Draft EIS is filled with inaccuracies, misleading and/or false information and is wholly inadequate

1. TMT claims no federal funding used for Project

The TMT DEIS states,

> Federal rules, such as the National Environmental Policy Act (NEPA), do not apply to the Project, no Federal agency is involved

4
Section 3.4 of the Draft EIS discusses potential impacts on biological resources and Section 3.16 of the Draft EIS discusses cumulative impacts. The Thirty Meter Telescope Project is working with the community and scientists to avoid, minimize and mitigate for potential impacts to plant and animal species. As stated on page 3-42 of the Draft EIS, "There are no currently-listed threatened or endangered species known to occur in the Astronomy Precinct." Section 3.4.1 of the Final EIS, based on comments received during the Draft EIS comment period, has been revised to acknowledge that the endangered Hawaiian Hawk has been observed circling the summit region.
Also, while there are a number of threatened and endangered species potentially present at Hale Pohaku, as stated on page 3-45 of the Draft EIS, "A recent arthropod and botanical survey of the proposed TMT Mid-Level Facility site found no species listed as endangered, threatened, or that are currently proposed for listing under either Federal or State of Hawaii endangered species statutes."
Mitigation measures outlined in the Draft EIS to reduce the potential impact of the Project on threatened, endangered, or other native species include the Invasive Species Prevention and Control Program, outlined in Section 3.4.3, pages 3-48 and 3-49, and Section 3.15.1, pages 3-147 and 3-148. Please see Sections 3.4 and 3.15 of the Final EIS for additional information regarding the Project's potential impacts on biological resources and associated mitigation measures.

5
The Thirty Meter Telescope Project is working with the community and agencies to avoid, minimize, and mitigate potential Project impacts to cultural resources. Section 3.2 of the Draft EIS documents the Project's potential impacts and mitigation measures related to cultural resources. Please see Section 3.2 of the Final EIS for additional details related to cultural resources.

6
As discussed in reponse to previus comments, the TMT Project is in the process of complying with HRS Chapter 343 and will continue to comply with the rule of law.

7
No site was identified as an "environmentally preferred" site in the Draft EIS. Chapter 5 of the Draft EIS discusses the a site in Chile considered by the TMT Observatory Corporation; however, as explained in that Chapter, "it is not considered an 'alternative' for UH because UH cannot approve locating the TMT in Chile."

in the Project, **no Federal Funding is being use for the Project**, and the Project does not use Federal Land."

(TMT DEIS at p. 3-105, emphasis added)

A TMT representative publicly asserted the same during public scoping meetings (http://www.bigislandvideonews.com/maunakea/20081020dawson.htm). The TMT DEIS statements are false. The TMT project has received substantial federal funding from the National Science Foundation (NSF). NSF Award 0443999 confirms this. The NSF Award also confirms that $13 million federal tax dollars where awarded to the TMT and Giant Magellan Telescope (GMT), for *"(1) The Design and development phase for a 30-meter diameter segmented-mirror, optical/infrared telescopes, the Thirty Meter Telescope (TMT)."* Further confirmation of federal funding used by TMT is found in the Executive Summary second paragraph (http://www.noao.edu/dir/spo/GSMT-annual-report08.pdf).

8

Following NEPA

NEPA is the nation's law for protecting the environment.

The NEPA rules state,

> NEPA is not to generate paper work, even excellent paper work, but to foster excellent action... The NEPA process is intended to help public officials make decision that are based o the understanding of the environmental consequences, and take actions that protect, restore and enhance the environment." (40 CFR § 1500.1, 1502.1)

9

The National Science Foundation (NSF) funding of the project, constitutes a significant federal undertaking. Neither NSF as the funding agency nor the TMT as the receiving agency has prepared a federal level environmental review document (i.e. an Environmental Assessment (EA) or Environmental Impact Statement (EIS)) pursuant to the National Environmental Act, as amended 1969, relevant federal rules and regulations, and legal precedent (court made law).

Listing the University of Hawai`i at Hilo (UHH)--a state agency, as the proposing agency on the TMT DEIS does not allow the Project to escape federal

8

The TMT Observatory Corporation has received limited funding from the National Science Foundation (NSF) for the development of technology that can be used on other telescopes. With respect to the construction, operation, or decommissioning of the Thirty Meter Telescope Project, no Federal agency, including the NSF, has provided or pledged funds for such construction, operation, or decommissioning. Nor is TMT required to obtain a permit, license or other approval from the United States prior to the construction or operation of the Thirty Meter Telescope (TMT) Project. Federal funding alone does not trigger an obligation on the part of the United States to comply the National Environmental Policy Act (NEPA) or the National Historic Preservation Act (NHPA). For example, the United States' obligation to undertake an environmental review under NEPA is triggered only if a "major Federal action" may significantly affect the environment. Similarly, the United States' obligation to comply with the NHPA is triggered only if there is a federal "undertaking" which is defined as an activity or project carried out under the jurisdiction of a federal agency. The United States' obligation to comply with NEPA and the NHPA has not been triggered with respect to this Project.

9

The obligation to evaluate and disclose environmental impacts under the National Environmental Policy Act (NEPA) is triggered when a federal agency proposes a major federal action that would significantly affect the environment. Neither the University of Hawaii at Hilo (UH Hilo) nor the TMT Observatory Corporation is a federal agency. Further, neither UH Hilo nor the TMT Observatory Corporation has received funding or pledges of financial support from any Federal agency for activities that will or may significantly affect the environment, nor has either entity applied for any federally-issued permit or license. Therefore, the United States' obligations under NEPA have not been triggered.

legal requirements, it means either the UHH will be "federalized" for the purpose of fulfilling NEPA and the NHPA, or will cause UHH to be enjoined in any legal challenges brought against this process.

Following NHPA

10 The TMT is proposing to use Mauna Kea summit lands, which are eligible for listing on the National Historic Register, yet TMT has not begun Section 106
11 consultations under the National Historic Preservation Act (NHPA). Again, we made formal requests in our scoping comments calling for NHPA, Section 106 Consultation to begin. The U.S. District Court (Hawai`i) affirmed,

> NHPA mandates that a federal agency "shall consult... with any Native Hawaiian organization that attaches religious and cultural significance" to properties eligible for the inclusion on the National Register." (OHA v. NASA, Civil No. 02-00227 (SOM/BMK), 2003, p. 18 of 39)

The **State Historic Preservation Office**, TMT DEIS review letter dated June 26, 2009, states:

> Agencies Involved: Section 2.0 states that the TMT Observatory Corporation is a private non-profit partnership. Your memo dated May 28, 2009 notes that the National Science Foundation released the DEIS. There is no mention of the NSF in the DEIS, and we presume that is the case. If the NSF is involved, this project is subject to review under the National Historic Preservation Act, Section 106 (36 CFR 800).
>
> And,
>
> The DEIS and draft archeological Assessment for Area E (Appendix E) does not address impacts to the Mauna Kea Summit Historic District.

TMT representatives appear to understand what federal laws require, yet continue to ignore them. (Please see TMT comments below). The idea that TMT can move forward "independent of anything that happens with the

10
Section 106 of the National Historic Preservation Act (NHPA) imposes obligations on federal agencies, not state or local agencies or private entities. The actions of the National Science Foundation (NSF) to date and the Project, as defined in Chapter 2 of the Draft EIS, is not a Federal "undertaking," as defined by Section 106 and, thus, Section 106 consultation requirements have not been triggered by NSF's actions.
The Draft EIS addressed consultations with Native Hawaiians and cultural practitioners through the Cultural Impact Assessment and HRS Chapter 6E Historic Preservation processes, as discussed in Section 3.2, Cultural Resources, Section 3.3, Archaeological/Historic Resources, and Appendix D. Additional information has been included in these sections in the Final EIS.

11
As discussed in response to previous comment, the Project is not a Federal undertaking; therefore, although scoping comments requested Section 106 consultations be performed, they technically could not be done.
The Draft EIS addressed consultations with Native Hawaiians and cultural practitioners through the CIA and HRS Chapter 6E Historic Preservation processes, as discussed in Sections 3.2, Cultural Resources, and Section 3.3, Archaeological/Historic Resources; Appendix D contains the CIA. Additional information has been included in these sections in the Final EIS to address the comments of the State Historic Preservation Division.

12 Comprehensive Management Plan" is erroneous. The TMT may not move forward without a completed and approved CMP.

> "The federal government, federal agencies, they make that decision. We don't. And what triggers NEPA (National Environmental Protection Act) is a significant federal action," said Michael Bolte, director of California's Lick Observatory and member of the TMT Board of Directors.
>
> Regarding the Mauna Kea Comprehensive Management Plan, "we are an independent process. The legal opinions are that right now we can go forward completely independent of anything that happens with the Comprehensive Management Plan."
>
> Hawaii Tribune-Herald June 17, 2009, at http://www.hawaiitribuneherald.com/articles/2009/06/17/local_news/local03.txt

2. **State Law**

The TMT DEIS states;

> Today, there are 11 observatories...
>
> (TMT DEIS, p. P-3)

13 In 1983, yhe state set a limit on the size, dimension and number of the
14 *telescopes*. That legal limited has not been changed. There are currently 21 telescopes on Mauna Kea. The TMT DEIS, uses semantics and number games so that the preparers can count the giant twin Keck telescopes as one (because they have a single owner), the Smithsonian Array (which has eight individual six meter telescopes and potential for twelve more placed on 24 individual pads strewn across a half mile in diameter area), and then completely leave the Very Long Baseline Array (VLBA) out of the count.

15 State law requires (HRS 183C, HAR 13-5) an astronomy facility such as the TMT to obtain a Conservation District Use Permit (CDUP) issued by the Hawai`i Board of Land and Natural Resources (BLNR). A CDUP can only be issued after the completion of Comprehensive Management Plan (CMP). The Third Circuit Court in its recent ruling stated in relevant part,

> Hawai`i Administrative Rules (HAR) 13-5 (adopted September 6, 2006), are the rules adopted by the Department of Land and Natural Resources

12
The CMP was approved by the BLNR on April 9, 2009, with conditions. Certain individuals and organizations requested a contested case proceeding for the CMP approval. The BLNR denied the request since a contested case hearing was not required by law and those requesting it did not establish a property interest in the CMP or that the CMP would affect property in which they possessed an interest. In approving the CMP, the BLNR required that UH be responsible for the implementation of the CMP subject to oversight of the BLNR. Failure to comply with the BLNR's conditions of approval of the CMP may result in sanctions. Hence the CMP and its conditions of approval have legal force and effect.

13
There is no set "limit" on the number of telescopes or observatories on Maunakea. The 1983 Master Plan states on page 41, "Based on the RDP [Research Development Plan], the SRCDP [Science Reserve Complex Development Plan] identifies siting areas for a total of thirteen telescopes on the mountain by the end of the century. Although the actual number of facilities which will be realized by the astronomy program at Mauna Kea will depend on the demand and on the role determined for this activity by public policy makers, the University of Hawaii has determined that it is resonable and feasible to project a total of 13 telescopes on the mountain between now and the year 2000." The 1983 Master Plan is silent on the number of observatories that could be built after the year 2000 and overall the number of observatories is left to public policy makers.
The 2000 Master Plan, which is the most current master plan for the UH management areas, does not identify a limit on the number of observatories on Maunakea but does limit the area of future development to within the Astronomy Precinct.

14
An observatory is clearly defined in Section 2.1 of the Draft EIS as follows:
"An observatory includes the telescope(s), the dome(s) that contain the telescope(s), and the instrumentation and support facilities for the telescopes that fall under a common ownership."
By this definition there are 11 observatories and one radio telescope on Maunakea. Various other documents have failed to differentiate between an observatory and a telescope or defined an observatory in a variety of different ways without consistency. The information included in the Draft and Final EIS is meant to provide information about existing observatories and telescopes based on clearly defined parameters, as well as to provide consistency within the document.

15
As disclosed in Section 3.19, page 3-196, of the Draft EIS, the Project requires a CDUP. The BLNR's conditional approval in April 2009 stated that all CMP components are to be completed prior to a project submitting a Conservation District Use Application (CDUA); the Project has not yet submitted a CDUA and the conditions of CMP approval have now been met (completion of the four sub plans). Therefore, as required by BLNR's approval of the CMP and in HAR 13-5-24, an approved and complete management plan will be in place prior to BLNR's review of the Project's CDUA.

(DLNR) applicable to "Conservation Districts." The statutory authority cited in these rules is Hawai`i Revised Statutes (HRS) Chapter 183C...

HAR 13-5-24 (c) (4) states, "Identified land use beginning with the letter (D) (*i.e.* **such as Astronomy Facilities**) require a board permit, and where indicated, a management plan." (Emphasis added for clarity)

(Mauna Kea Anaina Hou *et al.*, Civil No. 4-1-397, 2006, p. 2-3)

3. **TMT DEIS cites to and relies upon documents that do not exist and/or have no force or effect of law**

The TMT DEIS states,

> The operation of the Project, in accordance with the CMP and proposed mitigation measures, would not result in a significant adverse impact....the Project would not significantly increase or reduce the existing level of cumulative impacts do to all past and present activities, which in some cases is significant. The potential impact associated with the Access Way Option 3 is considered significant because it would reshape, of "cut" the TCP of Kukahau`ula, the summit cinder cones. Access Way Option 3 would also displace some "good" Wekiu bug habitat, but in compliance with the CMP, should Access Way Option 3 be chosen, a Habitat Restoration Plan would be prepared and implemented to compensate for this potential impact." (Emphasis added for clarity)

TMT DEIS, at p. S-6

There is no Comprehensive Management Plan

There are a number of problems with the TMT DEIS statement cited above.

16 First, by law the BLNR must prepare and adopt a CMP, because the BLNR, NOT the UH, is the State agency statutorily and constitutionally mandated to oversee all Conservation Districts in Hawai`i. The UH's position has been and continues to be that they, instead of the BLNR can prepare the CMP. This is erroneous. The UH prepared their "Plan" anyways, but it was neither "comprehensive" nor a "management plan." It was incomplete omitting

16
The CMP was approved by the BLNR on April 9, 2009, with conditions. Certain individuals and organizations requested a contested case proceeding for the CMP approval. The BLNR denied the request since a contested case hearing was not required by law and those requesting it did not establish a property interest in the CMP or that the CMP would affect property in which they possessed an interest. In approving the CMP, the BLNR required that UH be responsible for the implementation of the CMP subject to oversight of the BLNR. Failure to comply with the BLNR's conditions of approval of the CMP may result in sanctions. Hence the CMP and its conditions of approval have legal force and effect.

entire sections and failed to provide a cumulative impact evaluation on the resources by further development - the very issue it was supposed to decide. How many telescopes will be located on the summit and where, and at what cost? Not the plan Judge Hara (Third Circuit) ordered.

UH "Plan" not approved

17 Second, while the UH did present their "Plan" to the BLNR, the BLNR agreed it was not comprehensive. The UH "Plan" was NOT approved by the Board of Land and Natural Resources in April, 2009. Environmental and Native Hawaiian groups requested a contested case hearing. When a request is submitted, no decision may be made until the hearing is finished. A judge can not decide a case before the evidence is submitted.

18 Third, while the state is still determining if they will grant a Contested Case Hearing, even if they do not grant the hearing the UH Plan will be challenged by us directly in to the court, because it has provisions that conflict with the state constitution including those that protect environmental and Native Hawaiian rights.

19 Four, the TMT DEIS may not rely on a document that does not exist to claim the Project "would not result in adverse impact."

The UH Master Plan 2000

20 The TMT DEIS repeatedly cites to and relies on the UH Master Plan 2000 (MP2000). This document was never approved by BLNR and therefore has no force or effect of law. Judge Hara of the Third Circuit court affirmed this, stating in relevant part,

> The Board of Regents did adopt a management plan for Mauna Kea in the year 2000. The Regents' management plan was not, however adopted by BLNR. It is clear from the context of the terms of HAR chapter 13-5, that the "management plan" as defined therein as required in order to permit R-3 use is one that must be adopted by the BLNR...The court concludes as a matter of law in construing the requirement of a "management plan" as required by HAR 13-5-24 R-3 that the UH submitted for the project

17
As discussed in response to previous comment, the CMP as approved is currently a valid enforceable plan, regardless of status of challenges.

18
As discussed in response to comment above, the CMP as approved is currently a valid enforceable plan, regardless of potential challenges.

19
As discussed in response to comment above, the CMP as approved is currently a valid enforceable plan. Furthermore, the Draft EIS relies on a number of studies, plans, scientific papers, and other sources to evaluate the Project's potential impacts on the environment.

20
The 2000 Master Plan is referenced throughout the Draft EIS, including Chapter 2 and Section 3.10. Section 3.10.3 of the Draft EIS outlines the Thirty Meter Telescope Project's consistency with land use plans, policies, and controls. The Draft EIS neither states nor suggests that the 2000 Master Plan was approved by the Board of Land and Natural Resources (BLNR). The 2000 Master Plan was prepared by UH through a process that included broad community input as well as coordination with governmental agencies, including the Department of Land and Natural Resources (DLNR). A Draft and Final EIS were prepared and the 2000 Master Plan was adopted by the University of Hawaii (UH) Board of Regents (BOR) and implemented. Although the 2000 Master Plan was not officially approved by the BLNR, the Master Plan is the guiding document for the University of Hawaii at Hilo (UH Hilo), the proposing agency for the Project. Therefore, the 2000 Master Plan, which built on the 1983 Master Plan, is pertinent to the Project. In addition, the wealth of scientific information in the 2000 Master Plan remains valid and valuable. References to the 1983 Master Plan have been included in the Final EIS for the Project where applicable, including Chapter 2 and Section 3.10. Like the 2000 Master Plan, the 1983 Master Plan was never approved by the BLNR.

(NOTE: UH submitted a second plan also) is one that does not meet the requirements of HAR 13-5.
(note added, see Mauna Kea Anaina Hou *et al.*, Civil No. 4-1-397, 2006, p. 4-8)

21 The Astronomy Precinct, the Office of Mauna Kea Management and other UH functionalities are established in the MP2000, which has no force or effect of law. While the UH may make rules and plans governing themselves (for the observatories), they do not have the constitutional and statutory mandate to oversee the Conservation District land. The UH is only renting the land, and a renter does not direct the landlord. The State is the land lord and holds all these lands (as Ceded and Conservation lands) in trust for the people of Hawai`i (specifically Native Hawaiians and the general public). Furthermore, the UH's lease requires the UH to comply with *all* state law, including the constitution.

The TMT DEIS may not rely on documents to evaluate the environmental impacts that have no force or effect of law.

Cumulative Impact

The TMT DEIS fails to adequately analyze cumulative impact the environmental and cultural resource of Mauna Kea.

22 First, on page S-6 the TMT DEIS contends, "The Project would not significantly increase or reduce the existing level of cumulative impacts due to all past and present activities, which in some cases is significant." On page 3-193, however, the DEIS states the opposite, "...the impact of past, present and the Project together with other reasonable foreseeable future actions on cultural resources is substantial, adverse and significant." The above statements are contradictory.

23 Second, the Executive Summary should contain accurate information regarding the cumulative impact the Project will have on the cultural resources, especially since decision makers with time constraints may get through the

21
The TMT Project EIS does not direct DLNR in anyway. The Project EIS was prepared to comply with applicable State laws, specifically HRS Chapter 343.

22
The statement in the summary section of the Draft EIS is general and recognizes that there are existing cumulative impacts, some of which (including cultural) are significant.
The statement in Section 3.16 of the Draft EIS is more detailed and recognizes that the impact of past, present, and the Project together with other reasonable foreseeable future actions (the cumulative impact) on cultural resources is substantial, adverse, and significant.
The two statements are not contradictory as they both come to the same conclusion: the level of cumulative impact to cultural resources is significant.

23
The fact that the cumulative impact to cultural, archaeological, and historic resources is significant and the cumulative impact to other resources has been added to the summary in the Final EIS. The Executive Summary in the Final EIS includes the following:
"Cumulative Environmental Impacts
"From a cumulative perspective, the impact of past and present actions on cultural, archaeological, and historic resources is substantial, significant, and adverse; these impacts would continue to be substantial, significant, and adverse with the consideration of the Project and other reasonably foreseeable future actions.
"The cumulative impact of past and present actions to geologic resources in the astronomy precinct has been substantial, significant, and adverse, primarily due to the reshaping of the summit cinder cones. The cumulative impact to the alpine shrublands and grasslands and mamane subalpine woodlands has also been substantial, significant, and adverse, primarily due to grazing by hoofed animals and establishment of invasive plants. These impacts would continue to be substantial, significant, and adverse with the consideration of the Project and other reasonably foreseeable future actions.
"The magnitude or significance of cumulative impact to the alpine stone desert ecosystem from activities to date is not yet fully determined.
"The cumulative impact of past and present actions to other resources, such as water resources, the sonic environment, and traffic, has been less than significant.
"The cumulative socioeconomic impact has been substantial and beneficial; the substantial and beneficial impact would continue should the Project and other reasonably foreseeable future actions occur.
"In general, the Project will add a limited increment to the current level of cumulative impact. Therefore, those resources that have been substantially, significantly, and adversely impacted by past and present actions would continue to have a substantial, significant, and adverse impact with the addition of the Project. For those resources that have been impacted to a less than significant degree by past and present actions, the Project would not tip the balance from a less than significant level to a significant level and the less than significant level of cumulative impact would continue."

summary as opposed to the entire document. Decision maker cannot make informed decisions without all of the necessary information.

24 Third, while the document acknowledges the Project will have substantial, adverse and significant impacts, it does not adequately describe all the impacts outlined in our scoping comments and cultural impact statement comments. (see below for more details on cultural and environmental impacts not considered in this DEIS).

25 Lastly, the cumulative impact assessment is not correct. The U.S. District Court (Hawai`i) explains more on Cumulative Impact,

> "Cumulative impact" is defined as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from other individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. § 1508.7. NASA's cumulative impacts section, which takes up only three pages in the 125-page EA, does not include an appropriate analysis. First, although the EA recognizes that cumulative impacts "refer to the incremental environmental impact of the action when added to other 'past, present, and reasonably foreseeable future actions, regardless of what agency . . . or person undertakes such other actions,'" the cumulative impacts analysis section omits any mention or consideration of the effects of past actions. See EA at 123-25 (citing 40 C.F.R.§ 1508.7).
>
> (OHA v. NASA, Civil No. 02-00227 (SOM/BMK), 2003, p. 20-21)

And,

> NASA's own contentions regarding the EA's discussion of cumulative effects suggest that NASA misunderstands the nature of the "cumulative impact analysis" required under NEPA. For instance, NASA contends that "[t]he EA presents a clear snapshot of past, present, and future activities,"...The cumulative impact analysis, however, requires more than a "snapshot" or mere description of past activities or existing environmental conditions. Rather, the EA must should analyze the effects of those activities. No such analysis is to be found in the EA. The EA focuses instead on existing conditions only to address the incremental impact of the outrigger telescopes project. See NASA Opp. at 40 (stating that the EA "reviews existing traffic levels, power usage, socioeconomic conditions

24
Responses are provided to detailed comment below.

25
Cumulative impacts are discussed in detail in Section 3.16 of the Draft EIS. Although the Draft EIS is not a NEPA document it does present a cumulative impact analysis that is consistent with NEPA requirements.

and addresses impacts from the Outrigger Telescopes Project in conjunction with these current conditions" and that the EA "reviews the impact of the Outrigger Telescopes on existing viewscapes through comparison to the current landscape"). The EA, however, should take into account more than the incremental change "in comparison to" the current environment, regardless of whether past changes in the environment are attributable to the agency or not. *Id.*, p. 25-26

Impacts to Mauna Kea

26 Mauna Kea's cultural and religious significance is well documented in oral and written historical archives, as well as in legislative and court records. Stating and/or discussing its significance of Mauna Kea to the Hawaiian people, does not qualify as assessing negative impact, nor does it qualify as mitigation.

Mauna Kea is revered in the same way that other religions revere their churches, temples, synagogues, and mosques. The upper regions of Mauna Kea reside in Wao Akua, the realm of the Akua-Creator. It is considered the Temple of the Supreme Being, and also home of Na Akua (the Divine Deities), Na 'Aumakua (the Divine Ancestors), and the meeting place of Papa (Earth Mother) and Wakea (Sky Father) who are considered the progenitors of the Hawaiian People. Mauna Kea, it is said, is where the Sky and Earth separated to form the Great-Expanse-of-Space and the Heavenly Realms. Mauna Kea in every respect represents the zenith of the Native Hawaiian people's ancestral ties to Creation itself.

27 Mauna Kea, as a Wahi Kapu, is dedicated to life, peace, and Aloha. Anything that is contrary to these mandates impacts the temple and those who worship there. While the Hawaiian (and Polynesian) people's relationship with Mauna

28 Kea dates back many millennia, the Mauna is used by many people today for spiritual practices and recreational enjoyment. What happens to the land and life forms of Mauna Kea impacts us all.

26

Section 3.2.1 of the Draft EIS documents Maunakea's cultural and religious significance. Section 3.2.3 of the Draft EIS discloses potential Project impacts to cultural resources. The Draft EIS does not claim that documenting Hawaiian traditions or beliefs in the EIS are mitigation measures.

27

Section 3.2.3 of the Draft EIS evaluates potential Project impacts to cultural resources, including potential impacts to cultural practices, page 3-20 and 3-21.

28

Potential Project impacts to spiritual practicies (cultural practices) are discussed in Section 3.2.3, pages 3-20 and 3-21, of the Draft EIS. Potential Project impacts to recreational enjoyment are discussed in Section 3.10.3, pages 3-120 and 3-121, of the Draft EIS. Potential Project impacts to land forms (geology) is discussed in Section 3.6.3 of the Draft EIS; and potential Project impacts to life forms (biological resources) is discussed in Section 3.4.3 of the Draft EIS.

29 The Mauna Kea protects all life big and small. When a species becomes extinct, it sets the process of creation unraveling. This impacts our relationship to all living things and our relationships with Akua, Na Akua and Na `Aumakua.

Cultural Impacts not evaluated

The historic properties that are of importance to Native Hawaiians and possess traditional cultural significance derived from associated cultural practices and beliefs (i.e. Traditional and Cultural Properties) of Mauna Kea include but are not limited to the following:

1. The summit region from approximately 6,000 feet elevation to the Kukahau`ula (summit), including burial and burial complexes.

30 The TMT DEIS inaccurately evaluated impacts on the ritual landscape and burial complexes of Mauna Kea.

> The cluster of pu`u (cinder cones) forming the Summit of Mauna Kea have been identified by the State Historic Preservation Division ("SHPD") of the Department of Land and Natural Resources ("DLNR") as a **Historic Property and the summit region of including most of the Mauna Kea Science Reserve has been identified by SHPD as a Historic District.** Both Historic Properties are eligible for listing on the National Historic Register.
>
> Generally a historic district is defined as a historic property that '...possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. The Mauna Kea Summit as a "cultural landscape" has been determined eligible for the National and State Register of Historic Places under multiple criteria including cultural significance to the native Hawaiian People (cf. letter of D. Hibbard to R. Evans, September 12, 1991). As a result, archaeologists with DLNR-SHPD have referred the summit region of Mauna Kea as a "ritual landscape," with all of the individual parts contributing to the integrity of the whole summit region. (pers. comm. P. McCoy and H. McEldowney; Group 70 meetings of September 10, 1998). *Id* Citing McCoy and McEldowney).

29

Section 3.4 of the Draft EIS discusses biological resources in the Project area and potential Project impacts to those resources. The Project would not result in the extinction of any species.

30

Section 3.3 of the Draft EIS discusses burials and possible burials. As discussed in Section 3.3.1, 26 burials or possible burials have been identified in the 11,288-acre Mauna Kea Science Reserve (MKSR). The Draft EIS, page 3-28, states "None of the sites identified as known or possible burials are within Area E, along the proposed Access Way, or in the Batch Plant Staging Area." Therefore, the Project would not impact any known or suspected burials in the MKSR. Since the completion of the Draft EIS, additional studies have been completed. The Final EIS has been updated to indicate 29 burials or possible burials have been identified in the MKSR; however, it is remains true that none of the site are within Area E, along the Access Way, or in the Batch Plant Staging Area.
Section 3.2.3, pages 3-21 to 3-23, of the Draft EIS disclose the Project's potential impact to the "spiritual and sacred quality of Maunakea." In response to a comment from the State Historic Preservation Division (SHPD), Section 3.3.3 of the Final EIS has been updated to include a discussion of the Project's potential impacts to Kukahauula, a Historic Property, and the Mauna Kea Summit Region State Historic District. The following are some of the additions made:
"Project Effects on Kukahau'ula
"As discussed in Section 3.2.3 and summarized in Table 3-1, the Access Way will disturb approximately 0.6 acre, except Access Way Option 3B which will disturbe approximately 0.4 acres, on the westernmost portion of the roughly 480-acre Kukahau'ula cinder cone complex. Roughly 0.4 acre of this area has been previously disturbed by roads, including a SMA road, the old blocked 4-wheel drive road, and the Mauna Kea Access Road Loop. The Access Way effect will primarily be associated with a 0.2-acre area of new disturbance. In addition, Options 2A and 3B require the construction of a retaining wall and installation of slope facing, respectively, which will affect Kukahau'ula. A roughly 600 foot-long section of the Access Way within Kukahau'ula would also be paved and a guard rail installed on the down slope side of the road.
"The area comprising Kukahau'ula has been significantly modified by previous development activities including eight optical/infrared observatories, a portion of the SMA observatory, and roads. Yet, it is still recognized as a culturally important landscape. Despite the historic physical changes associated with development within the Astronomy Precinct, the area has retained its integrity for some, but not all, native Hawaiians. The Project will alter a minimal portion of 480-acre Kukahau'ula along the Access Way (less than one-tenth of one percent of the area), but it will not substantially affect the overall integrity of the cinder cones. Consequently, the potential physical impacts to the Kukahau'ula from the proposed Project components are anticipated to be less then significant."
"Summary of Effect in Maunakea Summit Region
"The Project will not result in the loss or complete destruction of any historic properties within the Maunakea summit region. The physical impacts on the only historic property physically effected, Kukahau'ula, will be minimal and will not be significant.
"Impacts to the Historic District and its contributing properties will be confined to the impacts on Kukahau'ula and the introduction of the Project components into the Historic District. Although the TMT will be a new structure in the Historic District, it will be isolated in the Northern Plateau and will not be visible from most areas with the district. The district is currently recognized as a significant cultural landscape based on the multitude of historic properties in the area and despite the existence of the modern structures and numerous find spots in the area that may detract from its overall character.
"Because the Project will (a) have certain facilities within a Historic District, (b) affect a Historic Property within the district, and (c) provide treatments/mitigations to address those effects, it has been determined that the Project will result in an 'effect with treatment/mitigation commitments.'
"Because the Project will not result in the loss or complete destruction of any archaeologic/historic resource within the Maunakea summit region, this impact is considered to be less than significant."

The historic district of Mauna Kea incorporates virtually the entire Science Reserve area, and the Natural Area Reserve. The largest of the three traditional and cultural properties, 'Kukahau`ula refers to the cluster of three pu`u that merge and collectively make up the summit of Mauna Kea...The second property, 'Waiau' refers to the small lake and adjacent pu`u situated southwest of the summit and within the Natural Area Reserve. The third property, 'Lilinoe' refers to a pu`u situated southeast of the summit and within the Science Reserve.

2. Many of the Pu`u [cinder cones], associated burials and kinolau;

31 The TMT DEIS fails to address the cumulative impacts to the kinolau (bodily forms of the deities) such those impact to the image of Poliahu seen from the east side of the island.

3. View plane (including mauka-makai and makai-mauka view planes)

32 The TMT DEIS fails to address the cumulative impacts of the practitioners view planes at the summit looking outward (makai-mauka).

The view plans (view scapes) cannot only be evaluated from sea level looking up. The impacts include the practitioners view planes which are view from t Mauna Kea to the sea, to the other islands and to the night sky.

4. Mountain landscape in navigational traditions;

33 The TMT DEIS, fails to evaluate the cumulative impacts on the ritual landscape including impact son solstice, equinox ceremonies and other ceremonies relating to navigation.

34 We wish also to state our objections to the TMT DEIS hearing presentations. The TMT hired people to give a presentation suggesting that modern astronomy is nothing more than and extension of what our ancestors accomplished. This is an unreasonable assertion. The two disciplines may not be reasonable compared; it is like comparing apples and oranges. Our ancestors may not have done what Plato did, but what they did accomplish was amazing. It is righteous to give credit where it is due.

The presentation is based on a book written about our past King, whom supported the construction of a small telescope in Honolulu. Unfortunately the book also claims, the King supported it because it would help prove to the Hawaiian people the earth was round. The

31
Section 3.16 of the Draft EIS discusses cumulative impacts. The Draft EIS does discuss how past actions have resulted in cumulative impacts to the "spiritual and sacred quality of Maunakea" on pages 3-165 and 3-166, and includes a quote from one of the comment authors which discusses how past actions have altered the images of deities because the puu were leveled and telescopes built on top of them. Based on this impact, among others, the Draft EIS states, on page 3-166, that "The existing level of cumulative impact on cultural, archaeological, and historic resources is substantial and adverse."

32
Potential visual impacts are discussed in Section 3.5.3, pages 3-59 through 3-74, of the Draft EIS. The visual analysis in this section indicates, and Figure 3-7 on page 3-61 in particular illustrates that the TMT Observatory would not be visible from the summit of Maunakea (Viewpoint 16; the summit of Kukahauula/Puu Wekiu). The Draft EIS includes a number of photo simulations from populated areas around the island from which the TMT Observatory would be visible.
In response to comments on the Draft EIS, an additional photo simulation of the TMT Observatory has been included in the Final EIS. The new simulation illustrates the view of a person standing near the Keck Observatory and looking toward the TMT Observatory 13N site. In addition to the simulation, the following information has been included in Section 3.5.3 of the Final EIS, "...the TMT Observatory will add a substantial new visual element in the landscape that will be visible from viewpoints along the northern ridge of Kukahauula and by people as they travel within the northern portion of the summit region."

33
Cumulative impacts are discussed in Section 3.16 of the Draft EIS. This section includes, on page 3-165, a discussion of past actions' impacts on cultural practices. The Draft EIS states, "the existing observatories have disrupted the ambiance necessary for Native Hawaiian religious observances." Due to this impact and others, the Draft EIS states, on page 3-166, that, "The existing level of cumulative impact on cultural, archaeological, and historic resources is substantial and adverse."

34
The commentor's views about presentations at the Draft EIS meetings are acknowledged, but do not address the Project's potential impacts on the environment evaluated in the Draft EIS.
For many, including presenters at the public meeting, modern astronomy is an extension of Hawaiian astronomy. By including information related to Hawaiian astronomy in presentations, the Project felt it was giving credit where it was due.

Hawaiian people certainly understood the earth was round- traditional knowledge dating back to before the time of Christ. They understood this because they could not have navigated and peopled 10 million square miles of the oceans and tiny islands without having known this.

The Kupuna (ancestors) understood this because they had identified a celestial equator, using knowledge kept in the traditions (and family mo`oleo) of Mauna Kea, which made the TMT presentations even more egregious. What our Kupuna (ancestors) accomplished was important to Polynesia but is also to the world, contributing to the global knowledge base. The Kupuna should be properly credited for this. Mauna Kea is the land of our history and knowledge—and it requires maximum protection.

5. Lake Waiau and adjacent cinder cone;

35 The TMT DEIS did not adequately address hydrology, hazardous materials and sewage treatment and their impacts to the lake, and the collection of water, ice and snow collected form Mauna Kea for healing, ritual and other ceremonies.

36 TMT must consider and evaluate the impacts from the use, storage and handling of hazardous materials, and sewage upon the Mauna Kea aquifer system (water shed lands of Mauna Kea). Mauna Kea is the principle aquifer and water shed for Hawai`i Island.

37 The waters, ice and snow collected from Mauna Kea are used for Native Hawaiian healing and other ritual and ceremony.There is serious concern also for the protection of the waters of Lake Waiau, and the other Pu`u (cinder cones) that also pool water. The Lake is a Traditional Cultural Property, and is home to deities. Waters are harvested from Lake Waiau, and other pooling waters.

38 During the NASA EIS process, copies of the over 10,000 Material Safety Data Sheets (MSDS) we received by subpoena in the State CCH. The TMT must consider the impacts of these hazardous materials on the TCP and associated Native Hawaiian practices (i.e. collection of snow, ice and snow) and should also consider the watershed conditions after thirty years of sewage and hazardous material release into the ground of Mauna Kea.

According to the Material Safety Data Sheets ("MSDS") received, the following Observatory/Telescope Facilities were found to use "elemental" mercury. The University Of Hawai`i 88 inch or 2.2 meter Observatory ("UH88") (Exhibit F-64), The Canada-France-Hawaii

35
Hydrology and sewage handling is discussed in Section 3.7 of the Draft EIS. Hazardous materials are discussed in Section 3.8 of the Draft EIS. As stated on page 3-84 of the Draft EIS, "Lake Waiau lies roughly 1.5 miles south of the TMT Observatory site, which would be on the opposite flank of Maunakea from the lake. The Project's Batch Plant Staging Area, roughtly 3,000 feet upslope of Lake Waiau, would not be located within the Lake Waiau watershed. As stated on page 3-89 of the Draft EIS, the Project will "install a zero-discharge waste system at the Observatory. Therefore, there would be no discharge of any wastewater, including domestic wastewater and mirror washing wastewater, at the summit. All wastewater would be collected and transported off the mountain for treatment and disposal." Therefore, the Project will not impact water, ice and snow within the watershed of Lake Waiau.
Furthermore, in Section 3.2.3, page 3-18, of the Draft EIS it is indicates the Project will comply with applicable rules, regulations, and requirements - including the CMP - concerning cultural resources and practices. The CMP states, on page 7-7, that "Native Hawaiian traditional and customary practicies shall not be restricted, except where safety, resource managment, cultural appropriateness, and legal compliance considerations may require reasonable restrictions." Therefore, the Project would not restrict the collection of water, ice, and snow from Maunakea for healing, ritual, and other ceremonies. The following discussion has been added to Section 3.2.3 of the Final EIS:
"Collection of Water from Lake Waiau
"Water from Lake Waiau is collected by some cultural practitioners for use in healing and ritual practices. The Project would not affect that practice, nor would it affect the quality of the water in Lake Waiau (see Section 3.7.3 for further discussion of water impacts). There will be no adverse effect associated with the Project on this cultural practice.
"Piko Deposition
"Historically, piko deposition on Maunakea has been associated primarily with the Lake Waiau area of the summit region. The Project would not affect cultural practices at or near Lake Waiau. Some ethnographic studies also indicate that piko deposition may be occurring in other areas of the summit region. The area occupied by the observatory would not be available for future deposition of piko. In addition, individuals may be unwilling to deposit piko in the immediate vicinity of the TMT Observatory due to the new elements introduced in the area as a result of the Project. This would not result in a substantial impact on the cultural practices of the community or State. The vast majority of the MKSR as well as the Mauna Kea Ice Age NAR, including Lake Waiau, would remain unaffected by the Project. Substantial undisturbed areas are present within the summit region that could continue be used for piko deposition."

36
Hazardous materials are discussed in Section 3.8 of the Draft EIS and water resources and wastewater are discussed in Section 3.7. As discussed in response to the previous comment, the Project will install a zero-discharge waste system at the TMT Observatory. The Project would also comply with regulations regarding the management and disposal of hazardous materials. Therefore, no waste, hazardous material, wastewater, or general debris, will be discharged that could impact groundwater.

37
The lack of potential Project impacts to Lake Waiau is discussed in response to previous comments.

38
The lack of potential Project impacts to water, snow, and ice are discussed in responses to comment above. Cumulative impacts including those related to hazardous materials, are discussed in Section 3.16 of the Draft EIS. In Section 3.16.2, page 3-171, it is stated that "It has been shown that the past disposal practices of mirror washing wastewater have not had a significant impact on water quality. On page 3-182, it is stated that "A small number of mercury spills have occurred since observatory operation began; the best available information regarding such occurrences suggests that none of the spills reached the outside environment."

Telescope ("CFHT") (Exhibit F-62), The William M. Keck Observatory I and II ("WMKO") (Exhibit F-61), The NASA Infrared Telescope Facility ("IRTF") (Exhibit F-60), and The United Kingdom Infrared Telescope ("UKIRT").

There have been 3 Mercury spills reported at the William M Keck Telescope. August 10, 1995, September 15, 1995, and November 6, 1995. There have been 7 recorded spills from other facilities over the years.

The Hazardous materials listed below were found to be stored and used at the Observatories/Telescope Facilities they include but are not limited to, the following:
Hydrochloric-Acid (Note: not listed in JCMT Exhibit F-66)
Potassium Hydroxide
Hydraulic, Motor, and Lubricating Oils
Pesticides
Insecticides
Calcium Carbonate
Sulfuric Acid
Diesel, Jet Fuel, and Unleaded Gasoline
Ethylene Glycol
Kerosene
Methyl Ethel Keytone
Toluene
Paints, Thinners and Solvents
Rust Treatments and Inhibitors
Carbon Disulfide
Elemental Mercury (Note: used or stored in amounts beyond that contained in a household thermometer.

Carbon disulfide is currently listed in WMKO MSDS.

Five Telescopes indicated that they stored and used elemental mercury in the amount beyond that stored in a thermometer.

6. Numerous Trail systems.

39 The TME DEIS did not adequately address the cumulative impact on the trail systems of the Mauna Kea, still used today.

7. Snow, ice and water as kinolau – bodily forms of the deities

40 The TMT DEIS did not adequately address the cumulative impacts on the bodily forms of deities (water, ice, snow etc.) with sewage, and or toxic spills.

39

Trails are discussed in Section 3.2.1, page 3-15 and 3-16, of the Draft EIS. A discussion to cumulative impacts to the trail system have been added to Section 3.16.2 in the Final EIS as follows:
"As discussed in Section 3.2.1, traditional accounts suggest that some ancient trails were present in the summit region. In some instances in other areas of Hawai'i island, Hawaiian trails have been preserved and are archaeological features. It is unknown if the current trails in the summit region follow the same route as the ancient trails. In general, over the years the trails have been improved to accommodate visitors to the region, including realignment of certain trails (Table 3-20). In some cases, roads have also been built that intersect or replace short sections of trails. These activities may have impacted the ancient trails; alternatively the ancient trails followed different routes and have been impacted by natural erosive processes. In either case, there is no remaining physical evidence of ancient Hawaiian trails in the region."

40

Cumulative impacts are discussed in Section 3.16 of the Draft EIS. Impacts to the environment related to sewage are discussed in Section 3.16.2 on page 3-171 and in Section 3.16.4 on page 3-184.
Toxic spills are discussed in Section 3.16.2 on pages 3-171 and 3-172 and in Section 3.16.4 on pages 3-184 and 3-185.
Through compliance with applicable rules and regulations, water, ice, and snow will not be impacted by sewage or toxic spills.

8. Wekiu Bug and other rare, threatened and endangered species

41 The TMT did not adequately address the cumulative Impacts on the rare, threatened and endangered species of Mauna Kea. As stated previously Mauna Kea represents life, peace and Aloha. The life forms of Mauna Kea are to be protected. The Wekiu bug mitigation measures offered in the TMT DEIS (i.e. destroying habitat, and creating artificial habitat, hoping the bugs will survive) is untested and not based in science. It is equivalent to the Center for Disease Control providing untested vaccines, so that if the vaccine does not work and people die, they will know it does not work.

9. Cultural and Socio-economic impacts

The TMT DEIS does not adequately evaluate the social impacts that disproportionately impact Native Hawaiian health, safety and welfare.

42 There are over 93 Astronomical Observatories and Observatory complexes around the world in which to do world class astronomy. Mauna Kea is already considered a world premier site for astronomy work, and houses the largest and most advanced observatories in the world. However, **TMT must consider that Mauna Kea represents the only place on earth where the special and unique Native Hawaiian ritual and ceremonies are conducted.** TMT must consider the impacts to the Native Hawaiian Communities cultural and religious practices.

43 The TMT must also consider the socio-economic impacts this project will have on the Hawaiian Community. Health reports establish that there are approximately 6000 pure blooded Hawaiian people left in the world today, and their projected survival is only to 2044. Health statistic also indicate approximately 54% of native Hawaiian people (those with 50% or more blood), make less than $9000 dollars per year.

Mitigating Impacts to the Environment—not a ballot question

44 We wish the recorded to reflect, that giving scholarships (or establishing a pipeline program) do not mitigate the impacts on the landscape, environmental and cultural resources of Mauna Kea. NEPA is about protecting the environment. Giving to underprivileged communities is a good thing, but the gifts should not have strings attached. We were shocked to see young adults and children at the EIS hearings (in the news paper) wearing buttons, tee-shirts and holding signs that read, "YES TO THE EIS". The environmental review process is for establishing impact to the environment; collecting and recording comments--**it is not a ballot question.** You should support the children, not use to further your own political agenda—this is not pono.

41
Cumulative impacts to biologic resources, including the Wekiu bug and other species, is discussed in Section 3.16 of the Draft EIS.
Section 3.4.3 of the Draft EIS discussed potential impacts to biological resources. On page 3-41 it is stated that "Although the [Access Way] Option 2 or 3 impact is evaluated to be less than significant, to comply with the CMP (Management Action FLU-6), the Project would prepare and implement a Habitat Restoration Plan to compensate for the loss of Type 3 Wekiu bug habitat...". CMP Management Action FLU-6 states "Incorporate habitat mitigation plans into project planning process."
Based on comments received during the Draft EIS public review period and the issues associated with the feasibility and effectiveness of any habitat restoration approach, the planned mitigation measure for the loss of sensitive habitat has been modified. The Project will no longer prepare or implement a Habitat Restoration Plan as outlined in the Draft EIS. As detailed in Section 3.4.3 of the Final EIS, the Project is in comliance with Management Action FLU-6 through (a) Project planning to avoid impacts, (b) monitoring of arthropod activity in the region of the Access Way's disturbance of cinder cone habitat prior to, during, and for two years following the construction of that portion of the Access Way, and (c) working with OMKM on the development and implementation of a habitat restoration study.

42
Section 3.2.3 of the Draft EIS discusses potential Project impacts to cultural resources, including cultural practices. This has been discussed in detail in response to previous comments. Additional discussion has been added to Section 3.2.3 of the Final EIS, as discussed above, including the following:
"Pilgrimage, Prayer, Shrine Construction and Offerings
"The summit region, which includes the Mauna Kea Summit Region Historic District and Kukahau`ula, is a sacred area in Hawaiian culture and serves as a site for individual and group ceremonial and spiritual practices. These practices include prayer, shrine erection and the placement of offerings. The area to be occupied by the TMT Observatory structure would not be available for future cultural practices of this nature. In addition, for some individuals, the introduction of new elements associated with the Project in the area of the northern plateau would adversely affect the setting in which such practices could take place.
"Data collected during a series of archaeological surveys indicate that modern shrine construction occurs primarily in areas outside of the Astronomy Precinct. Approximately 90 percent of the over 300 find spots that have been interpreted to be modern shrines occur in areas away from the vicinity of the Astronomy Precinct. A modern shrine is present near the end of the 4-wheel drive road in Area E and this shrine would be displaced by the TMT Observatory. Repeated archaeological inventory surveys in the area indicate that the shrine was erected in the early 2000s (Section 3.3.1); interviews and research conducted has not revealed who constructed this modern shrine. The CRMP states that Kahu Ku Mauna, in consultation with other Native Hawaiian organizations, will develop protocols that will consider which kinds of features and locations are appropriate, and address the issue of whether a review process should be instituted, consistent with CMP Management Action CR-7. Based on the research conducted to date, the shrine is not eligible for consideration as a historic property because it is less than 50 years old. Dismantling Relocating the one new shrine is considered an adverse but limited impact.
"Although the Project may decrease the desirability of the northern plateau area for shrine construction, this is not anticipated to result in a substantial effect on shrine construction within the MKSR. The majority of the areas within the MKSR currently used for shrine construction would not be affected by the Project. To some individuals, the Project could represent a decrease in the suitability of the northern plateau area for spiritual observances and offerings. However, this would not result in a substantial adverse impact on the cultural practices of the community or State. The majority of the areas with the MKSR where observances and rituals are believed to occur would not be affected by the Project. Further, while the introduced elements associated with existing observatories may have had an effect on the perceived quality of the observances conducted, or may have caused some practitioners to conduct their observances further away from the vicinity of the observatories, there is no evidence suggesting that the presence of the existing observatories has prevented or substantially impacted those practices. Similarly, the Project is not anticipated to result in substantial additional adverse effects on those practices."

In Aloha we remain,

DATED: July 7, 2009

TMT Draft EIS Comments,
Submitted via electronic mail and U.S. Postal Service Certified–Return Receipt,
Post marked July 7, 2009

Kealoha Pisciotta, President
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43
Potential socioeconomic impacts of the Project are discussed in Section 3.9 of the Draft EIS. Job opportunities will be available for the local Hawaiian community and a Workforce Pipeline Program will be implemented to ensure that today's keiki have the education and training to fill these job opportunities. These jobs will have annual salaries well in excess of $9,000 a year.

44
The EIS does not indicate that the Workforce Pipeline Program is a direct mitigation measure for potential Project impacts on natural or cultural resources. Rather, the Project will develop the program because it will help prepare local students for job opportunities generated by the Project and other high technology opportunities, and increase the Project's benefit to the island community.

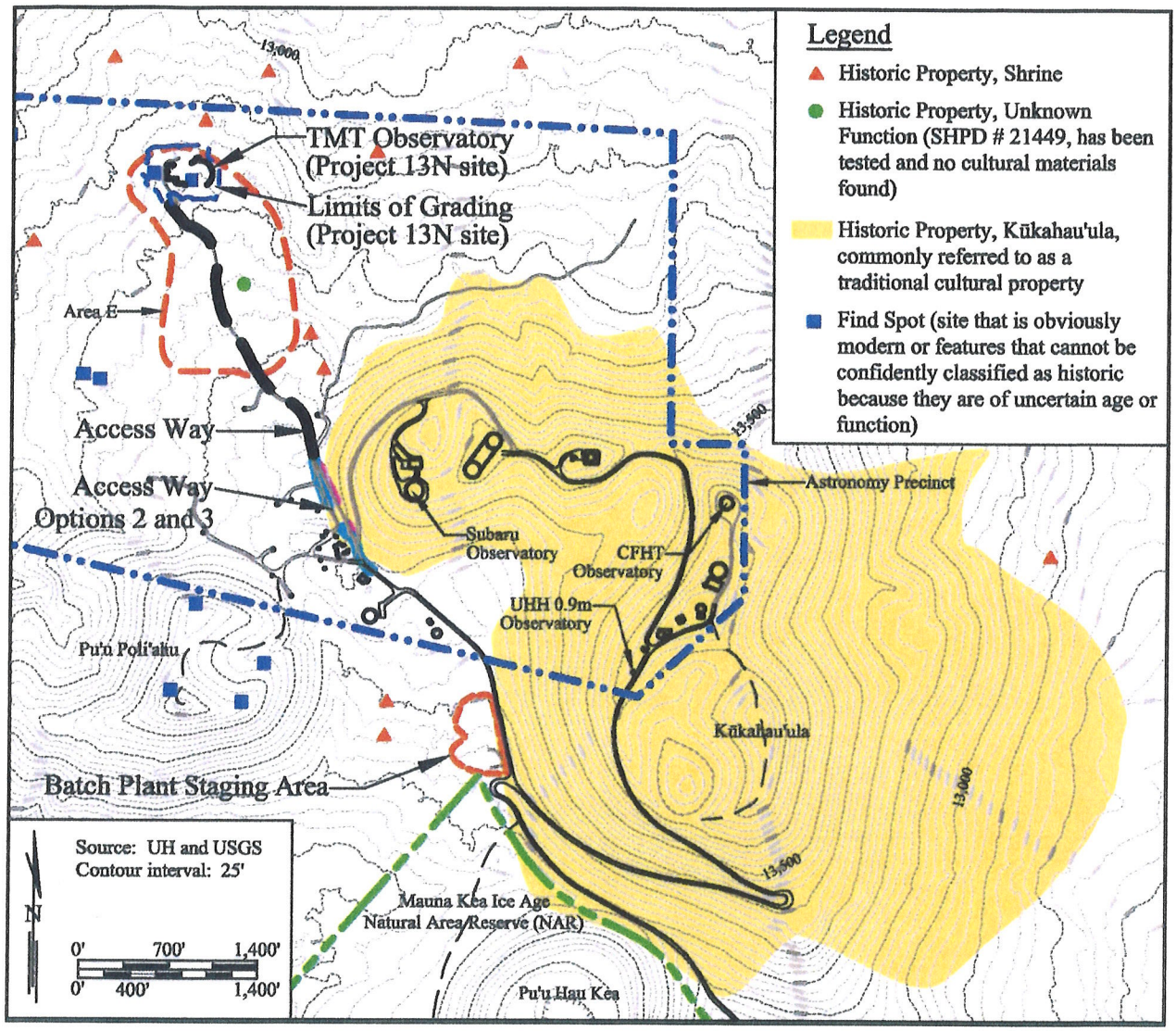


Figure 3-3: Historic Sites near Area E, the Access Way, and Batch Plant Staging Area

Details regarding these three shrines are as follows:

- SIHP # 16172, originally identified in 1982 is located roughly 225 feet to the north of the Project 13N site and consists of a single upright with several support stones. Later in 1982, Dr. Frank Howarth, Bishop Museum entomologist, reported seeing a crude C-shaped structure and other walls in this general area. None of these walls were observed during the 1995 or 2005 re-examination of the site.
- SIHP # 16167 is located approximately 500 feet east of the Access Road and 1,300 feet southeast of the Project 13N site and consists of one, possibly two, uprights placed in a bedrock crack. In 1995, the site was revisited and both stones were found in a vertical position, thus indicating that someone had erected the probable second upright.
- SIHP # 16166 is approximately 350 feet east of the Access Road and 1,600 feet southeast of the Project 13N site and is a multi-feature shrine with a total of 8, possibly 9 uprights

EXHIBIT C-44

Pua Case
November 9 at 8:44am

THE WATER FROM SACRED STONE AND MT SHASTA HAVE BEEN POURED INTO THE WATER OF WAIAU TODAY ON MAUNA KEA AND OUR ALLIANCES ARE SECURE AND STRONG THEN EVER, UNBREAKABLE..THE WATERS HAVE JOINED US TOGETHER...EO!

Like Share

D-hoku Tolentino, Shelley Muneoka and 480 others

58 shares

Anne Strawbridge Gratitude for the Medicine ❤
Like · 2 · November 9 at 8:49am

Ana Gak Unbreakable. Stand strong as a mountain. EO 👸🏽
Like · 2 · November 9 at 8:50am

Mehana Kihoi Eō!!!!! Living in this moment!
Like · 2 · November 9 at 8:58am

Desiree Session EO!! 💧✊
Like · November 9 at 8:59am

T Lilly LittleWater Beautiful.
Like · 1 · November 9 at 9:09am

WanbliWin D. Red Cloud lililili!! Mni Wiconi ❤
Like · 1 · November 9 at 9:11am

Lorilani Keohokalole-Torio Eō!!!!
Like · 1 · November 9 at 9:43am

Harry Betancourt Eō
Like · 1 · November 9 at 9:48am

Like 1 November 9 at 10:43am


Kanani Suzuki Eo!!
Like 1 November 9 at 10:45am


Claud Sutcliffe Eo!
Like 1 November 9 at 10:54am


Willow Briana D'Augelli Mahalo Nui Aunty for blessing my home state🎧❤
Like 2 November 9 at 11:03am


Judit Papp 🙏🙏🙏🙏🙏🙏🙏🖤🖤🖤
Like 1 November 9 at 11:22am

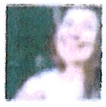

Dea Rackley Eo!
Like 1 November 9 at 1:39pm


Isabel Anna-Maria Marquez ❤ EO! ❤ ❤
Like 1 November 9 at 3:49pm


Dee Spann Yes!
Like 1 November 9 at 3:51pm


Millicent Cummings ❤
Like 1 November 9 at 3:54pm


Millicent Cummings Eo
Like 1 November 9 at 3:54pm


Kathryn Robinson EO' ❤
Like November 9 at 4:40pm


Kathy Morsea Your words give me hope!
Like November 9 at 5:07pm


Nalani Kahooilihala Aloha Always .. 🖤🖤🖤
Like November 9 at 5:09pm


Waipu'ilani Flores Chicken skin after I read this aunty! This is awesome!
Like November 9 at 5:23pm


Willow Roots Mahalo for taking care of the waters!!!
Like November 9 at 5:38pm

Like November 9 at 8:30pm

Kama Ki Eo!
Like November 9 at 8:29pm

Aloha Dela Rosa BEAUTIFUL MAHALO....❤️
Like November 9 at 8:40pm

Tbone Djibouti Also Ahagaskiaywa and the source of the Ganga river in Himalayas 🙏😍
Like November 9 at 9:51pm

Dallas Goldtooth Yasss
Like Yesterday at 2:56am

Lisa MsFinancialista Tam-HoyRobbins Eo! ❤️
Like Yesterday at 3:38am

Charlie Thayer I still have the water here from our prayers in Shasta
Like 23 hrs

Sandra L. O'Brien Much love and heartfelt gratitude!
Like 22 hrs

Jessie A. Sisk Forever!! and longer...
Like 14 hrs

Sarah Kihoi Awwww love you Pua ❤️❤️❤️
Like 13 hrs

Pua Case **Follow**

November 9, 2016 ·

THE WATER FROM SACRED STONE AND MT SHASTA HAVE BEEN POURED INTO THE WATER OF WAIAU TODAY ON MAUNA KEA AND OUR ALLIANCES ARE SECURE AND STRONG THEN EVER, UNBREAKABLE..THE WATERS HAVE JOINED US TOGETHER...EO!

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Anne Strawbridge Gratitude for the Medicine ❤️

Like · 2 · November 9, 2016 at 8:49am

Ana Gak Unbreakable. Stand strong as a mountain. EO 🙌

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Mehana Kihoi Eō!!!!! Living in this moment!

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Desiree Session EO!! 💧✊

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T Lilly LittleWater Beautiful.

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WanbliWin D. Red Cloud lililiili! Mni Wiconi ❤️

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Lorilani Keohokalole-Torio Eō!!!!

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Harry Betancourt Eō

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Matthias Scheffler Eō

Like · 1 · November 9, 2016 at 10:43am

Kanani Suzuki Eo!!

Like · 1 · November 9, 2016 at 10:45am

Claud Sutcliffe Eo!

Like · 1 · November 9, 2016 at 10:54am

Willow Briana D'Augelli Mahalo Nui Aunty for blessing my home state 🙏❤️

Like · 2 · November 9, 2016 at 11:03am

Judit Papp 🙏🙏🙏🙏🙏🙏💕💕💕

Like · 1 · November 9, 2016 at 11:22am

Dea Rackley Eo!

Like · 1 · November 9, 2016 at 1:39pm

Dee Spann Yes!
November 9, 2016 at 3:51pm

ımmings ❤️
November 9, 2016 at 3:54pm

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Charlie Thayer I still have the water here from our prayers in Shasta
Like · November 10, 2016 at 11:50am


Sandra L. O'Brien Much love and heartfelt gratitude!
Like · November 10, 2016 at 1:13pm


Jessie A. Sisk Forever!! and longer...
Like · November 10, 2016 at 8:57pm


Sarah Kihoi Awwww love you Pua❤️❤️❤️
Like · November 10, 2016 at 9:27pm

BRILL *Method and Theory in the Study of Religion 20 (2008) 243-258* www.brill.nl/mtsr

METHOD & THEORY in the STUDY OF RELIGION

Authenticity, Invention, Articulation: Theorizing Contemporary Hawaiian Traditions from the Outside

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Abstract
This article theorizes potential contributions of outsider analysis to the study of contemporary indigenous traditions, taking Native Hawaiian canoe voyaging and repatriation disputes as its primary examples. The argument proceeds by specifying analytical contributions of articulation theory in contrast to limitations of invention and authenticity discourses. A shared liability of the latter discourses is identified in their tendency to reify identity in ways that preclude engagement with the full range of cultural articulations constitutive of living tradition. Cultural struggle, in particular, is theorized as the aspect of identity articulation that is most explanatory of the character of tradition and least addressed by theories of invention and authenticity.

Keywords
Tradition, Articulation, Authenticity, Invention, Hawai'i, Repatriation, Hōkūle'a

> "More happens under the sign of the indigenous than being born, or belonging, in a bounded land or nation." James Clifford (2007, 199).

Islands of Theory

At least since the time of Captain Cook, outsiders have related in a variety of interesting ways to Hawaiian tradition. Some, like Cook, have given more of themselves than others to the cause (Sahlins 1981). If Cook was disfigured at this intersection, so too have Hawaiian traditions sometimes been misconstrued in non-Hawaiian hands, whether through exaggeration, truncation or

[1] I would like to thank Laurie Maffly-Kipp for her generous and thoughtful response to a version of this paper presented at the 2007 annual meeting of the American Academy of Religion for a session entitled "Visions of Paradise Dancing in Our Heads: Religious Tradition and the Outsider in Hawai'i."

 DOI: 10.1163/157006808X317464

neglect. And yet there have been important moments of productive if uneven collaboration between Hawaiian and non-Hawaiian scholars.[2] Historically one thinks of Malo and Emerson (1951), more recently of Pukui and Elbert (1986). Still today Hawaiian and non-Hawaiian scholars engage one another with great regularity. Non-native scholars, for example, still routinely turn to Kamakau (1964) and 'I'i (1959), while some Hawaiian scholars have long held Beckwith (1970), Kelly (1983), Charlot (1985) and others in high esteem.

Despite this history of sometimes productive collaborations between Hawaiian and non-Hawaiian scholars, all is not well in Paradise. Just ask Jocelyn Linnekin, who left the Department of Anthropology at the University of Hawai'i in the wake of the "invention of tradition" disputes that erupted there. She was accused by some native scholars of suggesting that many cherished Hawaiian concepts and practices, particularly those regarding land stewardship, are a function of the political present and are thereby "inauthentic" (Trask 1991). While Linnekin no doubt pointed to the constructed nature of "tradition," I do not read her as emphasizing inauthenticity as a consequence of this (e.g., Linnekin 1983; 1991; 1992). Roger Keesing (1989) has come much closer to the latter position, but somehow his views—whether through contagion or conflation—have been elided with Linnekin's.[3] In any event, Linnekin became in some Hawaiian studies circles a *persona non grata* and her fate speaks metonymically to the declining fortunes of non-Hawaiian scholarship on Hawaiian traditions.[4] Indeed, disputes surrounding her work were but

---

[2] In this article I do not address issues of defining or labeling Hawaiian identity, which are manifold. For example, the category "Hawaiian" is framed in at least five ways in contemporary academic and political discourses. Hawaiian, as I use it here, is the most general label and is intended to signal a cultural identity, not merely a geographical one. More specific and nuanced designations include Native Hawaiian (often used in federal legal contexts), native Hawaiian (often indicates a narrower, blood quantum-based definition), Kanaka Maoli ("real people," a designation favored by some sovereignty-focused groups) and Kanaka 'Ōiwi ("people of the bone," often used in native academic and religious contexts).

[3] Linnekin's views have also suffered from perceived affinities with the arguments of Hobsbawm and Ranger (1983), even while the spirit of her argument is in some ways closer to Wagner (1981).

[4] A less dramatic but nonetheless poignant instance of this phenomenon is seen in the changing reception of Marshall Sahlins' work (e.g., 1985; 1995). While still highly regarded by many scholars, native and otherwise, some feel that he took one step over the line in purporting to know "how natives think," a position vociferously attacked by Gannanath Obeyesekere (1992) and since enjoined many others. The reaction to Sahlins' work on Captain Cook's fate is somewhat unfortunate insofar as critics have often overlooked his contemporaneous work on indigenism (e.g., 1992). Sahlins' former colleague, Valerio Valeri, has received a similar treatment, if less publicly so, with his magnum opus (1985) receiving little positive attention in Hawaiian scholarship. Lilikalā Kame'eleihiwa, for example, does not cite Valeri in her already classic study,

one manifestation of larger unrest in the study of contemporary indigeneities in Hawai'i and Oceania.[5] At the same time, a considerably positive reshaping of scholarship has occurred as many Native Hawaiian scholars have come to prominence, including Haunani-Kay Trask, Jonathan Osorio, and Lilikalā Kame'eleihiwa. Another generation is quick on their heels, including Noenoe Silva, Kehaulani Kauanui, and Ty Kāwika Tengan.

Articulating Traditions

In view of recent academic disputes over identity and authenticity, and with Pacific and Hawaiian scholarship in such good native hands, I ask: What can non-native scholars in the present bring to the study of Hawaiian traditions and to indigenous traditions in other contexts?[6] Generally, we might practice modes of analysis that participate neither in discourses of essentialism nor in discourses of invention, at least not in simplistic senses. One path here has been charted by James Clifford (2001) and others, with specific appeal to theories of articulation drawn from Stuart Hall (e.g., 1986).[7] In Hall's formulation, "articulation" theories emphasize the emergent and contingent character of identity constructions without denying the historical and cultural substrata and sediments that underlie them. Hall writes that articulation is best understood as a "hinging" of elements, a "form of connection that can make a unity of two different elements, under certain conditions" (1996, 141). As expressed by Clifford with reference to specifically Pacific settings, such theories take seriously displacement and emplacement, diasporas and rootedness, and, in a language made familiar to scholars of religion by Thomas Tweed (2006), crossing and dwelling. In Clifford's words,

> [t]he contrast between colonial fixity and postcolonial mobility, between indigenous roots and diasporic routes, can't be allowed to harden into an opposition or a before-after scenario in which cosmopolitan equals modern. When reckoning with traveling natives, if I can call them that, in the Pacific, this sort of categorization breaks down. We are left with a spectrum of attachments to land

---

Native Land and Foreign Desires (1992). However, Valeri is briefly acknowledged in Noenoe Silva's recent *Aloha Betrayed* (2004).

[5] See, e.g., Hanson (1989); Jolly and Thomas (1992); and Parmentier (1996). This situation has had interesting parallels in North America, particularly within religious studies. See Gill (1987; 1994; 1997) and Jocks (1997).

[6] For important historical, conceptual, and political background to this question, particularly with reference to the relationship of anthropology and cultural studies in Hawai'i, see White and Tengan (2001).

[7] One might also look to the important work of Laclau and Mouffe (1985) in this regard.

> and place—articulated, old and new traditions of indigenous dwelling and traveling (2001, 477).[8]

Arguing elsewhere for the continuing relevance of "tradition" as an analytical category, Clifford adds: "[r]eopening the lived problematic of tradition is crucial to understanding this predicament: a messy world in which fundamentalisms, ethnic chauvinisms, and tourist displays flourish alongside First Nations revivals and the mobilization of local communities against environmental devastation or invasive development" (2004, 157). Continuing, he argues, the "language of 'articulation'... gets at the practical deconstructive, and reconstructive, activities of indigenous traditionalisms better than the demystifying discourse of 'invention'" (2004, 158).

I find Clifford's points compelling and productive insofar as they enable timely research and may reopen conversations with native theorists and audiences.[9] Reopening such conversations is important at a variety of levels, not the least of which is methodological. As will become clear, the theoretical relevance of the outsider's positions that I argue for demands engagement with the nuances of "local knowledge," though not quite in the sense intended by an earlier anthropology. While Geertz (1983) and other theorists of local knowledge included history and process in their analyses, they did so in a way that nonetheless posited "culture" in fairly monolithic terms and regarded "tradition" as the preservation of culture through time by means of continuity. Sahlins (1985) and others have modified this position by theorizing historical change far more deliberately in order to account for structural change as well as continuity—indeed, Sahlins provides many rich examples of change as continuity. While not denying the insights of either position, my aim is to insist on a more radically processual and dialogical view of culture and tradition wherein these are understood to be continually constituted in the present (Lincoln 1989).

In order to apprehend such real-time dynamics, my view is that scholars of contemporary traditions should strive for a methodology that includes remaining in conversation with the people one studies and in touch with the media through which they engage one another. At the same time, however, I will argue for outsider scholarship that enables insights from its position of difference, its position of standing outside of traditions and debates surround-

---

[8] For uses of articulation theory in other cultural contexts, see, for example, Li (2000) on Indonesia and Johnson (2005) regarding American Indian contexts.

[9] For example, on the theme of dwelling and habitation, see Ty Kāwika Tengan's work (2008) on revitalization of the *Hale Mua*, the men's eating house, which was central to the *'aikapu* before 1819 and which is being reconstituted today as a site for ritual practice that emphasizes male responsibility in the face of changing cultural conditions. On the theme of diasporic communities and communications, see Kauanui (1998).

ing them. Motivating my argument in favor of an approach that is at once methodologically "near" and yet theoretically "distant" is, on the one hand, a frustration with the way much theoretical scholarship today stands at a rather profound remove from that which it purports to study and, on the other hand, a dawning recognition of the discursively fluid ways traditions are reshaped at a range of contextual levels, right down to the family circle (the *'ohana*, as Hawaiians would say). My point, however, is not that we should fixate on atomistic, non-comparative studies. Far from it; I aspire to theoretical generalizations that become possible precisely from a position that remains distant enough to see how competing truth claims together constitute tradition even while understanding that each individual voice is necessarily partial, political, and otherwise interested.

For example, my research in Hawai'i has made clear to me the ways tradition is constituted in and through moments of struggle. In some moments of struggle, various Native Hawaiian groups have worked together to announce claims against external challenges of various sorts. Frequently, however, Native Hawaiian groups struggle with one another over the terms of their traditions in contexts as diverse as sovereignty debates, repatriation disputes, and the revival of open-ocean sailing. These struggles are not merely political, though they are hardly immune from politics and questions regarding authority and power. A discursively focused articulation theory enables us to see that they are cultural in the strongest, most generative sense.[10] When contesting one another over the terms of their traditions—proper ritual protocol, for example—Hawaiians are actively constituting culture and tradition.[11] Against "proximate others" Hawaiians define themselves, seldom monolithically, almost never homogenously, but in a shared vocabulary nonetheless.[12] Theories of articulation are attentive to how a plurality of voices sometimes harmonize and sometimes argue, how diverse speakers link various tropes and images from more or less common sources to announce competing claims. In Clifford's words, "articulation as I understand it evokes a deeper sense of the 'political'—productive processes of consensus, exclusion, alliance, and antagonism that are inherent in the transformative life of all societies" (2001, 473). Precisely

[10] For a development of this argument in the repatriation context, see Johnson (forthcoming).

[11] An instructive comparative example of this dynamic is found in the recent work of Thomas Buckley, an anthropologist of American Indian religious traditions. Regarding practitioners' disputes surrounding the Yurok Jump Dance he writes, "what is going on in the constant debates over what is and is not appropriate to the dances is not a historical aberration encountered in a culture 'going all to pieces,' as Kroeber had it; it is central to the process of world renewal [the stated goal of the dances], and always has been" (2002, 273).

[12] On proximate others, see J.Z. Smith (2004).

through directing attention away from "truth" (that one position is normative or authentic while others are wrong or inauthentic) and steering attention to truth claiming (processes of persuasion and self-fashioning, whether individual or collective), articulation theories widen the scope of cultural analyses to help us see the generative rather than merely partisan sides of foment. Here I turn to an example, the renowned canoe Hōkūleʻa.

Hōkūleʻa

Let us begin with imagery supplied by the historian and anthropologist Greg Dening, who, like Clifford and Tweed, has theorized crossing and dwelling. With reference to Polynesia, its myriad beaches and the people who traverse them, he writes:

> All over Polynesia the native peoples suffused their religion and culture with a fascination for images and metaphors of mediation and transition. Birds and canoes featured strongly in their symbols. Birds and canoes were in between—in between land and sky, between land and sea. They were natural instruments or vehicles of the divine. Gods were in birds, and mythical heroes traveled to their islands in canoes.... Polynesians wanted the signs of their sacraments to show some passing between. That was their realism (Dening 1992, 233).[13]

This realism, as Dening would have it, has made a remarkable comeback in recent decades. That sailing voyages were foundational to the Hawaiian past is beyond dispute—no canoes, no Hawaiians. Scientists and oral traditions agree on this point. It also goes unchallenged that open-ocean sailing ceased in the islands sometime before the arrival of Cook in 1778. What is very much in dispute, however, is the degree to which Hawaiians and other Polynesians possessed the knowledge, skills, and tools to have achieved intentional roundtrip voyages between archipelagoes as distant as Hawaiʻi and Tahiti.[14] By the 1950s and 1960s some non-native scholars began to favor theories of one-way expeditions and unintentional drifting to explain the populating of Polynesia (see, e.g., Sharp 1960). By the 1970s other scholars, Ben Finney chief among them, were working against this view to theorize Polynesian settlement in entirely more intentional terms (Finney 1979; 1991; 1994). But resources for this project were somewhat scarce—beyond an oral tradition replete with accounts of voyaging, Hawaiian material culture and the study of it yielded little for

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[13] See Dening (1998, 101-118; 2004, 176-183) for his ambivalent assessment of neo-traditional canoeing, particularly with regard to the didactic quality of "reenactments."

[14] For literature on these issues generally, see Goetzfridt (1992).

Finney and others to work with to support their hypothesis. They decided to go an experimental route, putting together canoes based on various scattered sources and doing the same in assembling the basics of recovered navigational knowledge. They also looked to existing vessels and knowledge in remote parts of the Pacific, particularly Micronesia (Linnekin 1983; Lewis 1994). From this process of science-cum-bricolage, experimental neo-voyaging was born.

Soon various Native Hawaiians became involved in this pro-creative process, including artist Herb Kāne, who helped design sails and other details for various canoes (Finney 1979). The now famous canoe Hōkūle'a resulted from this work and it has made numerous open-ocean voyages over the past thirty years, including trips to the far reaches of Polynesian and, in 2007, to Japan. In the process, Hōkūle'a has become one of the most visible sites of contemporary Hawaiian cultural identity (Kyselka 1987; Finney 1991). From its beginnings in an anthropologist's sketches and grant proposals, it has been adopted by Hawaiians in symbolic and practical ways. Today Hōkūle'a sails with a Hawaiian captain and a largely Hawaiian crew, and its voyages share Hawaiian cultural knowledge and pride.[15]

Hōkūle'a has figured prominently in several repatriation contexts, in both symbolic and practical ways. Representative of the former, repatriation activist Kunani Nihipali writes: "Like the Hokule'a, a contemporary sailing vessel dedicated to utilizing and expanding understanding of traditional celestial navigation methods, we of *Hui Mālama I Nā Kūpuna 'O Hawai'i Nei* have channeled the energy of our *kūpuna* (ancestors) to do their part to help us, to calm the seas, to navigate us on this safe return of rebuilding our nation's foundation *stone by stone, bone by bone*" (2002, 44). Exemplifying the practical implementation of this vision, Hōkūle'a was employed to return repatriated *iwi* (bones) to Nihoa and Necker Island in the remote Northwest Hawaiian islands (Ayau and Tengan 2002). Also related to repatriation matters, the famous captain of Hōkūle'a, Nainoa Thompson, was appointed on the basis of his cultural credentials by a federal judge to oversee a protracted *ho'oponopono* (alternative dispute resolution) session in the notorious Kawaihae caves conflict

[15] Hawaiians, of course, are not alone in their revival of ocean travel. Examples among other indigenous people include the Maori of New Zealand, numerous other Polynesian and Micronesian peoples, the Bugis of Indonesia, the Chumash of California, and a variety of Northwest Coast tribes. The degree to which ocean voyaging—whether coastal or trans-oceanic—remained active in these various cultures is highly variable. Consistent across them, however, is the contemporary significance imputed to and enacted through the ocean travel. Among other messages, this movement to and across the seas conveys a poignant anti-colonial message, emphasizing the capacity of various indigenous modernities to master the oceans, thereby responding to Western conceit communicated through still-regnant narratives of exploration and discovery.

that pitted fourteen Native Hawaiian organizations and the Bishop Museum against one another concerning the fate of numerous ancient ritual objects (Barayuga 2006).[16] Hōkūleʻa has also been pivotal in the symbolic reclaiming of Kahoʻolawe, an island long used by the Navy for bombing practice, which is now a principal site of contemporary Native Hawaiian ritual practice and which is frequently visited by the canoe.[17]

Hōkūleʻa has captured the popular imagination as well, and has been featured on the cover of in-flight magazines and on ubiquitous t-shirts.[18] So successful has it been that Hōkūleʻa has attained celebrity status—reporters and photographers follow in its wake and various state, national and even international messages have been attached to its presence and travels. During Hōkūleʻa's 2007 voyage to Japan, for example, daily reports on its progress could be found in both major Hawaiian papers, the *Honolulu Advertiser* and the *Honolulu Star-Bulletin*. In Japan the crew was presented with a "peace bell" on behalf of the Japanese government, and talks are currently underway for Hōkūleʻa to sail with sponsorship of the United Nations.[19] This has occasioned a variety of responses within the Hawaiian community. For example, at a sovereignty meeting attended by a number of Hawaiian activists during the summer of 2007, I witnessed one activist challenge a crew member over the fact that the captain of Hōkūleʻa did not allow it to be used in an anti-military protest while in Japan. The activist joked that Hōkūleʻa should be rechristened as the U.S.S. Hawaiʻi.

Partly as a result of these successes and partly in reaction to them, various groups have proposed and developed their own canoes, sometimes with support of Hōkūleʻa's parent organization, the Polynesian Voyaging Society, and sometimes not. The point I want to draw attention to is that these newer canoes have been envisioned in terms of their putative authenticity vis-à-vis Hōkūleʻa. In the case of Hawaiʻiloa this has been expressed through material registers—while Hōkūleʻa has fiberglass hulls, Hawaiʻiloa has wood ones (Finney 2003).[20] In the case of Hōkūalakaʻi another tack has been taken—here

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[16] It should be noted in this context that at the center of this dispute is a canoe-as-casket that entombs the remains of large male, who one group has recently asserted genealogical claims upon, stating that he is their royal ancestor. See Johnson (n.d.).

[17] On Kahoʻolawe, see Blackford (2004).

[18] Hōkūleʻa figured prominently on the cover *of Spirit of Aloha: The Magazine of Aloha Airlines* for its July/August 2004 issue.

[19] This information comes from an interview with a crew member on 28 July 2007 in Honolulu, Hawaiʻi.

[20] However, despite protracted efforts, the canoe's builders could not locate adequate Hawaiian timber for the purpose and Alaskan fir instead. While carved with tremendous care, Hawaiʻiloa did not sail well (Finney 2003) and its hulls have split. As of the summer of 2007, Hawaiʻiloa sits disassembled and under repair at a Honolulu boatyard.

language is the literal discourse of authenticity, with Hawaiian being the lingua franca aboard the canoe and language training its principal mission. The canoe was built in 2000 in conjunction with ʻAha Pūnana Leo, an educational organization central to the remarkable revitalization of Hawaiian language in recent decades.[21] Reflecting a commitment to native communities, Hōkūalakaʻi's home port is Hilo, far from the tourism and cosmopolitan centers of the islands.[22] Unlike Hōkūleʻa, the canoe of crossings, both Hawaiʻiloa and Hōkūalakaʻi are distinctly local in their support and ambitions, dwelling within the islands and serving Hawaiian communities directly. Despite these differences in mission and audience, it should be underscored that the canoeing community is tight-knit—though, of course, not without intrigue and tension—and that the canoes often sail together. For example, in September of 2007, Hōkūleʻa and Hōkūalakaʻi sailed in tandem from Honolulu to Kauaʻi in order to conduct a memorial service for a renowned sailor.[23] This simple act of tandem sailing is suggestive of the ways the model of crossing and dwelling should not harden into an analytical binary of ontological absolutes. Rather, it is instructive to view such tropes as mutually constitutive modalities that together announce and enact the constant navigation of Hawaiians between localized sensibilities and globalized immediacies.[24]

My point in this brief discussion of contemporary ocean sailing has been to begin suggesting ways we might regard Hōkūleʻa and its sister canoes as living tradition. If we resist being drawn into authenticity debates, we preserve an analytical site from which to listen for the multiple but undeniable articulations of Hawaiianness expressed through these vessels of culture. These canoes work together to prompt discussions about—even arguments over—the boundaries, meanings, and responsibilities of being and representing Hawaiians.

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[21] For more on Hōkūalakaʻi and ʻAha Pūnana Leo, see www.ahapunanaleo.org/eng/programs/hokualakai.html.

[22] Makaliʻi, based out of Kawaihae, is another Hawaiʻi Island *waʻa* (canoe) that deserves mention in this context. Makaliʻi stands in the lineage of Hōkūleʻa but, like Hōkūalakaʻi, its crew members emphasize Hawaiian language and ritual protocol. Kainani Kahaunaele, a crew member, language teacher, and singer, was recently interviewed for a Hawaiian language television news program. She drew attention to the social function of the canoe, saying, "The interdependence critical to a thriving community on the land is paralleled on the canoe. If we focus on these lessons, where people understand the value and need for collective cooperation, we as a people can truly make positive strides forward." See "Keeping Open Ocean Voyaging Alive: The Makaii (sic)" at http://kgmb9.com/main/content/view/5818/173/.

[23] I visited Hōkūleʻa and Hōkūalakaʻi in July of 2007 and discussed recent voyages with crew members of both.

[24] For suggestive theoretical work on the contemporary experience of native peoples whose lives and politics traverse local and international domains, see, e.g., Niezen (2003) and Clifford (2007).

Two Sides of a Faulty Coin: Invention and Authenticity

One problem with "invention of tradition" language, as we have seen, is that it can offend through its cavalier and sometimes dismissive regard for putative continuities, seeing these as a function of rhetorical gesture rather than empirical fact. Invention language is also analytically problematic for the way it can contrastively establish implied authenticities—with all that is at stake in these politically, a point I return to below. These facets of invention language are not productive when considering phenomena like contemporary Hawaiian canoes. Equally unproductive here are classical and some indigenous theories of tradition that rely upon claims of manifest cultural continuity for their coherence. If invention theories offend, at least they call it like they see it. How do theories of tradition predicated on putative continuity speak to phenomena they categorically cannot see, like canoes birthed in anthropological workshops? Invention in this plainest of senses presents a fairly large stumbling block and leaves simple continuity theories in the analytical dark.[25]

Articulation theories shed some provisional light by viewing radical historical ruptures and the creative management of them as ordinary human affairs. Picking up pieces and crafting identities is, in this view, the stuff of getting through another cultural day.[26] But surely, it might be suggested, such processual thinking shortchanges the "realness" of traditional pasts through viewing them as conglomerations of ad hoc presents now passed. This is a fair critique and one that Clifford (2007), for example, has worked to address. This is discernable in his shift from reveling in postmodern disjunctures to seeking out meaningful connectivities across times and places. However, even with renewed attention to the "contents" of tradition, articulation theories avoid essentializing history as much as possible—the past may well be a foreign country but, at least in Hawai'i, it is not a frozen one.

Shifting attention from things to processes might be analytically sound, but it entails traversing sensitive political ground. To reiterate a point in order to draw it out, such analysis entails resisting discourses of authenticity. As Clifford writes, "in articulation theory the whole question of authenticity is secondary, and the process of social and cultural persistence is political all the way back. It is assumed that cultural forms will always be made, unmade, and remade. Communities can and must reconfigure themselves, drawing selectively on remembered pasts" (2001, 478).[27] More recently, Clifford notes how scholars "struggle

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[25] For recent and wide-ranging treatments of "tradition," see Engler and Grieve (2005) and Phillips and Schochet (2004).

[26] Cf. McCutcheon (2003) on this point with reference to religious discourse.

[27] For more on "authenticity," see, e.g., Gable and Handler (1996) and Penny (2006).

for languages to represent the layered, faceted realities of the 'indigenous' today, without imposing reductive, backward-looking criteria of authenticity. What's at stake in this representational struggle is an adequate *realism* in our ways of thinking comparatively about a range of old and emergent histories" (2007, 214).

While analytically productive, this formulation is also only slightly removed from language Jocelyn Linnekin employed twenty years ago—namely, that tradition is a process of interpretation. Linnekin's chosen idiom prevented more than it enabled in terms of serious discussion between native and non-native scholars.[28] Linnekin, taking Hōkūleʻa as one of her examples, explicitly theorized "tradition" as a function of change and interpretation in a much-cited essay written with Richard Handler (1984). They argued, "we can no longer speak of tradition in terms of the approximate identity of some objective thing that changes while remaining the same. Instead, we must understand tradition as a symbolic process that both presupposes past symbolisms and creatively reinterprets them. In other words, tradition is not a bounded entity made up of bounded constituent parts, but a process of interpretation, attributing meaning in the present through making reference to the past" (287). They concluded:

> traditions are neither genuine nor spurious, for if genuine refers to the pristine and immutable heritage of the past, then all genuine traditions are spurious. But if, as we have argued, tradition is always defined in the present, then all spurious traditions are genuine. Genuine and spurious—terms that have been used to distinguish objective reality from hocus-pocus—are inappropriate when applied to social phenomena, which never exist apart from our interpretations of them (288).

To be sure, Clifford's language of articulation is more nuanced and moves away from "invention," but Linnekin (1992) had at least gestured in a similar direction—too little too late, perhaps. Consider this reflection on the matter from Ben Finney, the "father" of Hōkūleʻa: "The response made in the name of culture theory—that authenticity is a non-issue since traditions are invented in all cultures anyway—compounded the original insult. Arguing that traditions are neither genuine nor spurious but simply socially constructed, in effect, denies the possibility of expressing a cultural identity based on a remembered past" (2003, 59).

While I appreciate Finney's concerns, he hasn't adequately represented the gravity of the predicament, nor its potential richness. If we pluralize "identities" and "pasts" in his formulation, then the denial he suggests is not so clear. Namely, recognizing the polyphony of cultural dialogics entails regarding tradition as

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[28] Simply put, Linnekin's emphasis on tradition took shape at the same historical moment (1980s) when Native Hawaiian scholars, activists, and religious leaders were becoming increasingly vocal and visible in asserting connection to the past. The latter, therefore, found Linnekin's language at counter-purposes to their goals. See Tobin (1994).

always "under construction" and therefore does not deny remembered pasts but rather attempts to acknowledge their various articulations. But if we leave Finney's point in the singular—"a cultural identity based on a remembered past"—then we need to consider the consequences of such claims in light of his prior assertion regarding the genuine or spurious qualities of tradition. Unfortunately, this linkage is the condition of possibility for actionable politics in our society: courts, dominant publics, and consumers alike expect clear connections between singular representations and claims to authenticity.[29] And so we must take seriously strategic essentialisms and well as less tactical versions of the same, for much is at stake (see, e.g., Herzfeld 1997). But to what degree should this political recognition influence scholarly practice and explanation? This question becomes all the more urgent when we take seriously the binary divide that discourses of authenticity often enable and demand: contrastive expression vis-à-vis cultural forms deemed "inauthentic." As many scholars have argued (e.g., Deloria 1998), this dynamic functions in the exotic imaginary by elevating ideologically and aesthetically pleasing representations of a people to the status of genuine, with obvious costs to members of the community who are not regarded as fulfilling the same. Of equal analytic interest is the fact that this dynamic is also active within social groups, whether families, tribes, or nations. As has been described by Eva Garroutte (2002, 66-67) among others, some Native Americans, for example, have long histories of factionalism whereby various sub-groups claim to be the true representatives of a tradition while, from the same perspective, others within the larger group are labeled impostors or otherwise designated illegitimate. Such dynamics and the claims to authenticity that sustain them have profound and quickly compounding political consequences and create considerable difficulties for scholars seeking to understand local traditions. In a peculiar way, then, emphasis upon authenticity can have the same results as emphasis upon invention. In the case of the former, what appears to be a politically pro-native turn is, under some conditions, a turning away from forms of tradition-making that don't receive normative endorsement from various publics, native and other. If traditions are made in real time through many articulations, then lifting one voice above the crowd—the true, normative voice of tradition—has a profound silencing effect.

Perhaps I have overstated my argument. Surely Hawaiians are not lining up behind the various canoes I have described to pronounce the Hawaiianness of one at the cost of the others. Indeed, despite some micro-politics and struggles, that is not the case. I suggest that here we see a largely harmonious if polyrhythmic articulation of tradition. But my primary research focus—repatriation issues—reveals another modality of articulated tradition, one that

[29] On this theme, see, for example, Povinelli (2002).

is considerably more cacophonous and shrill (Johnson 2007; cf. Friesen 2001, 157-165; Fine-Dare 2005). In several ongoing disputes, more than ten competing Hawaiian groups have been at loggerheads, several claiming authentic Hawaiianness and the authority this confers as their exclusive domain. Native scholars from multiple disciplines have been marshaled to the various camps, which has amplified rather than eased both rhetoric and divisiveness.[30] And yet, for all of the acrimony that such settings precipitate, I suggest that tradition here is being constituted in a variety of compelling ways. The cultural "truth" of these moments is found in the struggles themselves, the commitments they demand, the learning and speaking they inspire, and the shared resources they contest and draw upon. This view of culture in-and-as contestation is not, however, widely shared outside of a limited academic sphere. Much weightier conclusions about the past and future of Hawaiian bones, objects, and identities are being rendered by courts, museums and other non-native entities based upon assessments of the authenticity of specific native claims over and against others. It is here that the politics of both invention and authenticity become alarming. As I hope to have made clear, both rhetorical tendencies—however opposite they may appear—reify some identities while causing others to be ignored or maligned, missing thereby the very processes of struggle between identity articulations that constitute living sites of cultural production. Discourses of invention and authenticity both engage in what we might call the fallacy of false metonymy: one part, one voice is taken to represent the whole. If culture were a soliloquy, this might make sense.

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[30] These include Lilikalā Kame'eleihiwa and Jonathan Osorio, both historians, Kehau Abad, an archeologist, and Rubellite Johnson, a Hawaiian language expert. This is not, however, to suggest that these scholars are unable to critically reflect on such issues. In the summer of 2007, for example, I had an engaging theoretical discussion about Hawaiian repatriation with Ty Kāwika Tengan, a Kanaka 'Ōiwi anthropologist who has written on the subject of repatriation from an activist and practitioner perspective (Ayau and Tengan 2002). From my side, preserving analytical distance is an "ideal type," but not one always maintained. In more than ten years of studying repatriation I have gone on record twice, very briefly, to express my opinions, once to challenge the Bishop Museum's assertion of Native Hawaiian Organization status (Johnson 2007, 137), and once with regard to a conflict of interests between the Chicago Field Museum and the NAGPRA Review Committee regarding a repatriation claim made by the White Mountain Apache Tribe (NAGPRA Review Committee 2006).

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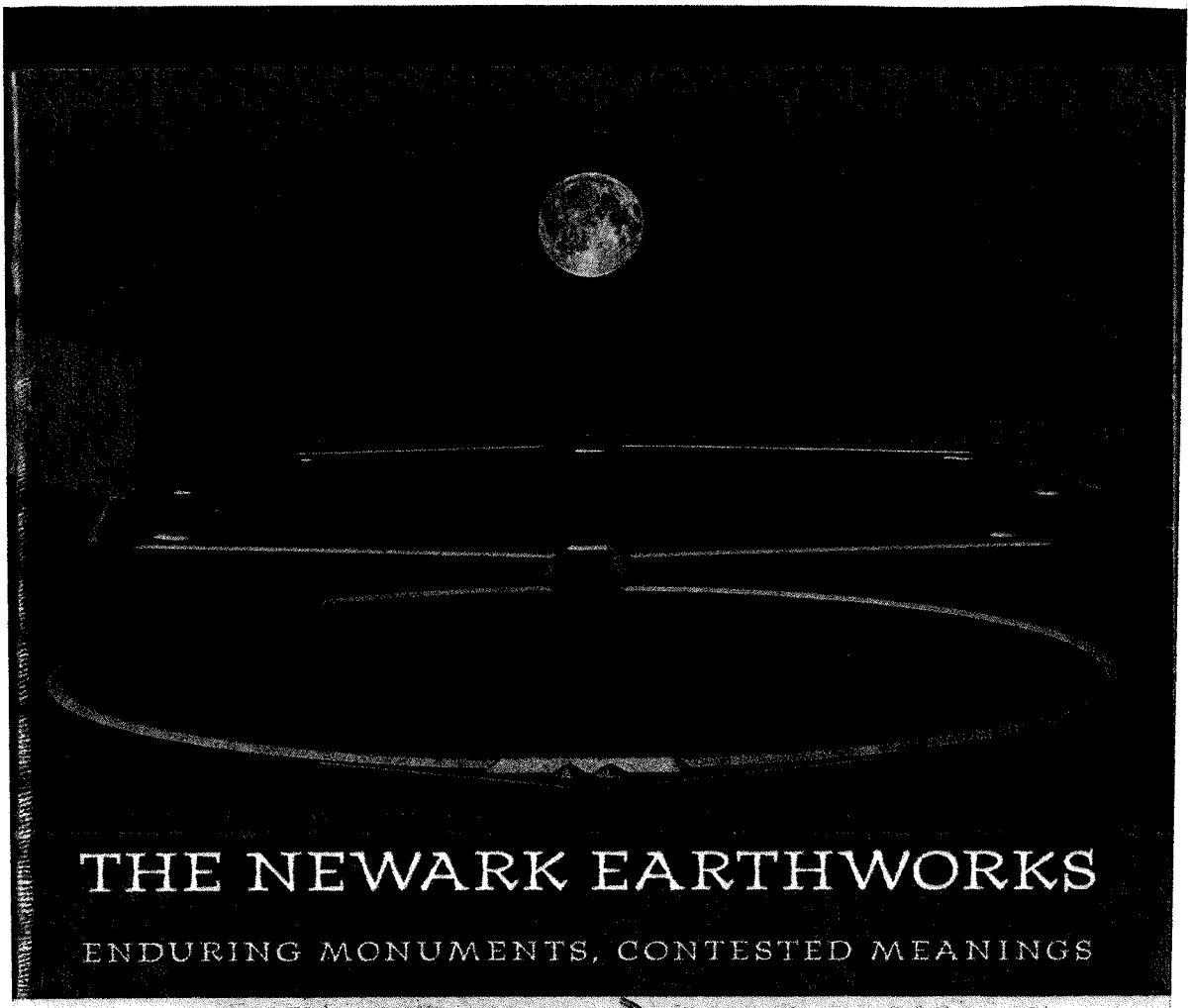
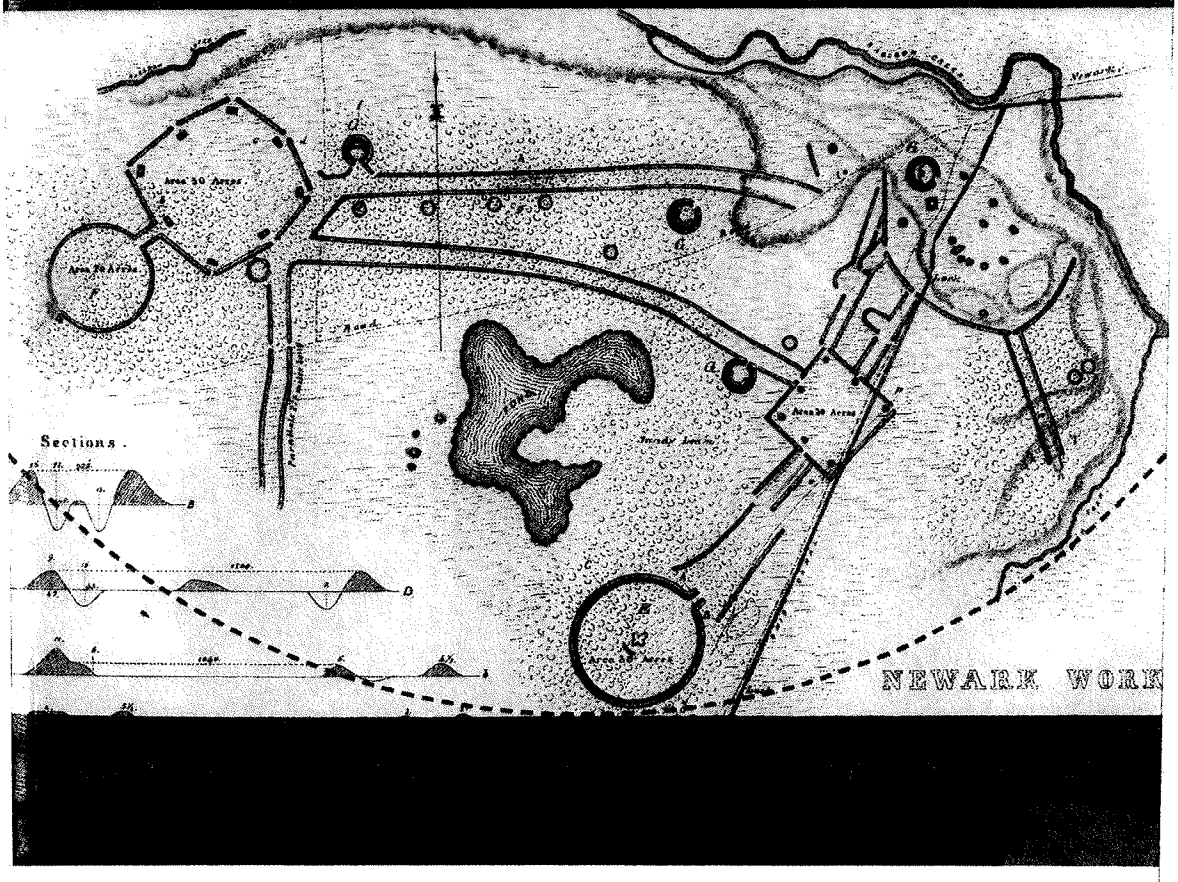


THE NEWARK EARTHWORKS

ENDURING MONUMENTS, CONTESTED MEANINGS



GREG JOHNSON

Caring for Depressed Cultural Sites, Hawaiian Style

MY FIRST CLUE that the Newark sites are depressed was the amount of care being shown them by a handful of dedicated locals from several walks of life and professions. A healthy site might occasion admiration, celebration, and even adulation. Newark is worthy of all of these, but what I perceived most directly was concern. These local individuals, including Richard Shiels, Marti Chaatsmith, and Brad Lepper, and their efforts, including the work required to host the symposium out of which this volume springs, express and manifest what Native Hawaiians would call *mālama* (care). Mālama is usually regarded as a manifestation of a *kuleana* (responsibility), whether to a family line, a religious sensibility, or something more vague but no less powerful—a tugging on one's *na'au* (gut). As I began to see Hawaiian-like patterns of care at the Newark sites, I started to think about the ways recent Hawaiian practices concerning archeological sites, historic memorials, and ancestral burials might inform an understanding of dynamics unfolding in Ohio. In what follows I outline some of my thoughts with reference to fieldwork I have conducted over the past several years. My aim is to explore this relationship of depression and care by way of Hawaiian examples to shed some comparative light on possible futures of the Newark sites.

Despite their grandeur and significance, there is no denying that the Newark sites are depressed. They are urban and suburban; nature and (Native) culture stand at a rather profound remove. The sites have been repurposed several times over, including as an amusement park complete with a horse-racing track, a fairground, a golf course, and a city park. Parts of the surrounding area are economically depressed, and this low-level gloom seems to seep over to the sites. Nor does the physicality of the sites bespeak much loving attention over recent decades. Additionally, the sites have an

image problem with respect to their more famous mound neighbors and with respect to much flashier World Heritage sites. This image problem is perhaps best attested in the negative: aside from the care of some devoted locals, the sites seem nearly lost on the local imaginary. In my limited experience with the local population, some people in Newark are not even aware of the sites, let alone of their magnitude and deep histories.

The Newark sites are not alone in their condition, however. In Colorado, for example, one can find remarkably neglected Ancestral Puebloan ruins within a few miles of Mesa Verde National Park and World Heritage site. This pattern can be found globally, of course. This malaise extends even to paradise. Hawai'i has two World Heritage sites, Volcanoes National Park and Papahānaumokuakea, both of which are known more for their natural than their cultural components. Apparently, these are cared for well, if by radically different means: volcanoes elicit tourism, whereas Papahānaumokuakea is a marine reserve with strictly limited access. Other sites in Hawai'i also receive considerable and visible mālama, including various national monuments like Pu'u Kohalā, smaller state-protected sites like Mo'okini Heiau, and privately managed sites like the magnificent Pi'ilani Heiau. Numerous locally cared-for sites exist as well, some of which I describe below. But disregard, neglect, and outright violence characterize the fate of numerous depressed sites throughout the islands. The most egregious example of a mistreated site is Kaho'olawe, known as the Target Island because the US military used it for bombing practice for several decades, notwithstanding the presence of many ritual sites and burial grounds on the island.[1] Sites in downtown Honolulu and Waikiki have been assaulted by a less obviously aggressive but equally destructive modality of violence—unmitigated development. This continues to the present, even, at times, at the hands of a church and the state government. Depressed sites are not limited, however, to those in urban areas or damaged by military activities. In contemporary Hawai'i they can be found in agricultural areas and remote villages and on sandy beaches.

Mālama can be found in all of these places, too. What has inspired me about the Hawaiian capacity to care for challenged sites is the same thing that has pushed me to sharpen my understanding of living cultural processes. Mālama today is diverse in its contours and manifold in its expressions, and its practitioners are far from unanimous in their stated positions. Precisely for these reasons, mālama is a cultural engine that repays analysis with potentially instructive comparative insights. My aim here is to develop an

account along these lines by way of three examples of contemporary mālama. The first two take us to Maui, one *ma uka* (upland) and the other *ma kai* (seaward), the third to Hawai'i Island. The first example roughly parallels Newark insofar as it is a magnificent ancient site that has been repurposed and is now being cared for by devoted locals. The second case is presented as an example of ways to care for the spirit of a place in the context of legal compromise. The third focuses upon the labor and pains behind memory work, considering an example that is not archeological but the lessons of which speak to reviving depressed sites, especially in contexts that depend upon state and federal funding.

At the outset, I would like to say a little about social memory and practices of mālama in broad strokes. Social memory is negotiated, ropelike (many strands make up a coil), frequently discontinuous, reconstituted by various means according to various ends, and almost always has multiple stakeholders.[2] All of this is as true in Hawai'i as anywhere else. And as with all colonized places, disruptions and dispossession have exacerbated the variability and contentious aspect of articulating social memory. Further, as in most American Indian contexts, social memories were outright ruptured at times by many-tentacled colonial institutions.[3] Increasingly, however, Hawaiian scholars and the vibrancy of contemporary Hawaiian cultural life are making plain that far more continuities of culture have survived than are generally recognized by current histories.[4] That said, by the mid-twentieth century Hawaiian culture was undeniably suppressed, if not depressed. Mālama, for example, was not a word on people's lips; indeed little Hawaiian was spoken at all.

Hawai'i has experienced a profound cultural resurgence since the 1960s. This has been a broad cultural renaissance, which has included language, dance, art, various textile practices, and attention to Hawaiian natural and cultural resources. In terms of recovered mālama, three manifestations of culture in action stand out: protection of Kaho'olawe, rejuvenation of open-ocean canoeing, particularly with Hokule'a,[5] and the burial protection movement, particularly as catalyzed by the events at Honokahua on Maui in the late 1980s.[6] From the vantage point of 1959, the year of Hawai'i's contested statehood, few could have foretold Hawaiian mālama today. Might Newark be on the cusp of similar processes of reawakened mālama today? At a minimum, we should not rule this out in our collective assumptions about the site and its possible futures.

Repurposed, Again: Kula Ridge

Widespread fascination with the unusual features of the Newark sites is wholly understandable. The various walls, mounds, openings, and their unusual alignments stand as a grand puzzle, an incitement to curiosity for all but the most bereft of imagination. Visiting the sites and hearing various experts discuss possible explanations of the anomalous features called to mind a Hawaiian site I had come to know over the past few years, Kula Ridge on Maui. While not nearly as well documented as the Newark sites, Kula Ridge is roughly analogous in several respects. It too has hard-to-explain but immediately intriguing standout features, including 10–15-foot-tall tower structures and very unusual wall formations. Another similarity to Newark is the history of repurposing of the site, in this instance from ancient agricultural land to ranch land to a proposed low-income subdivision. Finally, Kula Ridge shares in the depressed quality of Newark insofar as the local community has been slow to recognize its past significance and potential future integrity if properly cared for. This is beginning to change.

The story I wish to tell about Kula Ridge is about the difference a devoted caregiver can make, even when concrete successes are elusive. Mālama can yield results beyond, beside, and in addition to site preservation. It can promote reawakened sensibilities concerning place, history, community, and belonging. Marti Chaatsmith's efforts, among those of others, strike me as being headed in this direction at Newark. Dana Naone Hall, a well-known poet and burial rights activist, is at the center of the story on Maui. Kula Ridge is but the latest of sites receiving her mālama in a decades-long career of caregiving —in fact, Naone Hall is one of the figures who restored mālama to its central place in Hawaiian discourse and practice. Emerging from the intersection of cultural sensibilities and environmental immediacies, Native Hawaiians have emphasized mālama 'aina, mālama kai, and mālama wai (care for land, sea, and fresh water) as central pillars of the restored Hawaiian tradition. Naone Hall's edited volume *Mālama: Hawaiian Land and Water* is one product of this set of concerns.[7] In the late 1980s, as a result of the crisis, struggle, and cultural innovations at Honokahua, where 1,110 *iwi kūpuna* (ancestral remains) were disinterred for a hotel, Naone Hall began to assert and extend the practice of mālama to the ancestors, particularly their burial sites.[8] She has been active on the Maui and Lana'i Island Burial Council for more than seventeen years, and her influence on burial protections has been

profound statewide over this time. Characteristic of her mālama practice, Hall attends equally to burial disturbances, no matter their magnitude or visibility. Currently, she is fighting for the integrity of more than six hundred burials at a church in downtown Honolulu while simultaneously taking up the cause of a single individual disturbed at Kula Ridge.[9]

Much of Naone Hall's mālama labor at Kula Ridge has been imagination work. Her aim has been to nurture imaginations of Kula Ridge; she wants the state, the developer, and even locals to regard it as something more than old ranch land, something more than an economic opportunity. Mālama in this mode is about ministering not only to sites and graves but also to people's imaginations. Naone Hall is keenly aware that reimagined futures necessitate poetic visions of the past as present. This has long been her gift: an uncanny capacity to restore imagination through vision. She possesses an equally remarkable gift in communicating her insights to others. At Kula Ridge, however, the task has been tough. As with Newark, surface-level history—thin but stark—seems to prevent alternative visions for most. Ranching detritus at Kula, like fairways and greens at Newark, stand as obdurate facts, saying: "This is that state of the land; to imagine otherwise is fantasy." This situation is made more difficult because of the disarray and ineffectiveness of the Hawai'i State Historic Preservation Division. The state burial law makes room for acts of traditional imagination—oral histories, for example—but the current broken state of affairs enables little space for anything beyond narrowly focused fiscal thinking on the part of the government. Absent state pressure, developers have little motivation to reenvision place and history, particularly when to do so might delay their projects or cost them money. This context has prevented Hall from having legal success so far in her efforts to stop development at the site.

Nonetheless, her efforts stubbornly continue. She regularly makes the state and county aware of the threat to the site, and she has expanded her reach to planning boards, land-use commissions, and other bureaucratic entities. For our purposes, we should attend to another realm of her success amid challenges. Modestly but persistently, Naone Hall is making headway with locals on Maui, planting the seeds of a reimagined Kula Ridge—one that buds from its cultural past: an agriculture land of intense productivity and life, a ritual sphere of continuous activity, and a sacred burial area remembered by the land itself. The name of the gulch that cuts through the land is Keahuaiwi, altar of the bones. Over the past few years the narrative community of Keahuaiwi has expanded exponentially. Naone Hall was one of its only voices as

recently as 2009. Now one hears the sounds of mālama—of community concerns, of rekindled connections, of emplacement—on an increasing number of lips around the island.

My point in telling the story of Kula Ridge is to emphasize something I have detected in a number of burial protection and repatriation contexts that is relevant to understanding the dynamics in play at Newark. Many times repatriation and burial activists have met with real legal successes, especially since the passage of the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) and related state laws.[10] Increasing awareness about and influence of the United Nations Declaration on the Rights of Indigenous Peoples holds out the promise of similar successes on the global stage.[11] But there have been and will be failures, too. Native claims are not always strong enough to prevail, laws are not always capacious enough to make room for certain forms of mālama, and administrative bodies are not always competent enough or adequately funded to discharge their responsibilities. In the face of manifest failures of institutions and policies, I want to draw attention to the secondary and tertiary effects of community-level mālama. Even when access is denied to sites, claims to affiliation rejected or ignored, and so forth, another form of mālama success can often be detected: revitalized community awareness of sites and narrative engagement with them. This is manifest in a simple but contagious way: when stakeholder communities, however near or far, tell the story of the place themselves. Heritage sites can be "owned" and cared for in a range of ways, including through story. I do not mean story for story's sake. I mean stories that grow communities in their telling. Similar to what is happening on Maui, back on the mainland, communities from Ohio to Oklahoma are telling the story of Newark today thanks to the work of Marti Chaatsmith and others, and that is a mālama victory worth celebrating in its own right.

Practice in Compromised Places: Mo'oloa

Having just described Dana Naone Hall's workweek mālama practice, now let me tell you how she spends many of her weekends, which are likewise filled with mālama. My point in recounting the following is to suggest ways in which caring for sites can have a reverberating effect whereby adjacent areas, sometimes entire regions, come to enjoy nurturing attention. Waves of love, as it were, can move outward from sites to enfold often neglected contiguous areas. This is a story, then, about how to broaden the reach of

mālama imagination and practice. It is also a story about crafting long-range victories out of legal compromises. This is the story of Moʻoloa (Long Lizard), an oasis of several acres of native plants and Native Hawaiian learning and relaxation. In view of real estate prices on Maui, Moʻoloa occupies a rather improbable site just inland from one of the most beautiful stretches of beach in all of Hawaiʻi, Oneloa (Big Beach). How did a Hawaiian *hui* (organization) come to possess this land, and what do they do there?

Moʻoloa has a deep history of human occupation. The larger region is known as Honuaʻula, a place well remembered in oral traditions and in contemporary poetry.[12] It is a place legendary for its fishing, beauty, and views. Honuaʻula is also known for its *alanui,* its ancient pathway. Like the Great Hopewell Road that connects the Newark sites to their neighbors and to larger trading and travel channels, many prominent ancient sites in Hawaiʻi are connected by "roads." These of course served quotidian purposes, but they also figure in the oral tradition for their ritual functions. Such alanui were traveled by various priests of the *akua* (deities), who made circuits around the islands to perform rituals and receive offerings. Lono, the god of love, play, and agriculture, among other related spheres, was celebrated by rituals along the portion of the trail-cum-road that traverses the shoreline lands of Honuaʻula. Fruits of the harvest, the rewards of planting, were offered up to Lono's priestly representatives during the Makahiki season. The cadence and rhythm of qualities associated with Lono are what Naone Hall and others aspire to restore to Maui at Moʻoloa: care for the land, peaceful repose, relaxation, and general fruitfulness of body and soul.

This emphasis upon Lono qualities is long overdue in the development of Honuaʻula and in Hawaiʻi generally. For too long, says Naone Hall, attention has been focused upon Kū and his warlike qualities.[13] Historically, going back hundreds of years, Lono and Kū have been regarded by Hawaiians as dialectically governing the world and its cycles through a complementary but antagonistic relationship.[14] Kū orchestrated the necessary but violent elements of aggression and struggle; Lono's time ushered in peace, sexuality, and celebration. Naone Hall wants this Lono constellation to prevail at Moʻoloa. Restorative *mana* (power, energy) is sought for the land itself and for its children. But Naone Hall is no stranger to Kū energy. Indeed, in a most traditionally dialectical fashion, there would be no Lono season at Moʻoloa today if there had not been a Kū season yesterday.

Yesterday in this case was the mid-1980s, a time of rapid hotel development on Maui. At that time a Japanese corporation, Seibu, was in the process of

building a hotel and golf course complex in Makena (a region of Honua'ula) that would put modernity on the doorstep of Oneloa. More alarming still, from a local point of view, the development plans included closure of the old Makena Road in order to privatize the area between the hotel and the sandy beach for exclusive use by hotel guests. Erasure of the road in this manner would not only scrub out the tracks of the ancestors; it would inhibit contemporary Native Hawaiians' access to the shore in that area. Fighting this double offense, Naone Hall, her husband Isaac Hall, and several other concerned locals, including Leslie Kuloloio, formed Hui Alanui o Makena (Group Caring for the Makena Road). After protracted struggle, the hui reached a settlement with the developer. It was not an outright victory, for the hotel was built and remains there today. But as a result of the settlement the hotel was pushed inland, off the Alanui o Makena. The alanui was repurposed, and its current state bespeaks the uneasy compromises that make for limited protection of Hawaiian pasts today: it is a groomed path through hotel grounds, complete with a "comfort station" for visitors. As Naone Hall asks, "A comfort to whom?"[15]

The settlement had another offshoot, one that gave life to Mo'oloa. The Seibu Corporation deeded three acres of prime land to a nonprofit organization to be established by Hui Alanui o Makena in the settlement agreement. Members of the group were too busy to do much with the land itself for years. It was still Kū's season for Naone Hall. She would soon fight the battle over Honokahua mentioned above and then go on to years of burial council work. Other members of the hui were likewise consumed with struggles to mālama the land, water, and culture of Maui. While these struggles have not subsided, some real victories have been won along the way. In a limited sense, one might say that by end of the first decade of the twenty-first century, the season of Lono had returned for some of these veteran activists, whose attention now turned to Mo'oloa.

Immediately adjacent to legendary Oneloa, Mo'oloa was hardly pristine in the 1980s. The land deeded to the hui had received little attention for decades. More recently, it had become a landfill for the developer. Lono faced a challenge. But Naone Hall and others summoned a vision of tranquility and education for Mo'oloa. With little more than will power and volunteer sweat, they nurtured the site, removing buried asphalt and concrete, invasive species, and other detritus, revealing the volcanic cinder layer just below the surface. Then they began the work of *kanu* (planting), which continues today. Mo'oloa is now becoming a veritable garden. Kukui trees, various

palms, *ki,* banana, *lilikoi,* and a range of indigenous shrubs and ground cover have taken the place of *kiawe* trees and thorny, nonnative plants. The hui has made Moʻoloa available to local Hawaiian groups with various missions (language immersion and cultural studies, for example) and even recreational groups—very much in the spirit of Lono—so long as the visitors lend a hand, planting here, watering there, pulling a weed on the way out. The results of such mālama are palpable. For my own part, I have been privileged to spend a number of days at Moʻoloa over the past several years. Anxious by nature, I am relieved of this burden when tending the ki cuttings and watering trees at Moʻoloa. My son Hayden feels the same way, as do most of the *malahini* (guests) I have spoken with. Most of all, I see that the spirit of Lono has found a contemporary home when I see the faces of Dana Naone Hall, her husband Isaac, and their dog Moʻo when they arrive at their beloved Moʻoloa.

I am not suggesting that there is a direct correlation between Moʻoloa and Newark, of course. My point is to suggest how some patterns of mālama found in Hawaiʻi might have some loose relevance for Newark and, more broadly, for thinking about care of challenged sites in general. Beyond a feel-good story about recovered dignity at a depressed site, one point of my version of the story of Moʻoloa has been to suggest one way that indigenous and activist communities can promote rejuvenation at specific locations as a means to mālama broader regions. Mālama at Moʻoloa shares in, harnesses, and feeds the broader mana of Honuaʻula. Born out of a compromise settlement, it stands as a clear victory of mālama spirit today.

Memory Takes Work: Miloliʻi

My hands grew tired fairly quickly as we worked our way through the big pile of *lauhala* (pandanus leaves) in Halealoha Ayau's driveway outside Hilo. He and I were flattening and rolling the leaves into strips that would then be used for weaving burial baskets. *Poʻo* (head) of Hui Mālama I Na Kupuna o Hawaiʻi Nei, a tremendously active and successful repatriation organization, Ayau was preparing for a major event that would garner considerable media attention.[16] After twenty years of negotiations, he had secured repatriation agreements from several prominent British museums, including the London Museum of Natural Science. In the scope of British resistance to repatriation globally, this represents quite a victory. With aid from various agencies, including the Office of Hawaiian Affairs, Ayau would be traveling to England in 2011 and 2012 in order to reclaim hundreds of *iwi kūpuna* (ancestral bones)

and bring them home. Placement in proper burial containers would be a sign to the bones that they were back in the care of their own people. Thus it was that our mundane task was to bring about a hopeful future. I told Ayau that I was glad to lend a hand and happy that he let me. "No problem," he said, "and, besides, this isn't a kapu activity." In other words, preparing the lauhala was not properly ritualistic, so an uninitiated person could participate. Then he said something that clued me in to the difficulties of unmarked cultural labor. "Kainani [his wife] and I have held a number of lauhala workshops to help get this done, but few people show up. But they'll come for the reburial ceremony when the kūpuna come home."[17]

This comment put the proverbial finger on something I had been thinking about quite a lot: how to give adequate theoretical attention to the uncelebrated labor that goes into memory work. I have written about Ayau elsewhere, with special attention to the ways he articulates and embodies "living tradition."[18] Now he was pushing me to think afresh about the hard work of making tradition live. Like others, I admire Ayau for his charisma and success, and my written work had focused on just this aspect of his persona. Now I wish to draw attention to moments like lauhala preparation and one of its modern parallels, grant writing. Before the ancestors can be buried, they require a basket, which requires flattened lauhala. Before Ayau can repatriate or protect burials, he writes grant applications tirelessly. The work he does is expensive and time consuming and thus requires resources beyond what he can subsidize personally. The more I have come to appreciate this and the fact that grant writing consumes so much of his time, the more I have become frustrated with media, popular, and academic accounts (even my own) of Ayau and activists like him.

Ironically, Ayau's detractors occasionally note his grant-writing success, implying that he uses Hawaiian causes to fill his own bank account.[19] This imbalance of reporting and appreciation strikes me as unfair and, for our purposes, analytically impoverished. Ayau's work has helped to restore ancestral fishponds, rebuild *heiaus* (temples), and protect threatened rock art sites and numerous graves and has led to the repatriation of hundreds of *iwi kūpuna*. All of this and more—including the following story about a community memorial—would not have been possible if Ayau had not spent hours upon hours writing grant applications. For more than twenty years he has performed this task, writing state and federal agencies for support. Beyond writing grant proposals, he has participated in grant review processes and grant administration. Many years he spends two weeks in Washington, DC,

evaluating grants for the federal Administration for Native Americans. This has connected Ayau to native peoples and projects far and wide and has kept his grant-writing skills sharp. What follows is a brief account of one of his recent grant-based projects.

On July 25, 2010, Ayau and I drove south from his home in Hilo, through Hawai'i Volcanoes National Park and the Ka'u district, toward the southern edge of the Kona side of Hawai'i Island. Our destination was "the last traditional fishing village in Hawai'i." A small and impoverished community, Miloli'i was made famous by a video recorded there in the mid-1990s by the famous Hawaiian singer IZ (Israel Kamakawiwo'ole).[20] It featured shots of the village and of locals singing along with his songs and his renditions of Hawaiian folk songs dating back to ballads written by Queen Lili'uokalani. Those shots have taken on a metonymic function, standing as a symbol of a traditional community not yet wholly lost to the forces of capitalism. This identity as the "last traditional fishing village" has been embraced locally; at least a sign at the town park declares as much. But how does the "last" village last? How does it sustain its identity in the face of forces that have made it the last of its kind? These forces are bearing down hard. Kids in the village seem uninterested in learning traditional *opelu* (mackerel) fishing methods, which are time consuming and depend upon delayed gratification because the fish must be trained to come to a certain area. In place of delayed gratification, alarming numbers of village youth have turned to drugs, and of these the harshest kind, especially "ice" (crystal meth). In response to this crisis, a serious question is being taken up by parents and the elders: How do we survive the loss of our children? It is a classic tragic question. One answer has been to look back to the past.

Specifically, the community has rallied around commemorating five village fishermen whose boat sunk in a storm in 1949. It was a huge blow to the small community to lose six able-bodied adults in one moment and has left its mark since. In terms of social memory, one prevalent narrative about the tragedy concerns the costs of modernity. The community had pooled resources to buy its first modern fishing boat, and this group of men was bringing it to Miloli'i on its maiden voyage when it sank. The accident pulled the promise of modernity out from under them in several respects, not least of which was the confidence to attempt similar endeavors in the future. By most accounts, the community has been a shadow of its former self ever since. Some years ago a respected and successful fisherman from the village, Walter Paulo, decided to address the weight of social memory directly. He proposed

bringing ritual conclusion to the event by properly marking the occasion through a community-sponsored memorial. His idea inspired others in the community but was slow to take hold at the level of concrete action.

This is when Halealoha Ayau became involved. Upon hearing about Paulo's vision, he made contact with him, proposed his idea for writing the project into a grant proposal to the Administration for Native Americans, and did so. Ayau's efforts were rewarded, and soon the community had the resources to implement Walter Paulo's vision.[21] This grant was the difference between and an idea and its realization. That is why we were there. Ayau was coordinating a community meeting about the memorial, which he and his crew would build the following week. The design was for two stone pillars, a large slab of stone for names and commemorative comments, and a thatch roof. One aspect of the grant project was to teach local youth traditional skills for building with *pōhaku* (stone). In the course of preparing for construction, it had come to Ayau's attention that some members of the community felt that other deceased members of the community should be likewise honored. Therefore, Ayau proposed that the stone bear two sets of names: those of the fishermen on one side, and those of other deceased members of the community on the other, with special attention to those who have no proper memorialization in the cemetery. The purpose of the meeting we attended was to get a list of names for this second component. It was fascinating to behold. Slow to speak at first, various community members began to perform memory work together, thinking aloud about former residents, lost connections, grappling here and there about dates and name spellings. Two hours later Ayau had an agreed-upon list. A blank slate took on history. It is as substantial as stone, thanks to Ayau's hard days quarrying grant awards.

My reason for including the story of Miloli'i here is to draw attention to frequently underappreciated forms of mālama, especially starkly bureaucratic ones like grant writing, petitioning state and federal agencies for action, or working with UNESCO for heritage site designation. Visiting Newark and listening to stories there, I heard plenty to indicate that many people on the ground are involved in "invisible" or "offstage" mālama, forms of care that are given out of public view, with little audience, and frequently no appreciation. These kinds of tasks are the lifeblood of serious, abiding mālama. Whether by way of Dana Naone Hall attending meeting after meeting to make sure the State of Hawai'i administers its burial law with integrity or Halealoha Ayau sitting down to write another grant proposal, mālama at this level is keeping Hawaiian culture vital. At Newark it is clear that many

communities share in similar forms of unseen mālama labor, including indigenous activists, historians, archeologists, and others. My hope is that this labor as a whole gets due recognition and, moreover, that the diverse interests groups performing this labor see and respect the efforts of others, even when sometimes they appear to be at cross-purposes with their own agendas.

Conclusion: A Polynesian Newark?

Care and neglect. These are fundamental to the human condition, whether at the level of the individual or at the level of culture. Neglect, in particular, seems to thrive in spaces between cultures, in gaps between claims to histories. Heritage site protection is manifestly about assuaging neglect, but according to whose terms and values? Care for the physicality of the past is differently imagined, diversely practiced, and often contentious across lines of solidarity, where these are ethnic, regional, or otherwise construed. This is not least because different groups bring forward divergent claims to ownership (legal or moral) of sites, differing interpretations of history, and highly variable comfort levels with relationships of narrative to place, especially with claims to continuity and relationships over time. Absence of care, then, can set in even when—or precisely because—multiple groups lay claim to a site. Different expressions of care may become mutually canceling or so muddled in practice as to leave the appearance of neglect. A cacophony of agendas is not a recipe for care. And yet seldom does a monolithic or unified vision of care emerge in settings fraught with the politics of the past. The question then becomes, What are some actionable pathways to care? In Hawaiian terms, How and under what conditions can mālama prevail?

I am of the opinion that no general answer will be found to this question, though we can aspire collectively to catalog and model success stories when we see them, in hopes that some roughly translatable principles and practices emerge over time. The three cases of mālama in action I have sketched may offer some inspiration in this direction. None of them mirror conditions at Newark, and I am quite aware that Hawai'i and Ohio are rather different places. Beyond the obvious difference in physical contexts—one archipelagic and the other midcontinental—among the discrepancies one might note is the stark difference in the visibility of Native people in the respective places. As a scholar of comparative religion, I am not put off by these differences. I find them "good to think," to invoke Levi-Strauss's classic quip. Such manifest incongruities relieve me of the burden of forcing direct corollaries in my

analyses. My approach has been oblique, aiming for some modest insight about Newark framed in terms of several Hawaiian places and the people who care for them. The spirit of this volume, as I understand it, aims in just this direction: to shed light in unexpected ways, to unsettle thoughts about Newark with a little travel elsewhere.

At the very broadest level, I wish to emphasize the following point in closing. For scientists, land managers, administrators, and politicians, I would offer encouragement not to be afraid of living indigenous traditions as their practitioners continue to emerge. In Hawai'i, the most vibrant sites are those that receive local mālama. This has meant such radical things as Hawaiians performing rituals at sites, engaging them as they would have been utilized centuries ago.[22] Sometimes this process involves modest alteration of sites, if only through human presence upon them. Occasionally some Hawaiians have engaged or made claims upon sites in ways that appear "invented" by scholars and other observers.[23] This dynamic has been in play at Newark and seems likely to remain relevant. Thorny territory this, but one response is simply to ask what it means in terms of mālama. If such groups and their practices bring attention and care to a site, then what is the real cost? More radically, another response is to say: Show me uninvented traditions, and we can talk. In any case, my point to various stakeholders is simply to forestall fear and criticism of ways of engaging the sites that do not map directly onto archeological knowledge or "preservationist" agendas. The benefits of lived engagement with sites will redound to all—a pulse will be felt, interest will be generated, and care will follow.

Notes

1. Blackford, "Environmental Justice, Native Rights, Tourism, and Opposition to Military Control."

2. On social memory theory, see, for example, Huyssen, *Present Pasts.*

3. Concerning the colonization of Hawai'i, see, for example, Merry, *Colonizing Hawai'i;* Kauanui, *Hawaiian Blood.*

4. See, for example, Silva, *Aloha Betrayed.*

5. See, for example, Finney, *Sailing in the Wake of the Ancestors.*

6. Naone Hall, "Sovereign Ground."

7. Naone Hall, *Mālama.*

8. For more on Naone Hall's role at Honokahua, see G. Johnson, *Sacred Claims.*

9. G. Johnson, "Varieties of Native Hawaiian Establishment."

10. 25 USC 3001, 1990. On NAGPRA generally, see, for example, Fine-Dare, *Grave Injustice.*

11. United Nations Declaration on the Rights of Indigenous Peoples, http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf.

12. See Naone Hall's poem "Signs," in *Mālama*.

13. For a discussion of Kū sensibilities in contemporary settings, see Kame'eleihiwa, *Native Land and Foreign Desires*.

14. On *akua*, Malo, *Hawaiian Antiquities*, and Valeri, *Kingship and Sacrifice*.

15. Naone Hall, *Mālama*, 148.

16. On Hui Mālama generally, see Ayau and Tengan, "Ka Huaka'i O Na 'Oiwi"; Kunani, "Stone by Stone, Bone by Bone."

17. Ayau, personal communication, July, 24, 2010.

18. Johnson, *Sacred Claims*.

19. Burl Burlingame, "Group Picked to Bring Remains Instead Gives 205 Sets to State," *Honolulu Star-Bulletin*, Dec. 30, 2000, http://archives.starbulletin.com/2000/12/30/news/story2.html.

20. Israel Kamakawiwo'ole, *The Man and His Music* (DVD) (Honolulu: Mountain Apple, 1995).

21. The three-year, $400,000 grant was awarded to an organization headed by Ayau, Hui Ho'oniho.

22. See Tengan, *Native Men Remade*.

23. For a discussion of "invention" theories and their relevance to contemporary Hawai'i, see G. Johnson, "Authenticity, Invention, Articulation."

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAI'I

Contested Case Hearing Re Conservation District Use Application (CDUA) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Ka'ohe Mauka, Hāmakua, Hawai'i, TMK (3) 4-4-015:009	BLNR Contested Case HA-16-002 **CERTIFICATE OF SERVICE**

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the attached document was served upon the following parties by the means indicated:

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