

BOARD OF LAND AND NATURAL RESOURCES
STATE OF HAWAII
IN THE MATTER OF) CASE NO. BLNR-CC-002
Contested Case Hearing Re)
Conservation District Use)
Application (CDMA)NA-3568)
For The Thirty Meter) VOLUME 29
Telescope at the Mauna Kea)
Science Reserve, Ka'ohu)
Maui, Hamakua, Hawaii)
THK (314-4-015 003)

CONTESTED CASE HEARING

Held on January 21, 2017, 2018, commencing at 9:00
a.m., at Grand Hanalei Hotel, Crown Room, 93 Banyan
Drive, Hilo, Hawaii 96721

REPORTER: Jean Marie McManus, CDR #154

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1 APPEARANCES:
2 JUDGE RIKI MAY AMANO, Hearings Officer
3 WILLIAM WYNHOFF, Deputy Attorney General
4 STAFF:
5 MICHAEL CAIN, Planner
6 JOHN PETE MANAUT, ESQ.
7 IAN SANDISON, ESQ.
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10 Attorneys For TMT International Observatory, LLC
11 LINCOLN S.T. ASHIDA, ESQ.
12 For PUEO
13 YUKLIN ALULI, ESQ.
14 Attorney for KAHEA
15 LANNY SINKIN
16 Temple of Lono
17 PUALANI CASE
18 Flores-Case Ohana
19 KEALOA PISCIOTTA,
20 Mauna Kea Anaina Hou
21 PRO SE
22 DEBORAH WARD
23 CLARENCE CHING
24 MEHANA KIHAI
25 JOSEPH CAMARA
DWIGHT J. VICENTE
CINDY FREITAS
WILLIAM FREITAS
HARRY FERGERSTROM

ALSO PRESENT:
Mrs. Wilma Holi

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08 58 1 HEARINGS OFFICER AMANO: May I ask for
08 58 2 appearances?
08 58 3 MR. MANAUT: Good morning, Your Honor, John
08 58 4 Pete Manaut and Ian Sandison appearing for the
08 58 5 University of Hawai'i.
08 58 6 HEARINGS OFFICER AMANO: Good morning.
08 58 7 MS. ALULI: Good morning, Your Honor,
08 58 8 Yuklin Aluli appearing on behalf of KAHEA.
08 58 9 HEARINGS OFFICER AMANO: Good morning, Ms.
08 58 10 Aluli.
08 58 11 MR. SHINYAMA: Good morning, Your Honor,
08 58 12 Ross Shinyama for TMT International Observatory.
08 58 13 HEARINGS OFFICER AMANO: Good morning, Mr.
08 58 14 Shinyama.
08 58 15 MR. ASHIDA: Good morning, Your Honor,
08 59 16 Lincoln Ashida representing Perpetuating Unique
08 59 17 Educational Opportunities.
08 59 18 HEARINGS OFFICER AMANO: Thank you. Good
08 59 19 morning, Mr. Ashida.
08 59 20 MR. CHING: Good morning, Your Honor,
08 59 21 Clarence Kukauakahi Ching.
08 59 22 HEARINGS OFFICER AMANO: Good morning, Mr.
08 59 23 Ching.
08 59 24 MR. VICENTE: Dwight Vicente.
08 59 25 HEARINGS OFFICER AMANO: Good morning, Mr.

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01:32 1 the data or selecting the individuals who provide you
 01:32 2 with that data, correct?
 01:32 3 **A Right. And there's a real disclosure of**
 01:32 4 **limitations within every peer-review study ever**
 01:32 5 **published.**
 01:32 6 **Q** Understood.
 01:32 7 And another bias is called an observer
 01:32 8 bias, is that correct?
 01:32 9 **A Yes.**
 01:32 10 **Q** That bias is just taking a look at any
 01:32 11 potential biases the observer or the person conducted
 01:32 12 the research may have, is that correct?
 01:32 13 **A Correct.**
 01:32 14 **Q** And as you testified earlier, your research
 01:32 15 is still going through that peer-review process, is
 01:33 16 that correct?
 01:33 17 **A Correct.**
 01:33 18 **Q** And so it is still going through this
 01:33 19 independent scrutiny, is that correct?
 01:33 20 **A Correct.**
 01:33 21 **Q** No further questions, Your Honor.
 01:33 22 HEARINGS OFFICER AMANO: Thank you. Any
 01:33 23 redirect, Ms. Aluli?
 01:33 24 MS. ALULI: No, Your Honor. Thank you,
 01:33 25 Dr. Taulii.

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01:33 1 HEARINGS OFFICER AMANO: Dr. Taulii, thank
 01:33 2 you very much.
 01:33 3 Is the next witness going to be KAHEA's
 01:33 4 witness or --
 01:33 5 MS. ALULI: Next witness is KAHEA's
 01:33 6 witness, and it's Kuulei Kanahele. She's here, if
 01:33 7 you would like to call her.
 01:33 8 HEARINGS OFFICER AMANO: Yes, please.
 01:33 9 While she is approaching, may we ask for offer of
 01:33 10 proof?
 01:33 11 MS. ALULI: Kuulei Kanahele is a lead
 01:33 12 researcher for the Edith Kanakaole Foundation. She
 01:33 13 is also a teacher at the University of Hawaii-Hilo,
 01:34 14 and she has provided witness direct testimony as to
 01:34 15 the hydrology of Mauna Kea as viewed by Native
 01:34 16 Hawaiians through chant and mo'olelo also contained
 01:34 17 within her testimony is being offered for that
 01:34 18 reason.
 01:34 19 The other area that her witness direct
 01:34 20 testimony covers in some respects is a rebuttal to
 01:34 21 Dr. Paul Coleman's testimony that -- so I am going to
 01:34 22 be offering this WDT as rebuttal to Dr. Coleman's
 01:34 23 written and oral testimony that Mauna Kea was not
 01:34 24 sacred, that that is the view of one family, the
 01:35 25 Kanakaole family on the Island of Hawaii, and that

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01:35 1 there was no reference contained in the Kumulipo
 01:35 2 regarding Mauna Loa or any of its attributes.
 01:35 3 And I have advised Ms. Kanahele that she
 01:35 4 has the opportunity to present her information orally
 01:35 5 for ten minutes.
 01:35 6 HEARINGS OFFICER AMANO: Thank you. And
 01:35 7 just so we don't confuse anybody, when you say you're
 01:35 8 offering her as rebuttal witness, she's not really a
 01:35 9 true rebuttal witness, but she was offered as a
 01:35 10 witness and includes all this testimony which is --
 01:35 11 MS. ALULI: Controverts Dr. Coleman's
 01:35 12 testimony that he was crossed on.
 01:35 13 HEARINGS OFFICER AMANO: Thank you.
 01:35 14 MS. ALULI: I guess she isn't a true
 01:35 15 rebuttal witness but --
 01:35 16 HEARINGS OFFICER AMANO: It's okay, I
 01:35 17 understand what she is offered for. I see that the
 01:36 18 Kumulipo is mentioned in her written direct
 01:36 19 testimony.
 01:36 20 MS. ALULI: Yes, Your Honor.
 01:36 21 HEARINGS OFFICER AMANO: Very good.
 01:36 22 Thank you for your patience. I'm sorry we
 01:36 23 kept you waiting.
 01:36 24 May we ask you for your name, please?
 01:36 25 THE WITNESS: Yes, my name is Kuulei

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01:36 1 Kanahele.
 01:36 2 HEARINGS OFFICER AMANO: Thank you. And
 01:36 3 Ms. Kanahele -- excuse me -- may I ask you to take
 01:36 4 the oath please.
 01:36 5 Do you solemnly swear or affirm that the
 01:36 6 testimony you're about to give in the matter before
 01:36 7 this tribunal shall be the truth, the whole truth,
 01:36 8 and nothing but the truth?
 01:36 9 THE WITNESS: Yes.
 01:36 10 HEARINGS OFFICER AMANO: Thank you.
 01:36 11 Ms. Kanahele, by any chance do you have
 01:36 12 your written direct testimony with you?
 01:36 13 THE WITNESS: Yes, I do.
 01:36 14 HEARINGS OFFICER AMANO: Is it three pages?
 01:36 15 THE WITNESS: Yes, it is.
 01:36 16 HEARINGS OFFICER AMANO: And now, you're
 01:36 17 under oath, and I'm going to ask you first, is that
 01:36 18 your statement?
 01:36 19 THE WITNESS: Yes, it is.
 01:36 20 HEARINGS OFFICER AMANO: And is everything
 01:36 21 in that statement true and correct to the best of
 01:36 22 your knowledge?
 01:36 23 THE WITNESS: Yes.
 01:36 24 HEARINGS OFFICER AMANO: And you have up to
 01:36 25 ten minutes to summarize your position before we

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<p style="text-align: right;">141</p> <p>01:36 1 begin cross-examination.</p> <p>01:37 2 All right, please go forward.</p> <p>3 KUULEI KANAHELE</p> <p>4 Was called as a witness by and on behalf of KAHEA,</p> <p>5 was sworn to tell the truth, was examined and</p> <p>6 testified as follows:</p> <p>7 DIRECT EXAMINATION</p> <p>01:37 8 THE WITNESS: Aloha kakou. My name again</p> <p>01:37 9 is Kuulei Kanahele. My family is from Kahakuloa and</p> <p>01:37 10 Honolua on the Island of Maui.</p> <p>01:37 11 As mentioned in my introduction, I am the</p> <p>01:37 12 lead researcher for Papahūliahonua, or earth science,</p> <p>01:37 13 for the Edith Kanakaʻole Foundation, and part of my</p> <p>01:37 14 duties as the lead researcher is to try to understand</p> <p>01:37 15 our chants that was passed down through the</p> <p>01:37 16 generation, and by understanding these chants is</p> <p>01:37 17 because the chants are documents of centuries of</p> <p>01:37 18 observation, environmental observation. And chants</p> <p>01:37 19 are a way to record and transmit all of this</p> <p>01:37 20 knowledge of our kupuna to us today.</p> <p>01:37 21 Our job today is to be able to understand</p> <p>01:37 22 these chants and use it so that we know the proper</p> <p>01:38 23 and correct way to live in these islands.</p> <p>01:38 24 I have presented my findings and my</p> <p>01:38 25 interpretations of these chants, locally, nationally</p> <p style="text-align: right;">McMANUS COURT REPORTERS 808-239-6148</p>	<p style="text-align: right;">143</p> <p>01:39 1 So Mauna Kea is born of the gods Wakea and</p> <p>01:39 2 Papa. Now, Kauīkeaouli, Kamehameha III genealogy</p> <p>01:39 3 chant is the confirmation that Mauna Kea is sacred in</p> <p>01:40 4 the Hawaiian mind. Mauna Kea is born of the gods,</p> <p>01:40 5 and it's the same gods who will later be the</p> <p>01:40 6 progenitor of the Hawaiian race.</p> <p>01:40 7 From this stems our belief, the Hawaiian</p> <p>01:40 8 belief that Mauna Kea is our ancestor to the Hawaiian</p> <p>01:40 9 people. We all come from the same people, Wakea and</p> <p>01:40 10 Papa. Now, the sacredness of Mauna Kea does not lie</p> <p>01:40 11 only in the fact that Mauna Kea is descendent from</p> <p>01:40 12 these gods Papa and Wakea. Mauna Kea summit touches</p> <p>01:40 13 the atmosphere and stands in the wao akua, which</p> <p>01:40 14 we've heard before. The wao akua is the realm of our</p> <p>01:40 15 gods.</p> <p>01:40 16 And I wanted to take a minute to talk about</p> <p>01:40 17 gods, because that word has been thrown around a lot.</p> <p>01:40 18 In my practice, our Hawaiian gods are not invisible</p> <p>01:40 19 beings that live in the heavens. When we say gods,</p> <p>01:40 20 we're talking about actual, physical elements that</p> <p>01:40 21 give us life. Water is a God, the sun is a God, the</p> <p>01:40 22 ocean is a God, snow is a God and mist is God,</p> <p>01:41 23 because these are all elements that give us life here</p> <p>01:41 24 on earth.</p> <p>01:41 25 So the summit of Mauna Kea is wao akua,</p> <p style="text-align: right;">McMANUS COURT REPORTERS 808-239-6148</p>
<p style="text-align: right;">142</p> <p>01:38 1 and internationally. Most recently to GoogleX and</p> <p>01:38 2 the Hokulea Malama Honua Worldwide Voyage as well as</p> <p>01:38 3 at the IUCN, the 2016 IUCN World Conservation</p> <p>01:38 4 Congress.</p> <p>01:38 5 And so my testimony says, begins with the</p> <p>01:38 6 reason why we believe Mauna Kea is sacred. And in</p> <p>01:38 7 1813 Kamehameha III, who's named Kauīkeaoli was born,</p> <p>01:38 8 and to honor this occasion, a chant was composed to</p> <p>01:38 9 highlight his lineage. Hawaiian royal lineage begins</p> <p>01:38 10 with the creation of the world, and such is the case</p> <p>01:38 11 in Kamehameha III's birth chant.</p> <p>01:38 12 Now, in this chant night is born first, and</p> <p>01:39 13 this is because in the Hawaiian world view night is</p> <p>01:39 14 an important component for growth and gestation</p> <p>01:39 15 similar to the womb. Now, out of this darkness is</p> <p>01:39 16 born Hawaii Island. It's the sacred first born.</p> <p>01:39 17 Following the birth of our island, daylight is born</p> <p>01:39 18 and with it, the birth of clouds and the atmosphere.</p> <p>01:39 19 Now, the birth of daylight and clouds</p> <p>01:39 20 together shows our ancestors' knowledge of hydrology</p> <p>01:39 21 in the islands in that the sun's heat that causes the</p> <p>01:39 22 formation of the clouds. After daylight, this is the</p> <p>01:39 23 fourth pauku, ka mauna a kea is born. Ka Mauna a Kea</p> <p>01:39 24 is born. Ka Mauna a Kea is what we know as Mauna</p> <p>01:39 25 Kea.</p> <p style="text-align: right;">McMANUS COURT REPORTERS 808-239-6148</p>	<p style="text-align: right;">144</p> <p>01:41 1 place where gods reside, where water, snow and mists</p> <p>01:41 2 are found, and the wao akua is up there, far removed</p> <p>01:41 3 from the wao kanaka where humans can reside. And</p> <p>01:41 4 this separation of the wao akua and the wao kanaka</p> <p>01:41 5 that keeps our elements pristine. Our ancestors</p> <p>01:41 6 designated the summit of any mountain, but especially</p> <p>01:41 7 the summit of Mauna Kea as sacred, and limited access</p> <p>01:41 8 to a select few, and these select few were able to</p> <p>01:41 9 access the summit only for specific reason and for</p> <p>01:41 10 specific length of time. It wasn't a permanent</p> <p>01:41 11 settlement up there.</p> <p>01:41 12 Now, Mauna Kea's role in hydrology or the</p> <p>01:41 13 water cycles. We believe in our chants that Mauna</p> <p>01:42 14 Kea is responsible for gathering, storing and</p> <p>01:42 15 distributing water on Hawaii Island. As mentioned in</p> <p>01:42 16 Kamehameha III birth chant, the sun is the causative</p> <p>01:42 17 of cloud formation, and it's Mauna Kea's role to</p> <p>01:42 18 attract the clouds to our island. In the Kumulipo or</p> <p>01:42 19 cosmological chant it states that the forest on our</p> <p>01:42 20 mountain, Mauna Kea included, act as a pahu wai, and</p> <p>01:42 21 pahu wai are containers. And it's these pahu wais</p> <p>01:42 22 that collect the water and store the water that is</p> <p>01:42 23 used to recharge our aquifer.</p> <p>01:42 24 Line 616 and 618 of the Kumilipo states</p> <p>01:42 25 Hanau o Moanalaha, hanau o Waomaukele, he mau pahu</p> <p style="text-align: right;">McMANUS COURT REPORTERS 808-239-6148</p>

01:42 1 kapu. The forest and the aquifer are pahu wai, water
 01:42 2 containers. So interestingly enough, almost two
 01:42 3 years ago to this day, we had -- there was a headline
 01:43 4 in the newspapers that says scientist found water up
 01:43 5 on Mauna Kea. The UH geochemist says that they
 01:43 6 drilled at Pohakuloa, they found water.
 01:43 7 Well, we could have told you from the
 01:43 8 Kumulipo that we already knew this. We don't need
 01:43 9 geochemists. We don't need scientists to tell us our
 01:43 10 mountain has water, because Kumulipo tells us our
 01:43 11 mountain has water. We call it pahu wai. The
 01:43 12 geochemists call it a water container, same words.
 01:43 13 But we used ours hundreds of years ago. They
 01:43 14 discovered theirs two years ago.
 01:43 15 Another chant, E o Mauna Kea, describes
 01:43 16 Mauna Kea's role in gathering clouds to recharge the
 01:43 17 aquifer. And the English of the chant goes like
 01:43 18 this: Mauna Kea, our ancestor, pointing to the sun
 01:43 19 in the atmosphere, Mauna Kea is our diety that
 01:43 20 pierces through the clouds, all different kinds of
 01:44 21 clouds, yellow clouds, dark clouds, swollen clouds,
 01:44 22 and these clouds gather in the presence of the
 01:44 23 mountain and transported by the winds that blows over
 01:44 24 from Kumukahi, which is in the east, and these winds
 01:44 25 transport the clouds to quench the islands.

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01:44 1 The chant further goes on to name specific
 01:44 2 water akua, which is Poli'ahu, Lilinoe, Waiau and
 01:44 3 Kalauakolea. As I stated earlier, these are not just
 01:44 4 invisible beings that we call upon. Poli'ahu is our
 01:44 5 snow, Lilinoe is the mists, Waiau is our lake, and
 01:44 6 Kalauakolea is fog drip.
 01:44 7 So the gods still live there. Mauna Kea
 01:44 8 summit is still a wao akua where these gods reside,
 01:44 9 Mauna Kea draws these clouds of the summit, and
 01:44 10 precipitation from these clouds, from these akua,
 01:45 11 snow, mist, and fog drip feed into the lake, feed
 01:45 12 into the aquifer, and quench the thirst of our
 01:45 13 islands.
 01:45 14 So this chant, like countless others,
 01:45 15 speaks of the water cycle and the role Mauna Kea
 01:45 16 plays in it.
 01:45 17 So in conclusion, through chant we know
 01:45 18 that our ancestors knew the importance of designating
 01:45 19 Mauna Kea as sacred and keeping the summit area
 01:45 20 pristine to maintain the purity of the water, to
 01:45 21 maintain the purity of our akua.
 01:45 22 Traditional Hawaiian society was able to
 01:45 23 sustain an estimated population of over a million
 01:45 24 people without needing to ship in food, without
 01:45 25 needing to ship in water, because their leader had

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01:45 1 enacted laws to protect the natural environment.
 01:45 2 Now, typically, modern society takes a
 01:45 3 reactive approach to protecting resources. Once an
 01:45 4 ecosystem is damaged, efforts are concentrated on
 01:45 5 saving it. We save the forest by reforestation. We
 01:46 6 save endangered animals by raising them in captivity.
 01:46 7 We need to follow the example of our traditional
 01:46 8 Hawaiian societies and not try to save things. We
 01:46 9 need to not damage an ecosystem in the first place by
 01:46 10 keeping it in its pristine and natural state. We
 01:46 11 need to stop further building on Mauna Kea before
 01:46 12 damage is done to our mountain, and the water
 01:46 13 supplying capabilities is irreversible. Thank you.
 01:46 14 HEARINGS OFFICER AMANO: Thank you, Ms.
 01:46 15 Kanahele. Ms. Ward.
 01:46 16 CROSS-EXAMINATION
 01:46 17 BY MS. WARD:
 01:46 18 Q Good afternoon.
 01:46 19 A Aloha.
 01:46 20 Q My name is Deborah Ward. Thank you so much
 01:46 21 for taking time to see us today.
 01:46 22 My questions are on my computer. I'm not
 01:46 23 used to this.
 01:46 24 You state in your testimony that you work
 01:46 25 within the University system to interpret traditional

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01:47 1 Hawaiian chants, to understand land use and its
 01:47 2 connection to traditional Hawaiian culture. Is that
 01:47 3 correct?
 01:47 4 A Well, I work with the Edith Kanakaole
 01:47 5 Foundation to understand chant, and on the side I
 01:47 6 work at Hawaii Community College where I use part of
 01:47 7 the information that I get from EKF to teach my
 01:47 8 students.
 01:47 9 Q What do you teach?
 01:47 10 A I teach Hawaiian language.
 01:47 11 Q I see in your CV that you taught some other
 01:47 12 things as well, including what?
 01:47 13 A I teach Hawaiian plants, occasionally I
 01:47 14 teach Hawaiian spirituality and Hawaiian piko, which
 01:47 15 is a wahi pana class or place-based class.
 01:47 16 Q Thank you.
 01:47 17 So were chants a traditional form of
 01:47 18 documentation of environmental observations related
 01:47 19 to the land use and cultural practice?
 01:47 20 A Yes, chants are.
 01:47 21 Q And in the oral tradition of native people
 01:48 22 of Hawaii, is it correct to say that Hawaiian people
 01:48 23 believe that the summit of Mauna Kea touches the sky
 01:48 24 in an unique and important way?
 01:48 25 A Yes.

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01:48 1 Q And how does that importance reflect itself
01:48 2 in chants?
01:48 3 A Well, not only in chants, but also in our
01:48 4 language itself. Encoded in every language is
01:48 5 information about our thought processes. So if you
01:48 6 look at our language, and I'm a Hawaiian language
01:48 7 teacher, the summits of our mountains are our piko.

01:48 8 Q And than means?

01:48 9 A And piko, as we know on our body is either
01:48 10 your belly button is one piko, and another piko is at
01:48 11 the top of your head.
01:48 12 Now, if we look at the word piko, and why
01:48 13 the top of our head is called piko? It's because the
01:48 14 piko, through the piko we have connections to our
01:49 15 ancestors. So through our belly button, that piko we
01:49 16 have connections to our mother and connections to our
01:49 17 descendents. Through our po'o, through our head, we
01:49 18 have connections to our ancestors and all the
01:49 19 information collectively so that we can receive from
01:49 20 them.

01:49 21 Now, growing up in Hawaii, we know that
01:49 22 it's not cool to hit someone on the head because this
01:49 23 area is sacred. Similarly, piko on the mountain, if
01:49 24 the piko of our head is sacred, can you imagine how
01:49 25 much more sacred the piko of mountain is, this

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01:49 1 feature that rises into the wao akua. So slapping
01:49 2 the kid on the head and digging into the piko of our
01:49 3 mountain is very damaging to our belief system.

01:49 4 Q Thank you, you just answered about five of
01:49 5 my questions.

01:49 6 My understanding is that your testimony is
01:49 7 that Mauna Kea is considered a source of water?

01:50 8 A Yes.

01:50 9 Q In the forms snow, mists, rain, is that
01:50 10 correct?

01:50 11 A It's a collector of water, attractor of
01:50 12 water.

01:50 13 Q And, I understand. Are there other words
01:50 14 in the Hawaiian language used for forms of
01:50 15 precipitation?

01:50 16 A We have a vast amount of words for
01:50 17 precipitation. And if you just look at rain, there
01:50 18 are so many forms of rain in the Hawaiian language.
01:50 19 We have words for light rain, heavy rain, deluge of
01:50 20 rain, rain that comes from the bottom, rains that
01:50 21 fall from the side, and that's just one word, rain.

01:50 22 Snow, we have different types of snow, the
01:50 23 way they fall. So, yes, the Hawaiian language has a
01:50 24 lot of words for precipitation.

01:50 25 Q And you told us about the deities aligned

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01:50 1 with snow, rain and mist and also fog drip. And why
01:51 2 is the water associated with wao akua important in
01:51 3 cultural tradition?
01:51 4 A Cultural tradition, the water in the wao
01:51 5 akua is sacred, because it's the water that has yet
01:51 6 to fall down to wao kanaka. This water is purer than
01:51 7 the water we can find here on earth. And it's for
01:51 8 that sacredness that the area was deemed kapu, that
01:51 9 we shouldn't go there to pollute that water.

01:51 10 Q So how is Mauna Kea unique in the oral
01:51 11 tradition with respect to water? Is it different
01:51 12 from Mauna Loa, or Hualalai?

01:51 13 A It's unique in the fact that our ancestors
01:51 14 realized that it is the tallest summit on our island,
01:51 15 and it's the tallest summit on our paeaina in our
01:51 16 archipelago, and now we know it's the tallest summit
01:52 17 globally. And so the water of Mauna Kea is that much
01:52 18 more sacred because it's higher in the wao akua.

01:52 19 Q Have you ever visited the site of the
01:52 20 proposed Thirty Meter Telescope?

01:52 21 A I have not.

01:52 22 Q One of the fundamental challenges in this
01:52 23 contested case hearing relates to the issue of the
01:52 24 relationship of development and land use intensity to
01:52 25 water.

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01:52 1 The applicant University maintains in this
01:52 2 Conservation District Use Application on Page 2-4
01:52 3 that there are no streams, coastal wetlands or
01:52 4 estuaries in the vicinity of site. It's not located
01:52 5 near marine life Conservation District or within the
01:52 6 shoreline setback area. It says the high elevation,
01:52 7 limited rainfall and porous nature of the cinder of
01:52 8 the TMT project site essentially precludes the
01:53 9 migration of effluents to coastal areas.

01:53 10 There is another part of the CDUA that says
01:53 11 not porous, and there it says Area E is composed
01:53 12 principally of solid lava flows.

01:53 13 In your experience with the oral tradition,
01:53 14 what is the fate of snow, rain, hail, fog drip, mist
01:53 15 in the wao akua at the summit region? What happens
01:53 16 to it?

01:53 17 A Well, in our traditions actually Waiau is
01:53 18 known as a punawai, which is a spring. So with our
01:53 19 ancestor calling Waiau punawai, they see the
01:53 20 relationship of the movement of water. So with fog
01:53 21 drip, fog drip will go into our soil and eventually
01:53 22 recharge the aquifer or spring system and come back
01:53 23 up. So there's that relationship between, it's the
01:53 24 movement of water.

01:54 25 And so by saying that there's no effect of

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01:54 1 **building up there, that's a falsity.**

01:54 2 **Q** Okay. I'll pursue that a little bit. In
01:54 3 the oral tradition that you speak of, is purity of
01:54 4 water for traditional practice important?

01:54 5 **A** Purity is very important. Our ancestors
01:54 6 would, like I said, access was limited to a few, but
01:54 7 if pure water was needed for ceremony, religious
01:54 8 practices healing we would go up to the mountain,
01:54 9 gather water, called wai laulau in some practices,
01:54 10 and wrap this water or the ice from Mauna Kea to be
01:54 11 used ceremonially.

01:54 12 **And so it's not like you can go gather the**
01:54 13 **water at the beach. It's specifically needed to use**
01:54 14 **the water up at the summit.**

01:54 15 **Q** And so it's important for collection of
01:54 16 water for ceremony, you said for healing and
01:54 17 medicine?

01:54 18 **A** Yes.

01:54 19 **Q** Okay. So the Conservation District Use
01:55 20 Application describes the TMT site as an alpine stone
01:55 21 desert ecosystem, and the importance of water versus
01:55 22 the survival of plants that the TMT project site in
01:55 23 relation to water described this way on Page 3-5.
01:55 24 CDUA.

01:55 25 The mosses, there are 12 species of mosses
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01:55 1 present in the alpine stone desert occur in habitats
01:55 2 partially protected by rocky overhang or deeply
01:55 3 shaded pockets and crevices. The availability of
01:55 4 water appears to be the most important factor
01:55 5 determining the distribution of mosses.

01:55 6 **And then it says two species of mosses were**
01:55 7 **detected during recent botanical surveys, Area E, and**
01:55 8 **both species are indigenous to Mauna Kea. Vascular**
01:55 9 **plants that survive in the alpine stone desert occur**
01:55 10 **mainly at the base of rock outcrops where there is an**
01:55 11 **accumulation of soil and moisture and some protection**
01:56 12 **from the wind.**

01:56 13 **Can you tell us whether the gathering of**
01:56 14 **plant material has been described in the oral**
01:56 15 **tradition?**

01:56 16 **A** If we gathered the mosses?

01:56 17 **Q** Uh-huh.

01:56 18 **A** In my study of the chants, I can't talk of
01:56 19 gathering mosses, mention of the chants, but I do
01:56 20 know we gather plants. But interestingly enough, the
01:56 21 mosses are mentioned in our chants. And the moss
01:56 22 plays an important role in the collection of water.
01:56 23 It's one of the pahu wai I mentioned in the Kumulipo,
01:56 24 so it's because of the mosses and because of the fog
01:56 25 drip that allows our mauna and forest to be

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01:56 1 **designated as water containers as pahu wai.**

01:56 2 **Q** I see. You cited the conclusion of your
01:56 3 testimony that it was important that your ancestors
01:56 4 maintain the summit area pristine in order to
01:57 5 maintain the purity of water?

01:57 6 **A** Yes.

01:57 7 **Q** Is that still a value important to Native
01:57 8 Hawaiian traditional and cultural practitioners
01:57 9 today?

01:57 10 **A** Yes, it is.

01:57 11 **Q** I would like to share some passages with
01:57 12 you about the Thirty Meter Telescope proposed plan.
01:57 13 It says the best management practices for the control
01:57 14 of storm water runoff from construction will be
01:57 15 developed in conjunction with finalization of the
01:57 16 site development plan. And as construction involves
01:57 17 the disturbance of more than one acre, there will be
01:57 18 a storm water application submission to the clean
01:57 19 water branch of the Department of Health.

01:57 20 **And it goes on in Appendix B-21 state, as**
01:57 21 **rainfall in the summit region is infrequent and not**
01:57 22 **extreme, no underground drainage systems will be**
01:57 23 **constructed. All above ground drainage facilities**
01:57 24 **will be restricted to the drainage swale on the**
01:57 25 **cinder section of the accessway. And generally water**

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01:57 1 will flow from the impervious surfaces, the paved
01:58 2 portion of the accessway and the TMT Observatory dome
01:58 3 support building into the surrounding graded parking
01:58 4 areas, roadways, embankments and slopes, plus the
01:58 5 surrounding natural area that consist of very
01:58 6 permeable lava flows.

01:58 7 **How does that -- does that make you**
01:58 8 **confident that the water would still be pristine in**
01:58 9 **wao akua?**

01:58 10 **A** No. I'm reminded of a story from the Pele
01:58 11 mo'olelo, the Pele saga, that Hi'iaka was traveling
01:58 12 on the shore, and she meets up with a fisherman, and
01:58 13 the fisherman was remarking on this running stream.
01:58 14 And he remarked, Hi'iaka, and said he has no idea why
01:58 15 this stream is running because there has been a
01:58 16 drought and there wasn't any rainfall in the past
01:58 17 month, so how could this stream be running? And
01:59 18 Hi'iaka turns to him, and Hi'iaka is our deity for
01:59 19 healing. And Hi'iaka turns to him and says it's not
01:59 20 the rain that fills our streams, and it's not the
01:59 21 rain that fills our aquifers, it's the fog drip. And
01:59 22 she says, it's the fog drip that is a constant
01:59 23 presence on our summit that feeds the root systems of
01:59 24 our plants and feeds down into the aquifer, and it's
01:59 25 this fog drip that's filling up our river system.

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01:59 1 **And so just because Mauna Kea doesn't have**
 01:59 2 **rainfall as this report says, we still have the mist,**
 01:59 3 **and we still have the fog drip, and it's those waters**
 01:59 4 **that are supplying our island aquifers.**

01:59 5 Q Thank you. Just a little bit more.

01:59 6 In the CDDA on Page 4-16 to control dust,
 01:59 7 TMT would take several measures such as spraying
 01:59 8 water on the accessway to limit the amount of dust
 02:00 9 during construction activities. And on Page 6-1 of
 02:00 10 the CDDA, it states the impact due to new impervious
 02:00 11 surfaces will be limited due to the permeability of
 02:00 12 the surrounding ground surface and the area of the
 02:00 13 natural land downslope from the TMT Observatory and
 02:00 14 accessway. Site grading and landscaping will be
 02:00 15 designed to direct storm water to pervious areas so
 02:00 16 that it may percolate into the ground. These
 02:00 17 measures would result in all precipitation ultimately
 02:00 18 recharging underlying aquifers because runoff would
 02:00 19 be directed to nearby areas where it would percolate
 02:00 20 into the ground rather than entering into streams
 02:00 21 that discharge to the ocean.

02:00 22 So when you say that the purity of the fog
 02:00 23 drip in the summit area which contributes to the
 02:00 24 aquifer, do you feel that the runoff from the
 02:00 25 building in a construction site and roadways would

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02:01 1 impact aquifer in any way?

02:01 2 A Yes, because once the water is in contact
 02:01 3 with something manmade, you're already polluting it.
 02:01 4 It's not, it's no longer of the wao akua.

02:01 5 Q So how well do you believe that the
 02:01 6 mitigation measures outlined in that paragraph will
 02:01 7 protect the waters of the summit region of Mauna Kea?

02:01 8 A It's already not -- I don't understand,
 02:01 9 because it's already not protected. Once it comes
 02:01 10 into contact with something manmade, it's no longer
 02:01 11 pure.

02:01 12 Q I see.

02:01 13 So is that what you would call a reactive
 02:01 14 measure then to -- well, maybe that's not even
 02:01 15 reactive.

02:01 16 You stated in your testimony that we need
 02:01 17 to follow the practices of traditional Hawaiian
 02:01 18 society and not damage the system by keeping it in
 02:01 19 its natural state. Do you believe that the
 02:01 20 telescopes, which are sometimes projected as a clean
 02:01 21 industry, are clean enough for the summit of Mauna
 02:02 22 Kea?

02:02 23 A No, because the summit of Mauna Kea, like I
 02:02 24 said, should be wao akua, a place where only the akua
 02:02 25 and the elements are, and buildings and activity of

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02:02 1 men should stay down at the wao kanaka.

02:02 2 Q My last question relates to the ability of
 02:02 3 the proposed Thirty Meter Telescope to project the
 02:02 4 project can comply with the eight criteria set out in
 02:02 5 the Conservation District rules.

02:02 6 And the Conservation District Use
 02:02 7 Application states that the legislature finds that
 02:02 8 lands within the State Land Use Conservation District
 02:02 9 contain important natural resources essential to the
 02:02 10 preservation of the state's fragile, natural
 02:02 11 ecosystem and sustainability of the state's water
 02:02 12 supply. It is therefore the intent of the
 02:02 13 legislature to conserve, protect and preserve the
 02:02 14 important natural resources of the state through
 02:02 15 appropriate management and to promote their long-term
 02:02 16 sustainability and public health safety and welfare.

02:03 17 Do you believe that the public safety, the
 02:03 18 public health, safety and welfare will be protected
 02:03 19 with regard to the hydrology of the summit as you
 02:03 20 know in your oral tradition?

02:03 21 A Can you repeat the question?

02:03 22 Q How do you believe -- do you believe that
 02:03 23 the public health, safety and welfare will be
 02:03 24 protected, maintained and preserved?

02:03 25 A If the TMT is built?

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02:03 1 Q Yes.

02:03 2 A No, because what I think of health I also
 02:03 3 think of mental health. So once you build on the
 02:03 4 piko of our akua, of our mountain, it's damaging,
 02:03 5 like I said earlier, by hitting the child on the
 02:03 6 head. It's the same, no, no, you can't do that.

02:03 7 Q I thank you so much.

02:03 8 A Thank you.

02:03 9 HEARINGS OFFICER AMANO: Thank you, Ms.
 02:03 10 Ward. Ms. Pisciotta.

02:03 11 CROSS-EXAMINATION

02:03 12 BY MS. PISCIOтта:

02:04 13 Q Aloha.

02:04 14 A Aloha.

02:04 15 Q How are you?

02:04 16 A I'm good.

02:04 17 Q Thank you so much for coming and taking the
 02:04 18 time out of your busy schedule to testify.

02:04 19 Mahalo very much for your research. I find
 02:04 20 it very enlightening on many levels. I want to ask
 02:04 21 you this question.

02:04 22 In your research, did you find -- actually,
 02:04 23 let me explain something.

02:04 24 There is a freeze and thaw cycle that
 02:05 25 occurs on the mauna at every morning as the clouds

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02:05 1 come in, rise up and form. As they go away, what you
 02:05 2 see, you have to be there at the early hour, you see
 02:05 3 all of these spires of icicles coming through the
 02:05 4 cinders. They make a pattern, which is almost like
 02:05 5 someone in the Japanese garden, a thing like this
 02:05 6 (indicating).

02:05 7 **A Uh-huh.**

02:05 8 **Q** I wanted to just know if you have heard
 02:05 9 that in the afternoon or if you read anything near
 02:05 10 that, because that would describe a phenomenon that
 02:05 11 we are seeing. Then in the afternoon, we have again,
 02:05 12 the clouds move in, yeah, every afternoon. They
 02:06 13 start in as fingers like this, and then they move up.
 02:06 14 So that also creates the freeze and thaw cycle as the
 02:06 15 sun goes down.

02:06 16 So I was wondering if you have -- if you
 02:06 17 haven't, that's fine -- heard any references to any
 02:06 18 kind of phenomena like this?

02:06 19 **A There's several chants that speak of the --**
 02:06 20 **that kind of atmospheric occurrences with the**
 02:06 21 **condensation and what we call it uhi wai when the**
 02:06 22 **waters come in.**

02:06 23 **Q** That's great.

02:06 24 Also in the -- is one of the reasons why
 02:06 25 the people viewed the mountain as sacred is through

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02:07 1 the ali'i chants, describing the lineage, I guess is
 02:07 2 what I want to say. Is that what your testimony was?
 02:07 3 **A Yes. I offered that birth chant for**
 02:07 4 **Kamehameha III just to show why we say Mauna Kea is**
 02:07 5 **an ancestor. And for me, and for I'm sure, every**
 02:07 6 **Hawaiian out there, you know, that you're supposed to**
 02:07 7 **take care of your ancestors, malama your kupuna, and**
 02:07 8 **that's the purpose of that birth chant, to establish**
 02:07 9 **that relationship we have. It's a lineal descent**
 02:07 10 **from Papa and Wakea to Mauna Kea and then to us as**
 02:07 11 **man.**

02:07 12 **Q** And then also, because of the deities being
 02:07 13 predominantly water forms, that also helps to give,
 02:08 14 relay the sacredness and the water connection?

02:08 15 **A Yes.**

02:08 16 **Q** Is that correct?

02:08 17 **A Yes, so the wao akua, that's the area where**
 02:08 18 **the akua reside.**

02:08 19 **Q** And then what of Keaomelemele bringing for
 02:08 20 example?

02:08 21 **A The clouds?**

02:08 22 **Q** Yeah, they come to participate also or the
 02:08 23 Keaomelemele ma bringing the clouds also, is that
 02:08 24 correct?

02:08 25 **A Yes.**

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02:08 1 **Q** And then also you reference the fog drip
 02:08 2 and that the mauna itself is a collector, right?

02:08 3 **A Yes.**

02:08 4 **Q** Are you aware of specific caves where, for
 02:08 5 example, in Pohakuloa, down in that region there are
 02:08 6 many caves with systems that are set up to
 02:09 7 specifically collect the fog drip.

02:09 8 Do you see any other references to Mauna
 02:09 9 Kea like that?

02:09 10 **A I see references for -- it's actually a**
 02:09 11 **blanket reference to all our summits, that the mauna**
 02:09 12 **acts as pahu wai and that's in the Kumulipo.**

02:09 13 **Q** It may be hard for people to understand how
 02:09 14 fog drip itself can be feeding so much?

02:09 15 **A So one of the, in the text, the Hi'iaka**
 02:09 16 **text that I mentioned, that's exactly what the**
 02:09 17 **fisherman responded, why can the fog drip. But the**
 02:09 18 **fog drip is a constant, steady presence, like you**
 02:09 19 **said, in the morning and in the afternoon. And it's**
 02:09 20 **this constant, steady, gentle presence of the fog**
 02:10 21 **drip that allows the earth to soak it up. Where as**
 02:10 22 **rain is the heavier element, so the rain will often**
 02:10 23 **be runoff and oftentimes it doesn't have time to soak**
 02:10 24 **into the ground.**

02:10 25 **So that's why Hi'iaka said that the fog**

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02:10 1 **drip is responsible for recharging of the water.**

02:10 2 **Q** That's so neat.

02:10 3 **A Mahalo.**

02:10 4 **Q** Mahalo.

02:10 5 I wanted to ask you ask some other
 02:10 6 questions.

02:10 7 In any of your research, have you come
 02:10 8 across any research done by University or TMT or BLNR
 02:10 9 for that matter that would be -- the purpose would be
 02:10 10 to analyze the hydrology and its affect on cultural
 02:10 11 practice, Native Hawaiian culture practice?

02:11 12 **A What was the question?**

02:11 13 **Q** Have you ever come across any studies about
 02:11 14 the hydrology or the water cycle done by the
 02:11 15 University or any telescopes or BLNR?

02:11 16 **A To support TMT?**

02:11 17 **Q** No, that would analyze the hydrology and
 02:11 18 its relationship to Native Hawaiian practitioners.

02:11 19 **A I did see a study a few years ago that**
 02:11 20 **talks about fog drip, and its role in the forest and**
 02:11 21 **its role with the ohia forest especially, and all the**
 02:11 22 **information found in that study could be found in our**
 02:11 23 **chants.**

02:11 24 **So our ancestors knew about it hundreds of**
 02:11 25 **years ago before Western scientist discovered it.**

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02:11 1 Q You stated earlier to Ms. Ward that on --

02:12 2 actually, sorry, let me back up just a moment.

02:12 3 Have you seen any studies that particularly

02:12 4 looked at the hydrology and its relationship to

02:12 5 Native Hawaiian practitioners for Mauna Kea at all?

02:12 6 A No.

02:12 7 Q No studies that you've seen, okay.

02:12 8 We're here about land use, and have you

02:12 9 seen any kamaaina testimony relating to land use that

02:12 10 discusses Mauna Kea's land use in any way, in any of

02:12 11 the, you know, for example, the newspapers or

02:12 12 research like this?

02:12 13 A I've seen a few -- I've looked at the

02:13 14 newspapers about Queen Emma's journey to the summit,

02:13 15 and historical articles like that from the Nupepa

02:13 16 Hawaii.

02:13 17 Q And did you see any references to ali'i

02:13 18 bringing ice down from the mauna?

02:13 19 A Not specifically, but like I mentioned in

02:13 20 the earlier -- in my earlier response, I have seen

02:13 21 reports where they would wrap up the ice and bring it

02:13 22 down. I'm not sure if ali'i did that, but I know --

02:13 23 well, I guess you would have to be ali'i. Let me

02:13 24 back up.

02:13 25 To be a kahuna, a priest, you would have to

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02:13 1 be an ali'i. So, yes, I guess I can say the ali'i

02:13 2 went up to collect the ice.

02:13 3 Q And, again, let me ask you this.

02:14 4 Are you aware that there has been in the

02:14 5 past spills of hazardous materials up there, and have

02:14 6 you ever seen any accounts or any reports that would

02:14 7 analyze those spills and their impacts to Native

02:14 8 Hawaiian practitioners?

02:14 9 A I've seen reports of spills in the

02:14 10 newspapers, and heard of it from friends, and my gut

02:14 11 -- I don't know if I've seen reports that study the

02:14 12 damage, but my gut reaction is to say having the

02:14 13 spills up there is defiling our waters up there.

02:14 14 Q And you do -- would you agree that the

02:15 15 medicine waters that would come from the mauna would

02:15 16 be of our highest order?

02:15 17 A Of water?

02:15 18 Q Uh-huh.

02:15 19 A Yes.

02:15 20 Q So it would be done in very special

02:15 21 ceremonies?

02:15 22 A Yes.

02:15 23 Q I think I'm done. Mahalo.

02:15 24 HEARINGS OFFICER AMANO: Let's stand in

02:15 25 recess, please.

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02:26 1 (Recess taken.)

02:28 2 HEARINGS OFFICER AMANO: Can I ask Ms.

02:28 3 Kanahale to please return to the witness seat. Mr.

02:29 4 Ching, you're next.

02:29 5 Thank you very much. May I remind you that

02:29 6 the testimony you're about to give will continue

02:29 7 under the oath you took earlier to tell the truth,

02:29 8 okay?

02:29 9 THE WITNESS: Yes.

02:29 10 HEARINGS OFFICER AMANO: Thank you so much.

02:29 11 Mr. Ching.

02:29 12 CROSS-EXAMINATION

02:29 13 BY MR. CHING:

02:29 14 Q Good afternoon.

02:29 15 A Aloha.

02:29 16 Q I was interested because you said, for

02:29 17 instance, you teach about Hawaiian plants.

02:29 18 A Yes.

02:29 19 Q What do you teach about Hawaiian plants?

02:29 20 A I taught a course for Hawaiian plants at

02:29 21 the community college, and I basically teach my

02:29 22 students how to identify certain plants and their

02:30 23 uses.

02:30 24 Q Are you familiar with any of the mountain

02:30 25 plants?

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02:30 1 A Yes.

02:30 2 Q For instance?

02:30 3 A I am mostly familiar with plants we use in

02:30 4 our halau, so I know of -- our halau uses ohia,

02:30 5 ieie -- all the ferns -- palaa, lauuae, olapa, and

02:30 6 some of the forest, the mountain plants.

02:30 7 Q Mostly native ferns, but not necessarily

02:30 8 native -- some not native like lauuae?

02:30 9 A Uh-huh.

02:30 10 Q Is that true?

02:30 11 How about Halapepe?

02:31 12 A In my practice we don't really use

02:31 13 halapepe, but I am familiar with it.

02:31 14 Q I see, thank you.

02:31 15 You mentioned the name Kalauakolea. So I

02:31 16 had some ideas of what the name might have meant, but

02:31 17 now that you placed the emphasis on the "a" it makes

02:31 18 it more clear. Could you tell us about that?

02:31 19 A Well, Kalauakolea is one of the names found

02:31 20 in that chant E o Mauna Kea that I referenced

02:31 21 earlier, and Kalauakolea, if you translate it

02:31 22 literally, Kalauakolea is the fern, and the lau

02:31 23 akolea refers to the leaf blade of that fern. And

02:31 24 the leaf blade that attracts or collects the water,

02:32 25 the mist in the atmosphere, and then that water then

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02:32 1 **becomes the fog drip.**
 02:32 2 **Q** I see. So it's one of the mechanism of fog
 02:32 3 drip?
 02:32 4 **A** Yes.
 02:32 5 **Q** Are you familiar with the story of
 02:32 6 Makaiole's brother?
 02:32 7 **A** I'm familiar with the story of the Kamiki.
 02:32 8 **Q** Yeah.
 02:32 9 **A** Yes.
 02:32 10 **Q** What is their relationship or at least I
 02:32 11 know one of them has a relationship to Mauna Kea.
 02:32 12 Can you tell us about their relationship?
 02:32 13 **A** Kamiki and Makaiole were brothers on the
 02:32 14 Kona side of the island. And as part of their
 02:32 15 graduation ceremonies, their grandmother gave them a
 02:32 16 test, and to pass this test they had to go to Waipio
 02:33 17 Valley and get awa, and also go to Mauna Kea to
 02:33 18 collect water. And so that was their function.
 02:33 19 They gathered, they went and got the awa
 02:33 20 from Waipio, and then went to the summit to gather
 02:33 21 water from Waiau. And by passing the test and
 02:33 22 collecting the awa and water, then they were able to
 02:33 23 have their awa ceremony for graduation.
 02:33 24 **Q** I see. Are you acquainted with the name
 02:33 25 Houpoakane?

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02:33 1 **A** Houpoakane, yes.
 02:33 2 **Q** And what is that all about?
 02:33 3 **A** Well, there's several -- in my practice
 02:33 4 there are several ways we can interpret Kahoupoakane,
 02:33 5 but kane as diety is heat and energy. And so we see
 02:33 6 the name kane in words like, in nomenclature like
 02:34 7 kanehoalani, that's our sun. Kanawai ola, which is
 02:34 8 freshwater. And so Kahoupoakane is this area of the
 02:34 9 body (indicating).
 02:34 10 **Q** The chest or the breast?
 02:34 11 **A** Yeah. Solar plexus, I believe, it's
 02:34 12 defined in English. But Kahoupoakane in my practice,
 02:34 13 in my interpretation, is this land, it gives you the
 02:34 14 impression of this land of plenty, and it's that same
 02:34 15 kind of uli uli or health. It's the health of the
 02:34 16 land.
 02:34 17 **Q** And so it's associated with the springs
 02:34 18 from the south side of the mountain?
 02:34 19 **A** It's also noted in the story of Kamiki,
 02:34 20 they mentioned Kahoupoakane a lot.
 02:34 21 **Q** I see. So this, I don't know how you would
 02:34 22 say it, but the kane part of it and kane's
 02:35 23 relationship with water also runs in very well with
 02:35 24 the other water functions in the deities of the
 02:35 25 mountain?

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02:35 1 **A** Yes.
 02:35 2 **Q** Thank you. I have no further comments.
 02:35 3 HEARINGS OFFICER AMANO: Mrs. Case.
 02:35 4 CROSS-EXAMINATION
 02:35 5 BY MS. CASE:
 02:35 6 **Q** Aloha.
 02:35 7 **A** Aloha.
 02:35 8 **Q** In your testimony you testified that you
 02:35 9 study and research chants.
 02:35 10 **A** Yes, correct.
 02:35 11 **Q** So I'm going to go beyond the chants, and
 02:35 12 I'm just going to ask you how would you describe
 02:36 13 yourself in reference to hula?
 02:36 14 **A** Hula, I have been a practitioner of hula
 02:36 15 for several decades. I dance with a local halau here
 02:36 16 in Keaukaha.
 02:36 17 **Q** And in that halau, would you consider
 02:36 18 yourself to be a chanter as well?
 02:36 19 **A** Yes, as part of our hula training we learn
 02:36 20 how to chant. I've also taken chant lessons on the
 02:36 21 side with Pua Kanakaole Kanahele.
 02:36 22 **Q** What is the difference for you between
 02:36 23 studying the words on paper and reciting the chant as
 02:36 24 a chanter?
 02:36 25 **A** Well, in our training you can't just study

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02:36 1 the words on the paper. You have to chant it. And
 02:36 2 by chanting it and putting it out there into the
 02:36 3 atmosphere, for lack of better phrase, you bring the
 02:37 4 chant alive, and you interact with the elements
 02:37 5 around you. And it's that verbrato or that vocal
 02:37 6 quality of the chant that interacts with the elements
 02:37 7 that help bring the chant to life.
 02:37 8 **Q** Thank you.
 02:37 9 So are there specific places indicated in
 02:37 10 particular chants that you have gone to to recite
 02:37 11 chants?
 02:37 12 **A** Yes.
 02:37 13 **Q** Could you just share with us perhaps one
 02:37 14 place where you go to where you are chanting about a
 02:37 15 particular place and you are at that place?
 02:37 16 **A** One common place is the crater Halemaumau,
 02:37 17 that's where we practice mostly.
 02:37 18 **Q** And when you visit a place such as
 02:37 19 Halemaumau that you are chanting about, can you share
 02:38 20 with us what is the purpose of chanting at such a
 02:38 21 place?
 02:38 22 **A** One purpose is to honor the elements that
 02:38 23 are there. And sometimes it's hard to explain, but
 02:38 24 when you're standing there at the edge of the cliff
 02:38 25 and chanting, and then you see the elements you're

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02:38 1 **chanting about come alive, it just reaffirms your**
 02:38 2 **connection with the environment and the ecosystems**
 02:38 3 **and the atmospheres and the elements that surround**
 02:38 4 **you.**
 02:38 5 **Q** So you may have just answered this next
 02:38 6 question and so I'm just going to pose it if you
 02:38 7 would like to embellish on that or perhaps you've
 02:38 8 already answered it.
 02:38 9 As a chanter, is there a relationship that
 02:38 10 occurs between the chanter and the place?
 02:38 11 **A Yes, there is. And sometimes, sometimes**
 02:39 12 **when you chant it's not you chanting. You've**
 02:39 13 **transformed, and you become the element. You become**
 02:39 14 **the diety that's -- that you're chanting to.**
 02:39 15 **Q** Thank you for that answer.
 02:39 16 I'm going to ask you, how long have you
 02:39 17 been studying chants?
 02:39 18 **A I started dancing with Halau o kekuhi in**
 02:39 19 **1997, and I started working at the Edith Kanakaole**
 02:39 20 **Foundation about that same time, 1996, so I've been**
 02:39 21 **studying chants for 20 years, 21.**
 02:40 22 **Q** How many chants, if you gave me an
 02:40 23 approximate, would you say that you have researched?
 02:40 24 **A I have in my collection over 1000 Pele**
 02:40 25 **chants that I've read and typed out onto my computer**
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02:40 1 **every single line. I've studied chants like the**
 02:40 2 **Kumulipo and other koihonua chants. I've studied**
 02:40 3 **chants from other mo'olelo, but not as extensively as**
 02:40 4 **the Pele chants.**
 02:40 5 **Q** Thank you.
 02:40 6 There are chants that are currently recited
 02:40 7 and chanted on Mauna Kea from the base of Mauna Kea
 02:40 8 to the summit of the Mauna. The two of them that you
 02:40 9 referenced in your direct testimony amongst them,
 02:40 10 Would you say that those particular chants that you
 02:41 11 referenced honor Mauna Kea?
 02:41 12 **A Yes.**
 02:41 13 **Q** With the extensive research that you have
 02:41 14 done and your experience, do you know of any
 02:41 15 traditional chants from your study that could be done
 02:41 16 to honor the destruction of 12-and-a-half acres which
 02:41 17 would include the wao akua?
 02:41 18 **A No.**
 02:41 19 **Q** Through the indigenous knowledge and wisdom
 02:41 20 contained in the chants that you have studied, do you
 02:41 21 in any way believe that our kupuna would condone the
 02:42 22 destruction, desecration and construction of the wao
 02:42 23 akua for any purpose?
 02:42 24 **A No, our kupuna would not.**
 02:42 25 **Q** Why do you believe that?
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02:42 1 **A Because all the chants that I've studied**
 02:42 2 **have to do with the creation of land and the health**
 02:42 3 **of the land and the restoration of that health. And**
 02:42 4 **so there is no chant out there that will chant for**
 02:42 5 **the destruction of anything.**
 02:42 6 **Q** Thank you.
 02:42 7 **A That's foreign to my thinking.**
 02:42 8 **Q** Mine too. Thank you. No further
 02:42 9 questions, mahalo nui.
 02:42 10 HEARINGS OFFICER AMANO: Thank you, Mr.
 02:42 11 Case. Mr. Fergerstrom.
 02:43 12 CROSS-EXAMINATION
 02:43 13 BY MR. FERGERSTROM:
 02:43 14 **Q** Hi, Harry Fergerstrom. I don't have a lot
 02:43 15 of questions for you, only because I'm just
 02:43 16 mesmerized by the depth of your knowledge of just --
 02:43 17 I said I'm mesmerized by the depth of understanding
 02:43 18 of our cultural traditions and chants and how they're
 02:43 19 not just words, they are actually embracements.
 02:43 20 **A Yes.**
 02:43 21 **Q** I would like to say though, I was, I think
 02:43 22 it was yourself and Kuuipo Freitas who did a
 02:43 23 presentation at the 'Imiloa Center, and in that
 02:44 24 audience with me was also Stephanie Nagata from the
 02:44 25 Office of Mauna Kea Management. And you were talking
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02:44 1 about what you were talking about today, how the
 02:44 2 aquifers are replenished.
 02:44 3 **A Yes, I think I referenced the same two**
 02:44 4 **chants in that speech.**
 02:44 5 **Q** Yes, and when I heard that, I turned
 02:44 6 around, and Stephanie Nagata looked at me like that's
 02:44 7 what you've been saying. And so I was telling Cindy
 02:44 8 I need to talk to you guys, because I don't know the
 02:44 9 chants, and so I wanted to thank you for bringing
 02:44 10 that up. Mahalo nui.
 02:44 11 HEARINGS OFFICER AMANO: Ms. Kihoi.
 02:44 12 CROSS-EXAMINATION
 02:44 13 BY MS. KIHOI:
 02:45 14 **Q** Aloha.
 02:45 15 **A Aloha.**
 02:45 16 **Q** I have just got a few questions.
 02:45 17 As you explained in your testimony, the
 02:45 18 porous areas around Mauna Kea are known as pahu wai.
 02:45 19 Could you explain why that area of Mauna Kea is also
 02:45 20 known as ka'ohe?
 02:45 21 **A Ka'ohe. Ka'ohe is the name of the**
 02:45 22 **'ahupua'a if I'm not mistaken. And if you translate**
 02:45 23 **that name literally, Ka'ohe is the bamboo, and bamboo**
 02:46 24 **is one of our collectors of water as well. And**
 02:46 25 **actually, the water found in ohe has that same**
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02:46 1 **quality as the water found on Mauna Kea in that it's**
 02:46 2 **sacred because it has yet to touch dirt. And so by**
 02:46 3 **naming the ahupua'a that Mauna Kea is sitting in as**
 02:46 4 **Ka'ohe, that's another confirmation that our**
 02:46 5 **ancestors knew that Mauna Kea and that ahupua'a acted**
 02:46 6 **as water containers.**

02:46 7 **Q** Thank you.

02:46 8 With your cross-examination with Mr. Ku
 02:46 9 Ching, you talked about Kahoupoakane and his
 02:46 10 different elemental forces. What is the significance
 02:46 11 of Kane and Hina to the snow goddess Poli'ahu?

02:47 12 **A** Kane is, like I said, heat, and his main
 02:47 13 form is heat. And because of that heat and the
 02:47 14 hydrology of water, that's why we also see him in the
 02:47 15 names like Kawaiolakane and the water. He's also the
 02:47 16 freshwater. And in our mo'olelo in the genealogy of
 02:47 17 our akua, Kane is the father of Poli'ahu, and so we
 02:47 18 have this water being -- Poli'ahu is like an offshoot
 02:47 19 of that diety, of that Kane water diety, and Hina is
 02:47 20 also in that genealogy as a mother, and Hina's main
 02:47 21 function or main form is the moon. And so we have
 02:47 22 the relationship of water, of the snow, to both Kane,
 02:47 23 the sun, Kane the water form, and Hina as the moon.

02:48 24 **Q** What was the degree of Kane as Poli'ahu's
 02:48 25 father or any restrictions that he had, he had placed

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02:48 1 over her?

02:48 2 **A** That I'm not familiar with.

02:48 3 **Q** Just meaning if he had any restrictions for
 02:48 4 any man to touch her?

02:48 5 **A** Oh, okay. Well, in the one story I'm
 02:48 6 familiar with that has to do with Kukahau'ula, which
 02:48 7 is the summit, I know in that story Poli'ahu is
 02:48 8 listed as kind of the favorite child of Kane and
 02:48 9 Hina, and she was set apart as kapu, and any time --
 02:48 10 and her beauty was famous. So any time a man would
 02:49 11 go up to the mountain to go try and see Poli'ahu,
 02:49 12 that's when Lilinoe and the entourage would step in
 02:49 13 and deluge all the men with the mist, with the rain,
 02:49 14 just to block their access to Poli'ahu. And so, I
 02:49 15 guess that's what you're talking about.

02:49 16 **But yes, so that's part of that story where**
 02:49 17 **the access to Poli'ahu is restricted.**

02:49 18 **Q** And why was that restriction so important
 02:49 19 to Lilinoe, to the other deities on the mountain?

02:49 20 **A** I think it's that same theme of keeping
 02:49 21 Poli'ahu pure.

02:49 22 **Q** So that she would remain untouched?

02:49 23 **A** Uh-huh.

02:49 24 **Q** Okay, I think that's all I have. That was
 02:50 25 actually the question that I was hoping that you

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02:50 1 would answer. Thank you so much, mahalo.

02:50 2 **A** Thank you.

02:50 3 **HEARINGS OFFICER AMANO:** Thank you, Ms.

02:50 4 Kihoi. Mr. Ashida.

02:50 5 **MR. ASHIDA:** No questions, Your Honor.

02:50 6 **HEARINGS OFFICER AMANO:** Thank you. Mr.

02:50 7 Sinkin.

02:50 8 CROSS-EXAMINATION

02:50 9 BY MR. SINKIN:

02:50 10 **Q** Aloha.

02:50 11 **A** Aloha.

02:50 12 **Q** So in the Temple of Lono, the way the
 02:50 13 hydrological cycle is described is that Kanaloa, the
 02:50 14 sun, heats Ku the ocean water vapors rise, Lono of
 02:50 15 the earth uses a magnetic field to form clouds,
 02:50 16 clouds hit the mountain, and Kane freshwater comes
 02:51 17 down and winds its way back to the ocean.

02:51 18 And in listening to your description of the
 02:51 19 hydrologic process, it's just a slightly different
 02:51 20 perspective of the same sorry.

02:51 21 **A** Yes.

02:51 22 **Q** And it seems like if one were to try and
 02:51 23 characterize this information from the Hawaiian
 02:51 24 civilization, it is based on observation?

02:51 25 **A** Observation, yes.

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02:51 1 **Q** And a great deal of observation so that you
 02:51 2 may have 100 names for a wave, a type of wave, or 100
 02:51 3 names for a type of rain, but these are things that
 02:51 4 can only happen because you're observing?

02:51 5 **A** Yes, and that observation was important
 02:51 6 because you needed to survive, and your survival rate
 02:51 7 is dependent on what you observe in the atmosphere
 02:51 8 before Guy Hagi came along and was able to predict
 02:51 9 the weather for you.

02:52 10 **Q** I don't know how many names Guy Hagi has
 02:52 11 for waves, but I commiserate with Hawaiian names.

02:52 12 And in order to survive, there was an order
 02:52 13 to things and you mention the fact that leaders
 02:52 14 enacted laws to protect our natural resources in
 02:52 15 Hawaiian civilization. Then you were referring to
 02:52 16 kanawai?

02:52 17 **A** Yes.

02:52 18 **Q** And the kanawai, that's a set of rules on
 02:52 19 how to behave?

02:52 20 **A** Right.

02:52 21 **Q** And those rules were developed by
 02:52 22 observation?

02:52 23 **A** Right.

02:52 24 **Q** So you didn't take a particular fish at a
 02:52 25 time when it was spawning because the next

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02:52 1 generations would need that spawn, that's an example
 02:52 2 of kanawai?
 02:52 3 **A Yes.**
 02:52 4 **Q Who --**
 02:52 5 **A So one of the more common kanawai we know**
 02:52 6 **growing up is when you're at the ocean, don't turn**
 02:52 7 **your back to the waves. And you need these kanawai**
 02:53 8 **again, to help you survive. Because if you are at**
 02:53 9 **the ocean and you turn your back to the ocean, a wave**
 02:53 10 **is going to pound you out. And so each of our akua**
 02:53 11 **have their own kanawai to malama their boundaries.**
 02:53 12 **Q So each of the akua basically have their**
 02:53 13 **own kuleana?**
 02:53 14 **A Yes.**
 02:53 15 **Q Which is manifested by their kanawai?**
 02:53 16 **A Yes.**
 02:53 17 **Q Thank you.**
 02:53 18 **And so the process you describe of moisture**
 02:53 19 **moving on the mountain is much more complicated and**
 02:53 20 **complex than what Ms. Ward read from the EIS, but**
 02:53 21 **you're talking about how moisture moves up the**
 02:53 22 **mountain, water flowing up hill, if you will, by the**
 02:53 23 **clouds rising and then the fern leaf petal trap the**
 02:53 24 **water and it becomes part of the fog, is that the**
 02:53 25 **process you're describing?**

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02:53 1 **A Yes, we also have more complicated**
 02:54 2 **processes which I didn't mention which has to do with**
 02:54 3 **Laka, and Laka is another diety of mist found on our**
 02:54 4 **mountain top, the summits and the ridges, and Laka**
 02:54 5 **has do with two types of mist we have, and that is**
 02:54 6 **ohu and noe. And ohu is a mist that rises, and noe**
 02:54 7 **is that mist that descends, and so our ancestors were**
 02:54 8 **very observant to even the tiniest little**
 02:54 9 **precipitation of mist and the direction it was**
 02:54 10 **flowing, and that's a whole other lesson of**
 02:54 11 **hydrology.**
 02:54 12 **Q Now you mentioned Laka. I was struck by**
 02:54 13 **what you said about when you were chanting with the**
 02:54 14 **elements at times you become the element in the**
 02:54 15 **chanting.**
 02:54 16 **A Yes.**
 02:54 17 **Q I know that I was watching the solo**
 02:54 18 **competition of the Merrie Monarch one year, and you**
 02:55 19 **could almost see the solo dancer about five minutes**
 02:55 20 **into the presentation transformed physically as if**
 02:55 21 **Laka had descended into her to dance for everybody.**
 02:55 22 **Is that the kind of oneness that you**
 02:55 23 **experience in those times when you were chanting with**
 02:55 24 **the elements?**
 02:55 25 **A Yes, and I won't say it happens all the**

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02:55 1 **time, but there's sometimes everything lines up, and**
 02:55 2 **you get lost in the chant, and you become the chant,**
 02:55 3 **and you become that, you become one with the elements**
 02:55 4 **and the environment around you, and certain chanters**
 02:55 5 **have ability when they do that, to call in the rain**
 02:55 6 **or to activate a lava flow, and it's -- that's magic**
 02:55 7 **for lack of a better word.**
 02:55 8 **Q Well, it's about connection.**
 02:56 9 **A Yes.**
 02:56 10 **Q And connecting deeply with the earth, one**
 02:56 11 **has access to the --**
 02:56 12 **A Environment, yes.**
 02:56 13 **Q To the physical manifestation of the earth?**
 02:56 14 **A Uh-huh.**
 02:56 15 **Q Actually, I would love to talk to you all**
 02:56 16 **afternoon, but I know we are going to try to finish**
 02:56 17 **with you today, so I'll cut it short. Thank you very**
 02:56 18 **much.**
 02:56 19 **A Thank you.**
 02:56 20 **HEARINGS OFFICER AMANO: Mr. Kanaele.**
 02:56 21 **CROSS-EXAMINATION**
 02:56 22 **BY MR. KANAEL:**
 02:56 23 **Q Aloha.**
 02:56 24 **A Aloha.**
 02:56 25 **Q You were with the Halau o Kekuhi since**

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02:56 1 1997?
 02:56 2 **A Yes.**
 02:56 3 **Q Were you involved in the ceremonies at Pu'u**
 02:57 4 **Huluhulu?**
 02:57 5 **A Yes. I remember you there.**
 02:57 6 **Q What is all'?**
 02:57 7 **A Ali'i, literally it's a chief.**
 02:57 8 **Q And why only they can go up there?**
 02:57 9 **A I would say it has to do with status, and**
 02:57 10 **the fact that they are closer related to the elements**
 02:57 11 **than the rest of the population.**
 02:57 12 **Q So you talking about genealogy chants that**
 02:57 13 **relate straight to the god?**
 02:57 14 **A Yes.**
 02:57 15 **Q Do you know who Akea is?**
 02:57 16 **A Akea? Is that another form of Wakea?**
 02:57 17 **Q That could be, yeah. It's a different type**
 02:57 18 **of genealogy, Uli.**
 02:57 19 **A With who?**
 02:57 20 **Q Uli.**
 02:57 21 **A I'm unfamiliar with that specific**
 02:57 22 **genealogy.**
 02:57 23 **Q Is the Kea Ohana an ohana that you would**
 02:58 24 **find in the Pu'u of Polynesia?**
 02:58 25 **A I believe so, yes.**

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02:58 1 **Q** Do you know that in most of the islands of
 02:58 2 Polynesia that your highest spots they call Mauna Kea
 02:58 3 or Mauna Loa?
 02:58 4 **A** Okay.
 02:58 5 **Q** Is the pu'us truly body forms up on Mauna
 02:58 6 Kea represent different goddesses of Mauna Kea?
 02:58 7 **A** I believe pu'us to be forms of akua, yes.
 02:58 8 **Q** Is the pu'us body form -- does all of those
 02:58 9 pu'us on Mauna Kea, when the snow comes, form the
 02:58 10 physical manifestation of our goddess Poli'ahu?
 02:59 11 **A** I believe the snow is the physical
 02:59 12 manifestation of Poli'ahu.
 02:59 13 **Q** What we see when we look up on the
 02:59 14 mountain, we see her lying down with her hair and the
 02:59 15 whole thing?
 02:59 16 **A** Well, that's one level of interpretation,
 02:59 17 that Poli'ahu takes on a human form, but I believe
 02:59 18 the snow itself is Poli'ahu.
 02:59 19 So similar, along that same lines of
 02:59 20 thinking you have urban legends of Pele as a human
 02:59 21 form walking, so that's one interpretation. But the
 02:59 22 way my study teaches me is that Pele is not a human
 02:59 23 walking and hitchhiking, Pele is the lava.
 02:59 24 And so akua are the elements, not human
 02:59 25 forms of the elements, if that makes sense.

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02:59 1 **Q** Yeah.
 03:00 2 Is the Kumulipo a creation chant of only
 03:00 3 Hawaiian or all Polynesia?
 03:00 4 **A** I believe it's for Hawaii. It was written
 03:00 5 for one of the chief's lono-i-kamakahi and
 03:00 6 relates -- the last line details his birth, but the
 03:00 7 2000-plus preceding lines relates him all the way
 03:00 8 back to the formation of the universe.
 03:00 9 **Q** Did you ever study the genealogies of the
 03:00 10 Polynesian?
 03:00 11 **A** No, only of Hawaii.
 03:00 12 **Q** Where we are in the middle of the ocean,
 03:00 13 without water, or polluted water, in the middle of
 03:00 14 the ocean, could we survive?
 03:00 15 **A** If we had polluted water?
 03:00 16 **Q** Or no water?
 03:00 17 **A** No, we could not survive.
 03:00 18 **Q** My last question, yeah.
 03:00 19 Would you say that if they cut the tops of
 03:01 20 pu'us to build telescopes, that you have desecrated
 03:01 21 our goddess by mountain top removal?
 03:01 22 **A** Yes, if you cut the top of the piko, that's
 03:01 23 the same, the metaphor of hitting your child on the
 03:01 24 piko, that same kind of desecration and disrespect.
 03:01 25 **Q** Cutting off the top of the head?

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03:01 1 **A** Yes.
 03:01 2 **Q** Thank you.
 03:01 3 HEARINGS OFFICER AMANO: Mrs. Freitas.
 03:01 4 Oh, I'm so sorry. I missed Mr. Vicente,
 03:01 5 apologize.
 03:01 6 MR. VICENTE: No questions.
 03:01 7 HEARINGS OFFICER AMANO: No questions,
 03:01 8 okay. Thank you. Ms. Freitas.
 03:01 9 CROSS-EXAMINATION
 03:01 10 BY MS. FREITAS:
 03:01 11 **Q** Aloha, Cindy Freitas, aloha.
 03:02 12 **A** Aloha.
 03:02 13 **Q** Isn't it fair to say that the land
 03:02 14 division, the ahupua'a or the land division was
 03:02 15 wedge-shaped and extended from mountain to sea, and
 03:02 16 the waters from the upland fed the lower lands and
 03:02 17 flowed the water as it entered the fishponds along
 03:02 18 the coast?
 03:02 19 **A** Yes.
 03:02 20 **Q** Like the ancient Hawaii relied on the
 03:02 21 ahupua'a system of the land management, isn't it fair
 03:02 22 to say that the ancient ways are still done in today
 03:02 23 at the present?
 03:02 24 **A** Yes.
 03:02 25 **Q** In your opinion, isn't it safe to say that

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03:02 1 today the Hawaiian saw themselves as part of and not
 03:03 2 separated from nature, and were directed intact with
 03:03 3 the plants and animals and share the same land?
 03:03 4 **A** Yes.
 03:03 5 **Q** As Mauna Kea stands, and as the host of the
 03:03 6 culture and the land, we have the role of a caretaker
 03:03 7 today.
 03:03 8 **A** Uh-huh.
 03:03 9 **Q** Isn't it fair to say that the plant and
 03:03 10 animals of the land provide guidance, therefore the
 03:03 11 elements of the land provide many gifts for the
 03:03 12 spiritual and the material needs of the people of the
 03:03 13 land?
 03:03 14 **A** Yes.
 03:03 15 **Q** The most important aspect of the ahupua'a
 03:03 16 of Mauna Kea is the wai --
 03:03 17 **A** Water.
 03:03 18 **Q** -- with the host culture and the land?
 03:03 19 **A** Yes.
 03:03 20 **Q** Isn't it fair to say that the wao akua, the
 03:04 21 realm of the gods to the wao kanaka, the realm of
 03:04 22 man, where it sustains aquaculture and other human
 03:04 23 use?
 03:04 24 **A** Can you repeat that?
 03:04 25 **Q** Isn't it fair to say that the wao akua, the

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03:04 1 realm of the gods, to the wao kanaka, the realm of
 03:04 2 the man, where it sustained aquaculture and other
 03:04 3 human uses, meaning it provides us?
 03:04 4 **A The wao akua provides us and the wao kanaka**
 03:04 5 **with water, yes.**
 03:04 6 **Q** Also in your opinion, water is a gift from
 03:04 7 the god wao akua and the people of the land -- wait,
 03:04 8 strike that.
 03:04 9 Let me lay the foundation.
 03:05 10 The foundation of Nainoa Thompson, master
 03:05 11 navigator, states: Each time we lose another
 03:05 12 Hawaiian plant or bird or forest, we lose a living
 03:05 13 part of our ancient culture. In 1990, Hawaii Loa
 03:05 14 significantly snagged her waa, which Hawaii island
 03:05 15 identified two large Kona -- I mean two large koa
 03:05 16 trees, large enough for her hull. But for the master
 03:05 17 navigator, Nainoa was shocked and could not take the
 03:05 18 living koa out from its sacred space, and instead he
 03:05 19 went to the Pacific Northwest and asked the tribe of
 03:05 20 the Native American for a gift of two large spruce
 03:05 21 trees.
 03:05 22 Isn't it fair to say that the preservation
 03:06 23 of the nature's natural forest is a fundamental of
 03:06 24 the Hawaiian culture?
 03:06 25 **A Yes.**

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03:06 1 **Q** Isn't it fair to say the building of the
 03:06 2 TMT would cause a substantial adverse impact to the
 03:06 3 existing natural and cultural resources with the
 03:06 4 surrounding as well as the aquifer?
 03:06 5 **A Yes.**
 03:06 6 **Q** You mention nature is a body form of the
 03:06 7 god or deities. Isn't it fair to say anything which
 03:06 8 damage the natures -- native nature of the land,
 03:06 9 forest, ocean, and kinolau, therein, damage the
 03:06 10 integrity of the land as well as the culture?
 03:06 11 **A Yes.**
 03:06 12 **Q** In your Kumulipo does it mention frozen ice
 03:06 13 or we considered it as glaciers?
 03:06 14 **A Let's see. There's 2000 lines to the**
 03:07 15 **Kumulipo, 2000-plus lines. I haven't studied every**
 03:07 16 **single line, so I can't positively say that there**
 03:07 17 **isn't.**
 03:07 18 **Q** But it is a possibility?
 03:07 19 **A Yes.**
 03:07 20 **Q** Thank you for your time. Mahalo, thank
 03:07 21 you.
 03:07 22 HEARINGS OFFICER AMANO: Thank you, Mrs.
 03:07 23 Freitas. Mr. Freitas.
 03:07 24 CROSS-EXAMINATION
 03:07 25 BY MR. FREITAS:

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03:07 1 **Q** Aloha, Dr. Kanahele.
 03:07 2 **A I'm no doctor.**
 03:07 3 **Q** Well, that makes me proud to say it anyway.
 03:07 4 Mahalo for your accomplishments and what you do for
 03:07 5 the preservation of our culture, Native Hawaiians.
 03:08 6 First question, our host culture is Native
 03:08 7 Hawaiians; is that correct?
 03:08 8 **A Yes.**
 03:08 9 **Q** Thank you.
 03:08 10 The impact of observatories on Mauna Kea
 03:08 11 has directly -- has substantial adverse impacts to
 03:08 12 the natural and cultural resources on Mauna Kea. Is
 03:08 13 that correct?
 03:08 14 **A Yes.**
 03:08 15 **Q** Thank you.
 03:08 16 In the area of TMT on the North Plateau of
 03:08 17 Ka'ohe, are you familiar with that area?
 03:08 18 **A I've seen it on maps.**
 03:08 19 **Q** Have you ever been to the site?
 03:08 20 **A No. My belief is that Mauna Kea is a wao**
 03:09 21 **akua, and I don't travel there to sightsee.**
 03:09 22 **Q** Thank you.
 03:09 23 On that site as a Native Hawaiian, I was
 03:09 24 moved with others to establish an area for prayers
 03:09 25 and offerings of establishing an 'ahu, two 'ahus, for

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03:09 1 prayers and offering. In reference of the area that
 03:09 2 has been desecrated by bulldozers and drilling of
 03:09 3 85 feet into the poo of Mauna a Wakea, do you feel
 03:09 4 that our movement, that spiritual movement that moved
 03:10 5 us, is important for us to be there?
 03:10 6 **A Yes.**
 03:10 7 **Q** Thank you.
 03:10 8 In the area of the proposed site of TMT, I
 03:10 9 personally have witnessed things that have -- I
 03:10 10 probably would have never witnessed, and through
 03:10 11 prayers and offerings and present these things to me
 03:10 12 and others, do you feel these are -- would you
 03:10 13 understand this to be a sign of connection?
 03:10 14 **A Yes.**
 03:10 15 **Q** Thank you.
 03:10 16 Revitalization of Mauna Kea, if there was a
 03:11 17 point in time that no further development would be
 03:11 18 allowed on Mauna Kea, would that be a first step of
 03:11 19 revitalization of Mauna Kea?
 03:11 20 **A Yes.**
 03:11 21 **Q** Thank you.
 03:11 22 If decommissioning one observatory, would
 03:11 23 that be a revitalization of Mauna Kea?
 03:11 24 **A One step, yes.**
 03:11 25 **Q** Thank you.

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03:11 1 If consultation and attention by the
 03:11 2 agencies to consult with Native Hawaiians that use
 03:12 3 this area for spiritual practices and for those that
 03:12 4 do not practice to go into the wao akua to protect it
 03:12 5 because of their honor of course, do you feel that
 03:12 6 the revitalization can be accomplished if these
 03:12 7 agencies would consult and listen to these kupuna and
 03:12 8 people that practice?
 03:12 9 **A Yes, if they -- if agency consults and**
 03:12 10 **listen to kupuna, revitalization can begin to occur.**
 03:12 11 **Q** Thank you.
 03:12 12 Along with the revitalization of Mauna Kea,
 03:13 13 the spirit of our people, our presence of being on
 03:13 14 the top of Mauna Kea as it heals itself, as we allow
 03:13 15 it to heal itself, we would not be necessary to be in
 03:13 16 its presence directly. Would you agree?
 03:13 17 **A Yes.**
 03:13 18 **Q** Thank you.
 03:13 19 With all due respect to your belief of not
 03:13 20 entering into the wao akua, I mahalo you for your
 03:13 21 testimony, and please forgive me if I fail you in
 03:13 22 those ways. Mahalo.
 03:13 23 **A Even though it's my belief not to go up**
 03:14 24 **into the wao akua, I firmly stand behind those who go**
 03:14 25 **up, and I believe it's necessary to stand up for your**
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03:14 1 **beliefs and for our beliefs as Hawaiians. Thank you.**
 03:14 2 **Q** Mahalo, thank you. Thank you. No further
 03:14 3 questions.
 03:14 4 HEARINGS OFFICER AMANO: Mr. Manaut.
 03:14 5 MR. MANAUT: No questions.
 03:14 6 HEARINGS OFFICER AMANO: Mr. Shinyama.
 03:14 7 CROSS-EXAMINATION
 03:14 8 BY MR. SHINYAMA:
 03:14 9 **Q** Good afternoon, Ms. Kanahele.
 03:14 10 **A Aloha.**
 03:14 11 **Q** Very briefly, you testified about your
 03:14 12 opinion that the waters in the wao akua region of
 03:14 13 Mauna Kea should be kept pure; is that correct?
 03:14 14 **A Yes.**
 03:14 15 **Q** So as part of that opinion, you believe
 03:14 16 that the -- let me take a step back.
 03:14 17 Would that include Lake Waiau?
 03:14 18 **A Yes.**
 03:14 19 **Q** So your opinion would be that the only
 03:15 20 waters that should be in Lake Waiau are those that
 03:15 21 naturally occur in that wao akua region, whether
 03:15 22 snow, fog, mist or precipitation of rain, is that
 03:15 23 correct?
 03:15 24 **A Yes.**
 03:15 25 **Q** And is it your opinion that waters from the
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03:15 1 wao kanaka region should not be brought up to the wao
 03:15 2 akua region?
 03:15 3 **A Waters are brought up though.**
 03:15 4 **Q** I understand that. I'm just asking you in
 03:15 5 your opinion, because obviously your opinion is that
 03:15 6 it should be kept pure. You already testified that
 03:15 7 in your opinion you do not believe it's pure at this
 03:15 8 point in time because of the manmade structures up
 03:15 9 there; is that correct?
 03:15 10 **A Yes.**
 03:15 11 **Q** But sticking with your opinion that the wao
 03:15 12 akua region, the waters in the wao akua region waters
 03:15 13 should be kept pure --
 03:15 14 **A Yes.**
 03:15 15 **Q** -- do you believe as part of that opinion
 03:15 16 that waters from the wao kanaka region should be
 03:16 17 brought up to the wao akua region?
 03:16 18 **A Well, according to our chants, it**
 03:16 19 **shouldn't.**
 03:16 20 **Q** It shouldn't, okay.
 03:16 21 And would that be the same for waters from
 03:16 22 other areas, for example, from the mainland, it
 03:16 23 should not be brought up to the wao akua region?
 03:16 24 **A I'm not sure where you're going with this.**
 03:16 25 **Q** I'm just asking the question.
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03:16 1 **A I believe the waters of the wao akua are**
 03:16 2 **pure and other waters are brought up, but I'm not**
 03:16 3 **sure where you're going with this.**
 03:16 4 **Q** But from your reading of the chants --
 03:16 5 **A Water, in my readings of the chant, water**
 03:16 6 **was not taken up to the mountain.**
 03:16 7 **Q** Okay, that's fine.
 03:16 8 I've heard in this contested case hearing
 03:16 9 that Hawaiian words don't necessarily have an English
 03:17 10 translation. Would you agree with that?
 03:17 11 **A Some words don't have an English**
 03:17 12 **translation, yes.**
 03:17 13 **Q** And so when you're translating Hawaiian to
 03:17 14 English, there is some level of interpretation that's
 03:17 15 necessary; correct?
 03:17 16 **A Yes.**
 03:17 17 **Q** And that would be the same when you
 03:17 18 translate, for example, the Kumulipo to English?
 03:17 19 **A Yes.**
 03:17 20 **Q** No further questions, Your Honor. Thank
 03:17 21 you, Mrs. Kanahele.
 03:17 22 HEARINGS OFFICER AMANO: Ms. Aluli, any
 03:17 23 redirect?
 03:17 24 MS. ALULI: No. I want to thank you, Ms.
 03:17 25 Kanahele, for enlightening us. So we're done. Thank
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03:17 1 you, Your Honor.
 03:17 2 HEARINGS OFFICER AMANO: I also want to
 03:17 3 thank you, and good luck to you.
 03:17 4 MS. ALULI: We are prepared, Your Honor, to
 03:17 5 bring on Mr. Ching if you would like to start.
 03:17 6 HEARINGS OFFICER AMANO: Please.
 03:18 7 MR. CHING: Your Honor, before I go up on
 03:18 8 the stand, I would like to comment, my WDT at one
 03:18 9 point on Page 13, at item number 2, the year should
 03:18 10 be 2003 instead of 2002.
 03:18 11 HEARINGS OFFICER AMANO: Thank you. And I
 03:18 12 wonder if we could ask for an offer of proof.
 03:18 13 MS. ALULI: Mr. Ching has prepared B.19a,
 03:19 14 which is his witness direct testimony. It is
 03:19 15 20 pages long. He will be -- or has testified to his
 03:19 16 involvement over almost two decades with the huaka'i
 03:19 17 aina mauna, which is a group of walkers and describe
 03:19 18 those activities in his presentation of his testimony
 03:19 19 related to himself as a Native Hawaiian and a
 03:19 20 cultural practitioner.
 03:19 21 He also is trained, his Bachelor's degree
 03:19 22 was in chemistry, and he has a law degree. He was a
 03:20 23 former Office of Hawaiian Affairs trustee, and has
 03:20 24 been an acknowledged leader in our community for many
 03:20 25 years, and so his perspective with respect to a range

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03:20 1 of matters having do with his involvement in this
 03:20 2 case and as a cultural practitioner is being offered
 03:20 3 by this testimony.
 03:20 4 HEARINGS OFFICER AMANO: Now, I know Mr.
 03:20 5 Ching asked for your assistance in objecting when you
 03:20 6 feel it is appropriate. Are we going to follow that?
 03:20 7 MS. ALULI: Yes, Your Honor. I want to say
 03:20 8 that if we do not finish him today, Mr. Kaiama will
 03:20 9 be here, and he will function in the same manner.
 03:20 10 HEARINGS OFFICER AMANO: Okay. And with
 03:20 11 regard to KAHEA, will KAHEA be cross-examining in
 03:20 12 order, or because I would like to give Mr. Ching the
 03:21 13 redirect. He's a witness party.
 03:21 14 MS. ALULI: Yes, I know, and so I see where
 03:21 15 you're -- and I am going to exercise the right of
 03:21 16 KAHEA to cross-examine Mr. Ching.
 03:21 17 HEARINGS OFFICER AMANO: Let me help you
 03:21 18 with this, if you don't mind.
 03:21 19 So you're not offering him, he's testifying
 03:21 20 as a witness party?
 03:21 21 MS. ALULI: Yes, Your Honor. What I'm
 03:21 22 doing is I'm giving some kokua at his request so that
 03:21 23 he doesn't have to manage all these things on his
 03:21 24 own.
 03:21 25 HEARINGS OFFICER AMANO: Right, the

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03:21 1 objections.
 03:21 2 MS. ALULI: Yes.
 03:21 3 HEARINGS OFFICER AMANO: So if you don't
 03:21 4 mind, I would like to suggest that KAHEA, in order,
 03:21 5 become a cross-examiner in the normal course, and
 03:21 6 that any opportunity for redirect be given to Mr.
 03:21 7 Ching. Is that okay with you?
 03:21 8 MS. ALULI: That sounds good.
 03:21 9 HEARINGS OFFICER AMANO: Mr. Ching, is that
 03:21 10 okay with you?
 03:22 11 THE WITNESS: I'm not sure about that,
 03:22 12 because my testimony is very wide ranging, and it
 03:22 13 will require me, for instance, to take notes while
 03:22 14 I'm testifying. In other words, I'm searching for
 03:22 15 answers and having to take notes of all the
 03:22 16 discrepancies, and I would find it quite difficult to
 03:22 17 do that, especially since I'm up here with a
 03:22 18 flashlight because there isn't enough light here; and
 03:22 19 my magnifying glass, because my print I'm using is
 03:22 20 somewhat small.
 03:22 21 All I can say is it's going to be a
 03:22 22 challenge if I have to do that, and I will do that if
 03:22 23 I have to.
 03:22 24 HEARINGS OFFICER AMANO: You don't have to.
 03:23 25 Otherwise --

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03:23 1 MR. CHING: I suspect it will be difficult.
 03:23 2 MS. ALULI: I think what Mr. Ching is
 03:23 3 referring to is the redirect.
 03:23 4 HEARINGS OFFICER AMANO: I agree.
 03:23 5 MS. ALULI: And I know I take notes, Dexter
 03:23 6 takes fewer notes, and it may be difficult for Mr.
 03:23 7 Ching to read Dexter's handwriting. Therefore, he
 03:23 8 may have some limitations in a redirect, and we will
 03:23 9 get that sorted out. Just because I hadn't even
 03:23 10 thought about that.
 03:23 11 HEARINGS OFFICER AMANO: So may I ask you
 03:23 12 then, based on what Mr. Ching has indicated, may I
 03:23 13 ask you and/or Mr. Kaiama to assist in doing the
 03:23 14 redirect?
 03:23 15 MS. ALULI: Yes, Your Honor.
 03:23 16 HEARINGS OFFICER AMANO: Would KAHEA then
 03:23 17 still wish to cross? It's up to you.
 03:23 18 MS. ALULI: We can waive our right to
 03:23 19 cross-examine him.
 03:23 20 HEARINGS OFFICER AMANO: You don't have to
 03:24 21 if you don't want to, it's up to you.
 03:24 22 MS. ALULI: And either I or Mr. Kaiama will
 03:24 23 assist him in the redirect tomorrow, and I'll leave
 03:24 24 my notes for Mr. Kaiama and talk to him this evening.
 03:24 25 HEARINGS OFFICER AMANO: We will proceed

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