Environmental Justice Webinar Series for Tribes and Indigenous Peoples

Advancing Traditional Knowledge in Federal Decision-Making

March 23, 2022

*Please note that this webinar will be recorded and posted on EPA's webpage for public access.



Panelists

- Natalie Solares, Pacific Region Technical Assistance Specialist, Intertribal Agriculture Council
- Demarus Tevuk (Inupiaq), Lead Researcher, Native Neighborhood Community Study; Research Contractor and Co-facilitator for Tribal Water Security Project Webinar Series
- Clarita Lefthand-Begay, Assistant Professor, Information School, Director of the Tribal Water Security Project, University of Washington
- Gretchen Goldman, Assistant Director for Environmental Science, Engineering, Policy, and Justice, White House Office of Science and Technology Policy
- Wenona Wilson, Senior Tribal Policy Advisor, Region 10, U.S. EPA
- Danny Gogal, Tribal and Indigenous Peoples Program Manager, Office of Environmental Justice, U.S. EPA (Facilitator)



Advancing TEK in California for Traditional Land Management

Natalie Solares Pacific Region Technical Assistance Specialist Intertribal Agriculture Council

www.Indianag.org



The Intertribal Agriculture Council

About Us: Founded in 1987, the IAC is a national 501c3 that supports all 574 federally recognized Native American Tribes and Alaska Native Villages.

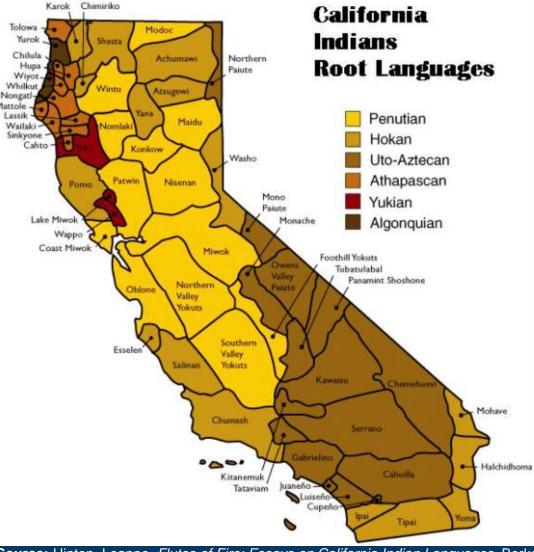
Our Mission: To to pursue and promote the conservation, development and use of our agricultural resources for the betterment of our people.



California Tribes

109 Federally recognized Tribes ~80 Unrecognized California Tribes





Source: Hinton, Leanne. *Flutes of Fire: Essays on California Indian Languages.* Berkeley, CA: Heyday Books, 1994.

California Native History

POWER

- NATIVE AMERICANS EVERYWHERE ARE RESILIENTI
- CALIFORNIA NATIVE AMERICANS HAVE SURVIVED COLONIZATION AND ASSIMILATION BY THE SPANISH MISSION SYSTEM AND AMERICAN GOVERNMENT. DESPITE THE GENOCIDE THAT THEY HAVE BEEN THROUGH, THEY HAVE KEPT THEIR CULTURE AND RELIGIONS ALIVE.
- RECOGNIZE NATIVE AMERICAN PEOPLES AS RESILIENT AND RESISTANT AS BOTH THEIR PEOPLE AND CULTURE HAVE SURVIVED AGAINST ALL ODDS.





CALIFORNIA INDIAN MUSEUM & CULTURAL CENTER

Source: California Indian Museum & Cultural Center

IAC & California NRCS



The IAC and California NRCS have a unique relationship and partnership

The State Conservationist and Agency in CA have Tribal priorities at the top of their list and are responsive to bettering their delivery of services to Tribes

Tribal Advisory Committee is essential



Natural Resources Conservation Service

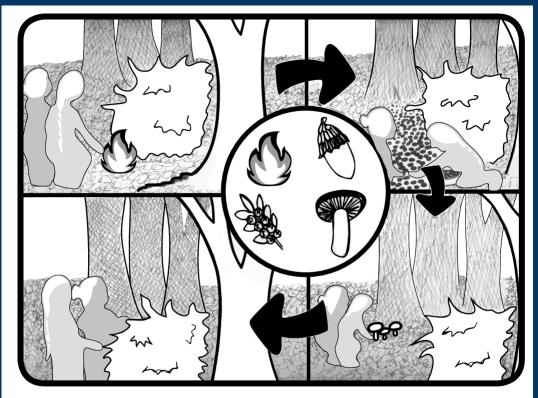
Using Existing Programs for TEK



Forests as a garden

Understanding the programs the Agency has to offer and using the malleability to address traditional foods and plant management Tribal needs

IAC & NRCS formed an agreement to explore the applicability of conservation planning within traditional plant management scenarios



This image is based on the traditional agroforestry systems of Northern California tribes who use fire, pruning, and other management practices to produce acorns, huckleberries, mushrooms, and more for both people and wildlife. Illustration by Colleen Rossier.

Source: USDA Agroforestry Notes May 2014

Cultural Burning in California

California Tribes adapted to live with naturally occurring wildfires but have shaped their landscape through cultural burning practices

The ecosystems and tribes evolved to rely upon fire and have developed through natural and empirical observations a set of cultural practices surrounding its use.

The last century of fire suppression has threatened the landscape with devastating high severity fires that have drastically increased in frequency in recent years











Cultural Burning in California

The benefits of cultural burning to the landscape long known by tribes, have been documented using the best available science and are shown to be an essential component in reducing the risk of high severity wildfires as well as generating benefits throughout the ecosystem, given that they are performed with awareness of the relevant cultural competencies including seasonality, vegetation, and indicator species.

To best benefit the ecosystems and uphold Trust Responsibility to tribes, federal, state, and other governments and agencies should seek to integrate, facilitate, promote, consult, and pay for cultural burning practices and cultural fire practitioners whenever possible





Danny Manning (Greenville Rancheria Tribe Member and Assistant Fire Chief)

Traditional Knowledge: Ethics, Protocol & Context

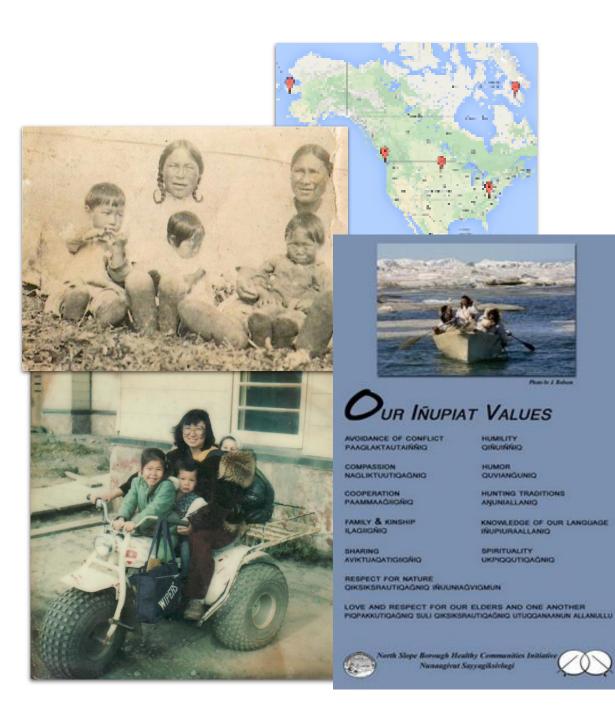
Demarus Tevuk, Iñupiaq

Lead Researcher, Native Neighborhood Community Study

Research Contractor and Co-facilitator for Tribal Water Security Project Webinar Series

Knowledge is a Journey

 Inupiat "Real People"
Traditional Values
Practice sustainability during plant harvest



Avoiding Cultural Appropriation

- Unfortunately, rely on generalizations
- Appropriation occurs when cultural elements are removed from their cultural context
 - Key differences between Indigenous culture and Western/European cultures
- Keep the original cultural context intact
- Include AND PAY traditional knowledge holders in every step of the process: evaluation, research, analysis, implementation, and maintenance



Context of Knowledge Systems

Traditional Knowledge (TK)	Scientific Ecological Knowledge (SEK)	
Abstract	Concrete	
Qualitative	Quantitative	
Inclusive	Exclusive	
Intuitive	Intellectual	
Holistic	Reductionist	
Spiritual (social values)	Clinical (value free)	
Coexistence	Control	
Diachronic (long time series and place	Synchronic (short time series and	
oriented)	broad generalities)	
People are part of nature (reciprocity)	People apart from nature (competition)	
Communal knowledge based on	Individual knowledge data collected	
insights collected by practitioners	by specialists/ researchers (shared by	
(transferred generation to generation)	publication)	
Action	Content	

Source: Mason et al. 2012. "Listening and learning from traditional knowledge and western science: A dialogue on contemporary challenges of forest health and wildfire." *Journal of Forestry*.

Western Science, Scientific Ecological Knowledge (SEK)

Characteristics of SEK:

- Clinical: value-free, culture-free
- Individual/institution own information
- Reductionist: components, removed from system
- Quantitative, intellectual data

Nothing exists in a culture-free bubble:

- Ideas that are actually culturally-linked are presented as fact/theory but they have not been scientifically tested
 - IE nature as competitive, mystery of altruism

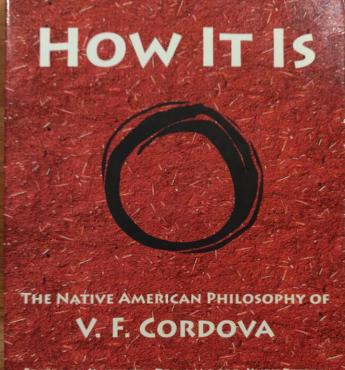
Native American Philosophy

Native Worldview

- Humans a key part of nature
- Nature is abundant, changing & giving
- Every person, creature has a role to play
- Space is spherical
- Time is cyclical

Western Worldview

- Humans apart from nature
- Nature is static & constrained
- Hierarchy determines role
- Space is linear
- Time is sequential

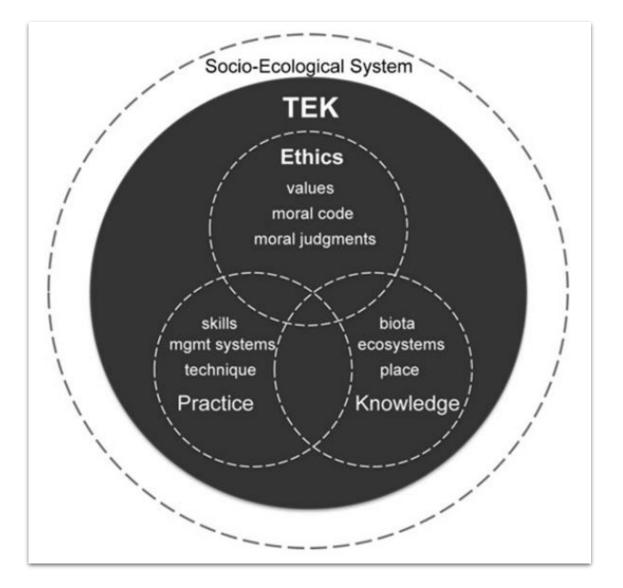


EDITED BY KATHLEEN DEAN MOORE, KURT PETER TED JOJOLA, AND AMBER LACY

WITH A FOREWORD BY LINDA HOGAN

Traditional Knowledge Components

- Action is the objective
- Values, context, protocol
- Ethical science



Native Science, Traditional Ecological Knowledge (TEK)

Characteristics of TEK:

- Value-informed, culture context
- Community-owned, prove right to information
- Holistic, intact systems thinking, relationality
- Qualitative, intuitive data

Highly contextual, complex responses:

- Knowledge holders ask further questions: who's asking, why, when, where, family
- Information only applicable for each condition

Views of Sustainability

System	Objective	Knowledge	Sustainability
Western Science	Clinical	Content	Goal
Native Science	Ethical	Action	Path

- Equal and complementary knowledge systems
- Western science's culture focuses on innovation, view of sustainability is an unknown future state
- Native science states that sustainability is an ancient concept, knowledge system includes the guidance to practice sustainability

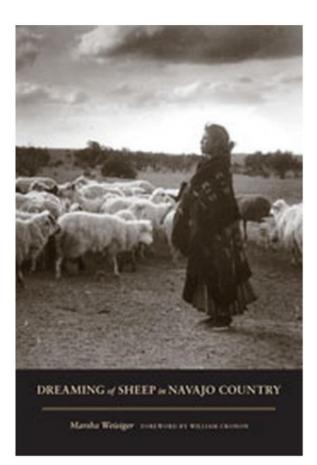
Traditional Sustainable Values

- Relationship-building
- ➢ Respect
- Responsibility
- Reciprocity (sharing)
- Appreciation
- Low Consumption
 - "Accept only what you need"



How Values are Shared, Reinforced

- Values are taught to the younger generation
- Creation Stories
- Lead by action
- Social norms
- Ceremony



Traditional Sustainable Values Guide Us to Sustainability

Creating abundance & stability in nature for the health of ourselves and our animal and plant relatives

Sustainable Seattle: We define sustainability as the ancient and enduring practice of creating richness in natural resources, attuning to nature's environmental indicators, and providing equitable access to health, food, shelter, and economic wealth for all people.

How *do* we incorporate TEK into federal decisionmaking?

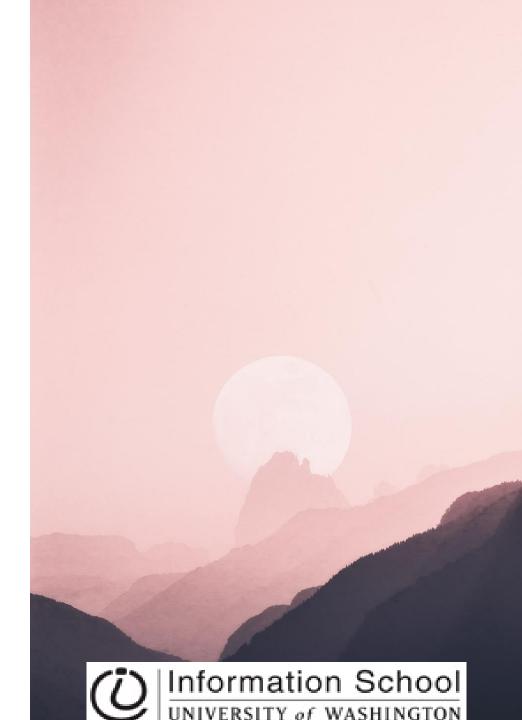
Clarita Lefthand-Begay, PhD

Clarita@uw.edu

Assistant Professor

University of Washington

March 22, 2022

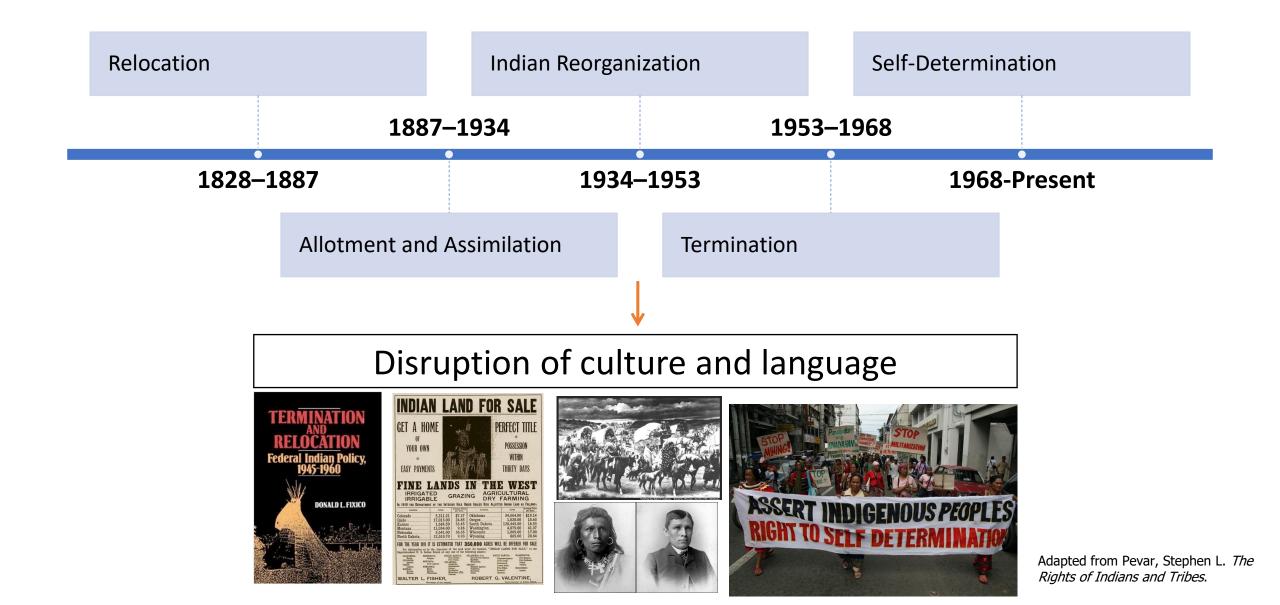


Overview

- Indigenous Systems of Knowledge (ISK) in the United States
- Concerns about public use and access to ISK
- Mechanisms for protecting traditional knowledge

- Tribal Nations in the United States
 - 574 federally recognized tribes
 - Many other non-federally recognized tribes
 - American Indian and Alaska Native land cover 4% of the land and composes < 1% of the population

Federal Indian Policies



THE RIGHTS OF INDIANS AND TRIBES

STEPHEN L. PEVAR

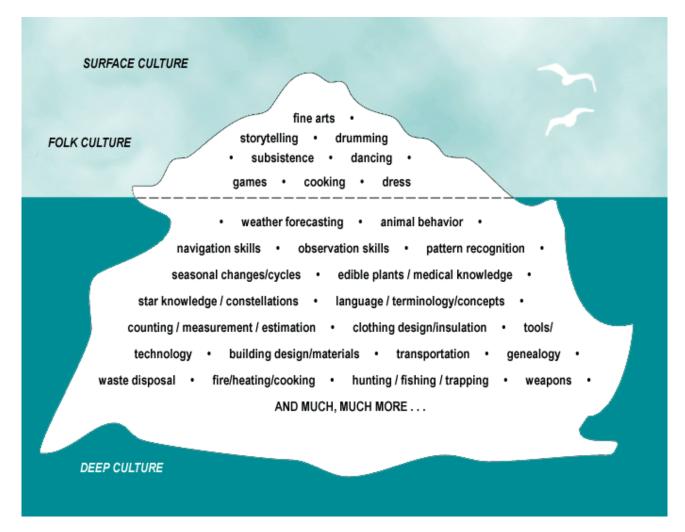
With an introduction by JOHN ECHOHAWK Executive Director of the Nation American Rights Fund

Federal Indian Policies

"Some commentators liken the federal-Indian relationship to a pendulum that has shifted back and forth between attempts to annihilate tribes during certain periods of time and attempts to support tribal self-government and autonomy at other times."

Pevar, Stephen L. The Rights of Indians and Tribes.

What is Indigenous systems of knowledge?



THREE FUNDAMENTAL CONCERNS

GATHER, USE, STORE

OWNERSHIP

BENEFITS TO TRIBE

Adapted from Smith, L. (2012). and Manson SM. 1996

FORCED REMOVAL FROM HOMELANDS



The Navajo Long Walk to the Bosque Redondo



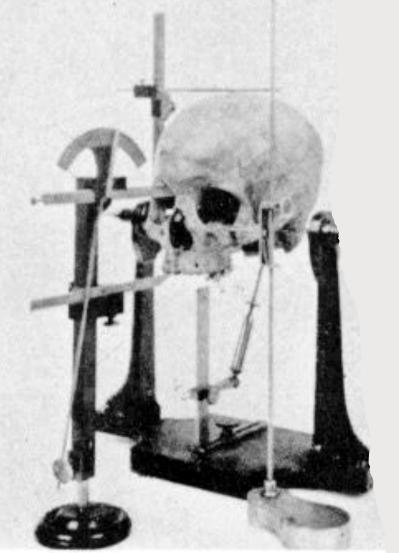


Historical Relationship with ISK

- Natives seen as:
 - Objects of science or inquiry
 - Absent of any contributable knowledge

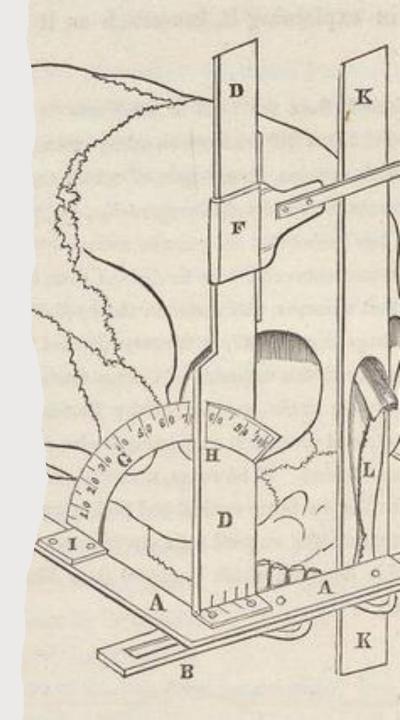
Champagne, D., & Goldberg, C. (2005). Changing the Subject: Individual versus Collective Interests in Indian Country Research. *Wicazo Sa Review*, *20*(1), 49–69.

Historical Relationship Between Researcher and Native Peoples



Craniometry

- Skulls were measured and weighed to prove that "primitive' minds were smaller than the European minds
- Flawed methods were used to determine that Europeans were superior to any other group





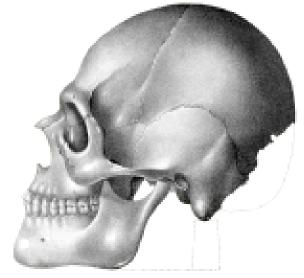
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Samuel Morton's Crania Americana

By the 20th century, anthropologists flooded the reservations, seeking to record valuable cultural data about Native Americans before they became extinct.

> Sanders, M. (2014). Genomic Research in Indian Country: The New Road to Termination?, *39*, 1–513.

Crania Americana



A COMPARATIVE VIEW OF SKULLS OF VARIOUS (BORIGINAL NATIONS OF NORTH AND SOUTH AMERICA)

SAMUEL GEORGE MORTON, M.D.

WITH A NEW INTRODUCTION BY JANE E. BURSTRA, Ph.D. PROFESSOR OF DESIGN AND ADDRESS STATE UNIVERSITY **E**.U.S., Memb. Scientif. Socs. of Washington; Cor. Memb. Soc. Ital. Antropologia, Etnologia, e Psicologia Comp., Florence. (PLATE XIL)

It is a well-known fact that for many years past the **majority** of descriptive anthropotomists, in describing the **skull**, have divided the bones composing it into those of the **face** and those of the *skull*. So that if we adopt the nomenclature of Dr J. Barnard Davis, the valuable and interesting **specimen** which forms the subject of this paper would be **considered** a *calvaria*, as it lacks the lower maxilla. According to this authority, too, a *cranium* was regarded as being **composed** of the entire number of bones of the head and **face**, while the *calvaria* was made up of the bones of the **skull** alone. In these days, when the knowledge of the **general** structure and physiology of vertebrates has become **absolutely** indispensable to the anatomist, be his particular line of research what it may, such artificial landmarks are **gradually** becoming obsolete.

At the best of times Navajo Indian skulls are difficult objects to obtain, so I considered myself particularly fortunate when some time during the early autumn of 1885 the present specimen came into my possession. It was collected by a young man on one of their burial grounds upon the hills in the vicinity of Fort Wingate, New Mexico, and handed to me immediately afterwards to make such use of it as I saw fit.

This skull is from a male subject of about forty years of age, who came to his death by a gun-shot wound of the head. The results of this fatal injury are not far to seek in the specimen, and they may be seen in part in my illustrations of it in the Plate.

We find the large wound of entrance has pierced the left outer angle of the supraoccipital bone, and destroyed the adjaStates Army Medical Museum, this extensive and unrivalled collection of several thousand specimens had in it but twentytwo, perfect or imperfect, Navajo Indian skulls.

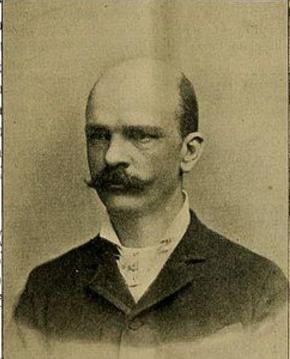
At present this collection is not available to me, but from the excellent catalogue in question, I am enabled to select certain data of the highest value for comparison with similar observations made by myself upon the specimen in hand.

Of the twenty-two skulls alluded to I have chosen eight as nearly perfect ones as possible, and of the same sex as our subject, with a slight variation in age. From the data afforded by these in the catalogue, the averages exhibited in the subjoined table, for comparison with corresponding ones in our specimen, have been computed. Very wisely, Dr Otis adopted the metric system in all of his measurements, and the same is employed here. At the headings of the several columns of the table I have used certain abbreviations; among these, where

an explanation seems necessary, " cranial capacity in cubic centimetry taken (in my case) with a steel mer periphery of the figure formed h through the glabella, the occiput, an F is facial angle; L is longitudina highest point of occipital prominen measured from the middle of the an magnum to the highest point on t zygomatic diameter; and finally, parietal diameter, or the breadth.

During the time Dr Otis lived (to see many of the human crania t charge of that part of the Museum) by which the internal capacity of tained; but since then methods have been adopted.

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INFORMED CONSENT

Regulations require that the following information be conveyed to each subject:

- An explanation or description of
 - purposes of the research
 - study procedures
 - o any risks or discomforts to the subject
 - any **benefits** to the subject
 - how the **confidentiality of records** will be maintained
- A statement that **participation is voluntary**
- A list of **contacts for participants**
 - who have questions about the research and their rights
 - who need to report a research-related injury

Indigenous Research Ethics Requirements: An Examination of Six Tribal Institutional Review Board Applications and Processes in the United States

Nicole S. Kuhn, Myra Parker, Clarita Lefthand-Begay

First Published April 1, 2020 | Research Article | Find in PubMed | Check for updates https://doi.org/10.1177/1556264620912103

Article information ~

Abstract

Tribal Institutional Review Boards (TIRBs) in the United States assert their rights within sovereign nations by developing ethical research processes that align with tribal values to protect indigenous knowledge systems and their community from cultural appropriation, exploitation, misuse, and harm. We reviewed six TIRB applications and processes to gain a better understanding about their requirements and research ethics. We located 48 activated and deactivated TIRBs in a database, mapped them in relation to tribal reservation lands, and then conducted in-depth content analysis. Our analysis demonstrates the importance of building relationships, becoming fully acquainted with the TIRB's operating environment before seeking research approval, and issues related to tribal data management practices.



SCAN QR CODE

Guidelines for Indigenous Populations



CIHR GUIDELINES FOR HEALTH RESEARCH INVOLVING ABORIGINAL PEOPLE



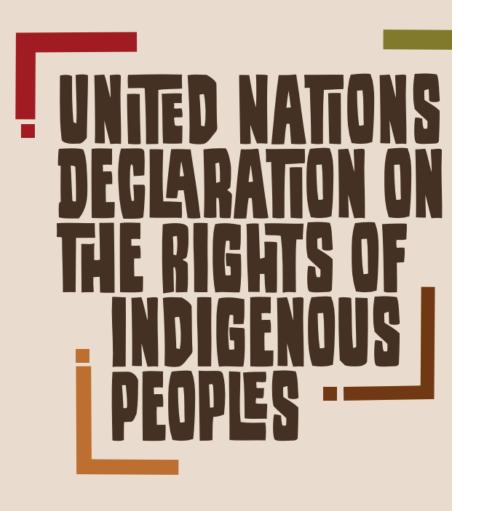
CIHR IRSC

Canada



The UNDRIP

...states that indigenous peoples, "have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions" (U.N. 2007, Article 31).



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United Nations

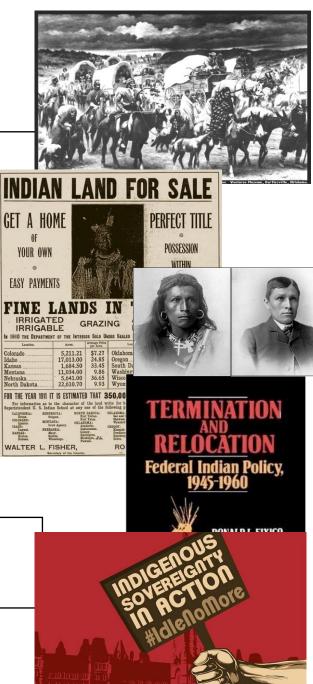
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Federal Indian Policies

- 1828-1887: Relocation
- 1887-1934: Allotment and Assimilation

Disruption of culture and language

- 1934-1953: Indian Reorganization
- 1953-1968: Termination
- 1968-Present: Self-Determination



1.000

Seven Generations

The Iroquois

Confede "In our way of life, in our government, with every decision we make, we always keep in mind the seventh generation to **come**. When we talk upon the Earth, we always plant our feet carefully because we know the faces of our future generations are looking up at us from beneath the ground." --Larry Echohawk

Elevating Indigenous Traditional Ecological Knowledge in Federal Decision Making

Gretchen T. Goldman, Ph.D. Assistant Director for Environmental Science, Engineering, Policy, & Justice

Office of Science and Technology Policy



Photo credit: Lloyd Whitman

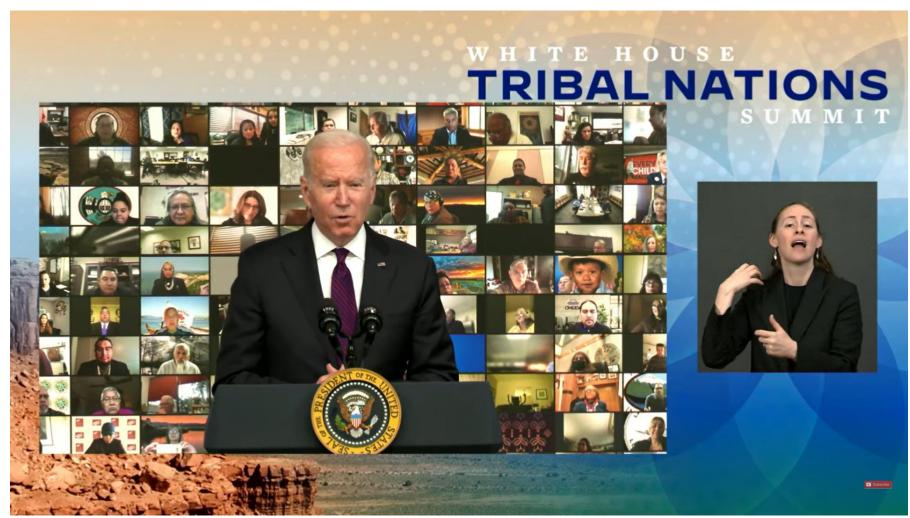
The Biden-Harris Administration's Commitment to Strengthening Relationships with Tribal Nations

"It is a priority of my Administration to make **respect for Tribal sovereignty and self-governance**, commitment to fulfilling **Federal trust and treaty responsibilities** to Tribal Nations, and regular, meaningful, and robust **consultation** with Tribal Nations cornerstones of Federal Indian policy."

Presidential Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships, January 26, 2001



Elevating Indigenous Knowledge in Federal Decisionmaking





OSTP-CEQ Memorandum on Indigenous Knowledge in Federal Decisionmaking



EXECUTIVE OFFICE OF THE PRESIDENT OFFICE OF SCIENCE AND TECHNOLOGY POLICY COUNCIL ON ENVIRONMENTAL QUALITY WASHINGTON, D.C.



November 15, 2021

MEMORANDUM FOR THE HEADS OF DEPARTMENTS AND AGENCIES

FROM:

Eric S. Lander La Lak President's Science Advisor and Director, Office of Science and Technology Policy

Brenda Mallory Bund Malloy Chair, Council on Environmental Quality

SUBJECT: Indigenous Traditional Ecological Knowledge and Federal Decision Making

Background

President Biden is committed to strengthening the relationship between the Federal Government and Tribal Nations and to advancing equity for Indigenous people, including Native Americans, Alaska Natives, Native Hawaiians, and Indigenous peoples of the U.S. territories.¹ These commitments include ensuring that Federal agencies conduct regular, meaningful, and robust consultation with Tribal officials in the development of federal research, policies, and decisions, especially decisions that may affect Tribal Nations and the people they represent.

Consistent with the Administration's additional commitment to scientific integrity and knowledge- and evidence-based policymaking,² the White House Office of Science and Technology Policy (OSTP) and the White House Council on Environmental Quality (CEQ) issue

- White House Memorandum issued November 2021
- Memo includes a commitment and process to elevate IK in decisionmaking across the government
- White House Guidance for Federal Agencies to be released later this year
- Tribal Consultations
- Public and Expert Input opportunities

Developing Guidance for Federal Agencies on Indigenous Knowledge

- Interagency Working Group with more than 25 agencies represented, including:
 - Department of the Interior
 - USGS, FWS, BIA
 - Department of Commerce
 - NOAA
 - Department of Defense
 - Army Corp of Engineers
 - Department of Labor
 - Department of Energy
 - State Department
 - Department of Justice
 - Department of Education
 - Department of Transportation

- White House Council on Native American Affairs
- US Department of Agriculture
- Health and Human Services
 - IHS, CDC, NIH
- Homeland Security
 - FEMA
- Environmental Protection Agency
- National Science Foundation
- Advisory Council on Historic Preservation
- Smithsonian Institution
- National Archives and Records Administration

Developing Guidance for Federal Agencies on Indigenous Knowledge

• Focus areas of:

- 1. Definitions, examples, and background
- 2. Collaboration and relationship building
- 3. Data sovereignty, confidentiality, and right to decline
- 4. Relationship with western science, research methods
- 5. Federal laws, regulations, and processes

- ITEK Guidance may include elements such as:
 - Best practices on how to **collaborate** with Tribal Nations and Native communities around ITEK application to achieve mutually beneficial outcomes
 - How to address Government-wide challenges around ITEK, such as navigating Federal laws and interagency processes
 - How to appropriately **respect the knowledge holders' rights** to decline participation in efforts to collaborate.

Tribal Consultation & Engagement

- Government-to-Government Consultation with Federally Recognized Tribes (April 5 and April 29)
- Listening Sessions & Community Engagement: Communities, Academia, and Tribal Organizations
- Native Hawaiian and Pacific Islander Community Roundtables



Tribal Consultation & Engagement

'HE WHITE HOUSE



Announcing Tribal Consultation and Public Input Opportunities on Indigenous Traditional Ecological Knowledge in Federal Policy

MARCH 07, 2022 • OSTP BLOG

By: Alondra Nelson, Deputy Assistant to the President, Deputy Director for Science and Society, Office of Science and Technology Policy

Brenda Mallory, Chair, Council on Environmental Quality



https://www.whitehouse.gov/ostp/news-updates/2022/03/07/announcing-tribal-consultation-and-public-input-opportunities-on-indigenous-traditional-ecological-knowledge-in-federal-policy/ 50

Questions to Guide Input

- What would you like Federal employees to know about ITEK?
- How would you like to work with Federal departments and agencies in the future to ensure that ITEK properly informs Federal processes and policies? What challenges do you foresee?
- What **terminology** should be used (e.g., Indigenous Knowledge, Traditional Ecological Knowledge) when referring to this body of work in Federal contexts?
- Are there **existing guidance documents**, agreements, or practices of how ITEK should be elevated in Federal processes and policies?



How do you recommend ITEK be represented in the development processes and content of <u>National Climate Assessment</u>?

Tribal Consultation & Engagement

•Public Listening Session:

- When: Friday, April 8, 2022, 3:00-5:00 pm EDT
- Who: Knowledge holders, practitioners, environmental stewardship managers, spiritual leaders, elders, and others with experience or interest in ITEK and Federal government decision making
- Register:

https://pitc.zoomgov.com/webinar/register/WN_nYHMg0SzSB-IqsEb6XLpgg



Written comments can be submitted to <u>ITEK@ostp.eop.gov</u> by EOD May 5.

Closing Thoughts

 Wenona Wilson, Senior Tribal Policy Advisor, Region 10, U.S. EPA Questions and Answers Period & Evaluation

• Please type your questions in the chat box.

• We would appreciate your feedback on the webinar and ask that you complete the short online survey. Link posted in the Q and A pod: <u>https://forms.gle/gkAYxo3kAz6e3LyE6</u>



Contacts

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