Native American Consolation: Bureau of Ethnic Research and Bureau of Applied Research in Anthropology Models, A Comparative Study

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Abstract

Applied Anthropology has a long history of working with contemporary communities to find solutions to social, cultural, environmental, and economic problems, and many have spent their careers working on these issues with Native American communities. This essay explores how the Bureau of Ethnic Research (BER) and its contemporary form, the Bureau of Applied Research in Anthropology (BARA), set the standards for research conducted in Indian country through their contrastive research approaches. This paper describes the BER top-down approach of American Indian development projects and the BARA ground-up approach of the Nevada Test Site American Indian Program projects. Attention is given to how these initiatives have affected social-cultural issues and long-term research relationships with Native American communities. [Applied Anthropology, Native Americans, Methodology, Consultation]

Introduction

Applied Anthropology focuses on finding solutions for contemporary problems and, within this framework, applied anthropologists have a long history of working on improving conditions for Native American communities. The Bureau of Ethnic Research and its contemporary form, the Bureau of Applied Research in Anthropology, set the standards on the types of research and how the research process should be administered as part of Native American consultation with federal and state entities. This paper describes the American Indian development projects under the direction of William Kelly and the Nevada Test Site American Indian Program projects under the direction of Richard Stoffle and examines how these projects have resulted in long-term research relationships with Indian people and how they have worked or failed to improve conditions for Native American communities. This paper also shows the progression that applied research has taken from its beginnings documenting socio-economic conditions to develop strategies for assimilation to restoring ceremonial activities by Native people and co-management practices on federal lands.

The Bureau of Ethnic Research

The Bureau of Ethnic Research (BER) was founded on July 1, 1952 to serve as an information and research center on contemporary Native American communities in the Southwest. The BER's research initiative was centered on five principles as follows (Kelly 1953: ii):

1. The establishment of an information center for the collection and analysis of data on Southwest Indians

2. The establishment of a research program and clearing house for research by others, to supply existing material on Indian groups. Emphasis will be upon studies of the history and manner of life of the various tribes, and the gathering and analysis of current information pertinent to the solution of immediate and practical problems

3. The publication of reports on Indian culture, tribal affairs, and Indian administration

4. The establishment of an educational program designed to acquaint the people of Arizona with modern ways of life of Indian groups and their special problems in adjusting to life in white communities

5. The establishment, with the Department of Anthropology [at the University of Arizona], of a graduate student training program in ethnological research and applied anthropology.

The work of the BER was fueled by a new direction that federal Indian policy took in the 1950s wherein the U.S. government altered its relationships with its domestic-dependant partners, or federally recognized tribes. The shift was triggered by a 1943 survey conducted by the Senate, which revealed that social and economic conditions on reservations were sub-standard. Blame was placed on the Bureau of Indian Affairs (BIA) and they were sited as being at fault due to extreme mismanagement.

This caused the federal government to believe that some tribes no longer needed its protection and must be assimilated into mainstream American society, thus effectively ending the government's trusteeship of tribes and forcing Indian people to assume all responsibilities of full citizenship (Metcalf 2007). By applying one of the old platforms from the Indian Reorganization Act to Termination policy, BER Director William Kelly saw an opportunity to convert tribes from domestic dependents to corporate enterprises. To facilitate the process of shifting responsibilities from the federal government and tribes to the state governments, Kelly believed that the BER, with proper funding, could take the lead through top-down approaches and set the standard on how to conduct this research in terms of academic and practical approaches. In other words, he wanted the BER method to be the primary model throughout the entire field of anthropology. This research was intended to provide a more successful and smoother transition into Termination.

In order to set the program into action, Kelly had to recruit the assistance of partners within the university system, the business community, and the federal and state governments; therefore, the presidential committee of Indian affairs was formed. University of Arizona President Richard P. Harvil appointed a group of Arizona businessmen to advise the BER on transitional problems of easing tribes into the state system. Leading these efforts was a man named Walter Bimmson of the Valley National Bank. He, along with Kelly, believed that the tribes should move towards a privatization model, and Bimmson's bank had the financial resources to carry out this plan (BARA Oral History Project 2004).

By privatizing Indian lands and terminating the trust relationship, the United States government no longer was financially responsible to fund tribal programs, thus providing them with an opportunity to profit from taxes on new private land holdings. This call for privatization reflected a broader trend in United States policy that pushed communities away from communal and traditional systems of ownership and land management and towards capitalist driven economies.

Indians of the Southwest

According to Dr. Robert Hackenberg (BARA Oral History Project 2004), the Indian development plan was to follow models similar to those of the World Bank; therefore, Kelly and his colleagues established a planning base. *Indians of the Southwest* (Kelly 1953) was the first study undertaken by the BER; it documented basic information on Native American communities and the administration of Indian Affairs in Arizona. The report established baseline census data because this information was simply lacking from BIA files. The baseline data was critical for implementing development projects on tribal lands because it gave researchers an understanding of where they needed to focus privatization and development efforts (BARA Oral History Project 2004). The BER team designed and implemented an instrument to collect critical census data in a way that made sense to Indian communities; however, BER consultation was designed to fulfill a specific agenda that did not necessarily have the tribes' best or desired interests at hand.

The *Indians of the Southwest* report collected data in eighteen Indian reservations in Arizona who were under the jurisdiction of nine BIA agencies. BER researchers looked at the following categories: (1) Tribal Government, (2) Tribal Resources, (3) Tribal Income, (4) Family Income, (5) BIA, (6) Education, (7) Land and Water Rights, (8) Health, (9) Tribal Enterprises, (10) Tribal Budgets, (11) Placement, (12) Credit, (13) Social and Economic Development, (14) Welfare, and (15) Livestock Association. These categories were chosen based on accessible data (Kelly 1953). Data for all the categories were not available for each tribe, so the report reflects the

kinds of information that were attainable.

In the preface, Kelly acknowledged the shortfall of this study. He noted that at the time of the report there were insufficient discussions on cultural and social factors that provided context for the statistics. Kelly also stated that the report lacked medical data because at the time the Phoenix area BIA office was in the process of implementing a system to track Indian health. What is most striking is the omission of a discussion of the history of Indian-White disputes. Kelly wrote that there were other documents that described this issue in great detail such as the Indian Claims Commission reports. Given the nature of the BER study, a summary of conflict might have helped contextualize the issues better. This report was the first of many that provided baseline data for the formulation of termination projects.

The plan for Indian development and adjustment was fully set into motion when Steward Udall was elected to Congress. Udall served as the representative to southern Arizona and had close ties to the University of Arizona and William Kelly. When Udall became a member of the congressional Indian Affairs committee, the BER was provided free range to set the development plan into motion.

Colorado River Reservation Termination Project

Once the baseline data were collected, Kelly and the BER team piloted their development plans. They chose the Colorado River Indian Tribes reservation because it had large tracts of land located along the shores of the Colorado River that were prime for large-scale industrial agriculture. The goal was to turn the tribe into a large agribusiness firm in western Arizona with the provision that the tribe accepts more people from the Hopi and Navajo reservations. The BER team presented this package to the Colorado River Indian Tribes, and it was soundly voted down multiple times. The BER team did not see the shortfall of imposing this proposal on this particular tribe. The tribe was a conglomeration of Mojave, Chemehuevi, Hopi, and Navajo people. Two of these four ethnic groups do not have ancestral ties to this region and this was compounded by the cultural conflicts between the Mojave and Chemehuevi, and the Hopi and Navajo.

With this rejection, BER anthropologists and their financial backers moved on to other areas of interest. In the early 1960s, Kelly ended the Indian development program and refocused the Bureau to examine Indian health issues. The Indian health projects built upon the baseline data collected during the previous adjustment studies, and the National Cancer Institute provided funding for studies focused on acculturation and the epidemiological transition among the Tohono O'Odham (Papago), Gila River, Salt River, Colorado River Indian, and Navajo tribes (BARA Oral History Project 2005).

Shifts in Federal Policy

In the late 1960s and 1970s, a shift occurred in relation to federal Indian policy as the Termination Era had finally ended and the era of self-determination began. Self-determination policies were aimed at reversing actions taken under Termination. The new policies pushed for a greater application of tribal governments and Native American culture. Congress passed a series of laws in support of this new direction in U.S.-Indian relationships: the Indian Self-Determination Act, the Indian Child Welfare Act, and the Health Care Improvement Act. The intended purpose of these laws was to improve the quality of life for people on reservations without deconstructing tribal governments (Getches, Wilkinson, and Williams 2004).

During this time, two additional pieces of legislation were passed that redefined how research with Native communities would be conducted. These laws placed federal agencies and tribes into working relationships. The first act, the National Environmental Policy Act (NEPA) was passed in 1970. NEPA is:

> . . . a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation (Public Law 91-190; 83 Stat. 852).

Under NEPA, federal agencies must consider environmental impacts of any planned action on federal lands such as road, pipeline, power line, and dam construction. All projects are required to meet NEPA guidelines when a federal agency provides any portion of the financing for the project. The NEPA process is a three-step process that begins with the Environmental Assessment (EA). An EA examines potential environmental impacts of the proposed action such as unavoidable adverse impacts, alternatives such as "no action required," the relationships between short-term use and long-term sustainability, irreversible and irretrievable commitments of resources, and secondary and/or cumulative effects of implementing the proposed action. The EA process also determines if a larger study is needed to address potential impacts. If a larger study is deemed necessary, then an Environmental Impact Statement (EIS) must be issued. An EIS is similar to the EA except the EIS is generally a larger document and much more detailed. In terms of Native American communities, NEPA created a system that requires federal agencies to consider the cultural environment in addition to the physical environment, thus initiating government-to-government consultation between tribes and federal agencies (Stapp and Burney 2002).

American Indian Religious Freedom Act (AIRFA). The American Indian Religious Freedom Act, or AIRFA, was signed into law on August 11 1978 (Public Law 95-341; 92 Stat. 469) and it specifically states that American Indian people have First Amendment of the United States Constitution rights to have access to lands and natural resources that are essential in conducting their traditional religious activities. AIRFA clearly asserts that Indian people have these rights even if these lands and natural resources are located beyond the boundaries of a tribal reservation. Under AIRFA, federal agencies are required to "evaluate their policies and procedures in consultation with native traditional religious leaders in order to determine appropriate changes necessary to protect and preserve Native American religious cultural rights and practices," (Public Law 95-341; 92 Stat. 469).

In 1994, the United States Congress amended AIRFA (U.S.C. 103D- Report 103-675). These amendments expanded sacred site and ceremonial object protections by including provisions to protect items associated with substances (plants and animals) that are needed for the practice of Native American religious rites and ceremonies. Additionally, executive Orders 13007 and 13175 were signed into law, which further directly addressed sacred sites protection policies, and Native American consultation requirements.

NEPA and AIRFA created a situation where positive relationships between tribes and federal agencies could be formed. This approach allowed for partnerships to be built from the ground up as opposed to the old top down model. This new approach caused a change in the way the Bureau interacted with Native American communities.

Bureau of Applied Research in Anthropology

In 1982, BER changed its name to the Bureau of Applied Research in Anthropology (BARA) and vastly expanded its research and training mission. Presently BARA faculty have organized around six different programs. For each program, there exists a set of research activities consistent with the BARA mission, as well as corresponding academic courses and student participation that contribute to BARA's commitment to applied training, in keeping with the standards set forth by the BER in the 1950s.

The Cultural Resources Studies program has continued the tradition started by the BER in monitoring the welfare and well-being of Native American groups in Arizona and also focusing on the preservation of Native American cultures and languages through fostering partnerships with tribes and enabling Native peoples to take control of the research process. An important part of this research program is its continued commitment to developing cultural resource theory within the field of applied anthropology and the continued push for the creation of meaningful and productive partnerships between Native American tribes and federal agencies.

BARA researchers have argued for the use of cultural landscapes as a form of best cultural

resource management practices. Cultural landscape theory has roots in cultural anthropology and geography and is used to explain how people connect themselves to the world around them. BARA researchers maintain that this concept not only helps non-Indian people understand relationships Native people have with places around them but also explains how places are culturally linked. From a Native American perspective, cultural resources are bound together in broad categories based upon function, interdependency, and proximity rather than physical characteristics. In order to understand a place and the meaning associated with it, interpretation is not necessarily about what is found at the site but rather where it is located in reference to other places. Through understanding these relationships, resources and locations can properly be managed.

One of BARA's most consistently funded and supported research projects on cultural resources is the Nevada Test Site American Indian Program. This program originally was started at the University of Michigan at the Institute for Social Research under the direction of Richard Stoffle. When Stoffle came to the University of Arizona and BARA in 1991, he transferred his research program with him, and it has been in existence for over 20 years. It has been one of the longest funded research programs in BARA to date.

Yucca Mountain Environmental Impact Statement

The current American Indian consultation program on the Nevada Test Site was the outgrowth of the Yucca Mountain High Level Nuclear Waste Repository Environmental Impact Statement. In 1982, Congress passed the Nuclear Waste Policy Act in which three sites were selected as possible repository sites to store high-level nuclear waste (or spent fuel rods from nuclear power generators). Initial environmental and structural suitability studies of the other potential sites at Deaf Smith, Texas, and the salt domes of Richton, Mississippi were stopped in favor of pursuing analysis of Yucca Mountain (Rosa and Short 2004). This decision was based on a widely shared national perception that the southern Nevada desert was a mostly dry wasteland where there were no population centers or people who cared about Yucca Mountain. The site was also selected based on a belief that the geology of the area would remain stable for nine thousand years as specified by the Nuclear Waste Policy Act.

When Congress passed the Nuclear Waste Policy Act, they established unique criteria for involving people, communities, and American Indian tribes in the Environmental Impact Assessment (EIS) process. The concept of "affected tribes" emerged from the requirement that the footprint of the High Level Waste site would have to touch lands owned by a tribe, community, or person. Some could argue that this was an intended action to limit tribal involvement in the EIS process. This criterion consequently excluded all Indian tribes across the country from being considered in the EIS process because Indian people had lost control over most of their traditional lands and often had been forcibly removed to isolated reservations. Despite not owning traditional lands, Indian tribes remained culturally affiliated with and concerned about issues impacting their aboriginal lands (Stoffle, Arnold, and Van Vlack 2009).

When the draft EIS was published in 1986 an outcry emerged from the various American Indian tribes who were culturally affiliated with Yucca Mountain because they had not been included in the assessment process. The Department of Energy acknowledged this problem of their EIS process and requested arguments for involving tribes. After preparing unsuccessful arguments based on the NEPA-driven social impact assessment and National Historic Preservation laws and guidelines, a successful argument was made based on the AIRFA[2] (Stoffle and Evans 1987, 1992). This argument brought sixteen tribes and their cultural knowledge of Yucca Mountain to the EIS process (Stoffle et al. 1990) and began a formal Department of Energy American Indian Program for the Yucca Mountain Project and more broadly on the Nevada Test Site that continues today (Stoffle, Zedeño, and Halmo 2001).

Cultural Affiliation and the Nevada Test Site

As required by law, cultural affiliation needed to be established before the American Indian participation in the EIS process began at Yucca Mountain. Cultural affiliation is used to determine which ethnic groups and tribes are culturally connected to the lands and resources within a certain federal agency's jurisdiction. Federal agencies use the term "cultural affiliation" in various ways for different purposes. At the broadest level it means a portion of land that has become culturally important (culturally central) to an American Indian ethnic group. Connections between the Indian people and the land may have been established before Europeans arrived (pre-1492), while Europeans were occupying and claiming the land (pre-1848), or during the historic period from 1849 afterwards. The National Park Service follows a narrow definition of cultural affiliation that was established in their 2001 management policies:

> Cultural Affiliation – means that there is a relationship of shared group identity which can be reasonably traced historically or prehistorically between a present day Indian tribe or Native Hawaiian organization and an identifiable earlier group. See "Evaluation and Categorization" 5.1.3.2; and "Ethnographic Resources" in the Cultural Resource Management Handbook.

When beginning the consultation process with American Indian people, it is also important that aboriginal title is noted. Aboriginal title is land possessed by a particular tribe or ethnic group until the United States government acquired title to it (Sutton 1985).

In the initial phase of the Yucca Mountain Project Native American study, it was determined that three Native American ethnic groups were culturally affiliated with the Nevada Test Site lands and resources (Stoffle 1987). These ethnic groups are: Owens Valley Paiute, Western Shoshone, and Southern Paiute; this equates to seventeen tribes and Indian organizations (five Owens Valley Paiute tribes, four Western Shoshone Tribes, seven Southern Paiute tribes, and the Las Vegas Indian Center).

Consolidated Group of Tribes and Organizations

The seventeen cultural affiliated tribes and Indian organizations formed the Consolidated Group of Tribes and Organizations (CGTO), which serves as the intermediary between the tribes and the Nevada Test Site/Department of Energy. The CGTO was formed out of the desire to speak with one voice because the tribes believed there was more power in unity than in multiple voices when it came to management and consultation. Each tribe has two representatives who attend the annual meetings and report back to their respective tribal governments. Within the CTGO, there are numerous subgroups that convene at various times when necessary to assess projects, create proposals, and make decisions. Subgroups include the American Indian Writers Subgroup, the NAGPRA subgroup, and the Rock Art Subgroup (Stoffle, Zedeño, and Halmo 2001).

Regulatory and Historical Background of Consultation on the Nevada Test Site

The American Indian Program on the Nevada Test Site has a long history of working within the regulatory and three-tiered system of the consultation process. These levels serve to guide how tribes engage in the identification and assessment of resources on public lands and define the range of an agency's roles in that process. The first level of guidance is based upon the historic and cultural context of a specific group of Indian people and their aboriginal lands. Indian people believe they were placed on their lands by their Creator and in turn were given stewardship responsibilities. Indian people have divine mandates, which drive them to protect and tend to their lands and resources. When the United States took possession of all Indian lands in 1849, aboriginal title was legally extinguished, and the Indian Claims Commission later reduced land possessions further. Despite the massive reduction in traditional territory, the stewardship obligation felt by the Indian people cannot be extinguished. These lands are closely connected to a people's historic memory, and they carry it within them for many generations (Stoffle et al. 2005).

The second level of guidance is part of the United States government regulatory framework.

Tribal governments have a long-standing legal and political relationship with the United States and its federal agencies. Treaties and agreements have established the foundation for government-to-government relationship between the tribes and the government bodies. The legal environment has created the requirement of consultation with affiliated tribes based on this relationship. Federal agencies legally are required to consult with tribal governments under the directive of Executive Order 13175 (November 6, 2000), *Consultation and Coordination with Indian Tribal Governments*. It also enhances other regulations like the American Indian Religious Freedom Act (1978) and Executive Order 13007 (Protection of American Indian Sacred Sites). These regulations serve as further guidance to agencies as to their relationships with American Indian Tribes. This model has been adopted and used successfully by many governmental entities such as the Department of Defense-Nellis Air Force, the U.S. Forest Service, Desert National Wildlife Refuge Complex of the U.S. Fish and Wildlife Service, and the Federal Highways Administration (Stoffle et al. 2005).

The third level of guidance is built from the relationship between the tribes and a specific federal agency. In order to fulfill consultation requirements, it is essential that Indian people become partners in the process. In the book, *American Indians and the Nevada Test Site*, consultation is used to "describe a process by which American Indian peoples with aboriginal or historic ties to public lands are identified and brought into discussions about cultural resources in those lands,"(Stoffle, Zedeño, and Halmo 2001: 22). Consultation is also a term that has broader legal standing and is recognized by the United States, Canada, and much of the western world Consultation can be conducted in many ways, but successful consultation is based upon meaningful interactions such as site visits, meetings, and face-to-face interactions with agency representatives and Indian people (Stoffle 2000).

Nevada Test Site American Indian Government-to-Government Consultation

Initial CGTO-Department of Energy consultations through ethnographic studies began in 1987, and these studies focused on lands that were potentially impacted by the Yucca Mountain Project (Stoffle, Zedeño, and Halmo 2001). These consultations were expanded as the American Indian program shifted focus to the broader reaches of the Nevada Test Site (Pippin 1991).[3] The CGTO began to make recommendations as part of their ethnographic studies (Stoffle, Olmsted, and Evans 1988; Stoffle, Evans, and Harsbarger 1989; Stoffle et al. 1989) and at the annual consultation meetings for future studies and tribal involvement.

After a decade of consultation a set of guidelines and protocols were established and formally approved by the consulting tribal governments. These guidelines were published in the 1996 EIS (American Indian Writers Subgroup 1996: C-1). These same guidelines were reaffirmed during the five-year and ten year EIS review studies (Arnold et al. 2002; Arnold et al. 2007). Since the completion of the 1996 EIS, the Department of Energy has closely followed these recommended guidelines for compliance activities. Department of Energy policy has allowed for direct Native American involvement so their concerns can be addressed in specially prepared studies and reports. Specific federal laws require American Indian tribal governments to be participants in the decision-making process and to provide recommendations on common interests. Some key aspects need to be discussed to understand the Native American consultation process on the Nevada Test Site and how the tribal perspectives are important players in all levels of research.

Time. Among tribal governments and the CGTO, there has been a major concern of being included in the debate and discussions of future projects conducted on the Nevada Test Site, therefore, there is a need to involve them from the outset. The CGTO established and has consistently argued the position that the Indian people must be involved in the early planning stages of proposed development or restoration projects on the Nevada Test Site and relevant off-site locations, as defined in the 1996 EIS (American Indian Writers Subgroup 1996). The CGTO also maintained the position that Indian people be involved in the early planning stages

even if the project is being proposed by another federal agency, a state agency, or a private corporation.

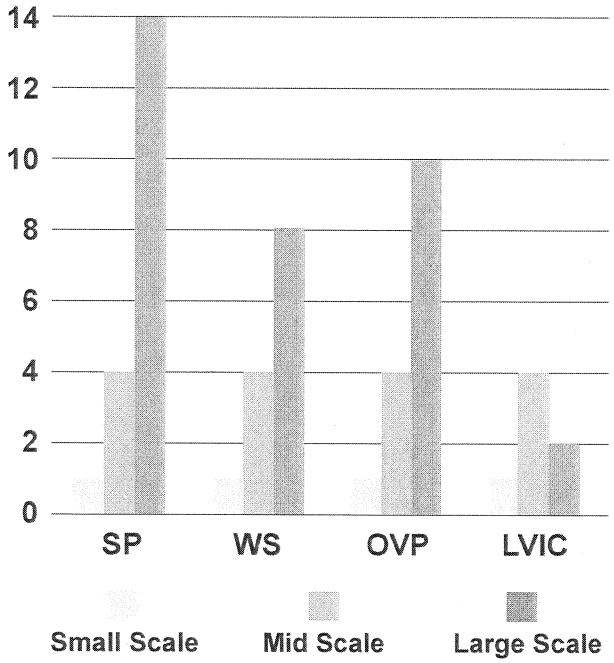

Table 1 Native American Studies by number of representatives per Ethnic Group and Organization. SP= Southern Paiute, WS= Western Shoshone, OVP= Owens Valley Paiute, LVIC= Las Vegas Indian Center

Level. During the decades of consulting with the Department of Energy, the CGTO has established different levels of appropriate consultation effort for projects being proposed. In general, the scale of potential ground disturbance is a major factor in determining level of effort and the cultural significance of the area potentially impacted by a project is another deciding factor. Level of effort refers to the size of the Native American ethnographic study and there are three types of Native American Ethnographic studies on the Nevada Test Site (Table 1). The first level of study is a small scale study and it only involves members of the American Indian Writers Subgroup. This group contains one person from three culturally affiliated ethnic groups, one Indian organization (the Las Vegas Indian Center), and the subgroup chairperson. This level has frequently been used for rapid cultural assessments where time is a hindering variable. The second level of study is a mid-scale assessment and it involves four cultural experts from the three ethnic groups and one Indian organization. This type of study is usually conducted when project funding and site access are problematic. The third level of study is a full-scale assessment. This large study involves two members from each of the seventeen affiliated tribes and organizations. Large-scale assessments are usually conducted when the resources being studied require people with highly specialized knowledge on specific resources such as rock art and ethnobotany.

CGTO involvement during project planning stages allows tribal representatives to assess potential proposal impacts to American Indian cultural resources and recommend appropriate scale of study needed during the annual program meeting. There are times between annual meetings when project proposals need to be considered and thus it is the responsibility of the American Indian Writers Subgroup to recommend project scale. In the event that a project involves new potential impacts or a new area not previously studied, the CGTO requires that the Writers Subgroup be incorporated into scoping trips to these areas, and the trip results should be submitted in writing by the Writers Subgroup to the entire CGTO.

Variables. American Indian people lived in and used the lands of the Nevada Test Site for thousands of years during which they developed attachments to and used many natural elements in both physical and spiritual ways. Because of this long attachment, the CGTO has concerns for a wide range of natural and cultural resources. During the twenty-two years of consultation with members of the BARA team, the CGTO has defined a number of human and natural variables that need to be considered during consultation. The CGTO officially recommended these variables in Appendix G of the 1996 EIS (American Indian Writers Subgroup 1996).

Ethnoarchaeology: The interpretation of the physical artifacts produced by their Indian Ancestors.

Ethnobotany: The identification and interpretation of the plants used by Indian people.

Ethnozoology: The identification and interpretation of the animals used by Indian people.

Rock Art: The identification and interpretation of traditional Indian paintings and rock peckings.

Traditional Cultural Properties: The identification and interpretation of places that are culturally central.

Ethnogeography: The identification and interpretation of soil, rocks, water, and air.

Cultural Landscapes: The identification and interpretation of spatial units that are culturally and geographically linked areas for American Indian people.

This list has been agreed upon by all culturally affiliated tribes and organizations of the CGTO. During annual meetings, the CGTO decides which of these variables need to be studied when new projects are discussed.

BARA Research Methodology

The current BARA research methodology for tribal consultation has been developed and refined over a period of thirty years and during this period, members of the BARA team developed a strong research partnership with many tribes such as the Numic-speaking tribes of the Colorado Plateau and Great Basin. This partnership has directly influenced how BARA researchers approach projects involving Indian people and tribes. Current BARA research involves the use of mixed methods (Tashakkori and Teddlie 1998; Beebe 2001) and triangulation (Campbell and Fisk 1959). The mixed methods approach involves collecting qualitative and quantitative data, and, where there is convergence, confidence in the findings grows considerably (Jick 1979).

As part of the mixed methods approach, seven survey instruments have developed that have been used at various times during the past twenty years. All survey instruments used by our research team have been developed with the assistance of official tribal representatives, and these forms have been approved by participating tribal governments. Many of these instruments, such as the Site Form, Rock Art Form, and Cultural Landscapes Form, have been administered to Indian people during at least ten different projects since 1997. This equated to over one thousand interviews with Indian people.

The confidence in these findings derives from an overall triangulation of comparable findings from any of the seven instruments and oral histories. The triangulation of data involves comparing responses generated with different instruments. When two or more instruments provide the same answer to a research question then the confidence in the accuracy of the answer is increased. Confidence in the accuracy of responses also increases to the extent that most interviewees provide the same answer.

Summary of BARA Survey Instruments

The following is a brief discussion of the seven survey instruments used by the BARA research team. The brief paragraphs explain the purpose behind each survey instrument and the types of information they seek to ascertain.

Site Form. The Site Interview form is *place-specific* and is used to record site use history and types of ethnographic resources associated with site use including water, plants, animals, minerals, landforms, and archaeological remains. With this form, the ethnographer can elicit detailed information on material, behavioral, and spiritual connections among resource types, and between each resource and a place. It was used initially in Zion National Park and Pipe Spring National Monument Study (Stoffle et al. 1997). The "Zion form" has since been successfully applied in numerous federally funded projects that involved tribes in the West and Midwest regions of the United States.

Ethnoarchaeology-Rock Art Form. The second type of form is called the Rock Art Interview. It is used in the event that the Site Interview is too general, and more fine-grained analysis is feasible and useful for a study. The Rock Art form is one of a set of focused interview forms that have been developed. Other fine-grained forms have been developed for plants, animals, and sacred sites. Each was developed with the aid of Indian people (Zedeño et al. 1998).

Cultural Landscapes Form. The BARA team designed the Cultural Landscape Form, with input from agencies who needed to have a way to manage much larger areas as integrated cultural

phenomena and with Indian people whose culture is organized in terms of such big areas. The landscape form frames place and resource-specific information in a broader regional and more abstract cultural context. With this form, the BARA team investigates origin and migration traditions, ethnic group settlement and land use history, and specific use patterns of the natural topography. Data on trail systems, including travel across land and through water, and ceremonial trails associated with songs, drum circles, dreaming, pilgrimages, and individual quests, also are crucial to unraveling complex cultural connections between places and resources.

Cultural Landscapes-Pilgrimage Connections Form. The interconnectedness of places is very important for understanding how Indian people view the landscape. This key element presents an opportunity to see specifically how ceremonial sites are connected to each other. To explore this issue in detail, a form was developed to provide Indian people with an opportunity to see if places already visited and evaluated by them are connected. Once Indian people establish that the places are connected they are then asked to draw the perceived pilgrimage trails, or Puha Paths, a vision-quester would travel to the ceremonial destination site.

Ethnobotany Form. The BARA team developed the Ethnobotany form to gather specific information in regards to uses, meanings, and appropriate interdependence of traditional people and the plants. The BARA team first developed this form during the Yucca Mountain Ethnobotany Study in 1989 (Stoffle et al. 1989). The form has been modified and adapted to use in other areas across the United States (Stoffle et al. 1994; Stoffle et al. 1997; Toupal et al. 2004).

Ethnozoology Form. During many of the early studies, Indian people shared with members of the BARA research team the meaning of specific animals and their importance to the people and the environment around them. During the Pahute and Rainer Mesa Cultural Resource Study (Stoffle et al 1994), they developed a form that specifically targeted animal species. The Ethnozoology form is similar to the ethnobotany form. The purpose of this form is to gather information regarding the cultural significance of individual animal species in terms of their roles in stories, songs, ceremonies, and how they were used traditionally for food, clothing, shelter, and medicine

Traditional Cultural Properties Form. The Traditional Cultural Properties form was designed and first used in 2004 during the Water Bottle Canyon Traditional Cultural Property Study on the Nevada Test Site (Stoffle, Van Vlack, Arnold 2005). The questions were designed to ask Indian people about their thoughts in regards to nominating Water Bottle Canyon to the National Register of Historic Places. The form also gave Indian people an opportunity to define the traditional cultural property boundaries as they saw necessary. This, in turn, provided the agency with a visual representation of the Indian people's recommendations. This form has been adapted and used on other Native American studies. It was used most recently in 2005 during the Timber Mountain Caldera Landscape Study on the Nevada Test Site (Stoffle et al 2006).

Timber Mountain Caldera Study

In recent studies on the Nevada Test Site, the BARA team has been able to link together their earlier ethnographic research with new data obtained through new survey instruments such as the Cultural Landscapes Pilgrimage Connections Form and the Traditional Cultural Properties Form. In 2005, the AIWS recommended a formal ethnographic study to understand the cultural landscapes of the Timber Mountain Caldera. This study was designed to present ethnographic findings from fieldwork completed in 2005, but the report builds upon previous American Indian interviews conducted in the area since the Yucca Mountain Project. Tiering is the term used to describe the process of building on previous relevant research and is required by regulation under the National Environmental Policy Act. In this case tiering was appropriate because so much more is known about the Timber Mountain Caldera because of past project findings.

Formal ethnographic interviews have been conducted since 1987 that are directly related to the cultural meaning of the Timber Mountain Caldera (Stoffle et al. 2005). Interviews were conducted with official cultural representatives of the culturally affiliated tribes. These interviews

provide direct understanding about the cultural meaning of the Timber Mountain Caldera area to Paiute and Shoshone people.

The ultimate goal of this study was to nominate places and pilgrimage trails to the National Register of Historic Places as Traditional Cultural Properties to protect and preserve these sites from future development on the Nevada Test Site. The ethnographic research conducted on the Timber Mountain Caldera has provided useful information in trying to understand the cultural centrality of volcanic places to Numic-speaking peoples in southern Nevada.

Conclusions

When looking at the BER and the BARA Nevada Test Site American Indian program, a few conclusions can be drawn. Each research program established long-term research and consultation programs with Native American tribes and each has worked towards improving living conditions in some way for the Indian communities involved. The BER studies highlighted disparities in Indian communities in terms of opportunities and services available. Kelly and his team believed that they could facilitate ways to correct these problems through a top-down approach and working within the complexities of Termination and development policies and practices. This research attempted to dictate the course of action that needed to be taken by the tribes and pushed for privatization.

The BER's approach contrasts with how research is being done at BARA today. Richard Stoffle and his team have followed a similar path in pushing for long-term research; however, the Nevada Test Site work has helped the CGTO and the tribes to gain power and directly impact management decisions through the recognition of self-determination policies such as AIRFA and NEPA. The long-term consultation led to the creation of meaningful partnerships between BARA and the tribes; it has followed a more grass roots approach. Resulting from this collaborative effort, the Indian people directly participated in project design and implementation during the EIS process (American Indian Writers Subgroup 1996; Arnold et al. 2007). For example, they have produced their own essays that have been included in agency management documents. Also, because of the BARA program, Indian people took part in a project that gave them an opportunity to visit a ceremonial place at night to begin the process of spiritual restoration and tribal management (Stoffle, Van Vlack, and Arnold 2005).

The BER and BARA's commitment to Native communities will have lasting impacts on applied anthropology for years to come. These programs have set the standards on how research should be conducted—through building long-term partnerships and assessing the needs of the given communities. Each program has trained many students who have used their skills and knowledge in academic, federal, and tribal settings. ○

Notes

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2. To date the Nevada Test Site program is the only AIRFA driven consultation program in the United States.

3. While a separate Yucca Mountain Project consultation continued, BARA researchers are no longer involved.

References Cited

AIRFA
1978 American Indian Religious Freedom Act. 42 U.S.C. § 1996 (Pub. L. 95-341, § 1, Aug. 11, 1978, 92 Stat. 469).

American Indian Writers Subgroup, Consolidated Group of Tribes and Organizations
1996 "American Indian Assessments: Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada, Appendix G." Las Vegas, Nevada: U.S. Department of Energy Nevada Operations Office.

Arnold, Richard, Jerry Charles, Betty Cornelius, Maurice Frank-Churchill, Gaylene Moose
2002 "American Indian Contributions to the 2007 Supplement Analysis for Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada Prepared for Department of Energy Nevada Operations Office Las Vegas, Nevada." Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

Arnold, Richard, Jerry Charles, Lee Chavez, Betty Cornelius, Maurice Frank-Churchill, Gerald Kane, and Lalovi Miller
2007 "American Indian Contributions to the 2007 Supplement Analysis for Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada Prepared for Department of Energy Nevada Operations Office Las Vegas, Nevada." Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

BARA Oral History Project
2004 Interview with Robert Hackenberg.
2005 Interview with Robert Hackenberg.

Beebe, J.
2001 *Rapid Assessment Process.* Walnut Creek, CA: Altamira Press.

Campbell, A., and D. Fiske
1959 "Convergent and Discriminate Validation by the Multi-Trail Multimethod Matrix." *Psychological Bulletin* 56:81–105.

EO 13007
1996 Indian Sacred Sites. Ex. Ord. No. 13007, May 24, 1996, 61 F.R. 26771

EO 13175
2000 Consultation and Coordination with Indian Tribal Governments. Ex. Ord. No. 13175, Nov. 6, 2000, 65 F.R. 67249

Getches, David H., Charles F. Wilkinson, and Robert A. Williams
2004 *Cases and Materials on Federal Indian Law.* Eagan, MN: West.

Jick, T. J.
1979 "Mixing Qualitative and Quantitative Methods: Triangulation in Action." *Administrative Science Quarterly* 24: 601–611.

Kelly, William H.
1953 *Indians of the Southwest: A Survey of Indian Tribes and Indian Administration in Arizona.* Tucson, Arizona: Bureau of Ethnic Research, University of Arizona.

Metcalf, R. Warren
2007 *Termination's Legacy.* Lincoln, Nebraska: University of Nebraska Press.

NAGPRA
1990 Native American Graves Protection and Repatriation Act. 25 U.S.C. § 3001-3013 (Pub. L. 101-601 § 13, Nov. 16, 1990, 104 Stat. 3058).

NEPA
1970 National Environmental Policy Act. 42 U.S.C. 4321 (Pub. L. 91-190, § 2, Jan. 1, 1970, 83 Stat. 852).

NHPA
1966 National Historic Preservation Act. 16 U.S.C. § 470 et seq. (Pub. L. 89–665, § 1, Oct. 15, 1966, 80 Stat. 915).

Pippin, Lonnie C.
1991 "Complying with AIRFA: A Literature Review and Evaluation. Nevada Test Site American Indian Religious Freedom Act Compliance Program." Report prepared for U.S. Department of Energy Nevada Field Office. Reno, Nevada: Desert Research Institute, University of Nevada.

Rosa, E., and J. Short
2004 "The Importance of Context in Siting Controversies: The Case of High-Level Nuclear Waste Disposal in the U.S." In *Facility Siting: Risk, Power, and Identity in Land Use Planning.* Edited by A. Boholm and R. Lofstedt. Pages 1-20. London: Earthscan.

Stapp, Darby C., and Michael S. Burney
2002 *Tribal Cultural Resource Management: The Full Circle to Stewardship.* Walnut Creek, California: Altamira Press.

Stoffle, Richard W.
2000 "Cultural Heritage and Resources." In *Social Impact Analysis: An Applied Anthropology Manual.* Edited by Laurence R. Goldman. Pages 191-220. Oxford: Berg.

Stoffle, Richard W., Richard W. Arnold, and Kathleen Van Vlack
2009 "Yucca Mountain, Nevada." *Encyclopedia of American Environmental History.* Edited by Kathleen A. Brosnan. Facts on File. Electronic document accessed online June 2009 at http://www.fofweb.com. [Please insert a more complete URL - readers should be able to find the source easily and I couldn't find it on this site using the title as a search term.

Stoffle, Richard W., Diane E. Austin, David B. Halmo, and Arthur M. Phillips
1997 Ethnographic Overview and Assessment: Zion National Park, Utah and Pipe Spring National Monument, Arizona. Prepared for the National Park Service. Tucson, Arizona: Bureau of Applied Research in Anthropology, University of Arizona.

Stoffle, Richard W., and Michael J. Evans
1987 "American Indians and Nuclear Waste Storage: The Debate at Yucca Mountain, Nevada." *Policy Studies Journal* 16(4):751-67.
1992 "Native Americans and Nuclear Waste Storage: The Debate at Yucca Mountain, Nevada." In *Native Americans and Public Policy.* Edited by F. Lyden and L. Letgers. Pages 243-262. Pittsburgh: University of Pittsburg Press.

Stoffle, Richard W., Michael J. Evans, David B. Halmo, Molly C. Dufort, and Brian Fulfrost
1994 "Native American Cultural Resources on Pahute and Rainier Mesas, Nevada Test Site." Tucson, Arizona: Bureau of Applied Research in Anthropology, University of Arizona. Desert Research Institute Technical Report No. 84.

Stoffle, Richard, Michael J. Evans, David B. Halmo, Wesley E. Niles, and Joan T. O'Farrell
1989 "Native American Plant Resources in the Yucca Mountain Area, Nevada." Interim Report prepared for the Department of Energy, Nevada Operations Office. Las Vegas, Nevada: Science Applications International Corporation.

Stoffle, Richard W., Michael J. Evans, and Camilia L. Harshbarger
1989 "Native American Interpretation of Cultural Resources in the Area of Yucca Mountain, Nevada. Report prepared for the U.S. Department of Energy Nevada Operations Office. Ann Arbor, Michigan: Institute for Social Research, University of Michigan.

Stoffle, Richard W., David B. Halmo, John E. Olmsted, and Michael J. Evans
1990 "Native American Cultural Resource Studies at Yucca Mountain, Nevada." Ann Arbor, Michigan: Institute for Social Research, University of Michigan.

Stoffle, Richard, W., John E. Olmsted, and Michael J. Evans
1988 "Literature Review and Ethnohistory of Native American Occupancy and Use of the Yucca Mountain Region." Prepared for Science Applications International Corporation, Las Vegas, Nevada, and the U.S. Department of Energy, Nevada Operations Office. Ann Arbor, Michigan: Institute for Social Research, University of Michigan.

Stoffle, Richard, W., Kathleen A. Van Vlack, and Richard W. Arnold
2005 "Paa'oasta Hunuvi: Water Bottle Canyon Traditional Cultural Property Study." Tucson, Arizona: Bureau of Applied Research in Anthropology, University of Arizona.

Stoffle, Richard, W., Kathleen A. Van Vlack, Alex K. Carroll, Fletcher P. Chmara-Huff, and Aja Y. Martinez
2005 "Yanawant: Paiute Places and Landscapes on the Arizona Strip." Volume One, Arizona Strip Landscapes and Place Name Study. Prepared for the Bureau of Land Management, Arizona Strip Field Office. Tucson, Arizona: Bureau of Applied Research in Anthropology, University of Arizona.

Stoffle, Richard W., Maria Nieves Zedeño, and David B. Halmo, editors
2001 *American Indians and the Nevada Test Site: A Model of Research and Consultation.* Washington, DC: Government Printing Office.

Stoffle, Richard, W., Maria Nieves Zedeño, Richard W. Arnold, Kathleen A. Van Vlack, Mance E. Buttram, Heather Fauland, and Aja Y. Martinez
2006 "Dá Me Na-Nu-Wu-Tsi: 'Our Relations All of Mother Earth.'" *The Timber Mountain Caldera Ethnographic Report.* Tucson, Arizona: Bureau of Applied Research in Anthropology, University of Arizona.

Sutton, Imre, editor
1985 *Irredeemable America: The Indians' Estate and Land Claims.* Albuquerque, New Mexico: University of New Mexico Press.

Tashakkori, A., and C. Teddlie
1998 *Mixed Methodology: Combining Qualitative and Quantitative Approaches.* Thousand Oaks, California: Sage Publications.