

Ethnobiology in Court

The Paradoxes of Relativism, Authenticity, and Advocacy

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In April 1994 I testified in court as an "expert witness" in the case known as Subproceeding No. 89-3 (Civ. No. 9213), *United States of America et al. v. State of Washington et al.* The same case in 1974 produced the Boldt Decision in which Federal District Court Judge George Boldt allotted 50 percent of harvestable salmon and steelhead in western Washington State to tribal fisheries (*United States v. Washington*, 384 F. Supp. 312, 1974; Cohen 1986). Subproceeding 89-3, also known as the Shellfish Proceeding, was heard by visiting Judge Edward Rafeedie in Federal District Court in Seattle over a thirteen-day period in April 1994. He published his decision December 20, 1994, upholding the tribes' case on virtually every point.

Though I was on the stand for less than an hour, my participation provided a behind-the-scenes look at the role anthropologists may play in litigating issues with profound social, political, economic, and ecological consequences. Briefly, the case turned on the interpretation of a single clause (that is, staked or cultivated, below) in each of the five western Washington treaties negotiated in 1854–1855 by territorial governor Isaac Ingalls Stevens. To wit: "Art. III. The right of taking fish at all usual and accustomed grounds and stations is further secured to said Indians in common with all citizens of the Territory, . . . together with the privilege of hunting, gathering roots and berries, . . . on open and unclaimed lands: Provided, however, That they shall not take shell fish from any beds staked or cultivated by citizens" (Treaty with the Nisqually, Puyallup, etc. [Medicine Creek], Dec. 26, 1854, 10 Stat., 1132).

In 1994, the plaintiffs included sixteen federally recognized tribes with the United States acting on their behalf. They argued that 1) shellfish were fish, and 2) Judge George Boldt's 50 percent allocation should apply to all marine invertebrates (the *de jure* meaning of shellfish for this case) precisely as it was held

to apply to finfish. The defendants were the State of Washington joined by certain commercial shellfish growers and groups representing some of the hundreds of private landowners with shoreline properties on Puget Sound. They pursued a range of arguments—for example, that shellfish were not a significant resource for the tribes in 1855. However, the main thrust of their defense was that “staked or cultivated” referred to any subsequent claim of ownership or dedicated use by private parties or governments. Such a broadly inclusive interpretation of the treaty exclusion would have precluded Indian claims to harvest shellfish virtually throughout the region.

Judge Rafeedie found that shellfish were fish circa 1855 accepting the expert testimony of a Cornell University English professor as to treaty-era usage. Defendants’ lawyers then sought to require that the plaintiffs demonstrate for each specific parcel of tideland property that it was among the usual and accustomed grounds and stations of specific tribal groups with respect to the harvest of each shellfish species. This strategy was abandoned after Judge Rafeedie ruled that the U & A (that is, usual and accustomed grounds and stations) determinations established in Phase I of the Boldt case should likewise apply with respect to shellfish harvests. Ethnographic testimony had been crucial to that prior determination.

The testimony of expert and lay witnesses thus focused on demonstrating the cultural values of shellfish at the time the treaties were signed, while the lawyers’ theory of the case centered on the proper meaning to attach to the words “staked or cultivated.” The former question was ethnographic; the latter historical. The star witnesses for the plaintiffs were Dr. Barbara Lane, speaking to the ethnographic evidence, and Dr. Richard White, speaking to the historical evidence. I was employed by counsel for the Squaxin Island Tribe to address ethnographic issues specific to that tribe’s knowledge and use of shellfish species in 1854 and subsequently (Hunn 1993).

Three Paradoxes Facing the Anthropologist as Witness

Before discussing the relevance of ethnobiological evidence to this case, I would like to address certain general issues raised by the participation of anthropologists as expert witnesses. The role of expert witness poses several paradoxes for academic anthropologists today, among which are the paradoxes of relativism, authenticity, and advocacy.

Courts admit the testimony of an expert on the presumption that he or she is a member in good standing of a community of specialists who apply among

themselves certain standards to establish fact and to judge the validity of inferences. However, anthropology has long been committed to cultural relativism, which is to say, the belief that facts do not speak for themselves but take on meaning only in specific cultural contexts (Spiro 1986). Does this imply that there can be no ethnographic fact, no consensus among anthropological experts as to ethnographic truth?

Contemporary anthropology has wandered further down this solipsistic path and now is infected with a deep postmodern cynicism about truth leading them to deny the possibility of an impartial search for truth. Anthropologists of this persuasion assert that truth is just what those with the power to define truth say it is. From this perspective it would be hypocritical for an anthropologist to pose as an expert on anything. Did I thus perjure myself when I testified under oath to the truth of certain ethnographic facts or the likelihood of certain inferences from the ethnographic data I consulted? This is the Paradox of Relativism.

The court drew a sharp distinction between expert witnesses and lay witnesses. The latter included tribal elders who testified on behalf of the plaintiffs and individual property owners who testified on behalf of the defense. Expert witnesses are granted considerable latitude in their use of what would otherwise be considered hearsay evidence, in particular, oral testimony repeated second- or thirdhand. Lay witnesses are limited to statements based on their own direct experience, and their testimony is presumed to be partial. This gives rise to what I call the Paradox of Authenticity.

Expert ethnographic testimony is based largely on what tribal elders have reported, whether to the anthropologist presenting the expert testimony or to his or her anthropological predecessors in the field. The ethnographer’s data is constructed from statements by native people describing what they may have seen as children or recounting what they were told by their elders, evidence that if presented directly to the court would be treated with skepticism as lay witness testimony.

Furthermore, an authentic ethnographic account requires that the intrusive presence of the alien scholar be accepted by the community that is the focus of the ethnography. The authenticity of an ethnographic account is, in effect, a gift from the community, a gift of confidences, of privileged information. As we have known at least since Mauss (1967 [1925]), the power of the gift is to compel a continual return. In the ethnographic case, that return requires a certain loyalty to the community, a promise to present forcefully the native point of view and a responsibility to represent the interests of the indigenous community to the wider society. This indebtedness is explicit in the American Anthro-

pological Association (AAA) "Principles of Professional Responsibility," which state that "an anthropologist's paramount responsibility is to those he [or she] studies" (American Anthropological Association 1973).

These words came back to haunt us in the 1991 decision of British Columbia Supreme Court justice Allan McEachern to disregard the expert anthropological testimony offered on behalf of native plaintiffs in the *Delgamuukw et al. v. the Queen* land claims case on the grounds that anthropological testimony was inherently partial (Miller 1992). Justice McEachern cited the AAA Principle just noted as justification for disregarding the ethnographic evidence. This I call the Paradox of Advocacy.

Consider the plight of an expert anthropological witness for the side opposing tribal interests: each side hires their own expert witnesses, hinting that the court's faith in the impartiality of experts is not shared by the contending lawyers. As a general rule, experts opposing Indian interests have been archaeologists, historians, or geographers. Perhaps no self-respecting ethnographer would take the job, or no self-respecting Indian would provide information to an ethnographer suspected of being inclined to use that information against tribal interests.

The classic confrontation between Omer Stewart testifying for the tribal plaintiffs and Julian Steward for the federal government as defendant in the Indian Court of Claims suggests a deeper moral complexity (Ray 1955; Steward 1955). Steward believed that it was more important to tell the truth as he understood it than to support the Shoshone case. Yet Steward decried the adversarial nature of the proceeding and the fact that the standard of evidence demanded by the court precluded a successful claim by the plaintiffs. Should Steward then have declined to testify, remained silent believing as he did that the truth could only be used to deny tribal claims?

Steward argued to the contrary that as anthropologists we have a moral obligation to testify to what we believe to be the truth. Our "Principles of Professional Responsibility" likewise recognize this potentially contradictory claim on our loyalty, stating that anthropologists owe "a commitment to candor and to truth in the dissemination of their results and in the statement of their opinions as students of humanity . . . As people who devote their professional lives to understanding people, anthropologists bear a positive responsibility to speak out publicly, . . . on what they know and what they believe as a result of their professional expertise gained in the study of human beings" (AAA 1973).

In short, anthropological witnesses must advocate the truth with conviction, and trust that that truth will help rather than harm those who have entrusted to them their own truths.

Ethnobiological Testimony in Court

A great deal of the litigation of interest to indigenous peoples is about protecting the means to preserve their cultural life. This is often about land, asserting claims to occupy and enjoy the fruits of lands their ancestors occupied "since time immemorial." This rarely involves claims to exclusive possession. Such claims may be legally justified in theory, but they face overwhelming political opposition. Furthermore, claims to exclusive possession as private property may be contrary to the spirit of traditional relationships to the land. More often indigenous communities claim the right to maintain a special relationship to the plants and animals, the waters and the rocks that constitute for them the living world of which they believe themselves to be a part. To travel over these ancestral lands, to fish, hunt, and gather its foods and materials may be not only an economic necessity for subsistence but also a pattern of collective action that defines who they are as a people. Ethnobiological evidence is often critical to establish that such a special relationship did in fact exist between an indigenous group and their natural environment.

Ethnobiology and the Three Paradoxes

I believe that ethnobiological data is less subject to our three paradoxes than most anthropological testimony. I hope to demonstrate this point with special reference to the role of ethnobiological testimony in the Shellfish Proceeding. First, with regard to the Paradox of Relativism, ethnobiological research since the late 1960s has tended strongly toward the conclusion that folk biological knowledge is in large measure empirically sound by showing that indigenous understandings of biological reality are compatible with those of Western biological science (e.g., Majnep and Bulmer 1977; Johannes 1981; Hunn 1982; Berlin 1992).

Thus, in response to defendants' questions concerning native harvests of Olympia oysters (*Ostrea lurida* = $\lambda'u\dot{x}$ - $\lambda'u\dot{x}$) or geoduck clams (*Panope abrupta* = g^*idaq), I could show that specific terms for singling out these species existed in the native language (that is, Lushootseed, a.k.a. Puget Salish). This was possible, despite the fact that only a few living elders still command the language, because previously published linguistic and ethnographic sources collectively characterized an extensive set of contrasting native terms for marine invertebrates (see table 1). They also provided ethnographic details concerning the indigenous knowledge of the appearance, habits, habitats, and uses of each species (Smith 1940; Hess 1976; Turner 1976).

TABLE 1. (continued)

FAMILY / Subfamily / <i>Genus species</i>	Common English	Lushootseed
* <i>Mytilus californianus</i>	California mussel	[hu-ché a' kud]
UNIONIDAE		
<i>Unio</i> spp.	freshwater mussel	<[alt'h-khw]>
SOLENIIDAE		
* <i>Siliqua patula</i>	razor clam	[chit-léd]
OSTREIDAE		
<i>Ostrea lurida</i>	Olympic oyster	ʔ'uxʷ ʔ'uxʷ
^b <i>Crassostrea gigas</i>	Pacific oyster	—
^b <i>Crassostrea japonica</i>	Kumamoto oyster	—
^b <i>Crassostrea virginica</i>	Eastern oyster	
ANOMIIDAE		
<i>Pododesmus cepio</i>	rock oyster	ʔʷ ch'4qs
PECTINIDAE		
<i>Chlamys</i> spp.	Scallop	[háp'-a-béd]
<i>Patinopecten caurinus</i>	Scallop	<s.ʔʷ áixʷ ai>
Gastropoda		
<i>Gastropoda</i> sp.	snail or slug	q'əyáʔ'əd
<i>Gastropoda</i> sp.	freshwater snail	[kwayetsks]
<i>Gastropoda</i> sp.	marine snail	<kiʔkobadi> "little moon snail"
ACMAEIDAE		
various	limpits	?
OLIVIDAE		
<i>Olivella biplicata</i>	olive shell	?
NATICIDAE		
<i>Polinices lewisii</i>	Lewis's moon snail	[kobádi]
BUCCINIDAE		
<i>Searlesia dira</i>	dire whelk	[spüp-sil; spöps]
HALIOTIDAE		
<i>Haliotis kamtschatkana</i>	Northern abalone	—
* <i>Haliotis rufescens</i>	California abalone	—
Polyplocophora		
<i>Cryptochiton stelleri</i>	gumboot chiton	[ok's]
<i>Katharina tunicata</i>	black Katy chiton	t'ónsowich
Scaphopoda		
<i>Dentalium pretiosum</i>	dentalium; money shell	súlax
Cephalopoda in general		s.qibkʷ
<i>Octopus dofleini</i>	North Pacific octopus	s.qáʔach
<i>Loligo</i> spp.	squid	s.qibkʷ

^bintroduced species

Lushootseed names in < > are from Marian Smith, *The Puyallup-Nisqually* (New York: Columbia University Press, 1940) or Harriet Turner, *Ethnology of the Snoqualmie* (Seattle: University of Washington, 1976); those in | are from Gibbs, *A Dictionary of the Nisqually (Nisqually) Indian Language—Western Washington*, vol. 1 (Washington, D.C.: Smithsonian Institution, 1970).

I stressed the fact that Lushootseed speakers, as well as those of several closely allied Coast Salish languages, distinguished the geoduck from the rather similar horse clams of the genus *Tresus*. They furthermore distinguished between the two local species of *Tresus*, naming *T. capax hávets* and *T. nuttallii s.tábtstən* (Hess 1976; Elmendorf 1992 [1960]). Ethnographic accounts specified certain details of morphology, phenology, and habitat that were used by indigenous shellfish harvesters to differentiate these taxa. These distinctions neatly matched characteristics of each species reported in the Western scientific literature (Kozloff 1983; Morris 1966).

The existence of a native term proves that native speakers have recognized the value of the species so named for a considerable period of time. More recent nomenclatural innovations may be readily recognized as such by a comparative analysis of lexical form and distribution. This temporal reach of native terminology is critical because many claims cases turn on what can be shown to have been the case at the time the treaties were signed, which typically predates strictly ethnographic reporting.

The existence of a native name does not, of course, prove that the species named was used, as the ongoing debate over utilitarianism in ethnobiological classification attests (Berlin 1992). However, in many cases the ethnographic record provides specific information about the utility of each species as food, material, or medicine, indexed to the native terminology, of course.

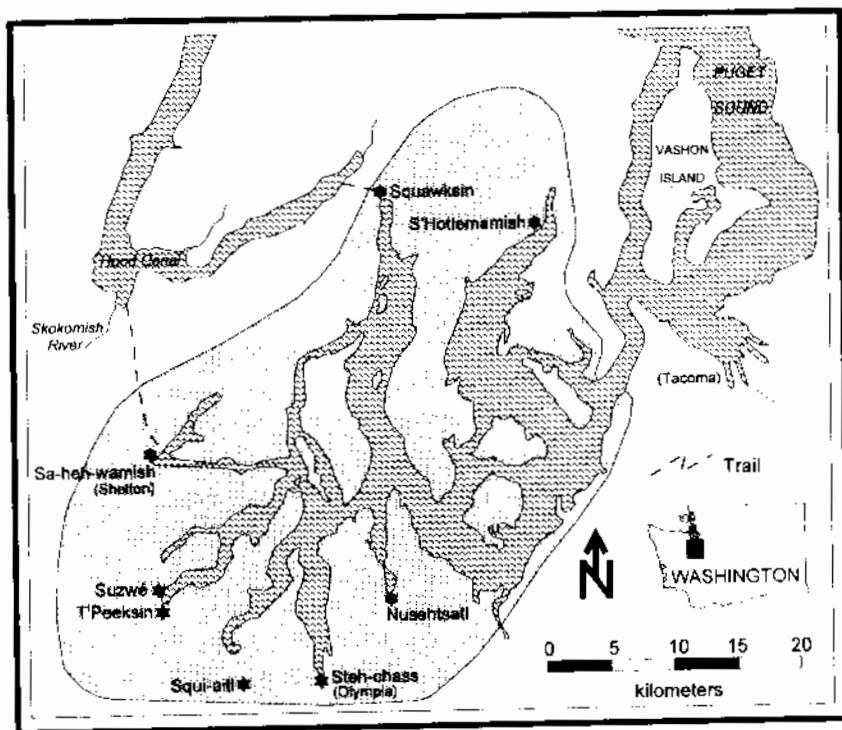
Nomenclatural evidence has additional value for establishing facts of early trade and contact. For example, George Gibbs's nineteenth-century vocabulary of southern Lushootseed (1970 [1877]) cites terms for razor clam (*Sinqua patula* = *chit-léd*) and California mussel (*Mytilus californianus* = *hu-ché-a-kud*; cf. the blue mussel, *Mytilus trossulus* = *scitciv*). These two species are confined to the outer coast of Washington and thus known only through trade. A further bit of linguistic evidence of extensive trade in shellfish, this time of smoked clams between Puget Sound and the Interior, is the Sahaptin term for saltwater clam, *sháxu* (Hunn and Selam 1990, 312). This is an obvious borrowing of a Salishan term for butter clam (cf. *Saxidomus giganteus* = *s.áxw* in Lushootseed). The Lushootseed term for butter clam, *s.áxw*, is used polysemously for this prototypical clam as well as for an intermediate grouping that includes little-neck clams (*Protothaca staminea* = *k'úx'div*) and basket cockles (*Clinocardium nuttallii* = *s.x'áp'əb*). In the Shellfish Proceeding, proof of extensive trade in shellfish at treaty times supported the plaintiffs' argument that they traditionally harvested not only for local consumption but also for commerce. This countered the defendants' claim that treaty rights should apply, if at all, only to subsistence and not to commercial harvests.

A second issue that turns in part on an analysis of ethnobiological classification is the question of native versus introduced species. The fact that the exotic Eastern soft-shell clam (*Mya arenaria*) was called *híhəwəts*, literally "little horse clam" (*Tresus capax* = *hávets*), indicated that exotic species were recognized as such and named by reference to native species perceived as most similar to them. This is a familiar naming pattern (Berlin 1972). In other instances, exotic species have received no Lushootseed name but are known only by their English names. This is the case for the Manila clam (*Tapes philippinarum*), which has largely displaced the closely related native little-neck clam and the Pacific oyster (*Crassostrea gigas*), which has likewise displaced the much smaller native Olympia oyster. Judge Rafeedie extended to these exotic shellfish the finding of the U.S. Supreme Court with respect to hatchery-reared salmon and steelhead (Cohen 1986, 6)—that is, that they should be included in the Indian allocation treaty as they represent replacements for traditional resources that were decimated by Euramerican activities.

A key thrust of the defense in the Shellfish Proceeding was their attempt to characterize shellfish as a marginal resource in the traditional economies, particularly relative to salmon. I argued to the contrary that the thirty-seven folk generic taxa of marine invertebrates named in Lushootseed compared favorably with the number of finfish taxa named. In fact, if we allow for contrasts in local species' richness and size, shellfish and finfish seem equally salient culturally.

In short, ethnobiological data is robustly factual and can be successfully defended under cross-examination by hostile lawyers. In fact, the ethnobiological data presented in this trial seemed not to be particularly controversial. More critical attention was focused on what might be termed ecological inferences from the ethnobiological and sociological data.

I sought to reconstruct specific geographic patterns of shellfish use on the basis of (1) species recognition, (2) basic sociological patterns, (3) certain demographic assumptions, (4) modes and routes of travel, and (5) place names. Fortunately, T. T. Waterman had left a voluminous archival inventory of western Washington place names of early 1920s vintage (Waterman 1920). I argued that the carrying capacity of the region might be estimated based on postcontact census data (Gibbs 1877), epidemic disease histories (Boyd 1990), place name densities (Hunn 1994), and data on village size and composition. Drainage basins and associated arms of the sound (see map 1) constituted the core territories of named village groups, which could be shown to correspond to the bands named in the treaty. Such villages were largely exogamous, generating a network of affinal links that extended accessible harvest areas for village members to include at least the adjacent bays.



Map 1. *The Squaxin Island Tribe's Usual and Accustomed Fishing Grounds*
 Source: D. A. Armstrong, et al., "Washington Shellfish Resources," in *Written Direct, United States v. Washington*, Civ. No. 9213, 89-3, Shellfish Subproceeding: University of Washington School of Fisheries, 1993.

T. T. Waterman's place names clearly showed that the local residents were intimately familiar with the coastlines of the region. Thus it should follow that each recognized shellfish species would have been harvested wherever habitats supported sufficiently dense and accessible populations. It should therefore not be necessary to demonstrate by means of eyewitness, written testimony (obviously not to be found) which sites were used by which groups. The specification of such sites could be left to the professional marine ecologists.

Conclusion

The Paradox of Relativism rests on anthropology's commitment to the belief that facts do not speak for themselves but take on meaning only in specific cultural contexts. However, the philosophical nihilism that would preclude honest and effective testimony by anthropologists on behalf of indigenous claims

does not apply to the bulk of the ethnobiological data. It also does not apply to the ecological inferences grounded in that data.

The Paradox of Authenticity arises from the fact that anthropological experts may cite hearsay, but that native lay witnesses may not. This is despite the fact that the anthropologist's testimony is ultimately based on native accounts. The anthropologist is granted the power to legitimate this hearsay by virtue of his or her presumed impartial commitment to the truth. Truth would appear to reduce to who has the power to enunciate it, as epistemological relativists claim. However, I believe there is more to it than this. Focusing again on ethnobiological testimony, it is clear that the ethnobiologist enriches the testimony of native experts by carefully documenting the nature of the correspondence of indigenous knowledge with that of Western science. If the essential equivalence of these two perspectives on the environment is not carefully established, indigenous knowledge remains alien to the legal discourse. The ethnobiologist, then, establishes the legitimacy of authentic indigenous knowledge via the methodology of systematic comparison of indigenous environmental knowledge systems with what has been established as fact to the satisfaction of Western environmental scientists.

As to the Paradox of Advocacy, ethnobiology offers no certain resolution to what is ultimately a question of competing loyalties. In my experience, however, ethnobiological testimony with rare exceptions is supportive of native claims. This is by virtue of the fact that indigenous knowledge is, as ethnobiologists have shown, essentially scientific. Only if the natives' case rested on a presumption of their ignorance could ethnobiological testimony be used against them. Thus our loyalty to the truth and our sense of personal and professional responsibility to our consultants need not be in conflict.