4

Culture, Society, and Solid Waste Management

It's hard to enter
circling clockwise and counter
clockwise moving no
regard for time, metrics
irrelevant to this place
where pain is the prime number
and soft stepping feet
praise water from the skies:

I have seen the face of triumph
the winding line stare down all moves
to desecration: guts not cut from arms,
fingers joined to minds
together Sky and Water
one dancing   one
circle of a thousand turning lines
beyond the march of gears--
out of time out of
time,   out
of time

> *-- Paula Allen[1]*

How and why the culture of Indian Reservations is of such importance in dealing with reservation SWM is described in this chapter. The significance of culture is a core theme that will be revisited in many forms throughout the study, and forms the crux of developing a new strategy to deal with SWM on reservations.

Culture provides the context , or "stage setting"[2], within which human activities take place[3]. Its impact can touch, therefore, a host of societal functions, including the management of wastes. In a very fundamental manner, how reservation communities operate revolves around cultural-related issues. As a result, SWM on reservations cannot be extricated wholly from a myriad of associated cultural issues.

The role of culture in SWM is subtle, but pervasive and influential. As described in Chapter 2, a conventional western-industrialized culture is assumed when applying CSWM. Tribal cultural differences therefore present a potential limitation for the application of CSWM on reservations. Linked to cultural considerations are many societal circumstances present in reservation communities, as described in the latter part of this chapter. As examined in the next two chapters, jurisdictional and program organizational differences also present important potential sources of CSWM failure. Cultural issues are examined first because culture plays an indirect part in the jurisdictional and enforcement problems described in Chapter 5, and an integral part in SWM program dynamics and structure, described in Chapter 6.

To analyze how culture causes CSWM to fail directly, and to provide a framework for understanding how culture contributes to CSWM failure indirectly, as described in the next two chapters, the following sections are included.

(1) Definition of Culture

(2) Cultural Differences between Tribal and Conventional Communities

(3) Relationship between Culture and Solid Waste Management

(4) Significance of Tribal Sovereignty

(5) Direct Impacts of Culture on Reservation SWM: Role in Community Disposal Practices

(6) Direct Impacts of Culture on Reservation SWM: Role in Tribal SWM Program

(7) Socio Cultural Considerations: Tribal Community Disposal Practices

(8) Social Cultural Considerations: Conventional Community Disposal on Reservations

(9) Chapter Conclusions

4.1 DEFINITION OF CULTURE

Because the concepts of culture and society are intertwined, the meaning of culture, as distinct from society, is reviewed below, followed by a discussion of the particular culture targeted in this study.

Culture Versus Society

The definitions of culture are numerous and vary somewhat in detail[4], but for the purpose of this study, their essential meanings coincide. Culture can be thought of as a group's heritage[5] of a patterned way of, or means for[6], behavior[7] and thinking[8]. By providing a core set of rules and beliefs, culture influences human behavior, but is not identical to it[9]. Society is a group of humans sharing a common culture and "social system"[10] . Essentially, the interactions and relations of individuals and groups (the society) define the social system within a common cultural framework[11]. The idea that culture acts as the context in which societal dynamics occur is revisited explicitly below in analyzing SWM education considerations, and in Chapter 7 in developing an appropriate SWM model for reservations.

Reservation Culture and Pan-Indianism

The primary culture of interest in this study is not "Native American culture" precisely, but the culture of Indian Reservations[12]. Individual tribal cultures can vary substantially, and will remain unique due to strong tribal sovereignty beliefs, as well as tribal-specific cultural differences[13]. But due primarily to the phenomenon of Pan-Indianism[14], as well as Federal Indian Policy to some degree[15], broad similarities between values, lifestyles, and political circumstances allow discussion of a single general reservation culture of tribal communities[16].

Pan-Indianism is the wider identity of Indians as a collective group[17]. It originated in the late 1800's to early 1900's with the realization by tribes of common hardships and predicaments, largely through the process of forced resettlement onto shared reservations[18]. Before this time, Indian

response to Euro-American encroachment was largely tribal, with some loose, regional groupings[19]. During the Progressive Era, national movements based on common Indian interest and identity surfaced[20]. Forced removal of children from different tribes to collective government-run or contracted boarding schools strengthened and expanded the perception of commonalty, as well as created ties of friendship and kinship that are broadly pervasive in Indian Country today[21].

Direct products of Pan-Indianism include the creation of peyotism, the Native-American Church, and the historical Ghost Dance movement of the 1880's and 1890's[22]. Indirectly, through its melding of tribal customs and beliefs, and formation of a common Indian identity, pan-Indianism is responsible for many of the inter-tribal pow-wows, Sun Dances, and other ceremonies today[23]. Politically, formation of inter-tribal groups and non-profit Indian advocacy organizations have resulted[24].

4.2 CULTURAL DIFFERENCES BETWEEN TRIBAL AND CONVENTIONAL COMMUNITIES

The culture of tribal communities differs from that of non-Indian communities in many ways. These differences can be summarized generally, albeit somewhat simplistically, into two distinct perspectives on life, as described below. The impact of the two contrary perspectives, separation and wholeness, on how SWM is viewed and carried out is described in the following section. The reader should bear in mind that all cultures are complex; both separation and wholeness themes exist to a degree in tribal and conventional communities, and certainly are needed to describe many individuals within those communities. However, the two life perspectives are pervasive and influential forces for their respective populations and, thus, provide a convenient means to analyze and/or compare gross community conduct.

Summary of General Attributes of Conventional Communities

The characteristics of the conventional (western) non-Indian community are generally attributes of an "individualistic" society, where the patterns, thought processes, and values are driven by the idea that the individual is paragon[25]. Community goals are defined in terms of improving the sum total status of individuals in the group, rather than the status of the group as group[26].

The Idea of Separation

The everyday notion that allows the expression of the individual to be predominate is separation (or individuation). Because separate individual will and desire is held supreme, obligations to the individual family preside over, and are seen as separate from, obligations to the group family (the community)[27]. Just as individuals are seen separate from the group, situations are seen separate from their context[28].

The Pursuit of Achievement

Life activities and goals are viewed as a series of separate endeavors, set and performed according to an outside merit-based standard[29]. Community status is based on the incremental accumulation of those endeavor merits[30]. Orientations and views towards time, people, and situations

are separable and prescribed[31]. Adherence to schedules allows completion and definition of each endeavor, gain of the associated merit, and the beginning of a new endeavor[32]. Because individual choice and freedom are held sacrosanct, individuals are not judged on a holistic basis, but solely on the basis of separate attributes that contribute to endeavor performance[33].

Focus on the endeavor is facilitated by "specific" thinking, or the separation of context from situation[34]. In turn, the pursuit of a tangible endeavor complements specific thinking because each isolated problem presents an opportunity to gain an additional plaudit. As will be refined further in Chapter 6, the separation of church and state, a fundamental characteristic of western society also facilitates specific thinking[35]. Unlike a tribal-reservation community, temporal, or everyday, activities in conventional communities can be viewed separately from their moral, or human, consequences. The related Judeo-Christian separation and subjugation of the "natural world"[36] substantiates specific thought processes in situations that impact the environment.

The basis for using western-industrialism in Chapter 2 to describe both resource and cultural aspects of conventional communities can now be explained. It is the focus on the problem at hand, and not its larger ramifications, that characterizes the process of western-industrialism and made it possible[37]. Process and technology are irrevocably mated. A western society will, therefore, not only be modernized in a resource sense but, at least in terms of temporal activities such as SWM[38], will tend to follow the theme of separation in a cultural sense as well.

Summary of General Attributes of Tribal-Reservation Culture

> We are of the soil and the soil is of us. We love the birds and beasts that grew with us on this soil. ...We are all one in nature. Believing so, there was in our hearts a great peace and a welling kindness for all living, growing things.
>
>   *-- Luther Standing Bear*

The tribal-reservation culture is largely characterized by what is termed a "collectivistic" pattern[39]. In marked contrast to the individualism of the conventional western-industrial community, behaviors and societal goals are generally oriented towards group goals[40]. Cultural values and thought processes facilitate and support such an orientation.

Holism

Rather than separation, the everyday notion that allows the goals of group to predominate is wholeness, or the doctrine of "holism"[41]. Essentially, a higher value is assigned to an integrated whole than to the its sum of separate parts. With supremacy of the whole, people, situations, and concepts are defined inclusive of the context in which they are set; their significance is distinguishable only when all influences - that affect the nature of their whole - have been considered[42]. From another perspective, nothing can be defined exclusive of its significance in community life because its full value would be ignored. Unlike separatism, there is no "cutoff" point where indirect or lesser influences can be left out[43]. And because ultimately each life event and idea must emanate from somewhere, at some point all tangible and intangible features are seen to connect to each other through a complex "web" of relationship[44].

Effect on Community Life

The effect of holism on tribal-reservation lifestyle is monumental and compelling. Because the nuclear family delineation of conventional communities is seen as an arbitrary genealogical cutoff, extended kinship ties predominate the nature of social bonds, and thus one's loyalties and responsibilities[45]. Because life is dependent on the functioning of organic nature[46], and human thought and aspiration accompany human action[47], nature and spirituality are not viewed as separate from community life and everyday activities[48].

Time and the Pursuit of Process

> Without each component of life the whole cannot survive... All elements of life (plants, rock, sky, water, birds, earth, humans, etc.) are living and interconnected.... Tribal people perpetuate a legacy that combines the past, present, and future that requires a decision making process that is holistic in nature"
>
> *- In the Statement of Principles, National Tribal Risk Assessment Forum[49]*

Time itself is seen holistically because each present event is linked inexorably to a continual sequence of past events, and precedes a connected series of future events. Because an appropriate point for a temporal cutoff is viewed as arbitrary, time, in a sense, becomes ever-present, or "circular", and the past is thus very significant[50]. Without a way to separate time, time only has meaning once an event occurs to mark it, and thus time is defined by that event[51]. In western society, because time exists as a separate concept, the reverse is true. Through scheduling, time is used to define the event[52]. The past becomes unimportant[53].

With a holistic view of time and activity, it would be difficult to view life as a series of separate endeavors to be achieved. Achievement of an endeavor cannot be defined strictly without consideration of how the endeavor has impacted other endeavors, because under holism the full worth of the achievement changes accordingly. Because achievement is defined only in terms of the whole of all life endeavors, and not separately for each endeavor, it becomes less important to complete a single endeavor than to ensure that the whole value does not suffer[54]. It follows that process, rather than result, or merit-achievement, becomes most important[55]. Results that have come about without due weight given to how they affect all the diffuse, connected considerations are seen only to succeed in the short-term, a meaningless achievement when viewed from the perception that time is endless[56].

The Notion of the Indian Way

In a world of increasingly blurred distinctions between cultural groups, Indian reservations have been referred to as one of the few remaining "cultural islands"[57]. A sharp distinction in lifestyle and values is transparent when entering the tribal-reservation community[58]. One thrust of the present study is that tribes retain their traditional values and relationship culture -- through maintaining cultural, legal, and political borders. Native American writings are rife with celebrating the belief that they have come through the "fire" of the past, and survived and multiplied intact as Indians[59] A strong awareness on reservations of these boundaries between tribal and conventional communities is pervasive[60]. Carrying out holism in daily activities to "keep things Indian"[61], or what is referred to by many Indians as the "Indian Way"[62], is increasingly a source of pride[63].

Desirability and Function of the Indian Way: The Connection Between Culture and the Tribal-Reservation Community

> When you finally realize that [fellow tribal members] don't belong to you, but that you belong to the tribe then you're really on your way back. Then you can find what your spot is in the circle of your tribal world. And just maybe you'll be an Indian again.
>
> *- Little Star, tribe unknown, on returning to the reservation[64]*

While somewhat self-evident, there are two points to be underscored concerning the Indian Way in tribal-reservation culture; it has both absolute desirability and indispensable function. As a result, tribal-reservation culture is intimately fused with reservation life, including SWM issues.

Desire for Cultural Persistence

The Indian Way is the socio-cultural component of this holistic community so its presence is integral to the community. While the study is not a suitable vehicle to analyze the issue further, social disintegration (e.g. alcoholism, suicide, and emigration), is widely recognized by tribes to go hand-in-hand with abandonment or loss of the Indian Way[65]. So desire for cultural integrity, or continuance of the Indian Way is vehement[66]. Because of its consuming potency, this desire has a direct bearing on many SWM issues, as described below.

Function of Culture

The associated functional need for the Indian Way in the continued viability of the tribal-reservation community is an equally powerful force that must be understood in dealing with SWM issues. A concrete treatment of the concept in relation to SWM is explored below and in the remaining chapters, but fundamentally, what must be understood is that the Indian Way is not only desired by the community, it is how a reservation community operates[67]. Because people think and live by the Indian Way, they would act according to the Indian Way, so that their community ends up being operated by the Indian Way.

The function is not just an axiomatic result, it is also a catalyst. Practice of the Indian Way allows the tribal-reservation community to achieve the holistic state of community that is being sought. For example, the removal of the importance of time would "allow time" for the contemplation of how all related aspects of a problem will be affected. Remember, in the holistic tribal-reservation community it is, in fact, *all* related aspects of the problem that are important in judging the merit of the problem solution. Exclusion of some elements might negatively impact the decision outcome[68]. Thus, the Indian treatment of time, sometimes referred to as "Indian time"[69], actually serves as a *modus operandi* in achieving the desired goal of improving the holistic community.

4.3 RELATIONSHIP BETWEEN CULTURE AND SOLID WASTE MANAGEMENT

The two themes of separation and wholeness have very practical consequences for how SWM is viewed and performed in conventional and tribal-reservation communities, respectively. A summary of the primary behavior traits that spring from the two philosophies, and how they might relate to SWM is provided in Table 4-1. In the first column are listed general cultural attributes and

Table 4-1
Cultural differences between conventional urban-industrial and tribal-reservation communities .
(2nd and 3rd columns are adapted and modified from Gilliland 1988)

Value: How relates to SWM	Urban-Industrial	Tribal-Reservation
Environmental and health perspective: *Community SWD practices*	Analyze and control nature	Live in harmony with nature
	Health connected with germs and cleanliness	Health results from harmony with nature
Learning styles: *SWD community education and personnel training*	Listens to explanation then learns by successive trials. Wants teacher as consultant, prefers direct instruction	Observes carefully then tries when feels secure in doing so. Wants teacher as model, prefers to be shown
	Auditory learner, prefers verbal instructions, relies on language for thinking and remembering, does not require context	Visual learner, prefers demonstrations, illustrations, relies on images for thinking and remembering, and so requires context
	Future goal oriented learning, does not require significance of knowledge	Needs to see use of knowledge to own holistic world
Ideas of justice: *SWD enforcement*	Criticism is immediate, blunt, to the point	Talk about good things before criticism, use indirect means such as shaming, frowning, ignoring, teasing, criticism in public is rude, disrespectful and harmful
	Hierarchical, specific discipliner such as police, court	No specific discipliner, community or family substitute
	Control is structured and applied independent of larger circumstances, do as told, explanation for rules not needed	Control is unstructured and unprescribed, dependent on holistic view, rules must make sense, punishment must be related and justified
Thought processes and decision-making: *SWM decision making and prioritization*	Universalistic - same set of rules apply to a situation, regardless of circumstances or players	Particularistic - different set of rules for different circumstances, "friendlier" view to persons and objects within one's own world
	Science, "reason"	Spirituality
	Respect for achiever, majority or dictatorial decisions	Respect for wisdom of elderly and desires of kin, collective/group consensus
	Give instant answers, make instant decisions	Thought and process emphasized
	Specific - starts with parts, specific facts, and builds toward the whole	Diffuse - starts with general principles, holistic overall view, everything connected
	Insists on reason, logic, facts, causes. Acts according to "logic"	Accepts intuition, coincidence, feelings, emotion, hunches. Acts according to what "feels right"
	Individualistic - what is best for all individuals in a group?	Collectivistic - what is best for group as a group?

Table 4-1
Cultural differences between conventional urban-industrial and tribal-reservation communities .
(2nd and 3rd columns are adapted and modified from Gilliland 1988)

Value: How relates to SWM	Urban-Industrial	Tribal-Reservation
Community Lifestyle: *Acceptance and workability of SWD alternatives and disposal practices*	Monochronistic - Time is extremely important. Get things done. Watch the clock, schedules, priorities. Time is rigid line, present disappears quickly. Time to do things is set by appointment.	Polychronistic - Time is here and circular. History and future are present. Be patient. Enjoy life. Time to do things is determined by sense of appropriateness.
	Admiration of youth	Respect for elders
	Few strong ties beyond single family unit	Close ties to entire extended family
	Acquire, save, possessions bring status.	Share, honor in giving, suspicion of those with too much
	Prepare. Live for the future.	Enjoy today; its is all we have. Live now.
Communication: *Interaction with outside institutions and communities*	Low context culture - ideas and thoughts must be expressed explicitly,	High context culture - expression is more implicit and held in body language, speech patterns, understanding is assumed
	Always look a person in the eye. Looking away means disinterest or dishonesty	Looking in eye means aggression or anger. Looking down is a sign of respect
	Accept public show of emotions: anger, sorrow, affection	Little evidence of emotion in public

their relationship to SWM. Comparative behaviors, largely excerpted from Gilliland (1988)[70], are given in the second and third columns. To provide perspective for the remainder of the chapter, an overall summary of the connection and dependence between SWM and culture in both communities is provided below.

How particularly the first five cultural attributes in Table 4-1 of environment, learning, justice, decision-making, and community lifestyle attributes can affect directly the SWM situation on reservations is analyzed in greater detail in subsequent sections. The last two categories of Table 4-1 are better explored in the context of jurisdictional and program organizational problems, and so will be referred to mainly in the ensuing chapters.

Conventional Community Perspective: A Return to the Meaning of CSWM

Build a better mousetrap, and the world will beat a pathway to your door

-- *Anonymous*

Because of the separation viewpoint, SWM in conventional communities is expectedly viewed as a separate societal function[71], a necessary activity that must be dispensed with as efficiently as possible to carry on achievement-oriented endeavors that are seen to have value. The meaning of SWM to the community would cease more or less outside its threshold function of clearing wastes from homes, streets, and businesses so that the real business of life can proceed.

The description in Chapter 2 of CSWM decision-making as a specific and universalistic process can now be explained. The separate and interdependent view that conventional society assigns to SWM axiomatically results in considerations being limited specifically to the charge of how to handle wastes. The ISWM decision-making process described in Chapter 2, where wastes are handled in the best combination of treatments given available resources, but irrespective of what the process portends for the community, exemplifies this problem-solving process. Regardless of any difference in their community context, SWM situations that are similar in direct regards to waste issues tend to be seen, and treated, as being similar.

The view of SWM situations as separate and similar allows the use of a fewer number of components in an SWM problem, and the use of an existing "blueprint" on which to base the solution[72]. As a result, decision-making processes will tend to be more streamlined than in reservation situations[73]. Like the larger force of industrialization of which it is a subset[74], the innovation and application of ISWM techniques is facilitated largely because of this streamlining. Of paramount importance, *the process of specific decision-making and CSWM technology complement each other.*

The Indian Way and SWM

99.9 % of your effort should be what to do with the dead mouse
        --- Anonymous[75]

Because of the wholeness viewpoint, SWM on reservations would not be viewed as a separate function with its own set of definable goals. Particularly because of the unique jurisdictional bind that tribes are in (described in the next chapter), and the issues of tribal sovereignty that are introduced below, more importance is attached to SWM decisions than simply the choice of waste handling[76].

Like all aspects of life in the tribal community, including other environmental management goals[77], SWM would be perceived to be connected to the identity and life of the community itself so that SWM decision-making can be expected to be "diffuse". Mirroring the relationship web, choice of SWM practices and alternatives would depend on larger issues of community, which are largely encapsulated in tribal sovereignty concerns, examined below and throughout the study remainder. Because of this, like all societal problems, SWM situations can be expected to be viewed "particularisticly". That is, situations are judged in relation to their context within the community. Problems of seemingly similar SWM situations can be expected then to be viewed quite differently.

As a result, a number of non-waste related components are added to the central SWM problem considered in the conventional community case. Consideration of the problem context also tends to render each problem unique, so that no basic blueprint is available on how to proceed. The result is a

corollary to the complementary mating of CSWM and how SWM problems are viewed and treated in conventional community problem-solving. Simply stated, because CSWM solutions are not designed to reflect accurately (i.e. wholly) and address what the SWM problem "is" in reservation communities, *CSWM and how SWM problems are viewed and treated in reservation communities are non-complementary*. The CSWM "waste solution" does not match the holistic "community question". For example, the SWM case studies described in Chapter 3 are viewed from a CSWM perspective simply as technical problems of waste disposal. But tribes would tend to view them holistically as problems of community.

> Pollution spreads ... into our communities and affects our lives, our children, and our culture. Tribal communities are forced to confront pollution that fundamentally challenges their ability to sustain their identity that they have protected for millennia.
>
> *-- Statement of Principles, Preamble, National Tribal Risk Assessment Forum*[78]

4.4 SIGNIFICANCE OF TRIBAL SOVEREIGNTY

> Despite our diversity, Native communities share fundamental values, rights, and responsibilities which must be acknowledged when threatened by environmental pollution. Tribal nations will protect their sovereignty and land base, religious freedoms, and culture to protect the seventh generation, both past and present
>
> *-- Statement of Principles, Preamble, National Tribal Risk Assessment Forum*[79]

> One reason for the importance of tribal sovereignty is the extensive difference in the mind sets of Indian tribes compared to the dominant paradigm [of the conventional community]. Without the protections offered by an officially recognized government, a group of Indians faces tremendous difficulties in preserving their identity and their culture.
>
> *-- Ronald Trosper*[80]

Tribal sovereignty is an umbrella concept that, taken back to its most basic level, is what delineates a tribe as a tribe. Tribal sovereignty is "the most fundamental characteristic of Indian nations"[81], and is generally employed as a euphemism for the full range of "tribal rights" viewed as befitting the status of tribes as independent nation-states[82]. The legal basis of such status is reviewed in the next chapter, but it is sufficient to realize that the question of "being a tribe" is a direct result of the tumultuous period of Federal-Indian wars and forced settlement onto reservations[83].

Compounded by the fact that the past is viewed as highly significant, and essentially present in tribal cultures[84], the issue of tribal sovereignty is an absolutely fierce emotional touchstone[85]. The terse, legal conception is that it delineates a tribe's jurisdictional powers[86], or "legal borders" (i.e. its authority). But because authority over a tribe's community is such a powerful factor in how community life can be played out, tribal sovereignty also encompasses broader issues of tribal self-determination and cultural integrity[87].

Self-Determination

Self-determination is the capability to decide and enact the course of the community's future[88], and essentially defines the "resource and/or political borders" of the tribe. It's extent largely depends on the economic and technical (including human resource) power and capability that a tribe possesses, i.e. its economic self-sufficiency.[89] As described in Chapter 6, sound SWM program

capability, is a necessary aspect of tribal self-determination, because without it, formal or informal program duties might be assumed by federal, local, and state governments[90]. Self-determination is dependent also on the legal and practical ability to enforce a tribe's chosen course, so it is fused with tribal sovereignty[91]. As an example, a tribe may decide that its best economic option is to open a gambling casino, but to do so, the legal power to site a gambling facility on its lands must exist.

Cultural Integrity

The importance of cultural integrity was discussed above. Again, the ability of a tribe to set its "cultural borders" (i.e. define itself culturally) is partly reliant on its legal ability to do so[92]. For example, to preserve its spiritual value, a tribe may wish to designate a sacred area as off-limits to recreational use, but needs the legal authority to do so.

SWM, Tribal Sovereignty, and the Community

The idea will be returned to in Chapter 7, but it should be apparent that, because tribal sovereignty, self-determination, and cultural integrity are intimately associated with tribal community identity (i.e. the holistic community), these issues are bound up themselves in community functions and goals, and so must inexorably be related to SWM as well. The desire and need for a separate community identity, or maintenance of the Indian Way, is the raw material from which the more structured idea of tribal sovereignty has emerged. Tribal sovereignty acts as the conduit for expression of the Indian Way because it provides a concrete legal vehicle to demand tribal rights, and in the process, helps set community cultural, resource, and political borders. As will be revisited, the impossibility of separating the idea of community integrity and self-determination from broad tribal-sovereignty issues forms the crux of many SWM problems. Two examples of how tribal sovereignty plays a role in SWM are discussed below, one from the perspective of community dumping practices and the other from the perspective of tribal decision-making.

4.5 DIRECT IMPACTS OF CULTURE ON RESERVATION SWM: A CULTURAL PERSPECTIVE ON WHY PEOPLE DUMP

As described later in this chapter, and in subsequent chapters, culture has profound indirect effects on many societal, jurisdictional, and organizational aspects characteristics which affect SWM. But culture also impacts SWM directly. Examined below is the role of culture in reservation open dumping and other unsound disposal practices. The direct role that culture plays in tribal personnel (i.e., management) actions and interactions is analyzed in a later section.

The amount of open waste dumping on a reservation determines to a large extent the SWM problem that must be handled and is of rudimentary importance in designing a tribal SWM program, and in judging how effective the programs are[93]. People engage in open dumping on reservations for many reasons that are not directly related to culture[94]. Some of these reasons will be explored in later sections.

Culture of Dirt

In accordance with behavioral theory, when they have the option, what people choose to do with their wastes should depend to a large extent on how they see those wastes[95]. What exactly is

"waste"? And why do people want to get rid of it? Management of solid waste disposal began as, and still very much is, a public health function[96]. In urban cultures, it also serves the functional purpose of clearing accumulated wastes from streets and waterways so that the business of commerce, and city life in general, can proceed[97]. Essentially, two notions are spawned, that waste is "unclean", and that it has no function or is "useless"[98]. The desire to get rid of wastes flows from these assigned characteristics. bring forth

Douglas (1970)[99]. theorizes that the concept of something unclean, or "pollution", fundamentally connotes "something out of place". Simply put, pollution, regardless of its type, occurs when something is where it is not supposed to be. But something cannot be out of place without a pre-formed idea of where it's proper place is. So the conception of waste as unclean is inherently associated with an organized cultural system of where things "belong"[100]. Cultural systems are organized innately by a community to fit and support their beliefs and values[101]. When waste is viewed from the slant of being useless, a similar argument is invoked. Something cannot be considered without value without a pre-conceived idea of what is valuable.

What waste includes can, therefore, be any number of various objects and ideas depending on the culture[102]. For example, spitting on the ground is considered as "dirty" and out of place in some cultures, but not in others. As any botanist will tell you, there is no such thing as a "weed", it is simply a plant that is growing some place where someone has decided it ought not to. So in the case of people who dump their wastes due to cultural reasons, the essential idea is that they do not conceive of wastes dumped openly on the ground to be "out of place". The practice of open dumping, and open dump sites, are perceived "to belong" in their conception of how the world should be, and are considered appropriate (i.e. befitting). Why would open dumping be viewed as appropriate? The answer lies both in the nature of open dumping and in how wastes are seen.

Holism and the Nature of the Open Dumping Habit: A Return to the Unused Transfer Station

Recall that a free-of-charge, convenient transfer station went unused, and open dumping continued, in the second example "puzzle" described in Chapter 3. Why would open dumping persist in the face of a practical, free-of-charge alternative? For some people, open dumping is still seen as the appropriate means to dispose wastes[103]. There is, therefore, no need to change disposal habits. How this view came about and why it persists is examined below.

Historical SWD: Open Dumping as Completing the Holistic Cycle

Prior to reservation life, for nomadic and semi-nomadic tribes, wastes were discarded near their dwellings, and had to be left behind as they moved on. Other tribes used dumping grounds that were shared by the community, such as shell middens. In either case, any inconvenience from open dumping hardly can have been expected because of a small, mostly organic wastestream and rural lifestyle[104]. Open waste disposal thus fit appropriately with the holistic conception of wastes as part of the earth. Wastes "belonged" on the ground.

Once uprooted or cordoned off to the reservations, life for many tribes still retained largely much of its previous character, in spite of the tremendous upheaval that was caused[105]. Hunting, fishing, and farming were still used for subsistence. Even into the 1960's, economic development and

industrialization occurred only to a very small degree[106]. Thus, luxury items and pre-packaged foods or goods were not typical. Municipal services and commercial businesses were few[107]. The rural wastestream would be quite small and mostly organic. As part of everyday life, solid waste disposal habits would not be expected to change substantially either. Thus, the conception of wastes belonging on the ground would be held as valid still, and the holistic "spiritual utility" of co-existing in harmony with nature would be fulfilled.

> You have to realize we're barely out of the hunting and gathering lifestyle. We still hunt and fish for food. All this dumping is new. All the white goods and trash...we need time to catch up to it.
>
> *-- Tribal member, Yakama Nation of Confederated Bands and Tribes [108]*

Changes in the Wastestream and the Emerging Conflict with the Holism of Open Dumping

Today, probably due to increased affluence, economic development, and societal interactions, the size and character of wastestreams on many reservations appears to be relatively similar to comparable non-Indian rural communities[109]. Non-degradable and/or hazardous wastes are common enough to accumulate and/or present health hazards because of the generally increased availability and presence of hazardous chemicals, packaging and consumer goods. So wastes are no longer of a character that the cyclic notion of returning them to where they came from (i.e., the ground) is innocuous. Changes in the wastestream have rendered inappropriate what once was appropriate.

But regardless of technological sophistication or use of modern conveniences, most tribal cultural belief systems and traditional lifestyles to a large degree remain intact [110]. And because it has been an integrated part of community lifestyle, the idea of open dumping as appropriate would persist along with persistent cultural beliefs and lifestyle. Note, in accordance with behavioral theory, the idea can transfer as habit to younger members through learned behavior and custom, regardless of growing up with a "modern" wastestream[111]. Thus, there is a conflict between how some tribal members continue to see wastes and open dumping, and what wastes have become in the past couple of decades.

Persistence of the Holistic Open Dumping Perception

That the conflict can exist can be explained by analyzing how a perception is developed. In the process of perception, the perceiver imposes an organized pattern or system on the sensory experience so that what is received can be interpreted as familiar[112]. Learning can only take place when new experiences can be assimilated into the existing system, or when the existing system is modified to account for the unfamiliar[113]. In this case, wastes would be perceived as not being harmful because they come from the earth and belong there. And without reason to change their perspective on where wastes belong in their cultural system, people would continue their open dumping practices.

Either those persons holding onto this perception have not realized the "new experience" of wastes being harmful, or they have, but the experience has not been significant enough to modify their existing system to account for it. The fact that some tribal members have not realized that dumping wastes according to their traditional habits can be harmful is recognized by tribal environmental personnel[114]. The leaching of contaminants from wastes to ground and surface waters

is a difficult concept to grasp as it is rarely visual[115]. Because an open dump appears "in place" and wastes accumulate slowly, any aesthetic judgment is lessened as well.

Again, compounding these considerations, only recently have wastestreams on reservations become of significant environmental threat. The length of time tribal members have had to recognize the harmful effects of unsound disposal practices on their own, thus, is too short. Water contamination, environmental degradation, and health problems generally are slow, subtle and complex processes that generally require a good deal of study and time to discern. So the opportunity to realize the "new experience" of wastes as harmful may not occur. From this perspective, when enough time has passed, and enough damage is noted, unsound disposal should come to be viewed as unsustainable, contradictory of the holistic lifestyle, and thus "wrong". Instead, in the short-term, because environmental and health degradation is occurring now, the harmful effect of unsound disposal practices must be taught. Cultural aspects of such a teaching process are described in the Section 4.7.

Culture of Individualism: Non-Indian Culturally-Based Reasons for Open Dumping

It may be recalled that non-Indians also used the open dumps behind the unused transfer stations. As will be explored further below, there are many socio-cultural and/or socio-political reasons that non-Indians dump their wastes on reservations[116]. But in terms of culture alone, non-Indians may also lack the necessary education to realize their unsound disposal practices are harming the environment[117].

Rather than open dumping because it fits with the holistic notion of harmony-with-nature, one cultural reason that non-Indians might dump wastes on reservations is that it fits with the dominant pursuit of individual utility or desire. Open dumping of wastes is often a monetary issue[118], so that money, the possession of which is a prime measure of success in western-style communities[119], is perceived to be saved by foregoing sounder disposal options. Thus, the individuals who dispose their wastes free-of-charge elevate their status by becoming financially "better off". Open dumping due to an inability, rather than unwillingness, to pay is discussed later in the chapter.

Some open dumps on reservations (particularly those near homes) are not considered "dumps", but as storage sites or unofficial junkyards for appliances and auto parts[120]. It has been historically more difficult to obtain products in rural regions[121]. And by dependence on primary development of natural resources, many low-income rural communities have been conditioned to prepare for "famine" cycles. Thus, the utility of saving used products (i.e. wastes) is perceived as relatively high[122].

Analysis

A plausible explanation for why the transfer station was not used can now be offered. The conventional approach to managing the problem of open dumping focused on the waste-related situation only. What was not taken into account was that there was in the tribal community an entrenched holistic notion of wastes belonging in the ground, and not in a metal container. People could not be expected to change their open dumping habits when not only is no harm seen in their wastes, but dumping them on the ground actually validates (i.e. supports) their cultural system. For the several non-Indians using the open dump behind the transfer station, perhaps a focus exists on individual welfare, and not on the auxiliary problem of how wastes are disposed.

The Holistic View on Wastes: A Return to the Fight Against a Corporate Landfill

The perception by some tribal members of open dumping as a holistic activity (or habit resulting from the notion) only partially explains why, in the fifth "puzzle" of Chapter 3, a tribal community would opt to continue open dumping rather than site a corporate landfill on their reservation[123]. The adverse reaction to a corporate landfill is still unclear, particularly in light of the substantial economic benefits that would have accrued to the financially impoverished community.

There is another slant on holism that affects whether people see open dumping as belonging in their community. As described above, in the tribal-reservation culture wastes would tend to be viewed in their context. So which wastes, or whose wastes, can make a difference in whether the wastes are seen to be "dirty"(i.e., whether they are viewed as wastes). Before proceeding, it is useful to introduce two additional examples of how such a contextual view on wastes can be manifested.

Member Versus Non-Member Generated Open Dump Sites

During the course of several reservation field investigations, tribal personnel were consistently more concerned with open dump sites used by non-members than with those of similar waste content used primarily by tribal members[124]. The concern showed in mainly two ways. The volume of wastes for non-member sites was almost always overestimated, often by an order of magnitude. And the subjective importance of the site was consistently held as substantially more severe than either the volume or type of wastes present warranted.

For example, during one excursion, a tribal member who was assisting in open dump site assessment work was insistent on visiting what he characterized as a "really bad site" that involved about an hour's drive time. As it turned out, the "site" was located on a non-member's property. The only wastes present were loose lumber, a few cardboard boxes, and some miscellaneous agricultural tools. While untidy, it was evident the site was used more for a storage location than a dumping ground. Nothing about the wastes or location of the site signified that it was of immediate concern in terms of contamination or disease vector risk.

But on the way back from this site, several 55 gal drums and assorted debris were spotted in a field near another home. The tribal member who had insisted on visiting the previous site, stated that "we don't need to go see that one, it's not so bad - its just [owner's name] -he's the only one using it ". This particular site was located partially in a wetland with standing water. Not only were there several (empty) 5 gal and 55 gal motor oil drums, there was a significant amount of general household wastes, and it was evident that the person who used it, a tribal member, used it quite regularly. According to the nature of the wastes and the site location, the site presented a significant environmental and health threat.

The Harmlessness of an Elder's Wastes

A second case involves a small tribe that has switched in the past couple of years from using open dumps to using a transfer station[125]. The station is free-of-charge, and the majority of members use it. An elder couple was granted informally the right to continue dumping their wastes in their traditional dumping spot, a nearby storm gully. The technically trained member who related the story, and who is aware of the potential for contamination by household hazardous wastes, stated that the wastes were "just from the old couple, so that there isn't any real danger. Some of us will go

around and check once in awhile to make sure nothing bad is there, and haul away any refrigerators someones' dumped there".

Analysis

Why would the two sites be judged so differently, and the elders' wastes be considered innocuous? The question is similar to why, in the fight against a corporate landfill, household wastes in a state-of-the-art landfill were thought to present an overwhelming threat to the environment by the same people who regularly dumped their own household wastes in stream gullies. The answer doesn't lie in the technical sphere. In each case, different opinions of inherent waste "dirtiness" do not depend (at least solely) on technical evaluation, but on something else.

But how can wastes be distinguished from each other on a basis other than their technical description? One answer lies in the sphere of tribal-reservation culture, where the judgment of wastes would tend to be situation-dependent, and perceptions of what that situation is, diffuse and related to the holistic community. How dirty wastes "are" then, would be dependent on how they affect, or are connected to, the holistic community. And one way that wastes can be "connected" to the community is by who is dumping them and the implications of that to community goals.

As a collectivistic culture, tribal-reservation communities also tend to be "high-context"[126]. That is, in general, they tend to view people and objects within their group much more favorably than those outside[127]. Things within the culture, thus, tend to "belong" and those from without don't belong. Thus, wastes that come from the outside, or are associated with harm to the holistic community, can be expected to be perceived as being "dirty" (i.e. not belonging). Those wastes dumped by members, on the other hand, can be expected to be seen as less dirty, or not dirty at all, and thus "fitting" to dump on the ground[128].

The Importance of "Place" in the Holistic World

Because elders, corporations, and non-tribal members are seen holistically, their place and meaning to tribal goals would be what determines their importance. In the first example above, a non-member dumping waste on reservation land can be associated with a multitude of tribal sovereignty-related issues, and, thus, predictably elicit heated concern. Among other issues, non-members can be perceived to contribute to acculturation, and, thus, loss of tribal identity[129]. The jurisdictional authority headaches that non-member dumping can create are discussed in the next chapter. The essential resulting idea is that non-member wastes are seen to not belong on reservations because non-members are seen to not belong there.

In terms of the second example, elders serve the role of teacher, continuity to the all-important past, and leader, and are highly respected[130]. In a sense, they are the ultimate "insider" to the Pan-Indian culture. Respect for the elders by allowing them to continue open dumping would be a demonstration of the Indian Way and one way of achieving community integrity, and thus tribal sovereignty goals.

In terms of the corporate landfill, the reasoning is similar. Whether the tribal members believe that their own open dumping is completely harmless is debatable, but that they view wastes from the outside as more harmful than their own "inside" wastes is clear. Among other perceptions, corporations are often perceived as archetypes of exploitation[131] , so they are not only placed squarely on the outside, but are assigned a directly harmful role in tribal sovereignty aims.

> To me its a real cynical exploitation of my people. It is not quite as direct as the old attacks, but if you take the poorest people in the country and offer them these kinds of blandishments - that's what I call a very cynical exploitation
>
> *-- Carter Camp, Ponca Indian , former president American Indian Movement, in reference to the siting of a corporate landfill on the Rosebud Sioux Reservation[132]*

By focusing solely on technical and economic issues directly related to the waste disposal problems of the reservation, conventional wisdom of CSWM would predict that the offer of a free-of-charge facility with economic benefits would be an entirely profitable, and hence acceptable, solution. But from the perspective of holism and belonging that the community actually adheres to, corporate landfill waste is seen by tribal members as detrimental to the community goal of tribal sovereignty. Open dumping has been viewed as holistic for a long period of time, and community wastes are perceived as harmless to the goal of tribal sovereignty (regardless of their perceived harm to the environment). Therefore, it is evident that the landfill would be rejected by the community, and the community would continue open dumping. In the conventional approach to the problem, the logic of the community decision is missed entirely.

Functional Utility of Holistic Treatment of Waste

Culture is developed by a community in adjustment to the problems that it faces, and those cultural attributes that appear to function well from the society's viewpoint will remain[133]. As described above, holism is functional for the holistic community, and would not persist in the tribal-reservation community unless it worked to some degree. Likewise, a holistic view of wastes and open dumping in a tribal-reservation community must serve a functional utility beyond the "spiritual utility" of supporting the holistic community.

One way to view the second example above is that, because of the way that holism works, disrespecting elders degrades community integrity, and thus the holistic tribal community. But, as described above, the holistic community is also the way through which holism functions and is what provides the impetus to care for the environment. Conceivably then, without a substitute environmental ethic, environmental degradation could result from community disintegration and an associated loss of respect for the environment[134].

> They throw their trash because they don't care. They don't respect their elders. They have no respect for the old ways.
>
> *--Tribal member, California area tribe, referring to tribal youth[135]*

So in the above example, honoring the elders by allowing them to continue their old ways could serve to reinforce the community notions of holism, along with the associated respect for the earth. Random open dumping and dumping off-reservation wastes for pay, expectedly could increase without the arrangement[136].

Likewise, the introduction of corporate influence and equal tolerance of non-member and member dumping are processes that can be seen to damage tribal integrity and, thus, ultimately affect tribal environmental management ability[137]. Corporate influence is associated with greater ties to the non-reservation communities[138]. The idea is refined further in the next chapter, but with such relationships come the possibility of losing tribal sovereignty through, for example, state claims to business and income taxes[139]. But, as described in Chapters 5 and 6, the loss of tribal sovereignty affects tribal ability to manage the reservation wastestream, particularly in terms of enforcement

authority and program planning. So, over the long-term, viewing corporate landfill wastes as dirtier than community wastes may actually be of long-term practical benefit in carrying out a sound solid waste management program on reservations.

Non-member dumping is associated with jurisdictional problems, as discussed in detail in the next chapter. Tolerance of the dumping then invites additional jurisdictional challenges to tribal sovereignty. Again, the loss or challenge of tribal sovereignty affects tribal ability to carry out an effective SWM program. From this viewpoint, the perception of non-member dumping as being more of a threat than member dumping is correct. The view is thus functional because minimizing non-member dumping serves to keep the tribe's sovereignty intact.

4.6 DIRECT IMPACTS OF CULTURE ON RESERVATION SWM: ROLE IN TRIBAL SWM PROGRAM

People communicate, learn, and think based on their experience of the social and cultural world around them, as well as their individual psychology[140]. To carry out a SWM program, communication and learning are essential in the education of the public and the execution of effective enforcement measures. How tribal decision makers think obviously determines to a large extent how the program will be carried out, which SWD alternatives will be chosen, and what the priorities of the program are. So the culture of the tribal-reservation community, the Indian Way, has profound effects on the nature and effectiveness of the SWM program.

The Indian Way and SWM Education: The Dismissed Education Program

Regardless of the underlying reason for dumping, a significant amount of the open dumping by tribal members is carried out due to "habit"[141]. People routinely open dump because that is what they have been doing with their wastes all their lives. And habits are formed because an individual finds some utility in the behavior[142], whether monetary, spiritual, functional, or otherwise. To change the habits of people who engage in open dumping, a utility for *not* dumping must be learned through SWM education.

But utility to an individual, because it is inherently associated with a value, and depends largely on the cultural system[143]. Moreover, learning can only work if the knowledge being transmitted fits into the recipient's system of values[144]. Education must be carried out with a common understanding between teacher and student of what is of importance to the student (i.e., what is a utility) and what the student's experiential value base is (i.e., what makes it valuable)[145]. As described throughout this chapter, the value system of the tribal-reservation culture is quite different from that of the conventional community, so education is different as well[146]. For SWM education in tribal-reservation cultures to work, the utility of proper disposal must be framed in terms of the Indian Way, and communicated according to the Indian Way, because that is the way people learn[147].

Analysis of the Dismissed Education Program: Miscommunication

Let us return to the tribe from the last Chapter that dismissed the highly paid environmental education consultants. What went wrong here? There are two angles to examine, who is delivering the information, and what that information is. As mentioned previously, the tribal-reservation culture is a high-context one. To belong, there are a number of implicit communication and behavioral rules

that must be observed and that are obvious to people within the community[148] , i.e. the rules essentially comprise the Indian Way. So to begin with, who delivers the message (i.e. the teacher) must be privy to the Indian Way because that is the way that people communicate. The education and sociology literature is rife with examples of miscommunication between two cultures[149] . For example, as seen in Table 4-1, in tribal-reservation culture, the act of looking down is generally a sign of respect. So too, is silence after a speaker is finished. In a conventional community, the opposite is true. One is told to look each other in the eye, and respond verbally to the speaker. So one problem may have been the consultants simply could not communicate any idea well in this community, let alone carry out SWD education.

Analysis of the Dismissed Education Program: The Role of Roles

But there is more to the question of who delivers the education than simply whether they have the capability to express ideas effectively within a culture. Cultures are defined by their rules, roles and values[150]. The Indian Way is no exception. To keep the holistic community intact, the roles that make up the culture must be kept intact. And in the tribal-reservation culture, it is the elders and family that have the role of teachers[151]. Roles are not merit-based, but system-based[152]. Respect for elders is automatic because they are elders.

> The Mother, the Grandmother... is celebrated in social structures, architecture, law, custom, and the oral tradition. To her we owe our lives, and from her comes our ability to endure, regardless of the concerted assaults on our, on Her, being, for the past five hundred years of colonization. She is the Old Woman who ends the first of life. She is the Old Woman Spider who weaves us together in a fabric of interconnection.[153]

Therefore, a vastly educated consultant may impress the people in the tribe, but that is not the same thing as being effective in teaching them. People are receptive to learning from elders, family, and other tribal authorities because they grew up conditioned that, not only were these people the ones that imparted knowledge, they were the ones who had the knowledge[154].

Another aspect of using community role models is that, as described in Table 4-1, most Indian people learn over time from modeled behavior, and not from oral or written instructions given once or twice[155]. The role of teacher must, therefore, be someone who is present in the community over the long-haul, i.e., someone who belongs in the community. So another problem with the consultants is that, in terms of the holistic community, they had not established a legitimate claim to the role of teacher and were not in the community long enough to "model" sound SWD practices.

Analysis of the Dismissed Education Program: Holism and Format

Perhaps the most serious mistake that the consultants made was how they delivered the education in terms of its "formatting". In accordance with the main tenet of holism, people in a tribal-reservation culture learn best when they are given a context to the knowledge (see Table 4-1). As people's lifestyles and thought processes revolve around holism, the knowledge they incorporate must be holistic as well so that it has a position in the holistic scheme of things. In other words, because they tend to operate holistically, they would need to connect the knowledge to other things in the holistic community to be able to use it.

A related concept is the requirement for relevance. In western conventional societies, the doctrine of separatism results in the idea that knowledge can be accumulated in separate bits that are irrelevant for now, but in the future may be useful[156]. But again, in tribal-reservation cultures, the

idea of future and present coalesce. The knowledge also must be relevant for life now[157]. And to be relevant, the knowledge must be important to community goals, (i.e. tribal sovereignty) because the tribal-reservation culture is a group culture[158].

But the documents and posters that the consultants brought were not framed in terms of holism or tribal sovereignty goals. They were developed according to conventional community learning styles. And the presentations the consultants gave were instructional and oriented towards the goal of reducing open dumping, not visual and oriented towards bettering the holistic community[159]. For example, rather than the holistic idea that using the transfer station rather than open dumping was the most appropriate way to return wastes to the earth, the communicated message was essentially "Give a hoot, don't pollute". People were *told* that their solid wastes were "dirty" and did not to belong on the ground, but no one was *shown* this was the case[160]. The conventional value on results was emphasized by presenting open dumping as "bad" and use of the transfer station as "good", without a context of how that fit into the community .

The consultants did not account for reservation circumstances. They treated the reservation community as simply another rural minority community[161]. While recognizing that they were working with another culture and needed to establish trust by community outreach, they did not understand how to establish that trust. For example, they made no real distinction between tribal member and non-member dumping, and between the tribe and the county in terms of who was the responsible government authority[162]. Not acknowledging tribal sovereignty issues and goals was a key mistake, because the community recognized that the consultants did not really understand them and know what was best for them[163].

> If you recognize that Indian tribes are sovereign governments then you're a hundred steps ahead of everyone else. If you don't, none of them will want to talk with you.
>
> *--Tom Villegas, Pomo Indian[164]*

Therefore, because all activities are connected in the holistic community, the tribe's reasoning was that the consultants could not possibly know what solid waste disposal practice was best for them. A tribal member summed up the experience, "They just didn't know us, it wasn't working. They came in and thought they knew everything. So no one listened"[165].

Once the tribe took over the education program, the community responded[166]. Elders were recruited to teach children harmony-with-nature values. An environmental educational document developed for tribes in the region, using terms such as *Tribal* council versus *City* council, and containing illustrations of Indian people, was employed[167]. Lessons on the harmful effects and pathways of waste contamination were carried out for elders and children that revolved around visual demonstrations. The community was kept actively involved and financially vested through training members in the cleaning up of the open dump and operation of the transfer station[168]. Children made signs and posted them. The result was that everyone had a stake in keeping the open dump closed. Learning was dispersed through traditional means of modeling proper behavior and community approval.

The Indian Way and SWM Enforcement: The Unenforced Enforcement Program

It was stated at the beginning of this chapter that culture affects all aspects of SWM, including enforcement. The next case presented in Chapter 3, the Unenforced Enforcement Program, has many

facets. To provide a full explanation, it is necessary to return to the problem in subsequent chapters. But one of the reasons that the tribe does not enforce its SWD ordinances is linked directly to the culture of holism.

Enforcement and Holism

Consider the similarity of the purpose behind enforcement and education. The idea behind an effective enforcement program is to persuade people, who would tend to do so otherwise, not to dispose their wastes in an unauthorized manner (which generally is also an unsound practice, but not always). Just like education, persuasion involves successfully communicating an idea -- however forcefully[169]. Enforcement is essentially education with penalties. The response of the community is again important. Like education, the response of the community to enforcement can only be positive when the idea is conveyed in a way that people understand.

Because enforcement inherently involves judging something "wrong", and hence something right as well, it revolves around the concept of justice. What penalty is fair. But justice in tribal-reservation communities is seen differently than in conventional communities (see Table 4-1). Like education and other concepts, justice is seen in holistic terms. The Indian Way of justice is essentially equitable rather than egalitarian, as it is in conventional communities[170]. That is, like education, justice is viewed in context. And the role of meting it out, in this case the "judge" rather than teacher, would be defined in terms of the tribal community[171].

So one of the reasons that the tribe is not enforcing their program may be simply that it is not the Indian Way of discipline. As seen in Table 4-1, people learn through community approval or disapproval. The community acts as judge. And the "crime" is viewed in terms of why the person did it and how it affects the community (i.e. particularisticly). A single fine or other punishment for all open dumping, even though each case is carried out for different reasons, would be seen as unjust. As a result, the community response to a specific penalty could be antagonistic. More will be said on the subject in Chapter 6, but the large number of holistic circumstances justifying dumping is one of the reasons, too, why it is difficult for discipline to be structured *and* the Indian Way adhered to.

A fine could be seen also as being unrelated to the action of dumping. And, as described above, because relevance is needed to learn, relevance is needed to understand the punishment. Without understanding, resentment is fostered[172]. So a tribe's imposition of a penalty or threat of one, particularly for a practice that is widely seen as traditional or recently traditional, can be counterproductive. As one tribal member put it, "that's just not the way we do things, it wouldn't work -- you make enemies. We try to educate them instead, and if that doesn't work, we try a little Indian justice. No need to write a law about that."[173]

A Final Word: Education Versus Enforcement

Not coincidentally, the traditional way that people in a tribal-reservation community learn *not* do something is the same way they learn to *do* something -- through education[174]. Education seems, therefore, systematically a better approach than enforcement in the holistic culture. For example, casual observation supports the contention that on many, if not most, reservations a "no dumping" sign will be shot at, torn down, and/or ignored[175]. Both a threat and judgment are explicitly stated in such signs, and no context is given. So from the view of what the tribal-reservation culture community tends to be responsive to, the observation is not at all surprising. In contrast, the Yurok Tribe posted signs at its closed open dumps with the prominent message of "Respect the Land --

Please Honor Your Homeland - Take your trash to the container site - Thank you"[176]. While ordinance and fines were cited in smaller type, they were stated as information rather in terms of a threat. In this case, in accordance with the culture, holistic context is given, judgment is deferred, and threat is indirect. Although the signs are paper, they have not been torn down or defaced, and dumping has not renewed.

The Indian Way and SWM Decision Making: A Brief Glimpse into the Uneconomical Choice for a Tribal Landfill

Because holism permeates tribal-reservation life, not only are SWM education and enforcement affected by it, SWM decision making is too. The value system that defines a culture and provides the basis through which a culture learns, communicates, and thinks is intimately linked with the goals of the culture (i.e. the pinnacle of its values)[177]. So that the holistic culture also affects the how and why of tribal decision making. Essentially, because holism tends to be both experienced and valued in the tribal-reservation culture, how one makes a decision will tend to fit a holistic pattern as well, and thus, reinforce holism. Some of the primary ways that holism is manifested in decision making are described in Table 4-1.

In the last puzzle presented in Chapter 3 to be examined in this chapter is the Uneconomical Landfill, concerning the tribe that maintained its desire to construct a tribal landfill in contradiction to conventional SWM wisdom. While greater detail will need to wait till subsequent chapters, part of the tribe's decision falls into place here, and is examined briefly below.

Conventional Versus Tribal-Reservation Decision Making

One reason that the tribe still wanted a landfill might be that in a tribal-reservation culture, decisions and goals do not tend to be based on a specific, separate issue such as economics[178]. Basing their decision solely on economics would suggest that the tribe had a defined conventional goal of increasing status through material gain. In a more altruistic scenario, commonly known as the Pareto principle[179], it would mean that the tribe believed that material wealth could be used to improve the status of individuals or programs of the community that the tribe valued, and no individual would be worse off. But this view is specific, and hence, conventional, thinking[180]. After all, tradeoffs entail *separation* of the problem components and assignment of values without full context[181]. Even social goals are denominated commonly-- a process that conflicts with the particularistic view of things valued in their own right[182]. So tradeoffs inherently involve fragmentation and disavowal of the holistic community, precisely the antithesis of the Indian Way.

Tribal Sovereignty as a Goal in SWM Decision Making

> Always, always, tribal sovereignty is first.
> *Mary Ann Martin Andreas, chairwoman, Morongo Band of Mission Indians[183]*

Again, holism relies not on a finite result, but on process. Remember that decisions have to be made according to how the integrated whole of the community is affected, including its spiritual side. Otherwise, theoretically at least, the holistic community eventually disintegrates, and becomes "unwhole". As a result, holism cannot function. And what keeps the holistic community whole is tribal sovereignty and its related values of self-determination and cultural integrity. Therefore, whatever else is the purpose of the decision, to maintain wholeness, the tribe would need to seek after

tribal sovereignty issues and ensure as a minimum that they are not harmed or impacted negatively. The result is basically a collectivistic corollary to the Pareto principle. A decision is not "bad" only if the welfare of the community does not suffer (i.e. tribal sovereignty is not affected). This "principle" is central to how SWM on reservations appears to work, and is returned to in Chapter 7. Once again, in keeping with the themes of separation and holism, individual goals are replaced by group concerns.

The tribe still desires a landfill then because some tribal sovereignty is lost in opting for the conventional choice of the much more economical and convenient county landfill. Why tribal sovereignty is so affected will be explored in the next two chapters, and the problem will be returned to.

It should be apparent at this point that the idea that conventional SWM decision making may not work in a tribal-reservation culture can be expanded from simply the decision to site a landfill. Recall from Chapter 2 that integrated solid waste management is founded on choice based on concepts of optimization and tradeoffs between waste reduction, costs, and environmental risks. This inherent conflict between conventional SWM decision making and that of the holistic tribal-reservation culture is one of the primary reasons for the "non-complementarism" between the way SWM problems are viewed and treated in conventional and tribal-reservation cultures .

4.7 SOCIO-CULTURAL REASONS FOR UNSOUND WASTE DISPOSAL BY TRIBAL MEMBERS

The only way to stop this evil [of land selling] is for all [tribes] to unite in claiming a common and equal right in the land, as it was at first, and should be now... No tribe has a right to sell, even to each other, much less to strangers...

-          *-- Tecumseh, Shawnee*[184]

It wasn't until I was 25 that I got it. I was on the rez drinking with my buddies, and threw my beer can on the road. And it was actually a white guy who says, 'what are you doing that for?' And I said, 'its my land, I can do what I want with it'... And he said, 'yea... its your land, man, and you should take care of it.'

    --Tribal Environmental Director, California tribe[185]

People don't want to have to pay the county to dump their wastes when they feel like they should be able to do what they want with their own land

    -- Tribal Environmental Director, Washington State tribe[186]

Unsound disposal practices by tribal members can be caused also by societal, as opposed to strictly cultural, considerations. Again, community disposal habits are important because it is these differences from conventional communities that tribes must contend with in their SWM.

Reversing The Tragedy of the Commons

In the case of some tribal members, the argument of the "tragedy of the commons"[187] is reversed. Rather than poor stewardship because the land is held in common, one reason waste dumping occurs is to validate that the land is "owned"[188]. The relationship of tribal communities to their land is sacred and the need for it encompassing[189]. As described in the next chapter, tribal lands have been annexed repeatedly throughout Federal-Indian history. Tribes are still limited in what they

are able to do with reservation land, because the federal government retains title[190]. Waste dumping for some tribal members appears to be an extrinsic and defiant means of claiming the land back[191]. The seemingly inherent contradiction of abusing what is loved is a common human trait[192]. Also, it should be noted that people who dump out of defiance are likely to be motivated by other reasons as well, including lack of environmental knowledge[193].

Waste Fees and a History of Victimization

A related sociological reason that tribal members may dump or otherwise unsoundly discard their wastes on the reservation is antipathy towards the non-Indian community or government[194]. Here, wastes are dumped on reservation by default because the generator does not wish to use county services. A historical victimization perspective exists where waste service and/or facility fees are viewed as one of many ways non-Indians continue to profit from Indians[195].

Lack of Enforcement

A third reason for unsound disposal practices by members, discussed further in Chapters 5 and 6, is lack of effective enforcement[196]. Without enforcement of tribal SWM ordinances and policies, no fear exists of being caught. Those members who might dump wastes for any of the reasons given above, are encouraged through a lack of dissuasion to do otherwise.

Inability to Pay

Finally, tribal members may dump their wastes in an unsound manner due to an inability to pay, as examined further in Chapter 6. Some 70 percent of reservation Indians between the ages of 16 to 64 earn less than $9, 048 per year[197]. Inability to pay for wastes services is likely the predominant cause of increased open dumping on reservations[198]. Especially to persons partially motivated by other cultural and social reasons, poverty is a strong incentive for illegal disposal.

4.8 SOCIO-CULTURAL REASONS FOR NON-COOPERATION OF NON-INDIAN COMMUNITY: PROPERTY RIGHTS VS. TRIBAL RIGHTS

> The independent nations of Spanish America were affronted, like the colonial authorities that preceded them, by communities that held their lands in common. This was considered the essence of savagery, contradicting as it did the notions of private property and individual title to land which all the invaders of the Americas (irrespective of their countries of origin) considered the essence of civilization. ...Those indigenous communities in the Americas who traditionally held their lands and resources in common fought to defend these practices for they understood that they were defending their identities and their autonomy.
>
> *-- David Maybury Lewis, Prof. of Anthropology, Harvard University[199]*

> So great is the regard of the law for private property, that it will not authorize the least violation of it; no, not even for the common good of the whole community
>
> *--Blackstone's Commentaries, A legal reference during the Colonialist Period[200]*

> You can't own a house...they got things all mixed up over there. They don't even keep the same time.

-Ketchikan resident referring to the neighboring Metlakatla Indian Community

The contention between the tribal and conventional cultures manifests itself in social relations between the tribe and neighboring non-Indian communities, on- and off-reservation[201]. The subject is broad and deep, and a comprehensive examination of the divisiveness is well beyond the scope of this engineering thesis. However, in terms of tribal SWM problems, the primary issue requiring understanding is the diametric opposition of individual and property rights versus tribal sovereignty rights.

Representational voting and the right to protect private property are quintessentially American[202]. But tribal sovereignty demands a tribally elected government and common tribal ownership and jurisdiction over reservation lands. Non-Indians living on reservations (on leased or privately-owned lands) can not vote in tribal elections, and have no formal voice in how and whether the tribe chooses to exercise authority over their property. The tendency, therefore, for many is to vehemently guard their property from tribal authority, and choose to deal exclusively with county government[203]. Participation in tribal SWM services can be thus viewed as inviting undesired greater tribal control[204]. So tribes generally must plan their SWM without the support of the reservation non-Indian population[205], a consideration examined further in Chapter 6.

> They have no right to tell me what to do, I'm not Indian.
>
> *-- Micki Hutchinson, non-Indian business owner, Cheyenne River Sioux Reservation[206]*

> When my grandparents came from Russia, the United States government told them that they would be full citizens if they moved out here. Now I see people being told that they can't even take part in a government that wants to regulate them. Something is inherently wrong when you can't be a citizen where you live because of your race. It just doesn't fit with the traditional notion of being a U.S. citizen.
>
> *-- Steve Aberle, tribal member and local attorney, Cheyenne River Sioux Reservation[207]*

> Let them talk about taxation without representation...We're not a state. We're a separate nation, and the only way you can be represented in it is to be a member of the tribe. And they can't do that. They're not Indians. These folks are trespassers. They are within reservation boundaries, and they will follow reservation law. They've now had one hundred years with no tribal authority over them out here. Well, that's over.
>
> *-- Greg J. Bourland, Cheyenne River Sioux Tribe Chairman[208]*

Related to this "protection-of-rights" perspective is direct antagonism of many non-Indian neighbors towards the tribe. The antagonism may be rooted in the difference of basic values or, in some communities, in the perceived special treatment accorded Indians[209]. Described further in the next several chapters, such treatment includes exemption from property taxes, most state laws, and some federal laws. Further, some tribes are granted through their treaties special fishing and hunting privileges outside their reservations[210]. The resulting antipathy of the non-Indian community appears to cause some persons, including businesses, to dump their wastes on tribal lands, or use tribal SWM facilities without authorization[211].

It should be noted too that, while their average income is higher than tribal members, many non-Indians in rural conventional communities also face financial hardship in paying for waste services[212]. Also, the likelihood of tribal SWM enforcement against them is very small, for reasons

discussed in the next chapter. In combination with the above considerations, these two factors provide further incentive for non-Indians to discard their wastes illegally on reservations.

4.9 CONCLUSIONS

Understanding the concepts of, and conflicts between, the basic tenets of holism and separatism is central to understanding the SWM problems on Indian Reservations. The cultural perception of waste and open dumping can contribute directly to community unsound SWD practices and community acceptance of SWD alternatives. For the SWM programs to be successful, the way that holism works affects how education and enforcement can be carried out by tribal personnel. And to ensure the maintenance of the holistic community, the way that holism works affects how tribal personnel are able to make SWM decisions.

Yet, the above discussion focuses on the ideal of holism, whereas in actuality the doctrine can be taken only as a guide for predicting general tendencies and values in tribal-reservation communities. Like all islands, the cultural island of the tribal-reservation community is not perfectly isolated from outside influences[213]. Demographic, economic, and socio-cultural trends and circumstances can, and do, make the strict ideal of the tribal-reservation culture overly-simplistic in even the most insulated tribal community. Jurisdictional and program organizational considerations that have come about because of these larger trends and circumstances impact how, and how much, holism can affect SWM particularly. These issues are discussed in the next two chapters.

[1]   Allen, P., "Hoop Dancer", in *Shadow country*, University of California and Native American Center, Los Angeles, 1982.

[2]   Schneider, D., "What is kinship all about? In *Kinship studies in the Morgan Memorial Year,* P. Reinig (Ed.), Anthropological Society of Washington, Wash., DC, 1972.

[3]   Winston, S., *Culture and human behavior*, Ronald Press Co., New York, 1933.

[4]   See for examples Gudykunst, W. and S. Ting-Toomey, with E. Chua, *Culture and interpersonal communication*, Sage Pub, Newbury Park, CA, 1988.

[5]   Winston, *Culture and human behavior*, *supra* note note 3.

[6]   Petersen, R., "Revitalizing the culture concept", *Annual Review of Sociology*, 5, 137-166, 1979.

[7]   See ibid.

[8](See Keesing, R., "Theories of culture", Annual Review of Anthropology, 3, 73-97, 1974.

[9]   See Gudykunst, W. and S. Ting-Toomey, with E. Chua, *Culture and interpersonal communication*, *supra* note note 4.

[10]   Parsons, T., *The social system*, Free Press, Glencoe, IL, 1951.

[11]   Geertz, C. *The interpretation of culture*, Basic Books, New York, 1973.

[12]   See Spicer, E., "Introduction", in *Perspectives in American Indian culture change*, E. Spicer (ed.), Univ. of Chicago Press, Chicago, 1961.

[13]   Cornell, S., "The transformation of tribe: organization and self-concept in Native American ethnicities" *Ethnic and Racial Studies* 11-1, p 21-41, 1988.

[14] Hertzberg, H., *The search for an American Indian identity*, Syracuse Univ. Press, Syracuse, NY, 1971.

[15] Cornell, S., *The transformation of tribe, supra* note 13. Note federal policy contributed to Pan-Indianism physically by placing different bands, tribes, individuals within certain reservations, and politically by shaping tribal governments and/or providing the tribes with a primary common obstacle to overcome and deal with.

[16] See Spicer, E., *Introduction, supra* note 12.

[17] See Hertzberg, H., *The search for an American Indian identity, supra* note 14.

[18] See ibid.

[19] See for example, ibid.

[20] Foremost was the Society of American Indians begun in 1911, a group of "western"-educated, middle class Indians, considered to have formally launched the Pan-Indianism movement, Nabokov, P. (Ed), *Native American testimony,: a chronicle of Indian-White relations from Prophecy to the Present, 1492 - 1992,* Penguin Books, New York, 1991. See Parker, A. (Ed), "The Best and the Brightest", *Report of the Executive Council on the Proceedings of the First Annual Conference of the Society of American Indians*, Oct 12-17, 1911, Columbus, Ohio, 1912.

[21] See ibid., Hertzberg, H., *The search for an American Indian identity, supra* note 14.

[22] Ibid. Peyote ingestion was not practiced in the United States until the 1870s, when Apaches began borrowing the practice from their Mexican Indian neighbors. The practice evolved, took hold with other tribes, and grew into a pan-Indian, societal religion. The Native American Church outgrew from the politics of peyotism and was created in 1918 as a recognized inter-tribal religious organization that used peyote in worship.

[23] Ibid.

[24] For example, the Council of Energy Resource Tribes, Affiliated Tribes of Northwest Indians, National Indian Congress, and the Tribal Environmental Council.

[25] For example, see Huntington, S.P., "The West: unique, not universal" *Foreign Affairs*, 28 - 46, Nov/Dec 1996.

[26] See generally, for example, Gudykunst, W. and S. Ting-Toomey, with E. Chua, *Culture and interpersonal communication, supra* note 4.

[27] For example, see self-orientation versus collective orientation in Parsons, T. and E. Shils, *Toward a general theory of action*, Harvard University Press, Cambridge, MA, 1951, or Tönnies, F., *Community and society*, Harper, New York, 1961.

[28] See Parsons, T. and E. Shils, *Toward a general theory of action*, *supra* note 27.

[29] See discussion of activity orientation of "doing" in Kluckhohn, F. and F. Strodtbeck, *Variations in value orientations*, Row, Peterson, New York, 1961, and Parson's "achievement "pattern variable in Parsons, *The social system, supra* note 10.

[30] Kluckhohn, F. and F. Strodtbeck, *Variations in value orientations*, *supra* note 29.

[31] Ibid.

[32] For a discussion of polychronic versus monochronic cultures, see Hall, E., *The dance of life*, Doubleday, New York, 1983.

33   See Parsons, T. and E. Shils, *Toward a general theory of action*, *supra* note 27, and Kluckhohn, F. and F. Strodtbeck, *Variations in value orientations*, *supra* note 29.

34   Parsons, T., *The social system*, *supra* note 10.

35   See Huntington, S.P., *The West: unique, not universal*, *supra* note 25.

36   See discussion of mastery-over-nature orientation in Kluckhohn, F. and F. Strodtbeck, *Variations in value orientations*, *supra* note 27.

37   Huntington, S.P., *The West: unique, not universal*, *supra* note 25, or see generally Gudykunst, W. and S. Ting-Toomey, with E. Chua, *Culture and interpersonal communication*, *supra* note 4.

38   A number of non-western industrialized societies, such as Japan, essentially confine separate thinking to carrying out practical societal functions, and in matters of lifestyle and spirituality follow traditional rules and patterns more closely associated with collectivism, see for example, Huntington, S.P., *The West: unique, not universal*, *supra* note 25.

39   See for example, Cornell, S. *The transformation of tribe, supra* note 13.

40   Parsons, T., *The social system*, *supra* note 10.

41   See for example, Allen, P., *The sacred hoop*: *recovering the feminine in American Indian traditions*, Beacon Press, Boston, 1986.

42   See discussion of particularism and diffuseness in Parsons, T., *The social system*, *supra* note 10, and Peacocke, C., *Holistic explanation: Action, space, interpretation*, Clarendon Press, New York, 1979.

43   See for example discussion of efficiency and practicality values in Williams, R., *American society*, Alfred A. Knopf, New York, 1952, and rationality versus traditionalism in Becker, H., *Through values to social interpretation,* Duke University Press, Durham, NC 1950, and Gerth, H., and C. Mills, *From Max Weber,: Essays in sociology*, Oxford University Press, NY, 1946.

44   See for generally example, Peacocke, C., *Holistic explanation: Action, space, interpretation*; *supra* note 42, James, S., *The content of social explanation*, Cambridge Univ. Press, New York, 1984; Phillips, D., *Holistic thought in social science*, Stanford Univ. Press, 1976, Berling, J., "Self and whole in Chuang Tsu", in Munro, D. (ed.), *Indivudialism and holism: Confucian and Taoist values*, Ann Arbor Center for Chinese Studies, Univ. of Michigan Press, 1985.

45   For example, see Spicer, E.(ed.), *Perspectives in American Indian culture change*,Univ. of Chicago Press, Chicago, 1961.

46   See discussion of harmony-with-nature orientation in Kluckhohn, F. and F. Strodtbeck, *Variations in value orientations*, *supra* note 27.

47   Parsons, T. and E. Shils, *Toward a general theory of action*, *supra* note 27.

48   For example, see Allen, P., "The wilderness in my blood: spiritual foundations on the poetry of five American Indian women" in Allen, P., *The sacred hoop*, *supra* note 41. For summary of Indian environmental values see Booth, A. and H. Jacobs, "Ties that bind: Native American beliefs as a foundation for environmental consciousness", *Environmental Ethics*, Vol. 12, 27-43, 1990.

[49] *Preamble for Environmental Values Shared by Indigenous Peoples*, National Tribal Risk Assessment Forum, hosted by the Shoshone Bannock Tribes, Fort Hall Reservation , ID June 24 -26, 1996.

[50] See "The ceremonial motion of Indian time" in Allen, P., *The sacred hoop, supra* note 41.

[51] Ibid.

[52] See Hall, *The dance of life, supra* note 32.

[53] See Hitchens, C., "Goodbye to all that: Why Americans are not taught history", *Harpers*, 37-48, Nov 1998.

[54] See generally for example, Peacocke, C., *Holistic explanation: Action, space, interpretation*, *supra* note 42, James, S., *The content of social explanation*, *supra* note 44; Phillips, D., *Holistic thought in social science*, *supra* note 44, Berling, J., *Self and whole in Chuang Tsu*, s*upra* note 44.

[55] Nelson, L., C. Ramsey, and C. Verner, *Community structure and change*, Macmillan Co., New York, 1960.

[56] An Iroquois tradition of planning for the impacts up to the "7th generation" has been adopted generally as a Pan-Indian value. Trosper, R., "Mind sets and economic development on Indian reservations", in *What can tribes do? Strategies and institutions in American Indian economic development,* Cornell, S., and J. Kalt (ed.), American Indian Studies Center, Univ. Calif., LA, 1993.

[57] Geertz, C., "What is Culture if not a Consensus", lecture notes, University of California, Davis Jan 16, 1997.

[58] Spicer, E., Introduction, *supra* note 12.

[59] Kroeber, K., "American Indian resistance and renewal", in Kroeber, K.(ed.), American Inidan persistence and resurgence, Duke Univ. Press, Durham, 1994.

[60] See for example, Trosper, R., *Mind sets and economic development on Indian reservations, supra note* 56, and Nabokov, P., *Native American testimony*, *supra* note 20.

[61] Collins, T., "Behavioral change and ethnic maintenance among the Northern Ute: some political considerations", in J.W. Bennett (ed.), *The new ethnicity: Perspectives from ethnology,* West Publishing, St. Paul, MN, 1975.

[62] See for example, Raincloud, D., "Keeping our Indian way", in *Being and becoming Indian: biographical studies of North American Frontiers*, Clifton, J. (ed.) Dorsey Press, Chicago, 1989.

[63] See for example, Wells, R. (ed.), *Native American resurgence and renewal: a reader and bibliography,* The Scarecrow Press, Inc. Metuchen, N.J. 1994, and Kroeber, K.(ed.), American Inidan persistence and resurgence, Duke Univ. Press, Durham, 1994.

[64] In Nabokov, P., *Native American testimony, supra* note 20, p 388.

[65] For example, Anders,G., "Social and economic consequences of Federal Indian Policy", in Wells, R. (ed.), *Native American resurgence and renewal:*, *supra* note 63, and Lester, D., *Suicide in American Indians*, Nova Sci. Pub., New York , 1997.

66   For example, see McMahon, P., Indian group spends $418,000 on pieces of heritage: "Tribes' interest in reclaiming historical artifacts has surged", *USA TODAY,* 5A, Aug 12, 1998; Jarvenpa, R., "The political economy and political ethnicity of American Indian adaptations and identities", *Ethnic and Racial Studies*, Vol. 8-1, 29-48, Jan 1985.

67   See for example, Ragsdale, J., Jr., "Indian reservations and the preservation of tribal culture: Beyond wardship to stewardship", *UMKC Law Review*, Vol. 59-8, 503 - 554, 1991, and Trosper, R., *Mind sets and economic development on Indian reservations, supra note* 56.

68   A hasty decision could be particularly devastating to a holistic process because it is not clear that factors would be considered in a prioritized manner. Thus, important factors might be left unconsidered. As the theoretical intent of holistic decision making is to include all factors, there is no need for a priority scheme, nor, due to the omnipresent connectivity of factors, any straightforward means of developing one.

69   Discussion notes, Indian Health Service, *Workshop on assessment of open dumping and solid waste management Ppanning on Indian lands,* Red Lion Inn, Redding, Sacramento IHS Office, Sacramento, Double Tree Highland Resort, Rancho Bernardo, CA, Oct 10-11, 16-17, 22-23, 1996.

70   Gilliland, H., *Teaching the Native American*, Kendall Hunt Pub., Dubuque, Iowa, 1988.

71   See generally Tchobanoglous, G., H. Theisen, S. Vigil, *Integrated Solid Waste Management: Engineering principles and management issues* , McGraw-Hill Inc, New York, 1993.

72   For general discussion of how western separation streamlines decision making, see for example, Thompson, J. and A. Tuden, "Strategies, structures, and processes of organizational decision", in *Comparative Ssudies in administration*, Univ. of Pittsburgh Press, Pittsburgh, 1959.

73   For discussion on planning and decision making differences for example, see Trosper, R., *Mind sets and economic development on Indian reservations, supra note* 56.

74   See Huntington, S.P., *The West: unique, not universal*, *supra* note 25.

75   From a water and sanitation internet talk group specializing in developing country and appropriate technology work (Water-and-san-applied-research@mailbase, ac.uk).

76   Similarly, Trosper notes that when tribes take over forest and land-use planning from the federal government, what is considered in terms of both alternatives and consequences is expanded. Trosper, R., *Mind sets and economic development on Indian reservations, supra note* 56.

77   See for example, Yakama Nation, "Holistic approach to environmental management requires integrating technical, institutional, and cultural perspectives", Department of Natural Resources Environmental Restoration/Waste Management Program, *Holistic engineering project,* Apr 15, 1991; Indigenous Environmental Network, *Risk assessment*, Bemidji, MN (e-mail ien@igc.apc.org); O'Brien, M., "An alternative to ecological risk assessment: traditional Native American approaches to ecosystems", *Society for Ecological Restoration* ,1995 International Conf., Seattle WA., Sep 14-16,

1995; Curtis, S., "Cultural relativism and risk-assessment strategies for federal projects", Human Organization, vol. 51-1, 1992.

[78] Hosted by Shoshone-Bannock Tribes, Fort Hall Indian Reservation, Jun 24 -26, 1996.

[79] Ibid.

[80] Trosper, R., *Mind sets and economic development on Indian reservations, supra note* 56.

[81] Preface to Chapter IV Tribal Sovereignty in Wells, R., *Native American resurgence and renewal, supra* note 63.

[82] See generally for example, ibid.

[83] See Cornell, S. *The transformation of tribe, supra* note 13, or Jarvenpa, R., *The political economy and political ethnicity of American Indian adaptations and identities., supra* note 66. The notion of a tribe is an imposed category placed on Indian groups, most of which were not organized into tribes, but comprised small bands with little political organization. Factionalism in tribes is endemic in Indian Country due to imposed forces, as well as cross socio-cultural situations, but the desire for tribal sovereignty an to "be Indian" is united.

[84] See "The ceremonial motion of Indian time" in Allen, P., *The sacred hoop*, *supra* note 41, or for more rigorous treatment, see Kluckhohn, F. and F. Strodtbeck, *Variations in value orientations*, *supra* note 27.

[85] See for example, generally .Deloria, V., Jr., and C. Lytle, *The nations within: the past and future of American Indian sovereignty*, Pantheon, New York, 1984, and individual testimonies in Chapter 17 "Let's raise some hell" in Nabokov, P., *Native American testimony, supra* note 20.

[86] See Cohen, F., *Felix Cohen's handbook of federal Indian law*, Strickland, R. (ed.), Charlottesville, VA, 1982.

[87] See for example, Ragsdale, J., Jr., *Indian reservations and the preservation of tribal culture, supra* note 67.

[88] See for example, ibid.

[89] McGuire, T., "Federal Indian Policy : a framework for evaluation", *Human Organization* ,Vol. 49-3, 1990.

[90] See Chapter 5.

[91] See Ragsdale, J., Jr., *Indian reservations and the preservation of tribal culture, supra* note 67.

[92] See ibid.

[93] Zender, L., and G. Tchobanoglous, "Manual on open dumping assessment on Indian Lands: Site closure and management", *Bureau of Indian Affairs Report*, Portland Area Branch, Dec 1996.

[94] See ibid.

[95] Douglas, M., *Purity and danger an analysis of concepts of pollution and taboo*, Praeger, New York, 1970.

[96] Tchobanoglous, G., H. Theisen, S. Vigil, *Integrated Solid Waste Management, supra* note 71.

[97] Ibid.

[98] Webster's dictionary defines waste as "useless, unneeded, or superfluous matter; discarded or excess material, such as ashes, garbage, by products, etc." Garbage, the popular culture term for household solid wastes, is defined as "refuse, animal or vegetable matter of a kitchen , refuse generally, or anything worthless or offensive". Synonyms include offal, scum, and dregs.

[99] Douglas, M., *Purity and danger*, *supra* note 95.

[100] Why a culture views a certain concept, object, or behavior as dirty is a complex question, and ultimately linked with concepts of taboo, religion, and moral values. See ibid.

[101] Keesing, R., *Theories of culture, supra* note 8.

[102] The difference in ideas of what waste traces far back. For an interesting examination and artistic interpretation this idea see Van Dongen, A., *One man's trash is another mans' treasure*, Museum Boymans-van Beuningen, Rotterdam, 1996. The book contains pictures and an analysis of an exhibition of 17th century European common household objects recycled and used for other purposes. A primary part of the exhibition are objects discarded as useless by American colonists and picked up for different purposes by Native Americans, such as a pendant of a brandy glass shard, and ceremonial rattles made of copper kettles.

[103] Zender, L., and G. Tchobanoglous, *Manual on Open Dumping Assessment on Indian Lands*, *supra* note 93, and Discussion notes, *Workshop on assessment of open dumping and solid waste management planning on Indian Lands, supra* note 69; Discussion notes, Affiliated Tribes of Northwest Indians Winter Conference, Spokane, Feb 12- 14 1994.

[104] See generally, Tchobanoglous, G., H. Theisen, S. Vigil, *Integrated solid waste management*, *supra* note 71.

[105] For example, Snipp, M., "The changing political and economic status of the American Indians: From captive nations to internal colonies", *American Journal of Economics and Sociology*, Vol. 45, 145-157, Apr 1986.

[106] Ibid.

[107] See for example various reservation descriptions in Spicer E. (ed.), *Perspectives in American Indian culture change, supra* note 45.

[108] Field Notes 7/11/94 for L. Zender and G. Tchobanoglous, "Solid Waste Disposal at the Yakama Indian Reservation: Site Assessment and Program Management" *Bureau of Indian Affairs Report,* Yakama Nation of Confederated Bands and Tribes, Toppenish, WA. Nov, 1995.

[109] Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment on Indian lands*, *supra* note 93.

[110] Allen, M., "Native American control of tribal natural resource development in the context of federal trust and tribal self-determination" in Wells, R. (ed.), *Native American resurgence and renewal, supra* note 63. For an analysis on the subject, see for example Vogt, E., "Navaho" in Spicer, E.(ed.), *Perspectives in American Indian culture change, supra* note 45, where resistance to cultural lifestyle change of the

Navaho is postulated to be due primarily to institutional core, economic base, and extended family system.

[111] Discussion notes, *Workshop on assessment of open dumping and solid waste management planning on Indian Lands, supra* note 69.

[112] Ibid.

[113] Douglas, M., *Purity and danger, supra* note 95.

[114] Discussion notes, *Workshop on assessment of open dumping and solid waste management planning on Indian Lands, supra* note 69. For discussion of some advantages and disadvantages of Indigenous environmental knowledge see Dewalt, B., "Using indigenous knowledge to improve agriculture and natural resource management", *Human Organization*, Vol. 53-2, 123-131, 1994.

[116] Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment, supra* note 93.

[117] See for example, Arcury, T., "Environmental attitude and environmental knowledge", *Human Organization*, Vol. 49-4, 300-304, 1990.

[118] Zender, L., and G. Tchobanoglous, "Assessment of illegal dumping of MSW in rural communities: procedure and evaluation" *Proceedings of the Eleventh International Conference on Solid Waste Technology and Management*, Philadelphia, Nov 1995.

[119] See for example, Williams, R., *American society, supra* note 43.

[120] Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment, supra* note 93.

[121] Galpin, C., *Rural social problems*, Century Co., New York, 1924.

[122] Ibid.

[123] Schneider, P. and D. Lamont, "Other people's trash: A last ditch effort to keep corporate garbage off the reservation", *Audubon*, 108-119, Jul/Aug 1991.

[124] Field notes, Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment, supra* note 93.

[125] Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

[126] Gudykunst, W. and S. Ting-Toomey, with E. Chua, *Culture and interpersonal communication, supra* note 4.

[127] Hall, E.., *Beyond culture*, Doubleday, New York, 1976.

[128] For example, in the Statement of Principles from the *Preamble for Environmental Values Shared by Indigenous Peoples, supra* note 49: "the natural world is inherently good; introduction of harmful chemicals into our world is immediately suspect." [emphasis added]. The implication is that chemicals do not exist except as introduced by outside forces, and are inherently "bad" because they come from outside the perceived system.

[129] For example, see Snipp, M., *The changing political and economic status of the American Indians, supra* note 105.

[130] Gilliland, H., *Teaching the Native American, supra* note 70.

131   For example, Jorgensen, J., "Indians and the Metropolis", in J. Waddell and O. Watson (eds.), *The American Indian in urban society*, Little & Brown, Boston, 1971, and Allen, M, *Native American control of tribal natural resource development, supra* note 110.

132   In Schneider, P. and D. Lamont, *Other people's trash, supra* note 123.

133   Winston, S., *Culture and human behavior, supra* note 3.

134   The subjective well-being of a culture depends on retainment of its values. Loss of values results in a reduction in quality of life, which in turn for tribes results in loss of tribal identity, a process that can lead rapidly (within a few years) to social disintegration. See Curtis, S., *Cultural relativism and risk-assessment strategies for federal projects, supra* note 77.

135   Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

136   Ibid. Several tribal representatives acknowledged a lack of concern for the environment by their tribal youths, who were believed to conduct the bulk of tribally-unauthorized open dumping. Such open dumping in several instances included taking money to allow non-member construction companies and appliance dealers to dump on tribal land. Without exception, the exhibited lack of respect for the environment was associated by the representatives with a corresponding loss of respect for elders and the "old ways".

137   Perceived risks may have socio-economic effects on the local community, even without the presence of probabilistic, or actual, risks. A perceived risk to tribal land may impact tribal identity, and thus contribute to the social process of tribal disintegration. Curtis, S., *Cultural relativism and risk-assessment strategies for federal projects, supra* note 77.

138   Cornell, S., and J. Kalt, "Reloading the dice: improving the chances for economic development on American Indian reservations", in *What can tribes do? Strategies and institutions in American Indian economic development*, Cornell, S., and J. Kalt (ed.), American Indian Studies Center, Univ. Calif., LA, 1993. They note because outside business investment leads to outside influence, it should be considered only by tribes with cultural receptivity to the outside, and/or those tribes deriving strengthened tribal cohesion from economic development.

139   See for example, American Indian Lawyer Training Program, *Indian tribes as sovereign governments*, American Indian Resource Institute (AIRI) Press , Oakland, CA, 1991.

140   Gudykunst, W. and S. Ting-Toomey, with E. Chua, *Culture and interpersonal communication, supra* note 4.

141   Field notes for Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment, supra* note 93, Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

142   Explaining an individual or group behavior consists of finding the "utility" that accrues to them by carrying out the behavior, and in establishing that the association between the behavior and utility are known. Barth, F., *Process and form in social life*, Routledge and Kegan Paul, London, 1981.

143   Ibid.

[144] Douglas, M., and A. Wildavsky, *Risk and culture*, Univ. of Calif. Press, Berkeley, 1982.

[145] See geneally for example, Gibson, G. (ed.), *An odyssey in learning and perception,* MIT Press, Cambridge, Mass, 1991.

[146] Sanders, D., "Cultural conflicts: An important factor in the academic failures of American Indian students", *J. of Multicultural Counseling and Development*, 81 -90, Apr 1987.

[147] Ibid.

[148] Hall, E.., *Beyond culture, supra* note 127, Kluckhohn, F. and F. Strodtbeck, *Variations in value orientations*, *supra* note 29.

[149] For example Sanders, D., *Cultural conflicts, supra* note 146; Cleary, L. and T. Peacock, Collected wisdom: American Indian education, Allyn and Bacon, Boston, 1998.

[150] Gudykunst, W. and S. Ting-Toomey, with E. Chua, *Culture and interpersonal communication*, *supra* note 4.

[151] Gilliland, H., *Teaching the Native American, supra* note 70. See also various testimonies in Nabokov, P., *Native American testimony, supra* note 20.

[152] See Parsons, T., *The social system*, *supra* note 10, for discussion of merit (achievement) versus system (ascription) based role assignment.

[153] In Allen, P., *The sacred hoop*, *supra* note 41.

[154] For example, see various testimonies in Nabokov, P., *Native American testimony, supra* note 20.

[155] See Cleary, L. and T. Peacock, *Collected wisdom, supra* note 149.

[156] See Gilliland, H., *Teaching the Native American, supra* note 70, Sanders, D., *Cultural conflicts, supra* note 146.

[157] Ibid.

[158] Parsons, T. and E. Shils, *Toward a general theory of action*, *supra* note 27; Kluckhohn F. and F. Strodtbeck, *Variations in value orientations*, *supra* note 29.

[159] Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

[160] Ibid.

[161] Paul Young, *personal communication*, Director, Environmental Health Services, California Area Indian Health Service, Oct 15, 1996.

[162] Ibid., see also California Integrated Waste Management Board, *Partnerships for remediation*, videotape, Mar 1996.

[163] Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

[164] Personal communication, Apr 3 1997.

[165] Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

[166] Ibid.

[167] Center for Indian Community Development, *Environmental protection of Native American Lands*, Humboldt State University, Arcata CA, 1996.

[168] See California Integrated Waste Management Board, *Partnerships for remediation*, videotape, Mar 1996.

[169] See for example, Koehler, J., K. Anatol, and R. Applebaum, *Organizational communication: behavioral perspectives,* Holt, Rinehart and Winston, New York, 1976; Smith, M., *Persuasion and human action,* Wasdsworth Pub., Belmont, CA, 1982.

[170] For brief review of the two justice norm orientations, see Gudykunst, W. and S. Ting-Toomey, with E. Chua, *Culture and interpersonal communication*, *supra* note 4.

[171] Gilliland, H., *Teaching the Native American, supra* note 70, Cleary, L. and T. Peacock, *Collected wisdom, supra* note 149.

[172] Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

[173] Tribal member, Manzanita Tribe, personal communication, Oct 23, 1996.

[174] Gilliland, H., *Teaching the Native American, supra* note 70.

[175] Field notes for Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment*, *supra* note 93.

[176] Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

[177] Gudykunst, W. and S. Ting-Toomey, with E. Chua, *Culture and interpersonal communication*, *supra* note 4.

[178] For example, see Trosper, R., "Multicriterion decision-making in a tribal context", *Policy Studies Journal,* vol. 16-4, 827-842, Summer 1988; Bee, R., "To get something for the people: the predicament of the American Indian leader", *Human Organization*, Vol. 38-3, 239-247, 1979; McGuire, R. and M. Worden, "Operations on the concept of sovereignty: a case study of Indian decision-making", *Urban Anthropology*, Vol. 17, 75-86, 1988.

[179] See for example, Samuelson, P., and W. Nordhaus, *Economics,* McGraw Hill, New York, 1989.

[180] See Thompson, J. and A. Tuden, *Strategies, structures, and processes of organizational decision, supra* note 72.

[181] See for example, Samuelson, P. and W. Nordhaus, *Economics*, *supra* note 179, and Graham, J. and J. Wiener, *Tradeoffs in protecting health and the envrionment*, Harvard Univ. Press, Cambridge, MA, 1995.

[182] See generally Trosper, R., *Multicriterion decision-making in a tribal context, supra* note 178. Note, in social benefit cost analysis, goals may not be monetarily defined, but still are numerically scaled, requiring a similarly universalistic and specific thought process in making the conversion. Goal programming (see Dykstra, D., *Mathematical programming for natural resource management*, McGraw-Hill, New York, NY, 1984), where social goals are used as constraints on producing income, does not treat goals as goals, and where several constraints are binding, interpretation is difficult.

[183] From Vellinga, M., "Many Indian casinos targeted for closure", *Sacramento Bee*, A4, May 14, 1998.

[184] In Miller, L. (ed.), *From the heart: voices of the American Indian*, Alfred A. Knopf, New York, 1995.

[185] Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

[186] Informal interview for Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment*, *supra* note 93.

[187] Hardin, G., "The tragdey of the commons", Science, Vol 162, 1243-1248, 1968.

[188] Informal interviews for Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment*, *supra* note 93, Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

[189] See Maybury-Lewis, D., "Editorial: voices from the commons, evolving relations of property and management", *Cultural Survival,* Vol. 20-1, 1996, plus various work in same, and Booth, A. and H. Jacobs, *Ties that bind*, *supra* note 48.

[190] Cohen, F., *Handbook of Federal Indian law*, U.S. Government Printing Office, Washington D.C., 1942.

[191] Informal interviews for Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment*, *supra* note 93, Discussion notes, *Workshop on assessment of open dumping, supra* note 69. Note because of their holistic perspective, Indian land is synonymous with Indian identity (see Ragsdale, J., Jr., *Indian reservations and the preservation of tribal culture, supra* note 67). Bumiller notes "The manifestations of victimhood [here, open dumping] can be recast as deliberate and narrowly constructive attempts *to preserve identity* [emphasis added]." Bumiller, K., *The civil rights society: the social construction of victims*, Johns Hopkins Univ. Press, Baltimore, MD, 1988.

[192] See for example, Macpherson, M., *The psychology of abuse*, R & E Pub., Saratoga, CA, 1984.

[193] Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment*, *supra* note 93.

[194] Ibid.

[195] For rationale explanation see Bumiller, K., *The civil rights society*, *supra* note 192.

[196] Field notes and informal interviews for Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment*, *supra* note 93, Discussion notes, *Workshop on assessment of open dumping, supra* note 69

[197] Indian Service Population and Labor Estimates, U.S. Dept. of Int., Bureau of Indian Affairs, 1995.

[198] Field notes and informal interviews for Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment*, *supra* note 93, Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

[199] In Maybury-Lewis, D., *Editorial: voices from the common, supra* note 190.

[200] From Zinn, H., *A people's history of the United States*, Harper and Row, New York, 1980.

[201] See for example, in-depth description of community relations in Biolsi, T., "Bringing the law back in: legal rights and the regulation of Indian-White relations on Rosebud Reservation", *Current Anthropology*, Vol. 36-4, 543 - 571, Aug-Oct 1995, and Bordewich, F., "Revolution in Indian Country", *American Heritage*, 34-46, Aug 1996.

[202] See for example, Zinn, H., *A people's history of the United States*, *supra* note 200.

[203] For example, see Bordewich, F., *Revolution in Indian Country, supra* note 201.

[204] Informal interviews for Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment*, *supra* note 93.

[205] Field notes for Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment*, *supra* note 93, Discussion notes, Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

[206] From Bordewich, F., *Revolution in Indian Country, supra* note 201.

[207] From Ibid. Note while interviewee identifies with non-Indian community, he is one-eighth Sioux by parent's marriage, and thus a voting member.

[208] Ibid.

[209] For example, see Biolsi, T., *Bringing the law back in, supra* note 201, and *Bordewich, F., Revolution in Indian Country*, supra note 201.

[210] See discussion of tribal fishing rights conflicts in Pinkerton, E., "Translating legal rights into management practice: Overcoming barriers to the exercise of co-management", *Human Organization*, Vol. 51-4, 330 -340, 1992.

[211] Zender, L., and G. Tchobanoglous, *Manual on open dumping assessment*, *supra* note 93, Discussion notes, *Workshop on assessment of open dumping, supra* note 69.

[212] Zender, L., and G. Tchobanoglous, *Assessment of illegal dumping of MSW in rural communities, supra* note 118.

[213] Spicer, E. (ed.), *Perspectives in American Indian culture change*, *supra* note 45.