# Envisioning Indigenous Education: Applying Insights from Indigenous Views of Teaching and Learning

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## Contents



**Abstract**

This chapter explores an approach to the visioning of contemporary Indigenous education, teaching, and learning through the lenses of Indigenous cultural thought and epistemological orientations. Aspects of Indigenous teaching and learning are discussed related to the ways metaphor and social consciousness have traditionally functioned in Indigenous community-related sociocultural education. The deeper psychological nature of Indigenous thought, as an integral part of human learning, teaching, and socialization, is also explored. These

Portions of this chapter have been adapted from a previously published work: Cajete, Gregory A. (1994). *Look to the Mountain: An Ecology of Indigenous Education.* Skyland: Kivaki Press, pp. 205–228. The terms *Indigenous*, *Tribal,* and *Tribe* are capitalized to add emphasis and to convey an active and evolving identity. (*The term Indigenous is used as the larger inclusive group term, while Tribal refers to specific contexts; both terms are capitalized as an honorific designation. American Indian is used when referring specifically to a Tribe which resides in the United States.*)

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explorations form the basis for advocacy toward an integration of Indigenous thought as an essential foundation for contemporary intergenerational education in the context of Indigenous community.

**Keywords**
Indigenous education · Sun Dagger · Storytelling · Myth · Community · Indigenous knowledge · Mythopoetic traditions · Native science · Critical pedagogy · Culturally based education

## Introduction

### The Sun Dagger: An Ancient Metaphor for Indigenous Education

High atop Fajada Butte in Chaco Canyon National Park, New Mexico, is a monument to the ingenuity and sophistication of Indigenous thought. By shaping and precisely placing three sandstone slabs against a concave horizontal indentation facing the Sun and then inscribing one large and one small spiral, the ancient Anasazi inhabitants of Chaco Canyon created the only known solstice and lunar marker made by an ancient civilization anywhere in the world. This monument to the genius and cosmological perspective of Indigenous America is appropriately called the "Sun Dagger" and may be viewed as a metaphor for an Indigenous way of coming to knowledge.

Fajada Butte is a high sandstone mesa which rises from the floor of Chaco like a silent sentinel guarding a gateway which leads to the world of an ancient Indigenous past. Chaco Canyon is centrally located in San Juan Basin of northwestern New Mexico. The canyon is the center of a complex of ancient Anasazi Indian sites which date back over a thousand years. The ruins located in and about the canyon are one of the most extensive and elaborate expressions of Anasazi culture yet discovered.

From near the top of Fajada Butte, one can see the winding course of Chaco Canyon and the expanse of dry washes, sandstone mesas, and horizons which seem to go on into infinity. Fajada Butte and its location in the greater context of the Chaco basin is indeed an appropriate location for an Indigenous marker of the cycles of physical and metaphysical time. The geographical context of Chaco Canyon, the natural form of Fajada Butte, and the Sun Dagger in its elegant simplicity, profound sophistication, and harmonious integration into the natural structure of the butte present an extraordinary environmentally based metaphor of the essential perspective which has been achieved by Indigenous education.

The story of the Sun Dagger's discovery is itself a tale which mirrors of the unfolding process of the rediscovery of the "Indigenous" perspective. Anna Sofaer, an artist recording rock art sites located on Fajada Butte, was the first non-Indian to see the unique play of light and shadow created by the Sun Dagger as the Sun reaches its noon position around the time of summer solstice. What Sofaer witnessed on the fateful day in late June 1977 would change her life and would later force archeoastronomers around the world to reconsider their preconceived notions

regarding the relative conceptual capabilities and level of "scientific" sophistication of ancient American Indian cultures (Fig. 1).

Over a period of several years and tireless effort, Sofaer was able to piece together the amazing ways in which the Sun Dagger marked the cyclic movement of the Sun and Moon. The basics of how the Sun Dagger functions may be described as follows:

The site consists of two spirals carved into the rock behind the three horizontal stone slabs. Just before noon on the days surrounding summer solstice, the knife of light bisects the larger spiral. At winter solstice, two noonday daggers frame the large spiral. Finally, during the equinoxes, the smaller spiral is bisected at midday by a lesser dagger, while a larger shaft of light passes to the right of center of the larger spiral.

The large spiral has 19 grooves, which may reflect the Anasazi knowledge of the 19.00-year Metonic cycle of the Moon, the time required for the same phase of the Moon to recur on the same day of the year. The slightly shorter lunar cycle of 18.61 years corresponds to the time between successive major standstills. At Fajada Butte the Moon's shadow bisects the spiral at moonrise during the minor northern standstill and just touches the petroglyph's left edge during major northern standstills. At both places a straight groove has been cut, which is parallel to the Moon's shadow (Malville and Putman 1991: 32).

The Anasazi understood the complementary movement of the Sun in relationship to the Moon as a visible manifestation of the sacred interplay of complementary opposites expressed throughout the Cosmos. They translated this understanding through various expressions in their ritual traditions and mythology. Thus, the Sun Dagger reflects the integration of Anasazi understanding of the movement of the Sun and Moon through time and space with a profoundly spiritual and sophisticated cosmological orientation. The Sun represented the ultimate symbol of light and of life for the Anasazi. Therefore, they were interested in all aspects of the Sun and traced its journey across the sky throughout the year. They were interested in the relationship of movements of the Sun and Moon to the Earth. The Anasazi strove to resonate their lives, their spirits, and their communities with the natural cycles which they perceived in the Cosmos.

**Fig. 1** Fajada Butte. Chaco Canyon, New Mexico. (Cajete, G (1994). Personal Photograph)

Near midday, during the passage of the Sun overhead on the summer solstice, a bright ray of sunlight begins to cut through the three positioned sandstone slabs on Fajada Butte. As the Sun moves closer to its highest point in the sky, the dagger of sunlight becomes more pronounced as it points toward the center of the largest spiral. As the Sun reaches its noontime position, the dagger of light "spears" through the center of the spiral as if heralding, and simultaneously pinpointing, the most sacred and energy-filled time in the Sun's annual pilgrimage across the sky. In a similarly dramatic way, the interplay of light and shadow created by the Sun Dagger also marks the times of winter solstice, the fall and winter equinoxes, and even the major and minor standstills of the Moon which occur over a cycle of almost 19 years.

In this way, the Sun Dagger metaphorically reflects the very real connection between time, space, and life on Earth with that of the Sun, Moon, planets, stars, and constellations. The play of light and shadow, illumination and orientation mirroring the cyclic evolution of Cosmos recorded by the Sun Dagger, is metaphoric of the creative learning and the honoring of relationship indicative of Indigenous education. The Sun Dagger visually shows the drama of the every moment and all life on Earth. The spirals, like mini replicas of an evolving universe, radiate from a center in concentric rings which show both interrelationship of cycles and a continuity that extends to infinity. It is an elegant instrument that mirrors the Indigenous mind and the focus on negotiating a deep relationship that leads to a kind of resonance with the natural order of the cosmos (Fig. 2).

The Sun Dagger illustrates the essential qualities of the Indigenous worldview predicated on the notion that everything is linked together in the multiverse and that the highest value lies in striving for a balance of relations between humans, other beings, and spirits of the past, present, and future. Other examples of Indigenous thought manifesting into elegant expressions of native science include Polynesian wayfinding, the Mesoamerican calendar, Andean agricultural and road systems, the chinampa and milpa gardens of Mexico, the mound works of the Mississippian cultures, and many other examples throughout the Indigenous world.

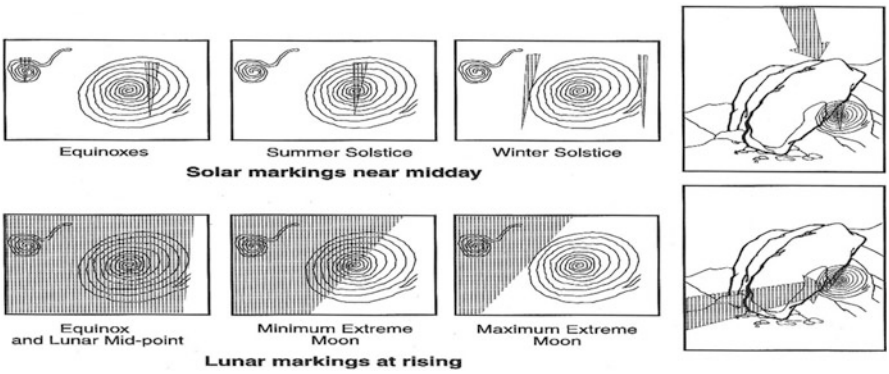


**Fig. 2** The Sun Dagger site. (Sofaer, A.P. and the Solstice Project. Inc. *The Mystery of Chaco Canyon: Study Guide for Teachers.* Oley, PA: Bull Frog Films. p. 8)

How, then, is the Sun Dagger in its function and its symbolism like Indigenous education? To begin with, learning and teaching are developmental processes that originate with inner experience as a center and radiate out through time and space. Ideally, such a process forms concentric rings of relationship to other experiences of learning to orient and resonate self, community, and culture to the natural world and to ones' place in that world. One cycle of learning is related to the one before and the one after in a continuum of time through the life of the individual, community, and the generations of Indigenous people. Learning is also essentially about continually moving back and forth between light and shadow through the times and experiences that occur through one's life. However, there are times during our life that a focused point of illumination occurs. In extending this *metaphor* through the *Native eye*, it might be said that the creative energy of light (Sun) the conscious or the energy of reflected light (Moon) the unconscious come into their fullest potential. There are also seasons and cycles of "major" and "minor" standstills of creative focus which characterize human learning and teaching that are essential to honor. There is learning in the sunlight (conscious modes) and learning in the moonlight (unconscious modes) which complement one another through a process of education, a process of coming to know and orient oneself to the world. There are pillars or foundations of cultural knowledge and context which at times form and illuminate learning and at other times cast shadows, enclose, or hide to contrast one realm of learning from another. The large and small spirals, around which the dagger of light dances with the shadows, represent the motion and direction of human thought – one rational, one intuitive – both contained within the same space. Finally, profound learning happens when climbing to a high place, overcoming hardship and obstacles along the way, to gain a perspective that gives us a broader, more expansive view. Wisdom and important knowledge can be found only through "looking to the mountain" and then rising above a lower plane to a higher one as the physical metaphor of Fajada Butte and its location in Chaco Canyon so magnificently represents.

The Sun Dagger, Fajada Butte, and the ruins of Chaco Canyon have been abandoned for more than 800 years. In spite of abandonment, the Sun Dagger has continued to mark the passage of hundreds of sacred time cycles of the Sun and Moon. The discovery of this metaphysical symbol and tool of Indigenous America at first was greeted with great doubt followed by controversy among Western scientists. This gave way to a flurry of experiments and observation reduced and decontextualized, in the usual tradition of "objectified" science, to fit it to the tacit infrastructure of Western understanding. Yet, just as the natural reality which it records, its Indigenous message of cultivating a deep understanding of human relationship to the cosmos cannot be denied. For the Anasazi understood, as did other Indigenous peoples, that we are related not only to each other and all other life on Earth, but we are also related to and a part of the greater universe. Therefore, an essential task of Indigenous education was to come to know the nature of this relational orientation, to develop resonance with it, and to honor it! (Fig. 3)

**Fig. 3** Sun Dagger: An Ancient Metaphor. (www.solar-center.stanford.edu/images/sundagger_detail.jpg)

## Indigenous Approaches to Education Are Viable Alternatives

Alienation from the underlying ethos of mainstream approaches to education has been one of the consistent criticisms leveled against modern education by Indigenous students. They have been given relatively few choices of school curricula that truly address their alienation beyond compensatory programs, remediation, and programs which attempt to bridge the social orientations of students with those of the school. Rather, most of the attempts at addressing such issues have revolved around refitting the problematic Indigenous student to the very "system" that caused their alienation and failure in the first place. Too often, the Indigenous student is viewed as the problem rather than the inherent and unquestioned approaches, attitudes, perspectives, and curricula of the educational system. The knowledge, values, skills, and interests that Indigenous students possess are largely ignored in favor of strategies, aimed at enticing them to conform to mainstream education. In mainstream education contexts, few comprehensive attempts to research and create content and teaching models which are founded upon contemporized expressions of Indigenous educational philosophies occur. Often, interventions focused on "fitting things Indigenous" to existing mainstream models have little real impact on many students. Hence, the inherent worth and creative potential of Indigenous students and Indigenous perspectives of education generally remain marginalized in mainstream education. As a result many of the brightest and most creative Indigenous students continue to be alienated from modern education.

The alienation of Indigenous students from education and the resultant loss of their potentially positive service to their communities need not continue if we revitalize and reclaim our own deep heritage of education. Indigenous approaches to education can work if we are open to their creative message and apply a bit of communal creativity and action to find ways to revitalize and reintroduce their inherently universal processes of teaching and learning. Indigenous educational principles are viable whether one is learning about the native science of the Anasazi

Sun Dagger or Polynesian Wayfinding, leadership skills through community service learning or about one's cultural roots through creating a photographic exhibit, or learning to develop a sense of place by exploring its concentric rings of ecological relationship.

The creative potential of building upon and enhancing what students bring with them culturally has been explored at a number of Indigenous educational institutions. The development of Tribal community colleges and the evolution of community schools governed by Indigenous peoples offer one of the most plausible areas for the ongoing development of this nature.

## Indigenous Education and Its Role in Individual Transformation

Generally, Indigenous education occurred in a holistic context that reflected the importance of each individual as a contributing member of the social group. In this way, Indigenous education sustained a wholesome life process. It was an educational process that unfolded through mutual, reciprocal relationships between one's social group and the natural world. This relationship involved all dimensions of one's being, while providing both personal and technical skills through participation in community life. From this perspective, one might say that Indigenous education was essentially a community-based expression of sustainable, ecologically integrated education (Cajete 1994: 26).

In the context of development of a basic conceptual framework for a viable Indigenous educational philosophy, it is essential that the relationship of Indigenous education to establishing and maintaining individual and community wholeness be seriously considered. Much of Indigenous education can be called "endogenous" education in that it revolves around a transformational process of learning by bringing forth illumination from one's ego center. Educating and enlivening the inner self is the life-centered imperative of Indigenous education embodied in the metaphor "seeking life" or for "life's sake." Inherent in this metaphor is the realization that intellectual understanding in concert with ritual, myth, vision, art, and learning the "art" of relationship in a particular environmental context facilitates the health and wholeness of individual, family, and community. Education for wholeness, by striving for a level of harmony between individuals and their world, is an ancient aspiration in the educational process of many cultures. In its most natural expression, all forms of Indigenous education were *transformative* and nature centered. Indeed, the Latin root "educare," meaning "to draw out," embodies the spirit of the transformative quality of education.

> A transformational approach to education is distinctly universal, integrative and cross-cultural because it is referenced to the deepest human drives. From this viewpoint all human beings concern themselves with self-empowerment and with whatever enables them to transform their lives and the conditions in which they live; such a viewpoint engenders the intent of people striving to create whole, happy, prosperous, and fulfilling lives. (Waterman 1989: 1)

The orientations of wholeness, self-knowledge, and wisdom are held in common by many traditional spiritual education philosophies around the world. Taoist, Buddhist, Sufi, Hebrew, and even Christian monastic are spiritual education traditions that continue to focus on these orientations today. Indeed, even though medieval times, all forms of European education were tied to some sort of spiritual training. Education was considered important in inducing or otherwise facilitating harmony between a person and the world. The goal was to produce a person with a well-integrated relationship between thought and action. This idealized outcome was anticipated as following naturally from the "right education."

The "right education" is, of course, a culturally defined construct, one of whose main criterion is socializing the individual to the collective culture and thought of a group. However, this sort of socialization is only one dimension of education, a first step in a lifelong path of learning. In reality, "right" education sets into motion changes that in time creates a profound transformation of self. For those who are familiar with transformative education, this process is a dynamic creative process which brings a relative level of peace of mind, tranquility, and harmonious adaptation. But, the exploration of self, and relationships to inner and outer entities, also requires a tearing apart in order to create a new order and higher level of consciousness. Harmony of mind, body, and spirit is achieved through such a process, but it lasts for only a short period of time before it again has to be revised as people and their circumstances change. This is the "endogenous" dynamic of Indigenous education.

The process begins with a deep and abiding respect for the "spirit" of each child from before the moment of birth. The first stage of Indigenous education therefore revolves around learning within the family, learning the first aspects of culture, and learning how to adapt and integrate one's unique personality in a family context. The first stage ends with gaining an orientation to family, community, and place.

Education in the second stage revolves around social learning, being introduced to Tribal society, and learning how to live in the natural environment. The second stage ends with the gaining of a sense of Tribal history and learning how to apply Tribal knowledge to day-to-day living.

The third stage revolves around melding individual needs with group needs through the processes of initiation, the learning of guiding myths, and participation in ritual and ceremony. This stage ends with the development of a profound and deep connection to tradition.

The fourth stage is a midpoint in which the individual achieves a high level of integration with the culture and attains a certain degree of peace of mind. It brings the individual a certain level of empowerment and personal vitality and maturity. But it is only the middle place of life.

The fifth stage is a period of searching for a life vision, a time of pronounced individuation, and the development of "mythical" thinking. This stage concludes with the development of a deep understanding of relationship and diversity.

The sixth stage ushers in a period of major transformation characterized by deep learning about the unconsciousness. It is also a time of great travail, disintegration, wounding, and pain which paves the way for an equally great reintegration and

healing process to begin in the final stage. The pain, wound, and conflict act as a bridge to the seventh stage.

In the seventh stage, deep healing occurs in which the self "mutualizes" with body, mind, and spirit. In this stage deep understanding, enlightenment, and wisdom are gained. This stage ends with the attainment of a high level of spiritual understanding which acts as a bridge to the finding of one's true center and the transformation to "being a complete man or woman in that place that Indian people talk about." (Fig. 4)

These stages of interrelationship form a kind of creative continuum, "life way," which helps us to become more fully oneself, as we move through the stages of our life. Indigenous education traditionally recognized each of the most important interrelationships through formal and informal learning situations, rites of passage, and initiations.

Inherent in Indigenous education is the recognition that there is a knowing Center in all human beings that reflects the knowing Center of the Earth and other living things. Indigenous elders knew that coming into contact with one's inner Center was not always a pleasant or easily attainable experience. This recognition led to the development of a variety of ceremonies, rituals, songs, dances, works of art, stories, and traditions to assist individual access and utilize the potential healing and whole-making power in each person. The connecting to that knowing Center was choreographed through specific ritual preparation to help each individual on their journey to their own source of knowledge. Through this process the potential for learning inherent in each of the major stages of a person's life was engaged and set

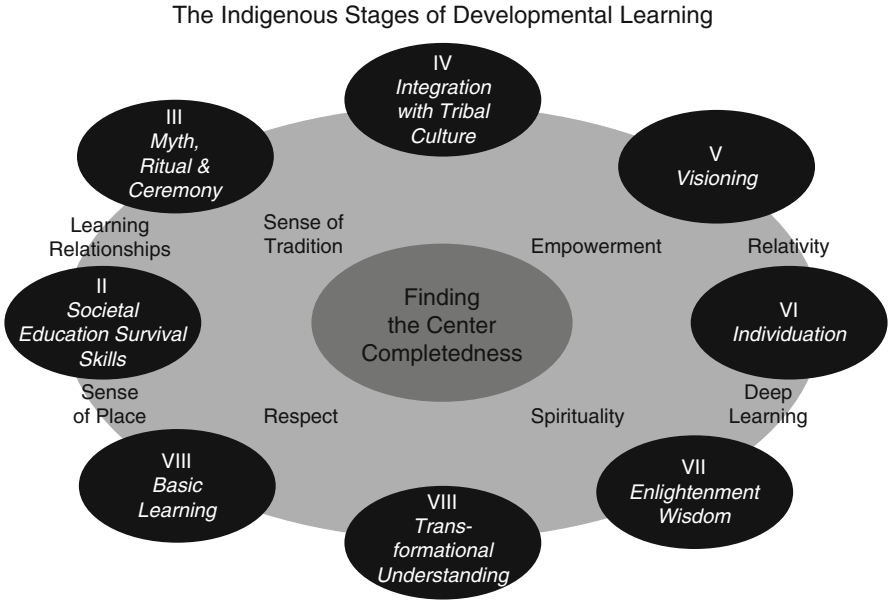


**Fig. 4** Indigenous stages of developmental learning. (Cajete 1994, p. 211)

about the task of connecting to one's knowing Center. This was the essential reason for the various rites of passage associated with Indian tribes and various societies within each tribe.

Since the highest goal of Indigenous education was to help each person to "find life" and thereby realize a level of completeness in their life, the exploration of many different vehicles and approaches to learning was encouraged. This was done with the understanding that each individual would find the right one for them in their own time. But the process of finding one's self and inner peace with its usual implications of being "adjusted," as it is called in modern circles today, was not the central focus of Indigenous education. Seeking peace and finding self was seen to be a by-product of following a path of life which presented significant personal and environmental challenges, obstacles, and tests at every turn. This "individuation," as Jung called it, did not come easy. It had to be earned every step of the way. But in the process of earning it, one learned to put forward the best that one had, and one learned the nature of humility, self-sacrifice, courage, service, and determination. Indian people understood that the path to individuation is riddled with doubt and many trials. They understood that it was a path of evolution and transformation.

> Individuation is a work, a life opus, a task that calls upon us not to avoid life's difficulties and dangers, but to perceive the meaning in the pattern of events that form our lives. Life's supreme achievement may be to see the thread that connects together the events, dreams, and relationships that have made up the fabric of our existence. Individuation is a search for and discovery of meaning, not a meaning we consciously devise but the meaning embedded in life itself. It will confront us with many demands, for the unconscious, as Jung wrote, 'always tries to produce an impossible situation in order to force the individual to bring out his very best. (John Sandford 1977, p. 22)

Some Western academics have contended that Indigenous cultures are too diverse to generalize the sharing one form of Indigenous education. At the literal, superficial level of the Western observer and through the lens of their own unexamined bias, this may seem to be true. Yet, the experience of most Indigenous people contradicts this biased notion. While it is obvious that there are a diversity of Indigenous peoples, with an equally diverse variety of expressions of cultural, social, and geographic orientations, when Indigenous people meet each other, they consistently observe and express how much they share in common. These expressions of commonality emanate from a deeper level of worldview. The perception of shared values, ways of thinking, and orientations to the world form this perceived undercurrent unity. A kind of "unity in diversity. Therefore, there can be parallel elemental characteristics which exemplified the transformational nature of many forms of Indigenous and spiritual traditions of education.

Hyemeyohsts Storm (1972), in her book *Seven Arrows*, reflects on a few of the most important elemental ideas of teaching and learning from traditional American Indian perspectives. These elemental thoughts may provide points of reference for learning goals and the development of content areas Indigenously inspired contemporary education. They are meant to simulate thought, further research, and

discussion. However, the "teacher" must provide research and the creative insights and applications in their own context.

First was the idea that learning happens of its own accord if the individual has learned how to relate with his/her inner Center and the natural world. Coming to learn about one's own nature and acting with accord to that understanding was a necessary preconditioning which prepared the individual for deep learning.

Second, there was the acceptance that at times experiences of significant hardship were a necessary part of an individual's education and that such circumstances provided ideal moments for creative teaching. A "wounding" or memory of a traumatic event and the learning associated with such events provide a constant source for renewal and transformation which enlarged the consciousness if individuals were helped in understanding the meaning of such events in their lives.

Third was that empathy and affection were key elements in learning. Also, direct subjective experience combined with affective reflection was an essential element of deeper forms of education. Therefore mirroring behavior back to learners became a way that they might come to understand for themselves their own behavior and how to use direct experience to the best advantage.

Fourth was an innate respect for the individual uniqueness of each person which gave rise to the understanding that ultimately each person was their own teacher as far as understanding and realization of their process of individuation. Indigenous education integrated the notion that there are many ways to learn, many ways to educate, many kinds of learners, and many kinds of teachers, each of which had to be honored for their uniqueness and their contribution to education.

Fifth was that each learning situation is unique and innately tied to the creative capacity of the learner. When this connection to creative learning and illumination is thwarted, frustration and rigidity follow. Learning, therefore, had to be connected to the life process of each individual. The idea of lifelong learning was therefore a natural consideration.

Sixth was that teaching and learning are a collaborative cooperative contract between the "teacher" and learner. In this sense the teacher was not always human but could be an animal, a plant, or other natural entity or force. Also, based on this perception, the "teachable" moment was recognized through synchronistic timing or creative use of distractions and analogies to define the context for an important lesson. The tactic of distract-to-attract-to-react was a common strategy of Indigenous teachers.

Seventh was that learners need to see, feel, and visualize a teaching through their own and other people's perspectives. Therefore, telling and retelling a story from various perspectives and at various stages of life enriched learning, emphasized key thoughts, and mirrored ideas, attitudes, or perspectives back to learners for impact. Reteaching and relearning are integral parts of complete learning. Hence, the saying, "every story is retold in a new day's light."

Eighth was that there are basic developmental orientations involved with learning through which we must pass toward more complete understanding. Learning through each orientation involves the finding of personal meaning through direct experience. The meaning that we each find is always subjective and interpretive, based on our relative level of maturity, self-knowledge, wisdom, and perspective.

Ninth was that life itself is the greatest teacher and that each must accept the hard realities of life with those that are joyous and pleasing. Living and learning through the trials and pains of life are equally important as learning through good times. Indeed, life is never understood fully until it is seen through difficulty and hardship. It is only through experiencing and learning through all life's conditions that one begins to understand how all that we do is connected and all the lessons that we must learn are related.

Tenth was that learning through reflection and sharing of experience in community allows us to understand our learning in the context of greater wholes. In a group there are as many ways of seeing, hearing, feeling, and understanding as there are members. In a group we come to understand that we can learn from another's experience and perspective. We also become aware of our own and other's bias and lack of understanding through the process the group. We see that sometimes people do not know how to take or use real innovation and that many times people do not know how to recognize the real teachers or the real lessons. We see that a community can reinforce an important teaching or pose obstacles to realizing its true message. It is not until, as the Tohono O'odham phrase it, "when all the people see the light shining at the same time and in the same way" that a group can truly progress on the path of knowledge.

Finally, these are precepts which have been generalized to form a conceptual frame around which approaches to Indigenizing contemporary education may be viewed. The precepts form an ethical/methodological *context* for thought and consideration through which curriculum may be created around an Indigenous epistemology grounded in the ecological and ethical orientations of different Indigenous groups. Each group's curriculum will necessarily evolve based on their history, needs, aspirations, and vision of a contemporary education for their people. These expressions of education will vary and differ according to circumstances but, at another level, will resemble one another in many ways. This resemblance is because Indigenous peoples' epistemological orientations and worldview tend to be more similar than dissimilar. The other reason is that the contemporary Indigenous focus on education and the sentiment toward "decolonization" is rooted in similar issues that have formed their social consciousness through the colonial, modern, and postmodern eras. For insight into why these similar issues and expressions of social consciousness exist, I turn now to the work of Paulo Freire who learned about *Indigenous* forms of social consciousness and community through his literacy advocacy and activist work with the urban and peasant workers' unions of Brazil.

## Social Consciousness and Indigenous Education

Paulo Freire, Brazilian social reformer and educator, introduces a notion of education which closely parallels the role of Indigenous education in the transformation of the social consciousness of Indigenous peoples as they strive to "self-determine" themselves in the face of the challenges of a twenty-first-century world (Paulo Freire 1970). While there are other Western social philosophers such as John Dewey who have espoused a different view of how education can be approached, it is the praxis of Freire that speaks most profoundly to the circumstances and yearnings of many Indigenous peoples.

Freire's thesis is founded on the notion that critical consciousness of cultural and historical roots of a people – as expressed and understood from the perspective the people themselves – is the foundation of a people's cultural emancipation. The modern struggle of Indigenous peoples throughout the world has largely been characterized by an attempt to maintain the most cherished aspects of their ways of life, their relationship to their lands, and their consciousness of themselves as a distinct people. They are constantly engaged in a dynamic struggle to retain "the freedom to be who they are" in the midst of subtle and at times overt oppression by modern societies.

Freire's central message about education is that one can only learn and understand to the extent that one can establish a direct and participatory relationship with the natural, cultural, and historical reality in which one lives. This is not the same as the Western-schooled authoritarian style of problem-solving, where schooled "experts" observe a reality or situation from the outside and at a distance and then develop a solution or dictate an action or policy. This approach decontextualizes the problem from the totality of human experience and leads to a distorted perspective of the problem as an event that has relationship only to itself and to nothing else. This form of ultra-objectification denies the reality of interrelationship and reduces participation and learning to only an intellectual exercise of applying a preconceived objective method or model. The result is a perpetuation of dependence on an "outside" authority and the maintenance of the political power brokers behind such authority. Indigenous people who are "administered" education, extension services, and economic development in these terms usually remain oppressed and gradually become dependent on the "authority." Under these circumstances, Indigenous peoples' ability to revitalize and maintain themselves culturally, socially, and economically through a self-determined process of education is significantly diminished, if not outright destroyed.

Freire's approach is to begin with the way a group communicates about their world and their experiences in their social contexts. Then "generative" words, metaphors, or proverbs are identified which evoke thought and feelings or reveal a historical perspective that has intrinsic meaning to a people and their cultural way of life. These words or phrases are then translated into a variety of meaningful images and discussed with the people themselves to "unpack" their meaning. This process evolves through various stages of dialogue through structures called "culture circles." In the "culture circle," a group reflects on key generative words and symbols facilitated by a coordinator who helps form the dialogue. Since the words and symbols being used come from the language, cultural, or historical experience of the group, the people

begin to reflect on their own collective stories in ways that stimulate new insights about themselves, their situations, and solutions to problems which they face. Motivation, meaning, and "researching" of their cultural roots for possible models for viewing their problems are built into the "culture circle." The group learns by telling and retelling their stories, reflecting on their meaning, and reinforcing the vital elements of their cultural orientation. This process of learning stimulates the thinking of "people submerged in a culture of silence to emerge as conscious makers of their own cultures." The group learns how to create new meanings and apply insights derived directly from their own culture, history, and social experience to their contemporary life. What they learn about themselves through themselves forms the basis for authentic empowerment and the beginning of release from imposed authority through a process of education that has become their own. Through such a process, the group can truly cease being "objects" for outside political, economic, or educative manipulation. Instead, they become subjects in the making of their own stories for the future and controllers of their own destiny.

Freire's method has had a profound effect on increasing the literacy and the social consciousness of not only rural peoples in Brazil, but millions of people in third-world nations. It works primarily because it acts to release what is essentially an Indigenous response to learning by fostering relevant dialogue about what is important to people in contexts of social and political situations which directly affect them. Relevancy of what is being learned and why it is being learned becomes readily apparent because it is connected to the cultural orientations as the people themselves perceive them. The democratization of knowledge and the educational process perpetuated by Freire's approach mirrors that which occurs in Indigenous education. A new relationship between Indigenous people and modern education and knowledge bases is made possible. The knowledge and educational orientation of modern educators is changed from an expert-recipient relationship to one of mutually reciprocal learning and co-creation. What is established is essentially a more ecologically sound and sustainable process of education. A kind of education is engendered which frees teachers, learners, and community to become partners in a mutual learning and becoming process.

Freire's method mirrors, at a social level, the ecologically inspired orientation of Indigenous education which I have called "natural democracy." There is a direct communication between all individuals engaged in the educative process. The implicit paternalism, social control, and nonreciprocal orientation between experts and recipients of education give way to authentic dialogue which generates a high level of critical consciousness and the kind of educational empowerment that allows Indigenous people to become agents of transformation in their own social and cultural contexts.

## Countering Indigenous Histories of Colonization

The histories of Indigenous education have largely been characterized by colonization and policies of assimilation combined with covert attempts at modernization of Indigenous communities to "fit" them into the mainstream profile of contemporary

Western society. This has been, for the most part, a technical process of development, combined with intense indoctrination in the political and bureaucratic ways of the Western government. Educational development, like other extensions of "development aid," has occurred through the actions of technicians, bureaucrats, and political manipulators who many times have acted to keep real decision-making power outside the parameters of the Indigenous communities and individuals affected. Many educators, social reformers, bureaucrats, businessmen, and politicians continue to perpetuate governmental and mainstream paradigms either because they have never questioned their own educational conditioning within this system or because they have not found or explored alternatives. This situation has largely prevented Indigenous people from being the subject and beneficiaries of the exploration of their own transformative vision and educational process. As a result, many Indigenous people are still relegated to having to "react" to the administration of their lives and education because of continued dependence on government aid and extension services. Rather than being "proactive" and truly self-determined in their efforts to *educate themselves through themselves*, many Indigenous people continue to struggle with modern educational structures which are not of their own making and are separated from, and largely compete with, their traditional forms of education. There continues to be a kind of educational "schizophrenia" in the reality of Indigenous education as it exists today. As a result, Indigenous people continue to be one of the most educationally disadvantaged and "at risk" minorities in the world. This reality exists in spite of the histories of many enormously profound and elegant expressions of traditional education and philosophy that this chapter has outlined. An essential question is: what needs to happen to reclaim and rename this enormously important heritage not only for Indigenous people but as a contribution to the educational development of all future generations?

The basis of contemporary Western education is the transfer of academic skills and content which prepares the student to compete in the social, economic, and organizational infrastructure of Western society as it has been defined by the prevailing political, social, and economic order of vested interests. However, the ideal curriculum espoused by Western education ends up being significantly different from the experienced curriculum internalized by students and the real workings of much of society. The society which many minority students experience is wrought with contradictions, prejudice, hypocrisy, narcissism, and political and bureaucratic predispositions at all levels including the schools. As a result, there have been educational conflicts, frustration, and varying levels of alienation experienced by many Indigenous peoples as a result of their encounters with mainstream education.

Traditional Indigenous education represents an anomaly for the prevailing theory and methodology of Western education since what is implied in the application of "objectivism" based on a Western worldview is the assumption that there are one correct way of understanding the dynamics of education, one correct methodology, and one way of understanding the reality of educational philosophy and that there can be only one correct policy for Indigenous education. This approach excludes serious consideration of the "relational" and experienced reality of Indigenous people, the variations in Tribal and social contexts, and the processes of perception

and understanding which characterize and actually form its expressions. This has substantial limitations in the multidimensional, holistic, and relational reality of the education of Indigenous people. It is the affective elements – the subjective experience and observations, the communal relationships, the artistic and mythical dimensions, the ritual and ceremony, the sacred ecology, and the psychological and spiritual orientations – which have characterized and formed Indigenous education since time immemorial. These dimensions and their inherent meanings are not readily quantifiable, observable, or easily verbalized and, as a result, have been given little credence in mainstream approaches to education and research. Yet, it is these very aspects which form a profound orientation for learning through exploring and understanding the multidimensional relationships between humans and their inner and outer worlds.

For Indigenous educators, a key to dealing with the conflict between the objective and relational orientations, the social cultural bias, and the cultural differences in perception lies in the kind of open communication and creative dialogue which challenges the "tacit infrastructure" of ideas that guide contemporary education.

Education is essentially a communal social activity. Educational research which produces the most creatively productive insights involves communication within the whole educational community, not just the "authorities" recognized by mainstream educational interests. Education is a communication process and plays an essential role in every act of educational perception. There must be a "flow" of communication regarding the educational process among all educators as a result of internal dialogue, interactions among educators, publication, and discussion of ideas.

Many ideas based on the established "tacit infrastructure" of mainstream education have been embraced uncritically by educators. This situation, as it pertains to Indigenous education, limits creative acts of perception. A free play of thought and opening up of the field, which is not restricted by unconsciously determined assumptions, social pressures, and the inherent limitations of the currently established paradigms of contemporary education, needs to occur. It is only in realizing that there is a "tacit infrastructure" and then questioning it that a high level of creative thought regarding the possibilities and potentials of Indigenous educational philosophy can become possible. And only in realizing that Indigenous perceptions of education have traditionally been informed by a different "metaphor" of teaching and learning can more productive insights into contemporary Indigenous education be developed.

Traditional metaphors of education derived their meaning from unique cultural contexts and interactions with natural environments. Yet, many of these metaphors such as the notion of an interdependent, relational universe are held in common. In turn, the collective experience of Indigenous people and their elegant expressions of cultural adaptations have culminated in a body of shared metaphors and understandings regarding the nature of education and its "essential ecology." The exploration of Indigenous education develops insights into the community of shared metaphors and understandings specific to Indigenous cultures yet reflective of the nature of human learning as a whole.

The next phase of the development of Indigenous education requires the collective development of transformative vision and educational process based on deep relevant dialogue. This kind of development requires that "new structures" and "practices" emerge from old ones through a collective process of creative thought and research. These kinds of new structures and practices can only be generated by an ongoing and unbiased process of critical exchange between modern educational thought and practice and the traditional philosophy and orientations of Indigenous people.

A new kind of educational consciousness, an "ecology of Indigenous education," must be forged which allows Indigenous peoples to explore and express their collective heritage in education and to make the kinds of contributions to global education that stem from such deep ecological orientations. The exploration of traditional Indian education and its projection into a contemporary context is much more than just an academic exercise. It illuminates the true nature of the ecological connection of human learning and helps to liberate the experience of being human and being related at all its levels.

From this perspective, education takes on the quality of a social and political struggle to open up the possibilities for a way of education that comes from the very "soul" of Indigenous people. It also brings to the surface the extent and the various dimensions of the conditioning of modern educational processes that have been "introjected" into the deepest levels of their consciousness. They become critical observers of the modern education to which they have had to adapt and which demands conformity to a certain way of education that more often than not has been manipulated to serve only certain "vested interests" of Western society. Through the exploration of Indigenous education, they learn how to demystify the techniques and orientations of modern education. This understanding allows them to use such education in accord with their needs and combine the best that it has to offer with that of Indigenous orientations and knowledge. They cease to be "recipients" of modern education and become active participants and creators of their own education.

## Indigenous Teaching and Learning Orientations

Idries Shah (1978) in his book *Learning How to Learn* illuminates some of the most important elements of Indigenous teaching and learning which revolve around "learning how to learn" which is more similar to the tenants of lifelong learning than simply the mechanics of teaching and quantitative assessment of learning. Learning how to learn is a key element in every approach to education. Therefore, the cultivation of the human capacities for listening, observation, experiencing with all one's senses, development of intuitive understanding, and respect for time-tested traditions of learning naturally formed the basis for skills used in every process of Indigenous learning and teaching.

Indigenous peoples in both North and South America, New Zealand, Australia, Africa, Asia, the Pacific, Greenland, and Northern Europe developed a diverse

variety of approaches to teaching and learning. These approaches ranged from the loosely organized informal contexts for learning and teaching in hunter-gatherer tribes to the formally organized "academies" of the Aztecs, Maya, Inca, and other groups of Mexico and Central and South America. Whatever the approach, there was a continuum of education in Tribal American societies which involved an array of ritual/initiatory practices that closely followed the human phases of maturation and development. In each phase of this continuum, an important aspect of learning how to learn was internalized. Learning how to learn in Tribal societies may be seen to unfold around the following four basic areas of orientation.

First is the attention to real and practical needs of the Tribal society which systematically addressed learning related to physical, social, psychological, and spiritual needs of Tribal members, the most important of which were learning how to survive in the natural environment and learning how to be a productive member of the Tribal society.

Second is the teaching of individuals in individual ways when they showed the readiness or expressed the willingness to learn. The emphasis was on allowing for the uniqueness of individual learning styles and encouraging the development of self-reliance and self-determination.

Third is the application of special intellectual, ritual, psychological, and spiritual "teaching tools" which facilitated deep levels of learning and understanding. Indigenous teaching was throughout predicated upon three basic criteria: flexibility, viability, and effectiveness.

Fourth is the honoring and facilitation of the psychological and transformational process of "flowering" or opening up to a self-knowledge and natural capacities of learning. This was usually accomplished by helping individuals overcome their own self-generated impediments to learning and other obstacles to understanding.

The list of Indigenous axioms of teaching which follows represents a small portion of the storehouse of wisdom and creative approaches to teaching applied by Tribal teachers from throughout the world in creating an educational process that reflected a sophisticated culturally inspired "ecology of education." Indigenous education allowed for such a diversity of sophisticated teaching "tools" that few modern educational approaches are able to duplicate in breadth and creativity. These interpretations of Indigenous teaching axioms are derived from a host of readings and observations related to Indigenous education. They are presented in a simplified form with a minimum of description in the hope that teachers will apply their own creative interpretations and implementations based the development of their own lessons and curricula. As processes, these axioms are applicable to the holistic presentation of any kind of content and adaptable to every age level and appear in many cultural traditions of teaching.

1. Tribal teachers begin teaching by building on the commonplace. We have common experiences, understandings, and human traits that can be used to pose a problem in terms, forms, or experiences that are familiar to students.

2. Remember that learning is a natural instinct and that success in learning something new is tied to human feelings of self-worth. Create a learning environment which flows with this natural current of humanness. Enabling successful learning is an essential step in cultivating motivation and enhancing self-confidence in learning.
3. Basic understanding begins with exploring "how things happen." Observing how things happened in the natural world is the basis of some of the most ancient and spiritually profound teachings of Indigenous cultures. Nature is the first teacher and model of process. Learning how to see Nature enhances our capacity to see other things.
4. The focus of a teaching on a perennial phenomenon, such as solar and lunar cycles, stimulates the deepest level of "learning how to learn" and the development of self-knowledge.
5. Indigenous teaching focused as much on learning with the "heart" on learning with the mind. This was the pervasive affective dimension of Indigenous teaching and learning.
6. Indigenous teaching facilitated learning to see how one really was rather than an image manufactured through one's or other's egos. This realistic perception of self helped the student realize that they were essentially responsible for the barriers to their own learning.
7. The real situation provided the basic stage for most Indigenous learning and teaching. Overt intellectualization was kept to a minimum in favor of direct experience and learning by doing. Teaching through a real situation expanded the realm of learning beyond speculation and allowed the student to judge the truth of a teaching for themselves.
8. Readiness to learn was considered a basic determinant for the ultimate success or failure of a teaching. Indigenous teachers recognized that readiness for learning important things had to be conditioned for through repetition and the relative "attunement" of the student to the teaching. They watched for "moments of teach ability" and repeated the teaching of key principles in numerous ways and at various times.
9. Placing students in situations in which they constantly had to examine assumptions and confront preconceived notions was a regular practice of Indigenous teachers. Through facilitating this kind of constant examination of what students "thought they knew," they remained open to new dimensions of learning and prepared for higher levels of thinking and creative synthesis.
10. Indigenous teaching is always associated with "organic development." Indigenous teaching is planted like a seed and then nurtured and cultivated through the relationship of teacher and student until it bears fruit. The nature and quality of the relationship and perseverance through time determined the ultimate outcome of a teaching process. Apprenticeship and learning through ritual stages of learning readiness were predicated on the planting of seeds and nurturing the growing seedling through time.
11. Teaching is a communicative art. Indigenous teaching is based on the nature and quality of communicating at all levels of being. Indigenous teachers practiced

the "art" of communicating through language, relationship to social and natural environments, art, play, and ritual.

12. Teaching and learning is a matter of serving and being served. Service is the basis of the relationship between student and teacher. This foundation was exemplified most completely in the apprentice-teacher relationships found in all expressions of Indigenous education.
13. Indigenous teaching involved making students think "comprehensively" and facilitating their awareness of the higher levels of the content which they were learning and its relationship to other areas of knowledge. Such comprehensive thinking formed a firm foundation for the creative process of teaching and learning. That is, comprehensive preparation and immersion in a learning process invites new understandings and perceptions of dimensions of knowledge that are there all the time but need to be worked before they reveal themselves.
14. Indigenous practices such as creative dreaming, art, ritual, and ceremony helped the student externalize inner thoughts and qualities for examination. Such practices helped students to establish a connection with their "real" selves and learn how to bring their inner resources to bear in their lives. Helping students gain access to their real selves was part of the "transformative" education which was an inherent part of Indigenous teaching.
15. Indigenous teaching revolved around some form of work. Indigenous teachers recognized that work invites concentration and facilitates a quietness of the mind which in turn leads to illuminating insights about what is being taught.
16. Tribal teachers understood that all teaching is relative and that each path of knowledge had its own requirements which needed to be addressed. Flexibility and learning how to adjust to the demands of the moment were key skills that were cultivated throughout Indigenous education.
17. Learning about the nature of self-deception was a key aspect of Indigenous preparation for learning. A first step in understanding the nature of true learning was reaching a level of clarity regarding why one was learning. Students had to become aware that ambition, self-gratification, power, and control as purposes for learning were forms of self-deception which had to be avoided because they lead eventually to the misuse of knowledge and the further perpetuation of self-deception.
18. Tribal teachers realized that striving for real knowledge required a cultivated sense of humility. The human tendencies toward pride, arrogance, and ego inflation had to be understood and avoided in the search to find one's true "face," "heart," and "vocation."
19. Mirroring consequences of a teaching back to students in order to expand their perspective and deepen their learning was often used in Indigenous education. Tribal teachers facilitated learning through direct, and at times provoked, perception by setting up a situation which forced students to see the limitations of what they thought they knew. In this way, students were encouraged to reach deeper into themselves and realize the deeper levels of meaning represented by a

teaching. This practice helped students cultivate a degree of humility necessary for maintaining an openness to new learning and the creative possibilities of a teaching.

20. The cultivation of humility correspondingly prepared a foundation for the students learning the nature of "attention." Attention may be considered a foundation of Indigenous learning in that almost every context, from learning basic hunting and fishing skills to memorizing the details of ritual, to listening to story, and to mastering a traditional art form, relied on its practiced application. Attention in the Indigenous sense had to do with the focus of all the senses. Seeing, listening, feeling, smelling, hearing, and intuiting are the senses which were developed and applied in the Indigenous perspective of "attention."
21. Learning the nature of appropriate activity was a natural consideration of Indigenous teaching. Activity in Indigenous life always had a purpose. "Busy work" was not a concept Tribal teachers were interested in perpetuating, since helping students learn how to engage in effective activity appropriate to the situation at hand was a basic skill required for more advanced Indigenous teaching.
22. Knowledge and action were considered parts of the same whole. Properly contexted and developed knowledge led to the same balance in terms of action. Therefore, in order to assure the integrity and relative "rightness" of an action, a great amount of time was spent on reflection and seeking broad levels of information and understanding before forming an opinion or taking an action. Prayer, deep reflection, patience, and "waiting for the second thought" were regularly practiced in Indigenous decision-making.
23. A concept of "each person's work," akin to the Hindu concept of "karma," was honored in the processes of Indigenous education. Indigenous teachers saw that each student was unique and had a unique path of learning which they needed to travel during their life. Learning the nature of that path was many times the focus of Indigenous rites of initiation and vision questing. The trials, tribulations, and "work" that become a part of each individual's learning path constituted the basis for some of the most important contexts of Indigenous teaching and learning.
24. From the Indigenous perspective, true learning and the gaining of significant knowledge did not come without sacrifice and at times "a deep wound." Indigenous teachers realized that, at times, only by experiencing extreme hardship and trauma were some individuals ready to reach their maximum level of learning development. The ritual incorporation of this reality of life's hardships into such ceremonies as the sun dance transforms the reality of wounding into a context for learning and reflection. In this way, the wound or traumatic life event was mobilized to serve as a constant reminder of an important teaching. As long as the wound or the repercussions of an event were used to symbolize something deeply important to know and understand, they provided a powerful source for renewal, insight, and the expansion of individual consciousness.

## Conclusion

In summary, a primary orientation of many traditional forms of Indigenous education was that each person was in reality their own teacher and that learning was connected to each individual's life process. Meaning was looked for in everything, especially in the workings of the natural world. All things of nature were teachers of mankind, and what was required was a cultivated and practiced openness to the lessons which the world had to teach. Ritual, mythology, and the art of storytelling combined with the cultivation of relationship to one's inner self, family, community, and natural environment were utilized to help individuals realize their potential for learning and a complete life. Individuals were enabled to reach "completeness" by being encouraged to learning how to trust their natural instincts, to listen, to look, to create, to reflect and see things deeply, to understand and apply their intuitive intelligence, and to recognize and honor the teacher of spirit within themselves and the natural world. This is the educational legacy of Indigenous peoples. It is imperative that its message and its way of educating be revitalized "for life's sake" at this time of ecological and social crisis (Cajete 1994).

At a more inclusive level, exploration of Indigenous education liberates the learner and educator to participate in the kind of creative and transforming dialogue that is inherently based on equality and mutual reciprocity. This is a way of learning, communicating, and working of relationship that mirrors those ways found in nature. It also destigmatizes the Indigenous learner as being "disadvantaged" and the educator of the "provider of aid." Rather, it allows both the learner and educator to co-create a learning experience and mutually undertake a pilgrimage to a new level of self-knowledge. The educator enters the "cultural universe" of the learner and no longer remains an outside authority. By being allowed to co-create a learning experience, everyone involved generates a kind of critical consciousness and enters into a process of empowering one another. And with such empowerment, Indigenous people become significantly "enabled" to alter a negative relationship with their learning process. Ultimately, with the reassertion, contemporary development, and implementation of such an Indigenous process at all levels of Indigenous education, Indigenous people may truly take control of their own history by becoming the transforming agents of their own social reality.

In the final analysis, Indigenous people must determine the future of Indigenous education. That future must be rooted in a transformational revitalization of our own expressions of education. As we collectively *envision Indigenous education*, we must think of the seventh generation of Indigenous children for it is they who judge whether we were as true to our responsibility to them as our relatives were for us seven generations before. It is time for an authentic dialogue to begin to collectively explore where we have been, where we are now, and where we need to go as we collectively embark on our continuing journey "to that place that Indigenous people talk about." I hope that these thoughts will stimulate that kind of dialogue.

## References

Cajete G (1994) Look to the mountain. Kivaki Press, Skyland
Freire P (1970) Pedagogy of the oppressed. Seabury, New York
Malville JM, Putman C (1991) Prehistoric astronomy in the southwest. Johnson Books, Boulder, p 32
Sandford J (1977) Healing and wholeness. Paulist Press, New York, p 22
Shah I (1978) Learning how to learn. Harper and Row, San Francisco
Storm H (1972) Seven arrows. Ballantine, New York
Waterman R (1989) Introduction to transformation. Unpublished Manuscript, Santa Fe, pp 1–3