

LORE

Capturing
Traditional
Environmental
Knowledge

Edited by
Martha
Johnson



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Capturing Traditional Environmental Knowledge



Our culture is something that surrounds us, something that is part of us, and is inextricably linked with the land upon which we have lived for thousands of years. Our culture has a past, and it is that past – especially as we find it embodied in our elders – that we are pledged to preserve. It also has a present – a present that threatens our culture, which we are pledged to protect. Our culture lives, and must have a future. We are pledged to promote our culture, especially among our young people, to ensure that they will identify themselves as Dene, in the full meaning of the term. The mission of the Dene Cultural Institute is to work with the people of the Dene Nation, and with other institutions and organizations, to preserve, protect, and promote the Dene culture, languages, spirituality, heritage, traditions, and customs.



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Capturing Traditional Environmental Knowledge

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Martha Johnson

DENE CULTURAL INSTITUTE



INTERNATIONAL DEVELOPMENT RESEARCH CENTRE

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Foreword

In recent years, the value of the traditional knowledge of indigenous peoples, and particularly their traditional environmental knowledge, has been recognized. This has unleashed a flood of research. Some of the research has been undertaken by scientists working alone, but the most innovative responses to this trend have been developed by indigenous researchers working in collaboration with Western scientists. They recognized early on that the main objective was not simply to collect reels of audio or video tape as a form of folklore, but to catalogue this information so that it could be compared from one region and one culture to other regions and other cultures, and, even more, so that it could be brought to bear on policies for sustainable development in remote and typically fragile ecosystems.

This book presents the results of a workshop on the documentation and application of traditional environmental knowledge through community-based research. Organized and hosted by the Dene Cultural Institute (DCI) based in Fort Hay, Northwest Territories, Canada, and supported by Canada's International Development Research Centre (IDRC), the workshop brought together a small number of teams, each composed of indigenous and nonindigenous researchers from Northern Canada, Europe, Africa, Southeast Asia, the South Pacific, and South America. Their primary goal was to discuss effective methods for documenting the unique

environmental knowledge and understanding that characterizes the heritage of all indigenous peoples around the world.

In many ways, the workshop was unique. It represented an important initiative on the part of a Canadian aboriginal organization (DCI) and a Canadian development agency (IDRC) working together toward a common goal. The workshop was held in a traditional Dene camp along the shores of the Deh Cho (Mackenzie River) in the Canadian North. Participants flew to Canada from around the globe. Upon arrival in Canada, they faced another extended flight to Yellowknife in the Northwest Territories. From there, they were taken by bush plane and boat to the Dene camp. Daily life and workshop sessions took place in tents, which both represented typical living conditions during actual collection of indigenous knowledge and, unhappily but typically for the North, provided protection from the cold and rainy summer weather.

This book examines the process of collecting traditional environmental knowledge while using a participatory action or community-based approach. It looks at the problems associated with documenting traditional knowledge problems that are shared by researchers around the world and it explores some of the means by which traditional knowledge can be integrated with Western science to improve methods of natural resource management.

We hope that this book will assist others to develop effective, culturally appropriate research methods at a time when alternative understandings and approaches to sustainable development are increasingly critical to the survival of our planet.

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The Fort Good Hope workshop was a unique event and many people and agencies contributed to its success. The community of Fort Good Hope put on a show of hospitality that left our international guests with a true taste of traditional and modern Dene culture. The Chief and Council of Fort Good Hope provided generous logistical support for the camp. Star Tech Ltd lent tents and other camping gear and Northern Stores Ltd donated groceries. Special thanks go to Alfred Masazumi, Michael Lafferty, and Joe Cotchilly. They ensured that the camp ran smoothly despite inclement weather and a last minute change of site. Bella T seleie and Judy Lafferty assisted in setting up the camp, and Mary Barnaby and Margaret Kelly prepared some memorable meals of traditional Dene cuisine. Wilma Schreder of the Dene Cultural Institute made all of the travel arrangements.

Dr Evelyn Pinkerton served as the rapporteur for the workshop. Her work on the discussion summaries and her thoughtful insight on earlier drafts of the introductory papers were much appreciated.

Our special gratitude goes to Robert Ruttan, project biologist for the Dene Traditional Environmental Knowledge Pilot Project. His calm and sense of humour in overseeing the entire organization of the camp made the workshop the success that it was.

Thanks are also owed to the Canadian Broadcasting Corporation (CBC) and the Yellowknife *Press Independent*. Their generous publicity created better public awareness of the value of traditional environmental knowledge and the research that is being conducted to preserve and apply it today.

Finally, thanks go to all of the elders, community researchers, and scientists who travelled from the nearby community of Fort Good Hope and from the far corners of the globe to participate in this unique event. Their willingness to overlook the bad weather and the mosquitoes, and to share their knowledge and culture in the traditional setting that was the Fort Good Hope camp represented the true spirit of international and cross-cultural cooperation.

Martha Johnson

Research Director

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Documenting and Applying Traditional Environmental Knowledge in Northern Thailand

By Leo Alting von Geusau, Sanit Wongprasert, and Prasert Trakansupakon, Mountain People's Culture and Development Educational Programme, Chiang Mai, Thailand.

Since its creation in 1980, the Mountain People's Culture and Development Educational Programme (MPCDE) has been concerned with the documentation and application of the traditional environmental knowledge of the mountain cultures in the Golden Triangle region of northern Thailand.

The Akha Association, Chiang Rai

Within MPCDE, the strongest concern for documenting and applying traditional environmental knowledge has come from the Akha people. The Akha are a tribal group of mountain peoples numbering more than 1 million. They are spread over southern Yunnan Province (People's Republic of China), eastern Myanmar (Shan states), Laos, northern Vietnam, and northern Thailand. In Thailand, there are between 35 and 40 thousand Akha spread among 250 villages. The Akha language is part of the Tibeto-Burmese language family. Until recently, the Akha language did not have a script; however, over the last century there have been attempts initially by missionaries and later by anthropologists to help develop a script.

The Akha word for customary law is *zang*. It includes all of the rules, regulations, customs, and laws passed down from one generation to the next to ensure the cultural survival of the Akha people. *Zang* also includes traditional knowledge about the rich local flora and fauna

and how to use human resources to their full potential, living as a marginalized people in a difficult political situation. Much of *zang* is contained in the many oral texts of the Akha pertaining to different rituals and is often expressed in song. It also includes the practical knowledge passed from father to son, from mother to daughter, and from the elders to the younger generation.

Traditional specialists of Akha customary law have been the *Phi-ma* or *Boe-maw*, the teacher/reciter; the *Dzoe-ma*, or traditional village leader; the *Ba-djhi*, or village technician; and the *Nji-pa*, or shaman. For the women, there is the *ja-jeh-ama*, or the older lady with the white skirt, who is generally in charge of agriculture in the fields. In most villages, there are also several herbal and handicraft specialists (both men and women). In general, elders, because of their experience, are considered to have more knowledge. In Akha society, the tendency is to learn from others and to find out for yourself. Thus, in most villages there are many self-taught people (*na-nga*) in several fields.

The MPCDE/AFECT-Akha Association in Chiang Rai is aware of the strong ability and will of the Akha to survive as a distinct culture in times of great adversity. It is also aware of the desire of the Akha to integrate into Thai society as equals. The Association's awareness and concern for the preservation and integration of Akha culture stem from two observations: the loss of Akha traditional cultural values and the success of other minority peoples to preserve their traditional culture.

The Akha's loss of traditional values is due to many factors. It is due to the growth of Christianity, in particular the conversion of persons to more sectarian and fundamentalist groups. It is due to a loss of traditional skills, a loss of morality, and a loss of traditional social structure and sense of belonging. In contrast, the Chinese of Laos, Myanmar, and Thailand and the Hmong of northern Thailand are minority peoples that have managed to preserve their traditional culture. In both cases, as with the Akha, the question of ancestor service was a symbol both for those who wanted to preserve traditional knowledge as well as for those who wanted to abandon it.

Extracting and applying lessons from these observations is not easy. The idea of culture or of *zang* customary law is very complex. It is not clearly divided into the distinct fields of Western knowledge. Thus, penal law, civil law, morality, etiquette, and pure wisdom are not always clearly divided. This is also true for medical knowledge, agricultural knowledge, and managerial knowledge. In addition, the young tend to identify old culture with ritual, ceremony, or folklore and to reject it as old-fashioned.

Akha youngsters studying in Thai schools and living in a Thai environment (mostly away from their villages) are often unaware of the relative poverty of their formal education and the richness of knowledge present in their tribal culture. Because of discrimination, they may be reluctant to learn about and practice their own culture and thus may appear to be more Thai than Akha.

The Western opposition between old-fashioned and modern, backward and progressive, may also have become part of their thinking. Unfortunately, modern or even Christian in an Akha context might come to mean easy ; traditional then becomes difficult. In fact, Akha customary law has shaped remarkable people with remarkable knowledge. Christianity and modernity are producing, in our context, uninteresting or even weak people without the depth of traditional knowledge or even with a contempt for tradition.

Most Akha believe that old knowledge or customary law is not good because it is old or even because it is Akha. As for environmental knowledge, when the forests, plants, and animals begin to disappear, young Akha have no idea what the elders or songs are talking about. Similarly, the herbal specialist might be unable to find important plants, roots, and bark.

Several older Akha like to visit to the Chiang Mai Zoo. There, they can still see the animals of the old songs: tiger, bear, panther, and eagle, as well as anteaters, peacocks, deer, and many types of birds, monkeys, and snakes. Most of these animals have disappeared from the village areas in the mountains; for the young, these animals are strictly zoo animals.

In the case of plant life, there will never be a botanical garden to house the thousands of plants, trees, and herbs of the mountain areas that are now threatened with extinction. The number of indigenous species has been dwindling at an escalating rate, a rate that nobody could have foreseen in 1980, when MPCDE was founded.

Teaching Traditional Knowledge

When teaching, documenting, and applying Akha traditional knowledge, a sharp distinction cannot always be made between ecological, managerial, structural, historical, and ritual knowledge. They are interwoven into all aspects of cultural life and expressed through song and spoken word.

Most of the work in documenting and applying the traditional knowledge of the Akha was carried out by the AFECT-Akha Educational and Cultural Centre in Chiang Mai. In 1990, this Centre had 40 students from several different Akha villages.

Founded in 1981, the Centre arranges for specialists in traditional knowledge to visit Chiang Rai. While in town, they teach Akha *zang* to the Akha students attending Thai schools. This has been going on since 1985, when the Centre was run exclusively by Akha managers and an Akha Committee. At the end of each school semester, students take exams in Akha *zang* as well as the regular Thai exams.

In addition to this program, efforts are being made to cover Akha culture more systematically in village schools. There are now Akha Association teachers in 12 Akha villages. The Thai government allows 20% of the teaching time to be devoted to Akha culture and traditional knowledge. However, teachers have insufficient training and receive little guidance about what should be taught.

Traditional Medicine

From 1986 to 1988, the Chiang Mai Centre studied the traditional Akha knowledge of herbal medicine. Following this study, students were requested to look for medicinal plants in their villages and bring them to the Akha Association in Chiang Rai. A nursery was set up in Chiang Rai, but several of the plants could not survive the

difference in altitude between the mountains and the city. As a result, some smaller nurseries were established at a few MPCDE mountain stations.

Ailing students and villagers were encouraged, even in Chiang Rai, to seek traditional medical treatment before seeing a modern doctor. In some villages, traditional healers received training in modern health care. Between January and August 1989, a collection of Akha herbal medicine was established and classified, and the Akha uses were translated. Following this, the Chiang Mai and Chiang Rai groups worked together to set up a system of primary health care for the villages that combined traditional and modern medical techniques. The team consists of a Thai doctor and a few young Akha from the Chiang Rai Akha Association who had received paramedic training and were working in the mountains.

A lack of funds means that these efforts are progressing slowly. However, the final intention remains: to develop a small, practical medical handbook combining traditional Akha and modern techniques.

Breeding Chickens and Pigs

In the last few years, many Akha have abandoned Akha *zang* and turned to Christianity, purely because they could no longer afford the *zang* rituals, such as ancestor service. This was due to a shortage of pigs and chickens, which also resulted in increased levels of poverty, a lower population of fowl, and a general neglect of agricultural resources.

In traditional Akha law, *zang* rituals including ancestor service, other field ceremonies, and sickness rituals (including funerals) divide the protein supply among the villagers. The loss of these rituals and, hence, the loss of customary law destroys this sophisticated distribution system and threatens the nutritional well-being of the villagers. To help alleviate this situation, a cooperative chicken- and pig-breeding project has begun. This project is being coordinated through the Akha Association in Chiang Rai.

Handicrafts

Another project in its early stages is the Association's handicraft project. Its purpose is to cooperatively design and produce handicrafts using materials unique to the region's ecology. The project is currently underway in 12 of the 50 villages that are covered by the Akha Association in Chiang Rai. The elders of these villages are recognized as knowledgeable with respect to natural dyeing, the making of cotton, and the use of a diversity of materials from the forests and fields near the villages, such as rattan, bamboo, and certain types of reeds, flowers, insects, and seeds. The project is also consulting those villagers that are most skilled in the creation of intricate embroidery and the construction of baskets.

Like the project on traditional medicine, an important part of this project is gathering and classifying material from the flora and fauna. The work on handicrafts has aroused more interest in the Akha people than any other project, particularly among women. In the current situation of disappearing land and forest resources, handicrafts are becoming an increasingly important alternative source of income.

Other Uses of Traditional Knowledge

Besides traditional medicine, animal husbandry, and handicrafts, the traditional environmental knowledge of the Akha covers several other disciplines :

- Agricultural knowledge includes an understanding of soils, natural fertilizers, and traditional cash crop and forest products.
- The knowledge of water resources includes an awareness of underground currents, the location of water sources in areas of scarcity, and the hydraulic principles of water systems.
- The Akha knowledge of forest management is substantial. Even in heavily deforested areas, the Akha and other mountain peoples commonly maintain a forest belt around the village. This forest belt serves both economic and ecological interests. It is a source of medicine, food for both people and animals, and

protection for some animals; it is also used to plant cash crops, such as mushrooms.

- Nutritional knowledge is reflected in the strict dietary rules of Akha customary law. Small village and field vegetable gardens often contain over 50 species of edible plants and herbs.

Legal and Moral Issues

In addition to the wealth of traditional environmental knowledge present in Akha customary law, the Chiang Rai centre has addressed the legal and moral aspects of traditional Akha culture and customary law. When compared with modern Western systems, the traditional moral laws and regulations of the Akha are very strict. An effort has been made to retain these values in the Akha Association in Chiang Rai, including some of the dietary and nutritional rules of Akha customary law.

The Akha Association has been structured according to the rules of Akha egalitarian society. It has a bottom-up structure, as in the traditional Akha village. This contrasts the Thai social structure, which is mostly vertical. As well, the older people in the centre still serve as a Council of Elders and tasks are assigned as they would be in the mountain villages.

Recording Traditional Knowledge

Since its founding in 1981, the students of the Akha Association in Chiang Rai have been documenting and cataloguing important Akha texts and customs. Texts are first recorded on tape and then transcribed and translated.

Three phonetic systems are used to record Akha oral texts. The first uses Thai characters, the second system is a more academic phonetic script, and the third uses Roman characters, of which several varieties exist. This third system was generally introduced by missionaries, and several Akha groups in Thailand and Myanmar have tried to unify the script.

Much of the traditional knowledge of the Akha is contained in song. With the passing of the older generation, however, many of these

traditional songs are rapidly disappearing. As a result, the Akha Association has a large collection of audio tapes that capture this wisdom.

The Association also possesses a large collection of slides documenting the traditional agricultural cycle and traditional agricultural rituals. Photographic records also exist of handicraft techniques, cotton processing, dyeing and embroidery, forest management, and important rituals, such as the death ritual.

Recently, some of these events have also been captured on videotape.

The Chiang Mai Centre

MPCDE/IMPECT-Chiang Mai is the main centre for research, documentation, and training regarding the cultures of Thailand's mountain people and the problems of regional development. Half of its staff consists of traditional tribal people, most with a professional or vocational education. Other staff tend to be from the other minority peoples of Thailand. Some of the part-time research staff are from IMPEC, the All Mountain Peoples Scholarship Fund. Most are studying in high school; teachers, medical, or agricultural college; or university. These students share a great common interest in the traditional knowledge of their cultures. The Chiang Mai programs thus have a bond with many of the mountain villages, including those of the Hmong, Karen, Lahu, Lisu, and Yao/Mien in addition to the 60 Akha villages in Chiang Rai Province.

Training

Training has concentrated on providing students and staff with a better understanding of their own background and villages. During their vacations, students and staff are expected to do action research in their own villages.

In 1985 and 1986, training was devoted to culture, law, and morality. In 1987, training concentrated on traditional education. In 1988 and 1989, training focused on traditional medicine and methods to document medicinal plants. In 1990, training focused on some very

practical questions: How can the mountain peoples achieve self-determination and self-management? How does one operate photography and video equipment? How can traditional knowledge be documented? A great deal of time was also devoted to research training.

Conserving Traditional Knowledge

Incited by the example of the Akha Association in Chiang Rai, other tribal groups have started to show an interest in documenting the traditional knowledge of oral texts and songs. They have also expressed an interest in setting up a project and association similar to the Chiang Rai model.

For example, a group of Sgaw-Karien in the Mae Chaem area of Chiang Mai Province have begun to organize a project, but funds have yet to be obtained. This group, some of them Christians, has also begun to realize that as the tribal elders die, great treasures of knowledge about life and the ecology may be lost forever.

Another stalled initiative is a project investigating how small, traditional, home industries of the highland communities could be adapted to the modern market. A small pilot project focused on village-based handicraft industries, including embroidery, silversmithing, weaving, and basket making activities that are all based on traditional skills but also use intermediate technology.