

A Tribute to Dr. Karen Lundström-Baudais: Paleo-ethnobotanist, ethnographer and Western Nepal specialist

by Andrea Nightingale, University of Edinburgh & Dominique Baudais

Dr. Karen Lundström-Baudais (1949-2006) was a woman with amazing energy and life force who fell in love with Nepal and devoted a significant portion of her intellectual efforts to understanding the culture, rituals and agricultural processes there. Yet despite the time and energy she invested into western Nepal, very little of her work is published. She ended a two and a half year battle with cancer in January 2006, radically cutting short her long-term vision of developing the Nepal work further. As a result, most of her data remains unpublished and her contribution to the field is not as well known, as it should be. Her meticulous field notes contain a wealth of information that could be developed into a series of articles on agriculture, caste, ritual and everyday life in Jumla.

Karen originally trained as a biologist in the United States and then as an archaeo-botanist in France. She held a position at CNRS (UMR 6565) in the Chrono-ecology laboratory at University of Besançon from 1986 until 2006. Prior to taking up that appointment, she travelled to Nepal in 1983 with her husband, Dominique Baudais, visiting the Langtang region and trekking along the ancient trade routes between Pokhara and Kathmandu, visiting places that even today are rarely visited by non-Nepalese. During their next visit to Nepal in 1985 they travelled to Jumla, with the intention of trekking through Dolpo. On the way, they found the Matwali Chhetri caste village of Bata, three hours' walk from Jumla bazaar in the Chaudhabisa river valley (Jumla Karnali region). Little did they or the people of Bata know that this was the beginning of a twenty-one year relationship that was to make a significant mark on all their lives.

Karen's professional work centred on the analysis of grain found on archaeological sites, specialising on the Neolithic, Bronze and Middle Ages in Europe. Her specialty was cereal grains, wheat, barley, millet, and oats. Millet in particular was rarely studied, yet was second only to wheat and barley as an important cereal crop in pre-historic Europe. It was gradually replaced by the introduction of maize starting in the 16th century and now has almost completely disappeared from European diets, yet it remains important in other parts of the world. Karen was a pioneer in developing techniques for interpreting grain processing mounds and molecular transformations of cereals in pre-historic Europe, mainly in the Alps and the surrounding region in France. She was one of the first to introduce palaeo-ethno-botany into French archaeology and the data she generated was thus wholly original. It was unique in its emphasis on the various

grain processing techniques and how this was related to the length of time the grains could be stored.

Karen worked on parboiling, roasting, carbonization and processing to understand how these techniques effected germination and fermentation. In particular, she was interested in discovering which techniques would allow for long-term storage and she found that varieties of millet can be stored for up to 50 years (possibly more) if processed properly. She conducted experiments not only in her lab, but also in the mountains around Brig in the Swiss Alps and in Nepal. She grew grain herself and tested different kinds of processing to see how they altered the grain and affected its germination and storage qualities. These experiments provided a basis for interpreting which types of processing were used in pre-historic Europe by comparing how the grain molecules found at archaeological sites matched those in her experiments. Indeed, it was this interest that was a key link between the work she did in Nepal partly during her holidays, and the work she did officially for the CNRS.

In Bata, Karen saw medieval grain processing techniques come to life. While most visitors to Nepal assume that the Nepalese eat nothing but rice, in Jumla, as in many of the mountain areas, millet is an equally if not more important grain for subsistence. It grows well in the harsh, un-irrigated mountain environment and provides a grain that is generally more nutritious than rice. There are three varieties of millet grown in the Chaudhabisa, *chinu* (common millet, *Panicum milliaceum*; *kodo* (finger millet, *Eleusine corocana*); *kāguno* (italian millet, *Setaria italica*), each grain being processed differently depending on its intended use. Karen was able to observe processing techniques that had long since completely disappeared from Europe. Over the course of several years, she quantified every step in grain processing in Bata to understand the remains of processing she found in archaeological digs in Europe. She also held interviews to gather information on how processing techniques had changed and which ones allowed for the longest storage times. An importantly finding revealed that two varieties of millet (Common millet and Italian millet) are almost identical in their molecular composition in pre-historic Europe and present-day Nepal. *Chinu* or “*sāno bhāt*” (small rice) is eaten far more often than rice in many parts of western Nepal and it was this same species of millet that was a key subsistence crop in Europe prior to the 17th century.

Karen's interests were very much focused on food systems, and whilst her experiments primarily involved grain processing, she also collected a huge amount of data on the entire cereal production process. In 1999 she made an inventory of agricultural production for each family in Bata (101 in total) including their field holdings, animal husbandry and quantities and types of crops grown. This inventory represents a very detailed

survey of the agricultural production and economic anthropology of Bata, yet none of the information has been published. In addition to this inventory, Karen also compiled a huge database of agricultural production in the Jumla area including comparisons of the crops grown and the relative yields across different elevational zones and between irrigated and dry fields. She looked at the main Singa, Tila and Chaudhabisa valleys and their arterial valleys. This database is extremely well organised and could be used for an analysis of agricultural production prior to the Maoist take-over in the region, or as background data for a research project.

Chinu (common millet) and other varieties of millet were her key passion, but Karen threw herself into Jumli village life and collected ethnographic information on a wide variety of ritual and daily practices. She was particularly interested in “*chwi*” or ritual pollution and the prohibitions surrounding grain processing, cooking and eating that are key ways in which *chwi* is practised. She lent an archaeologist’s eye to her ethnographic work and gave unparalleled attention to detail and careful observation. Indeed, I was often struck by the systematic way in which she sought to collect and interpret data on practices, which to me were too vague and inconsistent to merit such a methodology. Yet, it was this eye for detail and her attempts to find the “truth” about *chwi* practices that led her to gather a huge amount of information on the conditions under which *chinu* becomes as ritually pure as rice. She did have one paper published on this topic, a paper which gathered together her last academic output and provided her with a focus in between her chemotherapy sessions (Lundström-Baudais in print). I visited her between these sessions and came away convinced that the *chinu* paper was keeping her alive as she poured all her energy, passion and commitment into Bata and her millet work. I am certain that she knew more about the daily practices of grain preparation than any other academic and possibly far more than most Nepalese, as she gathered comparative data from Kathmandu, Jumla bazaar, Bata and her Nepalese friends in France and Switzerland.

Her interests in *chwi* most likely emerged from her own desire to fit in and live “properly” in Bata. She always wore traditional dress in the field and sought to emulate the practices of the villagers unless they contradicted her sense of social justice. As a result, she sought to learn about all aspects of daily life. Like most people from outside Nepal, she was appalled by the *chwi* practices and the hardship it causes women. Village women are expected to stay outside while they are menstruating or giving birth. Often they sleep in the stables in all kinds of weather and are vulnerable to infectious diseases. To help combat this suffering, Karen helped the Bata women raise money to build a *chwi* house by selling their handmade *jālī* (traditional beaded necklaces) in Europe. The *chwi* house

was designed to allow women to stay together when they were considered “polluted” and to have a women’s-only sanctuary for giving birth. While most of the women were enthusiastic about the idea, the project was undermined by men’s attempts to gain control of it, by resistance on the part of many people to the idea of polluting any indoor space and eventually, in one of their more ironic moves, it was closed down entirely by the Maoists.

Other than her work on millet and *chwi*, Karen had one paper published on the making and use of ploughs in the Karnali, but this paper represents a tiny fraction of the information she gathered (Lundström-Baudais & *al.* 2001). Having been invited to contribute a paper to a collective volume on Himalayan ploughs, she threw herself into the project with the same energy that she devoted to all her work. She and Dominique collected comparative information on the types of wood, construction techniques, ritual practices associated with plough construction and use, and linked this to caste-based labour relations to try and understand who could make and use the different kinds of ploughs and under what conditions. She was interested in trying to find a link between plough design and its spatial distribution to make a contribution to debates on the dissemination of knowledge and technology across the Himalayas. She gathered fascinating information on the types of wood used for the different components and the forestry practices necessary to ensure a supply of these vital parts for the plough. Indeed, another two papers could easily be published from this work, bringing to life the making and use of ploughs that many ethnographers take for granted as an everyday object, only of any importance in the relative effectiveness of its design, links to caste and gender-based labour practices, or the extent to which it limits agricultural production.

At the same time, Karen and Dominique also worked on pounding and grinding tools for grain processing. They carried out a complete survey of the different tools owned by each family in Bata and the types of wood, metal, stone and techniques used to produce them. They paid careful attention to who could make certain tools, who could use them and for what purpose. They linked this work to land use issues, particularly forestry practices as it was clear that a key aspect of forestry conservation is in providing long-term supplies of wood for tool-making. This is an aspect of forestry management that is entirely absent from community forestry debates in Nepal and yet is central to people’s agricultural and food processing strategies. Again, this study represents an in-depth look into the links between technology, food production and caste-based divisions of labour yet only part of the data has been published (Baudais & Lundström-Baudais 2002, Lundström-Baudais & *al.* 2002).

Through this process Karen also collected a wealth of other ethnographic knowledge about a rarely studied region of Nepal. She witnessed the rising influence of the Maoists and the kinds of farcical but also tragic consequences of these changes in political power. She faced down the Maoists when she met them on the trails, daring them with her eyes and body language to ask her for more than the Rs. 20 “donation” she offered. Yet despite this bravado, she was deeply concerned about the fate of people she knew and loved, whose lives were turned upside down and in some cases lost due to the Maoist movement. One of her research assistants went missing in Jumla several years ago and today she is presumed dead. Karen invested a lot of energy into trying to find out what had happened to her and continued to search for information until the bitter end.

Indeed, returning to Jumla was one of Karen’s unfulfilled goals when she passed away, although she was able to visit Kathmandu during her final month. Her legacy lives on in Bata and Kathmandu where Dominique still supports three Bata children at school and where Karen certainly will not be forgotten for many, many years to come. Her influence is also evident in the burgeoning careers of two young men from the Karnali whom she employed as research assistants and mentored extensively. After helping one of them win a scholarship to study French in Besançon and do an MSc at Saint Xavier in Kathmandu, he has successfully worked for several international development agencies, travelling into conflict ridden areas and more recently working in Africa. He is emerging as a bright talent among the educated, committed young Nepalese who have poor, village roots. In short, Karen was an inspiring example of how to repay those people whose lives had furthered her science. It is the hope of those who knew and worked with her that some of the information she collected will be used to contribute to ethnographies of the Jumla Karnali and Nepal more generally.

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