EDITORIAL INTRODUCTION

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Part I: Science and Buddhism

In December 2010, His Holiness the 14th Dalai Lama visited Sikkim and presided over the opening of an international conference on *Science, Spirituality and Education* (20-23 December 2010). The conference, organised by the Namgyal Institute of Tibetology under the auspices of the Government of Sikkim, laid the foundations for Sikkim's efforts to formally introduce concepts of moral ethics in its school curriculum. It provided a forum for scientists, Buddhist scholars, educators and representatives from local schools and government to explore and begin to understand the brain and its plasticity, the mind and its possible transformation, the art and science of meditation together with the importance of social emotional learning and moral ethics in the field of education. The conference was followed by a workshop on how the presented findings could best be implemented in order to bring about positive changes in the modern education system.

As stated in a press release: "The inauguration of the conference by His Holiness is apt because he has always evinced a keen interest in science, and drawing from his advanced understanding of theosophical matters, often commented that science and spiritualism are not contradictory to each other and could in fact collaborate to explain things more completely. He is a leading proponent of Mind & Life Sciences and has consistently reiterated that complete education requires a sound rooting of students in spiritualism and the concepts of morality and ethics... In fact, one of the reasons which convinced His Holiness to make time to visit Sikkim for the Conference was the State Government's interest to implement the findings of the Conference to schools in Sikkim."

Following the conference, the Department of Human Resource Development, Govt of Sikkim, took steps to start training teachers in order to begin implementation with a pilot project in selected schools.

Here at the Institute, through the publication of two issues of the *Bulletin of Tibetology*, we are making some of the presentations

available, with this present issue focusing on science and Buddhism and an upcoming issue more specifically on education.

Prof. Richard J. Davidson and Dr B. Alan Wallace provided the conference's two keynote addresses, the first from a scientific perspective and the second from a spiritual one. This present issue opens with Prof. Davidson's contribution: 'Education, Contemplative Practice and Neuroscience: Towards a Synthesis'. Prof. Davidson very clearly presents how the brain is plastic and can change in response to experience and in response to training; how it has been empirically verified that social emotional learning and contemplative training can produce beneficial changes in the brain, improving skills of attention, emotion regulation, and social adaptation; and how these alterations lay the foundation for all future learning, emotion regulation and social functioning, skills which are recognised by research to be more important for life success than traditional academic and cognitive ones.

In the second article, Prof. Jay Garfield offers a critical view of the collaborative effort between Buddhist practitioners and scientists, or what Cognitive Science and Buddhist theory of mind can each offer to further our understanding of deep phenomenology. He argues that while Buddhism has a great deal to offer, Cognitive Science with its scientific methods of enquiry may have more to contribute than what is often presumed, stressing the importance of maintaining careful empirical investigating methods in order to achieve intellectual honesty. While Buddhist meditators can provide phenomenological reflection and introspection, such reflection according to Garfield is insufficient to yield deep results. Relying solely on the mind as an investigating tool may not be sufficient to unravel its deepest mysteries: "introspective awareness of our cognitive processes, no matter how sophisticated, is as constructed, and hence as fallible as any other perception". On the other hand, the author argues that Buddhism has a great deal to offer Cognitive Science in the field of moral psychology, stating that "there is little either in ethical theory or in the psychology of ethical thought and action that approaches Buddhist ideas, particularly as articulated by such philosophers as Śāntideva, in sophistication".

Finally, Dr Laurent Nottale offers a refreshing article on some possible analogies between science and Buddhism from the perspective of an astrophysicist. Dr Nottale first draws a parallel and elaborates on science's fundamental principle of relativity, which states that no physical properties have any absolute existence, and Buddhism's fundamental principle of emptiness, or the absence of all things'

intrinsic existence. The second analogy concerns Buddhism's and science's methods, which are both presented as being intuitive. While it is well known that Buddhist methods involve mind training and meditation (*shamata*: calm abiding through concentration without distraction, balancing attention and relaxation; and *vipasyana*: penetrating vision), it is not so well known that great scientific discoveries are generally made intuitively, the truth appearing as a sudden realisation which then requires to be demonstrated scientifically.

Part II: Reports from the Field: The Earthquake, the Monasteries and the Conservation of our Heritage

On 18 September 2011, Sikkim was shaken by a damaging earthquake measuring 6.8 on the Richter scale. Once the dust had settled and the immediate relief operation was over, it appeared that the monasteries were among the structures that had been the most severely affected.

Some time before the earthquake struck, Dr André Alexander had been invited to Sikkim by Princess Hope Leezum in order to initiate a conservation project at the Tsuglakhang, which was carried out in 2011. André's presence and activities in Sikkim created awareness about conservation, and together with his new Sikkimese friends, he was planning to start work in the spring of 2012 on a number of structures in need of restoration, some of which were more than three centuries old. But fate had it otherwise and André passed away in his native Berlin in January this year. However brief his stay in Sikkim had been, André's presence acted as a catalyst for the emergence of a new conservation movement. In honour of his contribution and with the hope that the inspiration he provided will help save what remains of Sikkim's architectural heritage, we put together this section on the monasteries followed by André's obituary, contributed by his friend and colleague Prof. Per Sørenson, and a message by Princess Hope Leezum.

In the opening report, Chetan Raj Shrestra, a Sikkimese architect specialising in heritage conservation, presents the damages caused by the earthquake to the monasteries, *mani lhakhangs*, *chortens* and *mendongs* throughout Sikkim's four districts. The author first looks into the evolution of the Sikkimese *gonpa*'s design, the various styles of building technology, and the present trend towards concrete. Other factors which have affected the monasteries are briefly addressed, such as the closure of the border with Tibet in 1962 followed by a more recent change of patronage.

The second report by Gary Chopel, also a local architect with a keen interest in the Sikkimese *gonpa* and its iconography, takes us through the *gonpa*'s three main typologies that have succeeded themselves historically.

In the third report, Kerry Little relates how the monastery of Hee Gyathang in the Lepcha reserve of Dzongu, North Sikkim, narrowly escaped demolishing after the earthquake thanks to the efforts of a few villagers who fought for its conservation. Built of stones and mud mortar by their ancestors in the 1930s, they argued "that a rich history of community and cultural engagement would be lost for the Hee Gyathang monastery has a unique history: It was built entirely by Lepchas and the cost contributed to by every village in Dzongu."

With Yeshe Wongchuk's article, we turn to the history, content and management of the *mani lhakhang* of Chumpung village, together with the description of a very important practice present in every Sikkimese Buddhist village: the fasting ritual of the grandmothers of the temple. The author describes the rituals held by the grandmothers on the 8th, 15th, and 30th of every month followed by the *mani lhakhang*'s annual rituals which then come to involve the whole community.

This section concludes with an article by Felicity Shaw on the impressing ongoing archival and preservation program at the National Library & Archives of Bhutan, which is responsible for the collecting, conserving and managing of Bhutan's documentary heritage. In 1997, the Library entered into a long-term twinning project with the Royal Library of Denmark which later came to include an archival program. A purpose-built archives building was inaugurated, staff were trained, and the collecting, digitizing, archiving and conservation of Bhutan's documentary heritage, which consists primarily of Buddhist manuscripts, is now well under way. Bhutan's effort and success in the field are an inspiring example for other Himalayan states aspiring to preserve their cultural heritage.

The issue is completed with a book review of Suresh Kumar Gurung's *Sikkim. Ethnicity and Political Dynamics. A Triadic Perspective* (2011) by Mélanie Vandenhelsken and the obituaries of Himalayan scholars André Alexander and Richard Keith Sprigg.

In conclusion, I would like to thank all those who, in various ways, helped me finalise this issue of the Bulletin: Felicity Shaw, Susannah Deane, Alex McKay and Saul Mullard.