

### CONTEXT AND HISTORY

#### How cold does it get in the winter months?

Typically around -30 degrees C (-22 degrees F). The road to the plains is usually cut off by snow between the months of October and May/June each year.

#### What is the altitude?

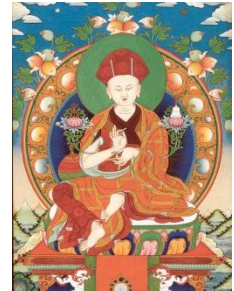
Leh lies at 3,350m/ 11,000 ft with surrounding mountains rising to 6,100m / 20,000 ft. Nearby Stok Kangri mountain rises to over 6,000m/20,000ft.

#### How and when did the school project get started?

The school was initiated in 1992 by local people, who requested help from their spiritual leader, His Holiness Gyalwang Drukpa. With assistance from His Holiness' local and international students, 88 children entered Nursery and Lower Kindergarten classes in 2001. Since then the school has grown to over 624 students.

#### What is the origin of the name of the school?

The school is named after Kunkhyen Padma Karpo, a great scholar of the Drukpa Lineage of Tibetan Buddhism, who lived in the years 1527-1592. He was the 4<sup>th</sup> Gyalwang Drukpa. You can see a statue of Padma Karpo in Naropa Photang on the Shey campus. *Druk* means dragon and *Padma Karpo* can be translated as *White Lotus* in English.



#### What makes this school special?

Ladakh is one of the few remaining places in the world where a Tibetan Buddhist culture exists within a free society. The school operates under the guidance of His Holiness Gyalwang Drukpa. Instruction is English medium, and students also learn Ladakhi (Bothi) and Hindi languages. Montessori methods are used for the initial three years, and there is an active Parents' Association with representatives from several areas. The design of the school was inspired by His Holiness and the school's unique facilities enabled it to win three World Architecture Awards.

#### How is the school funded/ who finances the school?

The school is a fee-paying, not-for-profit institution known as a 'society school'. The school itself is funded from school fees, contributions from Live to Love International, and international sponsors who support disadvantaged students. The buildings and infrastructure are funded by international supporters (through Drukpa Trust (UK) and associated Drukpa organisations. The school is 'recognised' by the local public authorities and is governed by the Druk Padma Karpo Educational Society (a local non-profit society).

#### How much money has been raised so far?

£1.5 million / US\$2.3 million US / €1.7 million

#### What sorts of cooperation do you have?

Support comes from many individuals, grant making trusts, corporate sponsors and volunteer groups including:  
**International:** Alton College, UK; Arup Associates; Arup Cause; BaSiC Initiative, USA; Exeter School, UK; Hindustan Construction Company, India; JCB Excavators Ltd UK; Jet Airways (India) Ltd; Kings School Worcester, UK; KINSHIP, UK; kontentreal, New York; Médecins Sans Frontières; Ove Arup & Partners; Oxfam; Perse School, UK; Pilgrim School, Bedford, UK; Princeton University, USA; St Christopher School, UK;  
**India:** PRAVAH; Reliance BIG pictures; Vinod Chopra Films.

#### Does the school have partnerships with other schools, locally or internationally?

Druk White Lotus School has established relationships with several schools internationally, notably with St Christopher School, Letchworth, Alton College and Perse School in the UK, and with Ecole Active Bilingue and Ecole Ste Anne St Joachim in Lille, France. St Christopher students have visited Shey on three occasions, and one of our senior teachers visited St Christopher in 2009. We plan to welcome students from several educational establishments each year.

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### DRAGON TRAIL AND HERITAGE PROJECT

#### What cultural and economic challenges does Ladakh face?

Ladakh is experiencing a shift away from traditional agriculture, with young people drifting to the towns. There is an over-dependence on government jobs, which have become very scarce. Schools in Ladakh often focus on rote-learning, which ill-equips young people for the modern world of work.

#### So what is the school's mission?

Druk White Lotus School aims to address these concerns by focusing on the real needs of young Ladakhis while preserving their cultural traditions. In fact, the location of the school was chosen so as to be near Leh and its resources, but just far enough to distance itself from increasing external influences brought by the large number of Indian and international tourists to Leh.

#### **Druk White Lotus School enables students to develop the confidence and competence to succeed in the modern world, while being grounded in Ladakhi language, culture and traditions.**

School activities include traditional song and dance, as well as meditation and prayer. The children also organise and perform culture shows during important school events.

#### What is the Dragon Trail?

This trail introduces visitors to four places near to Leh that are linked to the "Drukpa" – meaning "Dragon" - lineage of Tibetan Buddhism.

The Dragon Trail comprises:

Shey Palace  
Druk White Lotus School (Rancho's School in the "3 Idiots")  
Naropa Photang and  
Hemis Monastery.

A **Visitor Centre** has been built on the Shey campus of the Druk White Lotus School and Naropa Photang by a group of architectural students from the United States under the auspices of a BaSiC Initiative program. From the Visitor Centre, the Heritage Co-ordinator guides visitors around the Shey campus and visitors are welcomed to rest afterwards for refreshments.

#### What is the "Living Traditions" heritage project?

It is hoped to expand the heritage project to record and document traditional stories, songs, and dances, as well as to collect daily artefacts such as costumes, tools, etc. The project aims to celebrate Ladakhi culture together with highlighting the challenges faced. Also to be developed is a Cultural Archive containing digital records of music, costumes, stories and cultural artefacts. This Cultural Archive will serve as an educational resource for Druk White Lotus School students as well as other schools locally and internationally.



### EDUCATION - 1

#### What is the ethos/vision of the school?

The school was started at the request of local villagers who wanted a school that would help maintain their rich cultural traditions, based on Tibetan Buddhism, while equipping their children for life in the 21<sup>st</sup> century. Our vision is to provide a modern education for Ladakhi children, grounded in their own culture and spirituality, and in a sustainable manner. The school aims to nurture life skills, while giving confidence and imparting livelihood skills. We believe children should be active participants in the learning process rather than passive recipients. Therefore activity-based learning forms a key part of lessons and children regularly participate in field-trips, role play, discussions, group-work and games.

#### When is the school in session?

The school year begins the 1<sup>st</sup> of November and runs until mid-December when it closes for the long winter break. It restarts at the beginning of March and generally runs through until the middle of July. The 3<sup>rd</sup> term starts early August and ends the 31<sup>st</sup> of October.

#### *Typical school day:*

9:20 am: Assembly begins

9:45 am: classes begin and run in 35 minute intervals

3:00 pm: classes finish

#### How are classes organised by year?

Nursery and Infant comprises nursery, lower kindergarten and upper kindergarten

Junior comprises classes 1-5 (age 7-12)

Middle comprises classes 6-8 (age 12-15)

Secondary comprises classes 9-10 (age 15-17)

#### How many students attend the school (residential and day students)?

624 students in total (320 girls, 304 boys), including 278 residential students

#### How many students will the school serve when complete?

The master plan is designed to accommodate 740 students in total.

#### How many teachers and staff work here?

Teachers: 28

Support Staff: 31

#### Where do the teachers come from?

23 teachers are Ladakhi or Tibetan. Several teachers are from outside Ladakh and the Principal, Mr Prasad Eledath, comes from Mumbai.

#### How much are the school fees?

School fees are between 650 and 730 rupees per month (US\$15.48-US\$17.38/ £9.29-£10.43 GBP/ 10.87€-12.20€), depending on the class level. If parents cannot afford the fees, there is a child sponsorship scheme in place whereby international supporters sponsor over 200 day and residential pupils.

#### How do the children get to and from school?

Shey children walk to school, while children from Leh and surrounding villages are picked up by one of the school's three school buses.

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## **EDUCATION – 2**

### **Who looks after the residential children?**

A Warden, 6 house mothers, 3 laundry assistants, a cook and 3 helpers look after the children.

### **What languages are used for instruction?**

Ladakhi (Bothi) is used in the Nursery class, after which English is the medium of instruction. The children also learn Hindi, the Indian national language. The students have to learn three languages, each with its own script.

### **What classes are taught here?**

Nursery & Infant children are taught using the Montessori system. Children follow the national curriculum throughout classes 1-9, leading to 'matriculation' at the end of class 10. In addition to the core subjects of English, Hindi, Bothi, maths and social studies, children study information technology, science, physical education, and creative arts (painting, drawing, model-making, drama, song and dance).

### **What purpose do team houses serve?**

All children and staff members belong to one of four houses (teams): yak, marmot, pika, and blue sheep. House competitions in sports, problem solving and other activities, foster both teamwork and competition. Every year one house is awarded overriding champion based on a point system tallied throughout the school year.

### **What kinds of physical activities do the students participate in?**

Each morning the students participate in morning exercises, prayers and the national anthem. They also take part in group sports like cricket, football, rounders and basketball. Older students do weekly kung fu. Plans include an athletic field and the expansion of an adventure playground. Sponsors have kindly provided some track-suits, soccer balls and equipment, but more is needed.

### **What if parents cannot afford the school fees?**

About a third of students, both residential and day, are sponsored. The school is continuing to focus on the needs of remote areas.

### **What are the on-going challenges facing the school?**

The challenges relate to delivering the vision: ensuring students and staff are competent in the English language, making sure students and staff are fluent in IT, encouraging students to 'think' for themselves, nurturing the teaching staff, instilling confidence, and applying good management. One challenge is to produce tomorrow's leaders.

### **What is the plan for children when they leave this school?**

The current plan is to offer education up to class 10. We are looking into whether it is practical to offer a science-based '10+2' (Senior Secondary; sixth form). Some of our graduates will progress their studies beyond matriculation to 10+2 in other institutions, in Ladakh or outside. Others will join the world of work. We aim to install confidence and competence in our students, and continue to explore ways to support them in achieving sustainable livelihoods in Ladakh.

### **Does the school accept volunteers?**

Yes, the school receives many volunteer offers and accepts a limited number each year. The school benefits greatly from volunteers with specific skill sets that bring value to the school. These include: IT, English language, sports, arts, etc. If you are interested to volunteer, please send an e-mail with your CV/resume to: [volunteers@dwls.org](mailto:volunteers@dwls.org)



### DESIGN AND DEVELOPMENT

#### Who is responsible for the design of the school?

The master plan was inspired by His Holiness Gyalwang Drukpa and is laid out in the form of a traditional 'mandala', giving it spiritual significance. The school's architects and engineers are a young, multi-national team from Arup Associates, based in London, all of whom work on a volunteer basis. The construction manager on site is Sonam Angdus, a local Ladakhi raised in Shey.

#### What awards has the school won?

World Architecture Awards 2002: Best Asian Building, Best Education Building, and Best Green Building (joint winner). 'Inspiring Design - International' (Summer 2009) from the British Council for School Environments. 'Design for Asia Grand Award' (December 2009).

#### When will construction finish?

Timing will depend on funding. If money is available, we aim to complete the Secondary School in 2014.

#### What development is now underway?

Construction of mudslide defences and secondary classrooms is underway. We are also improving the infrastructure (water distribution, solar water heaters, IT etc.).

#### What development is planned next?

We need to build additional secondary school classrooms and build Residence 4 to provide accommodation for disadvantaged children from remote areas and children displaced during the mudslides; the Auditorium/Library over the Central Courtyard, as well as more sports facilities, solar energy and shade structures are also to be built.

#### What materials are used in the construction of the school and where do they come from?

Throughout the school an emphasis is placed on using local materials wherever possible. Soil from the site is used in roof construction and the mud bricks for the inner walls are handmade in Shey. The granite blocks of the exterior walls are formed and finished from stone found on the site or gathered from the surrounding boulder field. Nearby monastery and village plantations grow the willow used in roof construction. The clay and poplar used in construction are also sourced locally.

#### How does the school's design prepare for earthquakes?

The structures use timber frames to resist seismic loads and ensure life safety in the event of an earthquake. Timber frames that are independent of the walls, steel connections and cross-bracing provide earthquake stability. The major October 2005 earthquake in Pakistan was a reminder of such risks in Ladakh and confirmed the need to include these design features.

#### What is a ventilated Trombe wall and how does it work?

Trombe walls are used to provide evening heat to the dormitories. They are constructed of ventilated mud-brick and granite cavity walls, with double glazing. The walls are coated externally with a dark, heat-absorbing material and faced with a double layer of glass, with an air gap between each wall and the glass. During the day, the sun heats the air in the air gap. The hot air rises and passes through air vents into the adjacent room. The sun also heats the wall mass, which later conducts heat into the adjacent room.

#### What kinds of insulation are used in the buildings?

The roofs are constructed of local poplar rafters, with willow sheathing. The Nursery & Infant school is also topped with rock wool and felt insulation. Exterior cavity walls utilise a layer of air between the granite exterior and the mud brick interior as insulation.

*See also Environmental Sustainability below*

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### ENVIRONMENTAL SUSTAINABILITY

#### How is energy provided on site?

The mains electricity supply is sporadic and unreliable, with voltage frequently out of range. Passive solar heating and effective daylighting design help to minimise the energy demand on site. The school's electricity demands are met by solar (photovoltaic) panels and solar hot water heaters are attached to the residential buildings. We also have a diesel generator for emergencies and periods of high demand.

#### What is the carbon offset scheme all about?

Because of the undesirable emissions the diesel generator produces, we arrange for visitors to voluntarily offset their long-distance travel emissions by investing in the expansion of the school's solar power installation. Please ask for details.

#### What energy strategies does the design employ?

**Passive solar heating** - The classroom buildings are oriented 30 degrees east of true south with an elongated east-west axis so that classrooms warm up in the early morning sun. All buildings in the residential area are oriented on a true north-south axis to maximize solar gain.

**Super-insulation** - the roofs are constructed of local poplar rafters with willow sheathing. Those in the Nursery and Infant school are also topped with rock wool, felt insulation and a weather skin of sand and aluminium sheets.

**Airlocks** -The entries to the classroom buildings are all airlocks that act as a buffer between the winter cold and warm interiors, as well as minimising dust to the interior.

**Daylighting** -The classrooms are designed for optimum daylight. In the wider Nursery and Infant building, the light from the windows with direct solar gain are balanced by top-lighting from north and south facing clerestories and a splayed ceiling. No electric lighting is normally needed in the classrooms.

**Natural ventilation** -The rooms have well-shaded operable windows that allow natural cross-ventilation and provide a cool, glare-free, high quality teaching environment.

**Solar** - Solar panels provide the school's electrical energy. Solar hot water heaters produce around 300 litres (79 gallons) of water per day.

**Materials** -Throughout the school an emphasis is placed on using local materials wherever possible. Soil from the site is used in roof construction and the mud bricks for the inner walls are handmade in Shey. The granite blocks of the exterior walls are formed and finished from stone found on the site or gathered from the surrounding boulder field. Nearby monastery and village plantations grow the willow used in roof construction. The clay and poplar used in construction are also sourced locally.

**Trombe walls** – please see 'Design and Development' sheet.

#### How are water demands met and wastewater treated?

Water is scarce in a desert area like this (annual precipitation in Shey is 50 mm (2 inches)). Groundwater is extracted from 32 metre (105-foot) deep wells and pumped using solar power to 60,500 litre (16,000 gallon) tanks located on higher ground behind Naropa Photang. One tank provides drinking water under gravity feed to the school, while the other reservoir provides irrigation water. The Ventilated Improved Pit (VIP) latrines help to limit water demands because their unique design allows them to function without water. Currently wastewater is re-directed and used for irrigation of landscaping.

#### What waste strategies does the school employ?

**Solid waste** - Waste is sorted for recycling into paper, plastic, and other, while compostable material is utilised to create soil.

**VIP toilets** - VIP stands for *Ventilated Improved Pit* toilets. Not only are the latrines waterless, but they also utilise a solar driven flue that carries out insects and odours.

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### DRUKPA LINEAGE

#### What does 'Druk' mean?

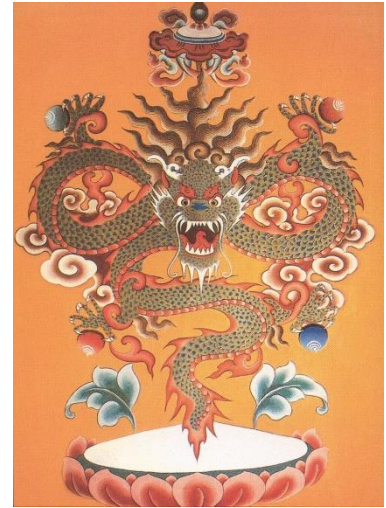
Druk means dragon in Tibetan. The Drukpa Lineage is so named because its founder, Tsangpa Gyare, was surprised one day 800 years ago when nine dragons reared up above him in Namdruk, Tibet. That is where the Drukpa Lineage was founded.

#### What is a Lineage?

The concept of Lineage refers to the successive rebirths of enlightened masters in this world and the transmission of wisdom from generation to generation through the mind streams of those beings.

#### Who is His Holiness Gyalwang Drukpa?

His Holiness Gyalwang Drukpa (Jigme Padma Wangchuk) is the current lineage holder. He was born in 1963 in Tso Pema, India, and is Supreme Head of the Drukpa Lineage.



#### Who was the Buddha?

Buddhists draw inspiration from the historical Buddha, Siddharta Gautama, who was born in what is now Nepal and lived in northern India about 2,500 years ago. The word Buddha means 'enlightened one'. He attained enlightenment under a bodhi tree in Bodhgaya in Bihar State. Buddhism was introduced into Tibet in about the 6th century. Eminent masters, such as Naropa, spent time in Ladakh from the 10th century onwards.

#### Who was (and is) His Excellency Thuksey Rinpoche?

His Eminence Thuksey Rinpoche was a Ladakhi master who was also Regent of the Drukpa Lineage between the death of the 11<sup>th</sup> Gyalwang Drukpa and the rebirth and inauguration of the 12<sup>th</sup>. He was the guru of the 12<sup>th</sup> Gyalwang Drukpa.

Thuksey Rinpoche founded the school in the 1980s – you can read about this era in Andrew Harvey's book 'A Journey to Ladakh'. Thuksey Rinpoche died and reincarnated in Ladakh. The young Thuksey Rinpoche, is undergoing traditional education and training in Bhutan, and is the Chair of the School's governing body.



### MUD SLIDE, AUGUST 2010

Late on 5<sup>th</sup> August 2010 and into the early hours of 6<sup>th</sup> August, cloudbursts hit Ladakh, resulting in mud and rock slides.

A flash flood and mud slide swept through the Druk White Lotus School campus, depositing mud and boulders.

#### **Were any children on the school campus at the time?**

Yes, nearly 200 residential children were in the three residences, two of which had to be evacuated in the night across a raging torrent of water and boulders. All the children, warden and house mothers sought shelter in Shey Palace on high ground nearby.

#### **Was anyone at the school harmed?**

No, all the children and staff at DWLS were unharmed, although some staff members' homes in other villages were destroyed.

#### **Were there any casualties elsewhere?**

Yes, more than 200 people were killed in Leh, Choglamsar and elsewhere in Ladakh, and 76 people are missing, presumed carried away by the floods and mud & rock flows.

#### **How were the children and staff after such a frightening experience?**

Two voluntary organisations, Oxfam and Médecins Sans Frontières provided the staff and children with some counselling after the first week to help them to deal with the shock of their experiences.

#### **Did the children lose a lot of education time?**

All classes had resumed by the beginning of September, some being conducted in tents. Repair works to the walls and floors of the classrooms were started quickly once all the mud had been dug out of the classrooms, with the kind assistance of Hindustan Construction Company and many individual volunteers.

#### **Had this kind of mudslide happened before?**

The Himalayan mountain range was created by movements of the earth's crust and has been eroded by frost, sun and earth tremors over millennia. In the region near the school, the last known major event of this kind was in the 1920's, with smaller ones having happened since then.

#### **Is this likely to happen again?**

Yes. It is impossible to predict when another event will occur, but a major event could occur in 1, 5, 20 or 80 years – it is impossible to say.

#### **What is being done to protect the school in future?**

The campus sits on the edge of an 'outwash fan' below mountains located on the north side of the River Indus. Defensive measures have been designed and are being built to protect the Shey campus and its occupants against future events equivalent to the one that occurred in August 2010. The physical defences will take the form of a 3m high stone wall with earth mound support along the eastern boundary of the school campus. Work is in hand to develop an early warning system and an evacuation plan.

