Ermes Invernizzi and **Michele Locatelli** are architects graduates at Politecnico of Milan, where currently they take part in research and teaching activities. They participate in international projects focused on protection and promotion of natural and cultural Heritage in various countries such as Morocco, Kurdistan, Nicaragua, Pakistan. From 2009 they are involved in the activities of SEED Project - Social Economic Environment Development in the Central Karakorum National Park (CKNP) - Gilgit Baltistan Region.
Within that framework they have dealt with many activities, including the design of the CKNP Headquarter, the Askoli House Museum and the exhibitions in the Italian K2 Museum in Skardu.
The Askoli House Museum is a traditional house transformed in a cultural/historical museum. The project is born with the purpose of creating within Askoli and the Upper Braldo Valley community more awareness of its cultural heritage and to protect the material culture of the area. Inside the museum has been organized an exhibition on historical, geographical and anthropological aspects of the vicissitudes of Upper Braldo Valley.

Ermes Invernizzi - Michele Locatelli

Central Karakoram National Park_Natural Environment and Cultural Heritage in the land of K2
with routes and maps of classic treks

The **Central Karakorum National Park** (CKNP),in the **Gilgit-Balitstan** region of **Pakistan**, is a mountain area endowed with rich biodiversity, natural beauty, important resources and unique cultural heritage. The Park encompasses the **world's largest glaciers**, outside the Polar Regions. It was declared as National Park in 1993: today it is the **largest protected area** of Pakistan, covering over 10,557.73 sqkm and the highest park all over the world. It is characterized by extremes of altitudes that range from 2,000 m a.s.l. to over 8,000 m a.s.l., including **K2**, the second highest peak in the world, **Gasherbrum I, Gasherbrum II** and **Broad Peak**.

Govt. of Gilgit Baltistan

seed Social Economic Environmental Development
A project funded by the Governments of Italy and Pakistan

Gilgit Baltistan
JEWEL OF PAKISTAN

Central Karakoram National Park_Natural Environment and Cultural Heritage in the land of K2

Central Karakoram National Park
Natural Environment and Cultural Heritage in the land of K2

with routes and maps of classic treks

Ermes Invernizzi
Michele Locatelli

"I am delighted to see the CKNP Tourist Guide Book developed by EvK2CNR in the framework of SEED Project. Undoubtedly, Gilgit-Baltistan and Central Karakoram National Park (CKNP) areas are one of the the most preferred touristic destinations in the world. However, the need is to project this region worldwide through appropriate measure including spreading information material, maps, trekking routes and several other unique attributes.
On behalf of Government of Gilgit-Baltistan Tourism Department, I earnestly appreciate the efforts of EvK2CNR Association and SEED Project to promote tourism in Gilgit-Baltistan and particularly in CKNP. The CKNP Tourist Guide Book is a very significant outcome of the work carried out in the region for several years. It is believed that the book would act as a drive to increase tourism in Gilgit-Baltistan."

Syed Muhammad Hadi
Secretary
Tourism, Archeology, Museums and Youth ffairs
Gilgit-Baltistan

Central Karakoram National Park Natural Environment and Cultural Heritage in the land of K2

With routes and maps of classic treks

Ermes Invernizzi
Michele Locatelli

First Print

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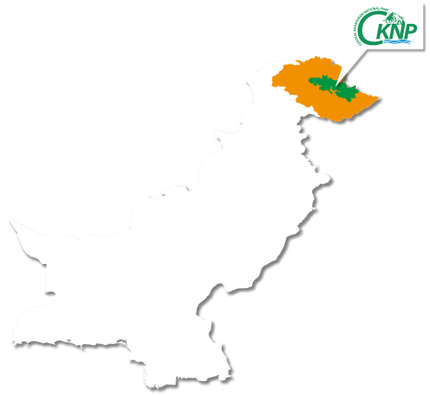


Central Karakoram National Park

Central Karakorum National Park (CKNP) is the biggest protected area of Pakistan, covering over 10,000 km² in the Central Karakorum mountain range, notable for its natural environment and cultural heritage. It falls within four administrative districts of Gilgit-Baltistan (Ganche, Skardu, Gilgit and Hunza-Nagar), the northernmost Pakistan's region.

CKNP includes the world's largest glaciers systems outside the Polar Regions and it is characterized by extremes of altitudes that range from 2,000 m a.s.l. to over 8,000 m a.s.l., with four peaks over 8000 meters, including K2 being the second highest peak in the world.

The great altitudinal range and the climatic conditions of the area have carved out distinctive environment and ecosystems with a big variety of flora species ranging from endemic herbs and chiefly perennial grasses to coniferous forests, several threatened and rare species of wild animals and birds, mostly endemic to Karakorum. Snow leopard (*Panthera uncia* syn. *Uncia uncia*), Brown bear (*Ursus arctos*), Himalayan musk deer (*Moschus chrysogaster*), Ladakh urial (*Ovis orientalis vignei*), Astore markhor (*Capra falconeri*), Bharal or Himalayan blue sheep (*Pseudois nayaur*) and Himalayan Ibex (*Capra ibex sibirica*) represent the key mammalian fauna.

The Central Karakorum region was once the most remote and almost inaccessible area of the sub-continent, but at the same time, it was also strongly connected to the main communication networks of the Central Asia. The movements of population, travelling traders and religious missionaries, treading along the extra

Left: Golden Peak or Spantik, rises above Nagar.

Below: Duke of the Abruzzi on Chogolisa, 1909 (V. Sella)

regional connection of the Indus Valley and through the seasonal routes crossing Karakoram Range, have left deep impressions on the cultural evolution of the entire region. The evolved imprints are still clearly visible on the local heritage and also on the socio-cultural traditions of the area. The traces have evolved over the centuries in each singular valley due to fusion with other ethnic groups, influx of different languages and religions, trade of material goods and mobility of ideas.

As a result, the region shows a rich historical and cultural heritage which ranges from ancient petroglyphs, rock carvings and ruins of Buddhist stupas and monasteries of the pre-Islamic period, to ancient forts, palaces, religious buildings, villages, dwellings and ceremonial open spaces that are still in use by local communities.

It was also this rich cultural heritage which has attracted the modern explorers. First have been the English during the nineteenth century, the period which coincide with the "The Great Game", the strategic rivalry and conflict between the British Empire and the Russian Empire for supremacy in Central Asia. But, it has been by the turn of the twentieth century, that begins a new interest which can be defined "touristic" as well as "exploratory", starts. In 1892 the Royal Geographic Society sponsored the first expedition to the Karakoram, led by Martin Conway. The first climbing expedition to an eight-thousander was led by Britain A.F. Mummery in 1895, with the goal of ascending Nanga Parbat (8125 m). The first serious attempt to climb K2 was undertaken in 1902 by Oscar Eckenstein, Aleister Crowley, Jules Jacot-Guillarmod and in 1909, led by Prince Luigi Amedeo, Duke of the Abruzzi, the Italian expedition reached an elevation of around 6,250 metres on the South East Spur.

At the same time, the region became a tourist destination for the British officers and their families. Colonial army and civil officers swarmed into the hills in the Vale of Kashmir and to the mountains beyond, in the Gilgit-Baltistan, which became a paradise for big game hunters of the British Raj. Trekking began.British sportsmen planned their trips in the valleys carefully; they stayed in tents, acquired a suitable shikari, food and relied on local villagers to accompany them on the trips.

From the sixties the touristic flow of climbers and trekkers has progressively increased, also for the concentration in the area of unique opportunities for mountain adventure activities, of peaks and sceneries which are the only all over the world.

Since 1965, the roads started to link the region with the southern lowlands of Pakistan. The realization of the Karakorum Highway (linking Pakistan and China, completed in 1978) and the Skardu Link Road (completed in 1982), opened up the region for a series of unprecedented changes in terms of social, economic, cultural and environmental factors.

CKNP AN INNOVATIVE PARK

In recognition to the necessity of protecting this peculiar heritage, the government of Pakistan established the Central Karakoram National Park (CKNP) in 1993. It was proposed to protect the major mountain massifs, watersheds and glaciers of the Central Karakorum region and to constitute a contiguous conservation area with the Khunjerab National Park and the Deosai National Park.

The CKNP has many challenges to face. After more than twenty years from its establishment, the management plan of the park has been approved on February 2015. It contains a series of rules and indications focused on to these main issues:

◊ The **environment**. It's a wide and magnificent glaciers area that seek continuous and focused attention. The presence of the vegetation depends on the rough topography of valleys. Human interventions and mass tourism put

Below: Junipers in Stak Valley

the unique natural environment at great risk unless, some focused efforts for the preservation of culture, heritage and environment go along.

◊ The rich local **historic cultural heritage** which is widely distributed in to the valleys adjoined to the CKNP.

◊ The **evolving demographic-social balance**: The consequences of contemporary globalization onto territories, cultural identities and societies are very deep. The CKNP manages a wide range of activities related to the development of its area, such as tourism, farming, hunting, forestation in the search for a balance aimed at the ecological, economic, social factors. There are many pressures on the landscape and people, for example: the visitors can threaten the special qualities of its territory. It is necessary to manage the CKNP territory where the natural assets are not only maintained but are further developed for prosperity of local people, businesses and communities. In the CKNP area, growing requirement of housing, developmental pressures and the lifestyles of inhabitants or farmers that manage the land can directly affect water quality, density of forests, flood risks and biodiversity etc.

In order to address these issues, the CKNP has devised an innovative strategy, which involves a process of integration between the different components ensuring participation of locals at every step.

Below: Imambargah in Hushe valley

Integrated approach

Research activities in CKNP were planned in multiple interconnected disciplines, which includes basic data necessary for development of environment (e.g. natural resources), socioeconomic and cultural domains. In such environment, this approach permits the characterization of study areas from different point of view.

Participatory approach

The natural resources of CKNP are subjected to some pressures due to traditional rights of the local inhabitants and tourism practices.

The difficulties in achieving the foreseen objectives could be related to a planning process based on a "conservationist approach" and not on a "participatory approach". It is pertinent to mention that a "participatory approach" aims to involve the local communities in the process, for supporting their needs in a sustainable way.

A series of strategies have been developed to promote an integrated approach, beneficial for the region and its inhabitants, workers and visitors to safeguard dividends for the future generations. The CKNP region includes 15 Valleys: Hushey, Thalley, Dhagoni, Shigar, Up¬per Braldu (Shigar), Lower Braldu (Shigar), Ba¬sha (Shigar), Baghicha/Tormik, Astak/ Shengus, Haramosh, Bagrote, Ghulmatm, Miachar, Nagar Hunza, Danyore/Jutal/ Juglot - for a total of 150 villages and 19.688 households (populations 151.047) – the inhabitants of these valleys control the rights of the Park. Therefore, they are directly involved in the management of the Park.

Above: Buckwheat fields in Upper Braldo Valley

Differentiated approach

In order to facilitate the maintenance of Central Karakoram National Park's ecological integrity and, at the same time, to provide sustainable management opportunities for the local communities and visitors, a zoning system has been implemented. A "participatory approach" has led to share with local communities the decision to have two zones inside the CKNP (10,557.73 Kmq): the Core Zone (7,606.83 Kmq) and the Buffer Zone (2,950.90 Kmq). The Core Zone aims at preser¬ving a unique ecosystem, representative of CKNP Area. A higher degree of conserva¬tion must be ensured. Buffer Zone is an inter¬mediate zone within the Park's boundaries, where the existing community's rights are permitted and exercised in a sustai¬nable way, to assure maximum nature conservation.

Right: Typical truck that you can find on KKH.

In the development of the CKNP zoning system it was chosen to delineate the Buffer zone - generally considered a peripheral area of the protected area serving to reduce the possibility of damaging interactions with outside – inside to the Park's boundaries and only where it is necessary. The existing community's rights on resources are allowed, but developed in a sustainable way, to assure both nature conservation, as well as paving the opportunity for the long-term use of natural resources. To develop a Management Plan that could be immediately applied in different local contexts, the following were excluded by the Park boundaries delineation: villages, main roads and agricultural areas, main mining areas.

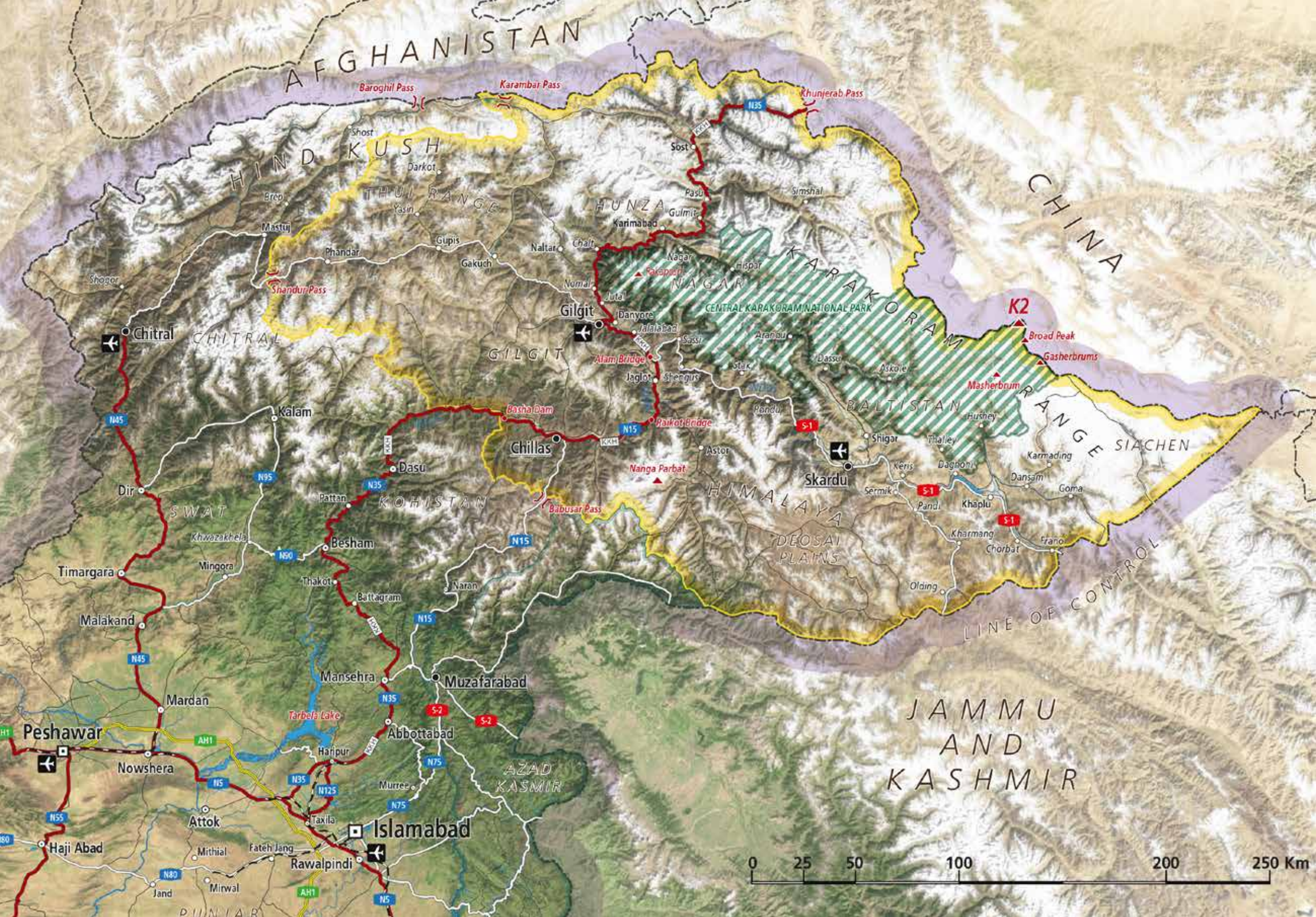
Localization and access

Until 1960s the region remained almost medieval in its isolation. This isolation was bridged with the opening of flight connection from Islamabad and with the simultaneous construction of Karakorum Highway (KKH) and the link road to Skardu - the two engineering marvels contributed by Pakistan Army opened in mid 1980s. The Karakorum Highway (KKH), linking Pakistan and China, crosses through the GB for about 840 km and provides them with a vital link to the rest of Pakistan. The networks of the jeepable road connect all villages of the region.

The distance from Islamabad to Gilgit on the KKH is about 580 km and the journey

Below: K2, Broad Peak and Gasherbrums viewed from a PIA flight.

CKNP


AFGHANISTAN
CHINA
Baroghil Pass
Karambar Pass
Khunjerab Pass
Shost
Sost
HINDUKUSH
Darkot
THUI RANGE
Brep
Yasin
Mastuj
Phandar
Gupis
Gakuch
Shogor
Shandur Pass
Chitral
CHITRAL
Naltar
Chalt
HUNZA
Karimabad
Gulmit
Pasu
Simshal
Nagar
Hispar
Nomal
Jutal
Danyore
Gilgit
GILGIT
NAGAR
KARAKORAM
CENTRAL KARAKORAM NATIONAL PARK
K2
Broad Peak
Gasherbrums
Masherbrum
Jalalabad
Sassi
Aranbu
Alam Bridge
Jaglot
Sheegus
Stak
Dassu
Askole
Pandu
BALTISTAN
RANGE
SIACHEN
Husney
Thaley
Shigar
Skardu
Keris
Dagbone
Karmading
Dansam
Goma
Sermik
Pandi
Khaplu
Kharmang
Chorbat
Frano
Olding
Basha Dam
Raikot Bridge
Kalam
Chillas
Astor
Nanga Parbat
Dasu
Dir
SWAT
KOHISTAN
Pattan
Babusar Pass
HIMALAYA
DEOSAI PLAINS
Khwazakhela
Besham
Timargara
Mingora
Thakot
Battagram
Naran
Malakand
LINE OF CONTROL
Mansehra
Muzafarabad
Mardan
Tarbela Lake
Abbottabad
Peshawar
Nowshera
Haripur
AZAD KASMIR
JAMMU AND KASHMIR
Murree
Attok
Taxila
Islamabad
Haji Abad
Mithial
Fateh Jang
Rawalpindi
Jand
Mirwal
PUNJAB
N45
N95
N35
N50
N15
S-1
S-2
N5
N55
N80
N75
N125
AH1
KKH
0 25 50 100 200 250 Km

takes 12 to 24 hours. An alternative travel route is through the Kaghan valley over the Babusar pass at 3,600m. It is open from July through October and the travel time from Islamabad to Gilgit is 16 hours only.

The Kunjerab Pass, placed on the border with China, lies 280 km to the north, and the nearest Chinese city of more than 100,000 people is Kashgar, after 490 km.

Skardu is connected to Gilgit by a link road that joins KKH not far from Gilgit. The trip from Skardu to Gilgit takes approximately four-six hours.

The Northern Areas Transport Corporation (NATCO) is the public transport company. It runs daily between the main cities of the region and the main centers of Pakistan. Apart from NATCO several private sector companies including the transportation service. In the main towns, many private jeeps for hire are found, and taxis also.

Two airports connects the region to Islamabad, Skardu and Gilgit. Pakistan International Airlines (PIA) operates daily flights between Islamabad and Gilgit / Skardu and there are no international air links.

Flights from Islamabad reach in less than an hour both to Skardu and Gilgit. In clear weather, it can be an amazing experience of watching world's highest peaks of Karakoram, Himalaya and Hindukush. Peaks with snow and Glaciers are stunning, Nanga Parbat is so close that one can touch, K2, Broad Peak and Gasherbrums' lie far on the horizon overhanging all other peaks of the region.

Unfortunatly, the probability of a flight to Gilgit or Skardu varies from 30% to 90% depending on the time of the year. It is low during the wet season in December through March and July and August. Important enhancements in instrumental navigation are planned for both airports and in the future flights cancellation will be reduced.

Local climate

The Central Karakorum National Park's area is part of the "transitional zone" between the arid Central Asia and the semi-humid subtropics of the South Asia.

The climate of the area is predominantly cold arid and temperate situated in the lower elevations.

The climatic variation in the area is greatly influenced by altitudinal differences. Lower altitude (below 2300m) experience marked diurnal as well as seasonal temperature variations and scanty precipitation.The areas between 2300 and 3300m receive sufficient snow and enjoy a temperate climate. Areas above 3300m are very cold with a limiting growing season.

There are four distinct seasons, typified by extreme seasonal heat and cold: a pleasant spring (March to May); a hot summer (June to mid-September); a cool autumn (mid-September to November); and a cold winter (December to February).

Most precipitation occurs from December to May, with the peak in March. The

Right: Skardu link Road in the Indus river's gorge.

CKNP

Central Karakoram National Park

Left: Mines on the flank of Indus river's gorge.

summer monsoon usually reaches the region by late June and continues through September. Being north of, and in the rain shadow of, the Himalaya, the Karakoram receive little monsoonal rain. A curious precipitation peak in the mountains also occurs in late August.

Gilgit receives about 165mm per year with 95 mm from March to May. Skardu receives about 100 mm per year with most between March and May. Above 5000 m annual precipitation ranges from 1000 mm to 2000 mm. Temperature varies with elevation, with a marked difference in daytime and night time temperatures in all seasons.

Junction Point

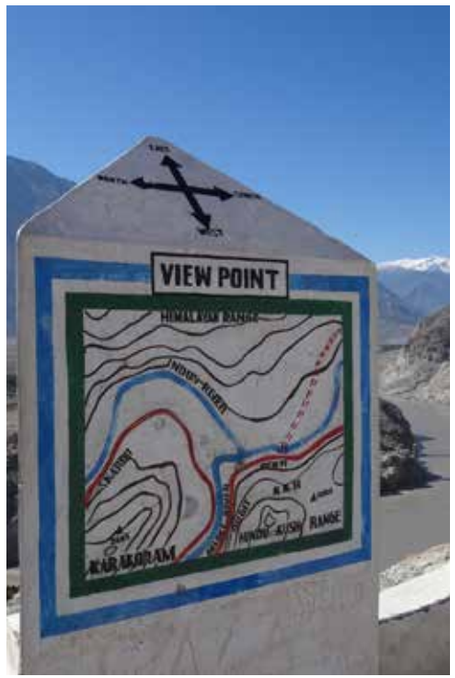
Coming from Gilgit on KKH, 4 Km after the Alam Bridge in Chillas direction, there is a whitewashed monument signalling the junction of the three biggest mountain ranges of the world i.e. the Karakoram, Hindukush and Himalaya off course.

Temperatures generally fall 6.2°C for each 1000 m rise in elevation. During the peak trekking season, Gilgit is hot in the daytime but dry. Skardu, 1000 m higher, is about 5° C cooler and also very dry.

The Karakoram Mountain Range

The region is a part of the Karakoram mountain range, a group of parallel ranges with several spurs extending some 500 km from the easternmost extension of Afghanistan in a south eastern direction along the watershed between Central and South Asia. Found there are the greatest concentration of high mountains in the world and the longest glaciers outside the Polar Regions.

Below: Junction Point along KKH



The average elevation of mountains in the Karakorams is about 6100 metres, and four peaks exceed 8000 metres; the highest, K2 at 8611 metres, is the second highest peak in the world. The range is a result of the ongoing collision of the Indian plate with Eurasia occurred at about 55 Ma, the most dramatic and visible creations of modern plate tectonic forces.

Geologically, Karakoram with the Hindukush is actually a single continuous up thrust block that runs north of the main suture line, corresponding with the Indus river, between the Indian and Eurasian land masses. The massif of Nanga Parbat represents the prow of the Indian continent, separated by the Indus River whereas, Rakaposhi is the prow of the Eurasian landmass. Between these two lay the area where continents collide. The inexorable force of this collision generated enormous pressures and temperatures deep in the earth Rocks

melted, ran together and cooled.
Over millions of years crystalline pockets have risen to the surface and today they are mined high in the mountains by the locals. Fine aquamarine comes from Dassu, Braldu Valley and Sumayar in Nagyr. Tourmaline comes from Stak Nala, garnet from Shengus along the Indus River, topaz from Dassu in the Braldu Valley, and tanzanite from Alchori in the Shigar Valley.

CKNP specificities and ecological zoning

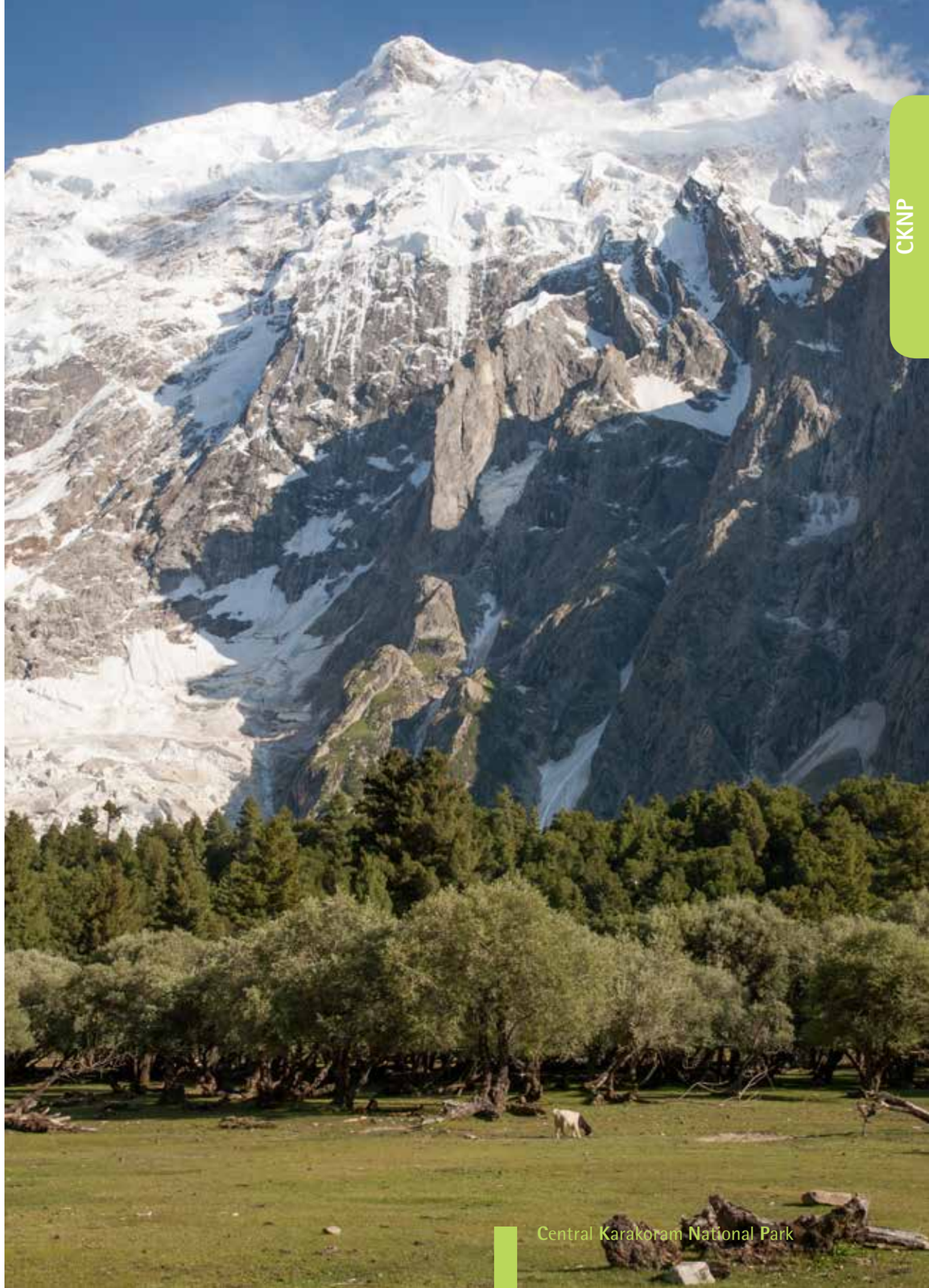
The great altitudinal range and the climatic conditions, low precipitation and the effects of westerly humid winds, have carved out distinctive ecological zones in the region. The zones have been distinguished on the basis of researches on vegetation and on the rich faunal component associated to each zone.
The distribution of natural vegetation is closely linked to climatic and topographic conditions as well. The decreasing diversity in natural vegetation towards the north is due to increasing aridity; hence, the expansion of forests declines northwards. A major cause of this being the significant difference in precipitation, humidity, and the varying periods of snow coverage.
The vegetation of lower sub alpine areas is influenced by arid to semi-arid conditions, whereas plants of the alpine and sub-nival level are influenced by humidity. Each valley in CKNP provides agricultural lands and pastures at several distinct altitudinal levels.
Most of the cultivated area and major settlements are along the beds of the major rivers. The distinct crops of the area include wheat, maize and potato while apricot and pomegranate are the most common fruit trees of the orchards.Poplar plantation is very common within the cultivated areas and also as separated plantation for domestic timber use. The CKNP is a refuge area not only for threatened species (e.g. Schaller, 1977), i.e. markhor, musk deer, Ladakh urial, Marco Polo sheep (stable presence to be confirmed in CKNP) and snow leopard, but also for not threatened but important "flag" species, i.e. blue sheep, Himalayan ibex, Himalayan lynx and grey wolf.
The status of the "large mammals" in the park is almost unknown but information collected indicates that numbers of snow leopards and especially of markhor are very low and close to their biological threshold.

Right: Haramosh Peak

The two zones

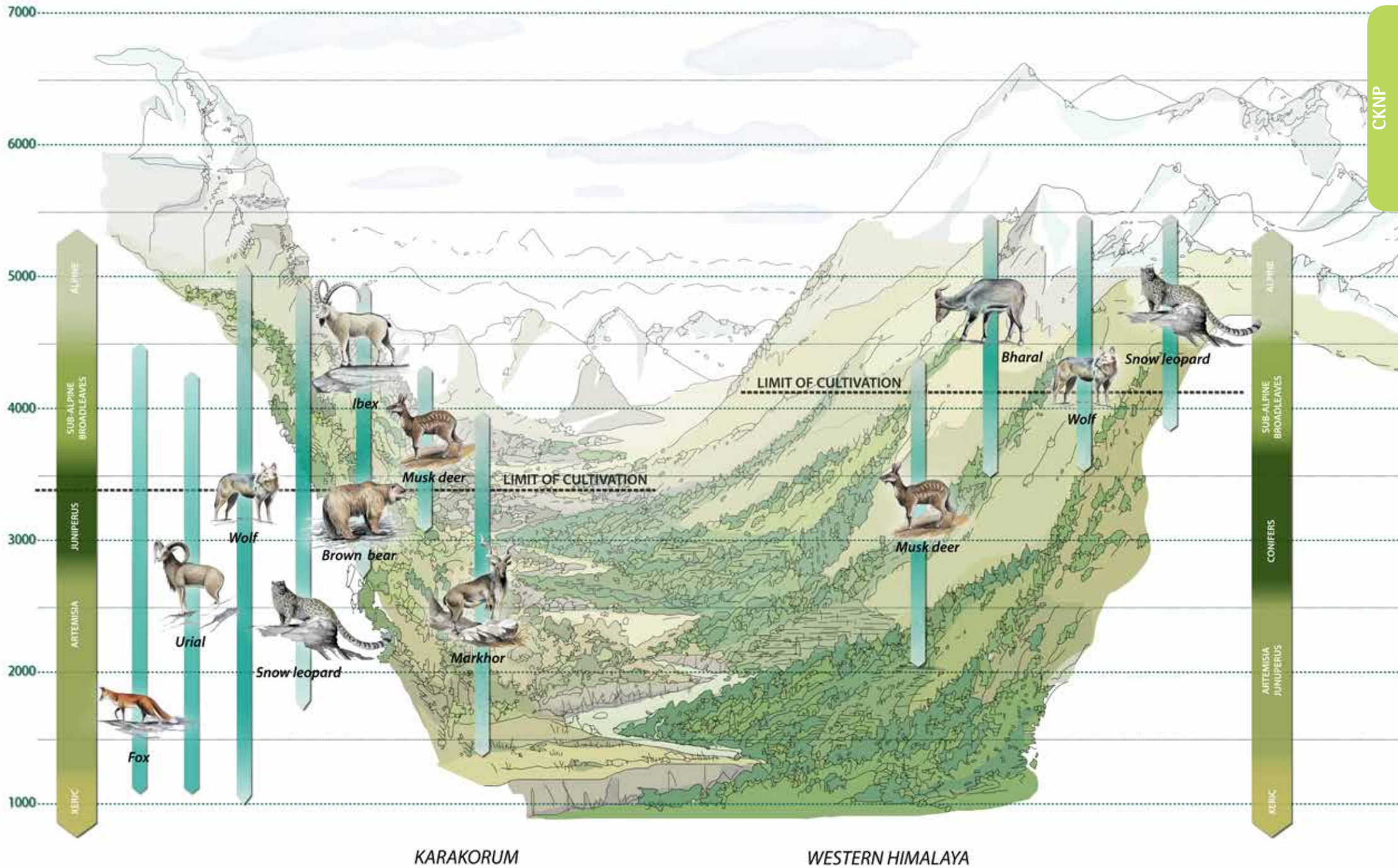
CKNP can therefore, ideally be divided into two main ecological zones: a southwest part and the northeast part. The southwest part is around Gilgit district, which is relatively warmer and partially influenced by the summer monsoon. The northeast part, on the other hand falls mostly under Skardu district which is characterized by a more continental climate. These climatic patterns have a major influence on vegetation

Next pages: Comparison between Karakorum an Himalaya altitudinal belts.



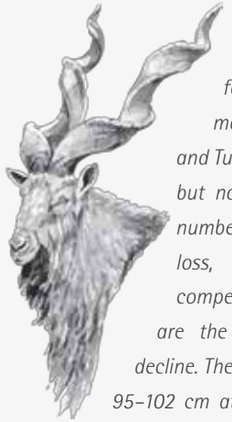
CKNP

Central Karakoram National Park



Central Karakoram National Park

of the region.
Overall, the South-Western sector is characterized by a forest composition and structure which is richer both in area, biomass and species. The largest forest of CKNP is located in the Southern lateral valleys of the main Gilgit river valley (with few exceptions on the southern border of CKNP along Indus river).
Good examples of those rich forest ecosystems can be found in Haramosh, Khaltaro, Bagrote, Jaglot Gor and Astak valleys among others. On the contrary, in the North-Eastern valleys, mainly plant adapted to cold and xeric environment can be found. The forest cover in the area is more fragmented and sparse with lower densities, stand biomass and increments.



Markhor *is a large wild goat formerly found throughout the mountains from Kashmir and Turkestan to Afghanistan but now greatly reduced in numbers and range. Habitat loss, overhunting, and competition with livestock are the main causes of its decline. The markhor stands about 95–102 cm at the withers and has long corkscrew-shaped horns. Its coat is reddish brown in summer and becomes long, grey, and silky in winters. The male has a long, heavy fringe on its throat and chest. The markhor is mainly active in early morning-s and late afternoons. During the spring and summer months, it gets grazer while in winters it turns to browse for feeding.*

Rock cliffs

Steep valley sides, in particular at low elevation (<2300 meters), are covered with fragmented and sparse vegetation in between high rock outcrop.
This is pretty harsh environment for plant life: little precipitation and a soil layer almost absent, means little fertility and humidity. Additionally, the large, bare and dark rocks heated by the sunlight and extremely high temperatures during daytime immensely impact the growth of plants in the region.
In those peculiar conditions, only a particular type of flora, with specific physiological adaptation can develop and survive. Unique for this environment, it's characterized by extremely drought resistant species like *Capparis himalayensis*, E*phedra spp* and *Cardus spp* among the others. Their cover is always sparse and fragmented, as only very few locations can support their life. The Markhor (C*apra falconeri cashmiriensis*) for instance, is able to cope with such wide temperature fluctuations, is well adapted to live in this environment of very arid mountains and foothills, with rocky and steep slopes and scanty food resources.

Artemisia shrub-land

Moving at higher elevations (above 2200 m), precipitation and water availability gradually increase, allowing the development of a steppe-like community of perennial herbs/shrubs adapted to dry environment. Among the most representative species, Artemisia (*Artemisia brevifolia*, *Artemisia wellby*, *Artemisia fragrans*, *Artemisia brevifolia*) are common all over the CKNP and characterize this vegetation belt

On left: Jaglot

Artemisia

How to recognize: Artemisia species are varying in colours and leaves shapes. However, some common characteristics can be highlighted: the stem is multiple, woody and robust, the leaves are spirally arranged, of a light green to pale grey colour and with a typical strong fragrance as leaves are rich in glands filled with oil to discourage animal browsing.

Main uses: Artemisia shrub-land is the preferred grazing ground for livestock during autumn and winter months. In the coldest and driest valleys of CKNP (like Braldu or Hushey) the stems and roots of those herbs are collected and used as firewood.

(Artemisia shrub-land). Other species include *Agrostis spp, Astragalus spp.* Few tree species, adapted to grow in xeric locations as Junipers can be found in protected locations as well.Those perennial herbs are widespread in many different environments: in the drier and cooler North-East CKNP valleys, they can be found on the Southern exposed valley which sides up to 3500 meters, while in the humid South-West they are mainly confined at lower elevation, being substituted by higher shrubs and trees because of more water availability there.

Artemisia shrub-land can also be found wherever, there is more fertile vegetation belt, i.e. where Juniperus shrub-land/forests have been degraded by excessive cutting or grazing for prolonged time.

Riparian Vegetation

In close proximity to river/streams, in all CKNP valleys, a plant community adapted to this seasonally humid but disturbed environment is characterized by frequent floods, draughts, rock fall and soil disturbances. It is commonly known as riparian vegetation.

Broadleaved species as sea-buckthorns (*Hippophae rhamnoides ssp. Turkestanica*), willows (*Salix spp.*) and rose (*Rosa webbiana*) are the other prominent species.

Unlike, the other vegetation belts, the distribution of this community is not altitude driven (it can be found from 1800 up to 3000 m) but it is limited by air and soil moisture, derived from the water bodies. For this reason, it can be described as "azonal" vegetation which usually has a linear shape, few tons of meters large, as a buffer around streams.

These plants are large water consumers, are fast growing species, with specific adaptations to couple with a very disturbed environment. Their ability to sprout (make new stems from root collar after stem breakage) is very useful for easily re-establishing, somewhat canopy like. The strong and deep roots of these plants anchor them to the rockish ground and large quantities of light-easily dispersed seeds are produced at an early age to favour colonisation of the new land.

Some of those plants, sea-buckthorns and rose in particular, have spiky needles to protect the leaves from wild and domestic ruminants, attracted by their green and nutrient rich leaves.

Right: Rosa webbiana

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Junipers shrub-land

Junipers are very frugal conifer species, which often grow on rocky, poor soils with little water availability. Morphological adaptations at various levels like the strong, deep and ample root system and the scale-like leaves, thick and covered by a wax layer, allow Junipers to grow where other trees just cannot survive, as in dry and hot locations at low altitude or on sandy dry soils at higher elevation.

The availability of resources is reflected in the growth habits, which can change from a small and contorted shrub-like tree in the less fertile areas to a medium sized tree with large stems, where ever, environmental condition are favourable (up to 15 meters tall).

Due to their slow growth, the Junipers growing in fertile locations are usually substituted by more vigorous species like pine, spruce of birch. Junipers are abundant in all CKNP, mainly located on southern exposed dry sites, or at low elevation. In western CKNP junipers can be found as low as 2400 meters to up to 4000 meters. *Juniperus semiglobosa* is found all over the park, while *J. turkestanica* and *J. exelsa* are limited to the westernmost valleys.

Sea-Buckthorns

How to recognize: The leaves are lanceolate and of a pale green/grey colour, often protected by 2 inch long needles. The female plants carry the typical orange berry-like fruits which are filled with fragrant essential oils. It usually appears as a 2-3 meters high multi-stemmed shrub. Sea-buckthorn berries are edible and nutritious. The fruit has high vitamin C content - about 15 times greater than oranges, placing sea-buckthorn fruit among the most enriched plant sources of vitamin C. Different parts of sea-buckthorn have been used as traditional therapies for diseases. The berry oil, taken either orally or applied topically, is believed to be a skin softener.

Left: Eating sea-bucktorns berries.

Below: Khaltaro forest

Musk Deer

are primitive, antlerless deer, with a pair of tusk-like upper canines. Both sexes of the deer have well-developed canines and in males these canines grow 7-14 cm (3-5 inches) long and protrude from the corner of their mouth in a fang-like manner. Their canines constantly grow but they may break them easily due to their mobility and fragility. Apparently, the animal looks like a small deer with a rather stocky build having hind legs that are longer than front legs. The general colour of the coat is a slightly grizzled dark brown. The ears are large and rounded generally, lined with whitish fur.

Musk deer have long been hunted for their scent glands. It is said that ancient royalty wore the scent of the musk deer and that it is aphrodisiac in nature. The musk gland is found only in adult males. It lies in a sac located between the genitals and the umbilicus and its secretions are used to attract mates and mark their territories.

Musk deer are herbivores that usually live in hilly and forested environments. They eat mainly leaves and grass with some moss, lichens and bark.

It is hard to spot a musk deer because they are solitary animals, with pretty well-defined territories, generally shy, mainly nocturnal and crepuscular in nature.

Conifers forests

Conifer forests are common in the South Western humid valleys of CKNP but are absent towards North East. Those forests are composed by two big trees: spruce and pine. Spruce is an exigent tree, which needs large amount of water and it also disapproves dry and hot weather. For this reason, it is mainly confined to Northern or Eastern slopes where it is often found mixed with birch (at higher elevation) or with pine. It prefers deep, fresh and fertile soils where water is available during all the growing seasons (from May to September).

Spruce seedlings have the ability to grow well under the canopy of other trees as well. For this reason, spruce is defined as a "shadow tolerant" species.

Himalayan Blue Pine is a pioneer species. Its ability to colonize barren soil is its evolutionary advantage; where few other plants are able to grow. Pine can grow easily, especially on fresh, sandy, unconsolidated soils, like moraines or landslide-prone areas. Even, if it needs less water than spruce, Himalayan Blue Pine is still a quite exigent species. Therefore, it is absent from arid areas like Northern and Eastern part of CKNP or at low elevation (below 3000 meters).

Broadleaves forests

The most common broadleaves tree in CKNP is birch. It's a 15 to 20 meters tall tree which forms large forests at high elevation (above 3000 meters up to the treeline, at 4000 meters). Ash and mountain ash, on the contrary, are rarely forming pure forests, but can be found scattered below conifers (ash) or in birch forests (mountain ash) mostly in the South Western humid valleys. Willows are also common in the area, mainly found in the surroundings of rivers.

The physiological characteristics of high altitude broadleaves trees make them very large water consumers. For this reason, most of the forests there are located on humid, deep and fertile soils. Birch forests, in particular, are to be found where snow accumulates during winter months. As the warm season arrives, an important additional water reservoir becomes available for the plants. Willows, instead, are mainly found in proximity to rivers or where morphological depression on earth surfaces as that

favours water accumulation and stagnation for them. Due to the cold weather which characterizes the area where those trees are growing, their foliation (the emergence of new leaves) occurs relatively late in the season, Birch leaves, for example, emerge mainly from early to mid-June. Similarly, in autumn, as the cold season approaches, birch is also the first tree to lose its leaves, usually between mid-Septembers to early October. At this time of the year, their foliage assumes splendid changing colours: from golden yellow to burning red. Locals of CKNP valleys, correlate the changing hues of the birch leaves with the arrival of winters.

Next page: Golden marmot and Bharal (Himalayan Blue Sheep)

Alpine pastures

Above 3800-4000 m, the short growing season and the low temperatures do not allow the growth of trees. Here, only herbs and few shrubs are capable of surviving, identifying the Alpine meadows and shrubs-land biome.

Thanks to the relatively high summer rainfall and the large amount of water available from snow melting, alpine meadows have good fertility and productivity. *Poa* and *Carex* genus are the most common plant members, but many other species are present such as *Kobresia*, *Polygonum* and *Rhododendron*. Those plants are generally classified as hemi-cryptophytes or chamaephytes: the former have gems at the soil surfaces; the latter have woody stems with gems near the ground.

Below: Birch forest in Nabroq La valley

The insulating effects of snow pack, which ensures that temperature will rarely fall below -2/-3°C at the ground level, indeed, is essential to protect the gems from the cold winds of Karakorum winter. Alpine pastures are home to a very high level of plant bio-diversity, which is evident during the summer blossoming when thousands colours of different flowers enhance the beauty of the landscape.

Alpine pastures are easy to recognize: their green colour is strikingly prominent against the bare rocks surrounding them and is a consequence of the dense thickets of plants, growing closely together. Alpine pastures are a key-asset for the sustainment of local communities which relies heavily on this belt for the grazing of livestock (during summer). Through the centuries, alpine meadows at inferior altitudinal limit have been lowered in elevation by local communities through clearings of sub-alpine broadleaved forests, mountain dry temperate forests and Junipers shrub-land/forests for the purpose of increasing pasture area size.

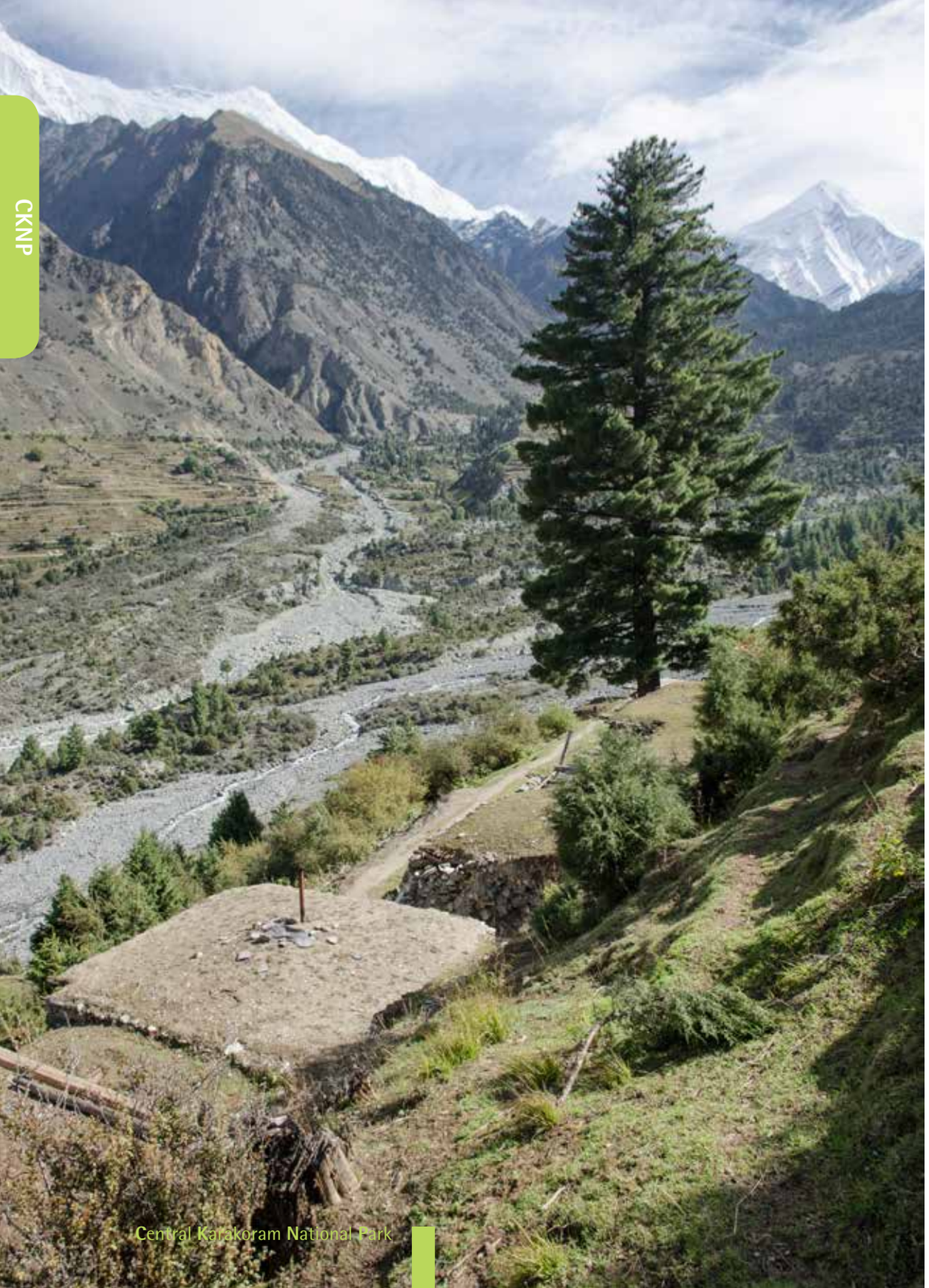
Wild mountain ungulates living mainly on alpine meadows, but close to the cliffs, and above 3000m a.s.l. the species that are found are ibex, urial (rare) and bharal (very localised), while markhor prefers steep rocky slopes, below 3000m a.s.l.

In all these species, both sexes have horns: males wear massive horns (vary in shape for all species), while females show slender and shorter ones.

All these species are gregarious and forage in small herds, females with young descending to lower altitudes than mature males. By the autumn, both sexes congregate into larger herds. Being mainly diurnal, they spend the day in alternating periods of activity (mainly in the early morning and late afternoon) and rest.

Marmots are large rodents, with flat head and short neck, living in colonies and digging deep burrows, which are shared by colony members during hibernation. Their body shape and size reflect the partly subterranean life. Being streamlined and flexible, marmots are capable of pushing

CKNP



their way through narrow holes. Their large eyes are close to the top of the head, allowing the animal to see the terrain above ground while remaining inside the burrow.
Woolly hares are a crepuscular small species (total body length is 40-48 cm). During the day, usually they stay in hollows made scraping terrain and grass with their paws. Their diet includes herbaceous plants, seeds, berries, roots and twigs. Hares may undergo parturition from one to three times a year and litter size ranges from 3 to 10 young.

Glaciers

Approximately 40% of the CKNP's territory is covered with ice (30% of the glacier surface of the entire Karakoram range in Pakistan). This is the most important and fragile ecosystem of the entire region.
Glaciers include some of the biggest of the world. Hispar, Chogo Lungma, Biafo, Baltoro with its famous Concordia junction are some of the more known names. The snow line lies at an elevation of 4,700 metres; glaciers extend down to 2,900 metres and sometimes to within 15 minutes' walk from a road. Often, glaciers combine to form complex glacial systems occupying not just valleys but the entire watersheds. Seasonal thawing of the glaciers gives rise to serious floods.
Traces of ancient glaciation are evident at elevations as low as 8,500 feet (2,600 metres) and 2,800 feet (850 metres) in the Indus River valley.
The CKNP Glaciers serve as a watershed for the basins of the Indus and Yarkand rivers. Suspended pulverized stone, or rock flour, makes glacial meltwater opaque. Rock flour and eroded material from the mountain channels give Indus the highest suspended sediment load of any major river. Groundwater accumulates in the rocky talus and contributes to the flow throughout the year.
Most of the glaciers are typical debris covered glaciers, i.e glaciers with the largest part of their tongue or ablation zone continuously covered with rock debris. Moreover, for most glaciers, there is lack of real accumulation basins and they are nourished largely or wholly by snow and ice avalanches. Some glaciers are more than 60 km long (for instance Hispar, Biafo, and Baltoro). The Baltoro, one of the most prominent one is most walked and known all over the world glaciers in the park. It is one of the largest debris covered glaciers worldwide (604 km2). Baltoro glacier has been studied for more than one century, within several scientific expeditions, among others those led by Ardito Desio, a most renowned Italian scientist and explorer.

Above: Himalayan Ibex

Left: Bagrot Valley

Next pages:
Hispar Glacier, Hispar La, Snow Lake, Sim Gang Glacier and Biafo Glacier, seen from the International Space Station (ISS014E06852)

Karakorum Anomaly

The attention paid to this area is increasing day by day as the evolution of its glaciers recently depicted a situation of general stability, the phenomenon known as "Karakoram Anomaly" and more recently the "Pamir-Karakoram Anomaly", in contrast to glacier retreat worldwide. An inventory, based on 2001 satellite images, displayed 711 glaciers within the CKNP region spanning a broad range of size, geometry, type, and surface conditions. In a more recent inventory, based on 2010 satellite images, the number of glaciers is slightly lower than in 2001, with 707 glaciers, (due to some individual glaciers advancing to merge with neighbouring glacier bodies) covering an area of 4,613 km2 (±38 km2). Then the total glacier surface increased slightly, by ca. +27 km2 during 2001-2010. The relative area change is not remarkable, (+0.6% of the 2001 area) thus suggesting rather stable conditions. Moreover, 40 glaciers (over the whole sample of more than 700) are found with changed area, i.e. only 0.06% of the CKNP glaciers varied in their surface, confirming the stability of this glaciered region. In spite of the overall stable situation, when focusing upon those 40 glaciers witnessing surface change (i.e. due to advance or surge events), noticeable variations are found. In some cases they even advanced towards top of their bigger neighbouring glaciers. A most prominent example is given by Panmah's tributaries, some of which have experienced surges that are sudden and rapid, from 2001 and 2005, now protruding far onto the main trunk of the Panmah glacier, which may or may not result into a surface area increase.

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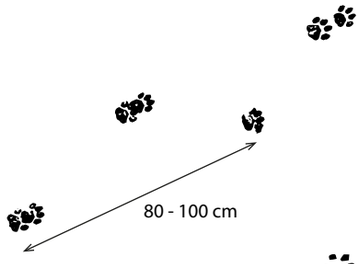
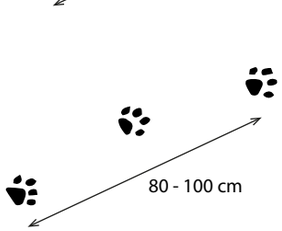
left front *left hind*

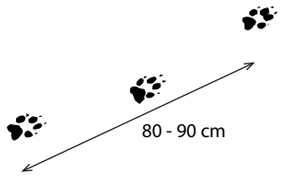
1. Snow Leopard

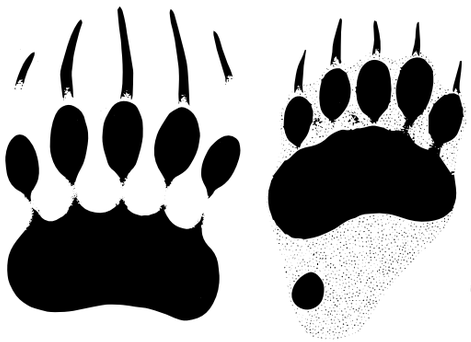


2. Lynx

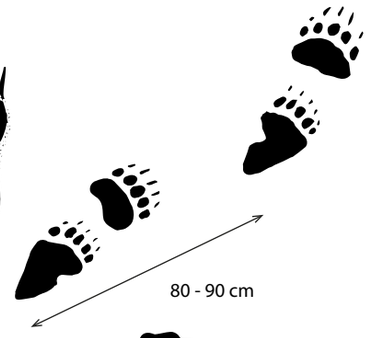


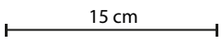
3. Wolf





4. Bear





Mammals and their signs of presence

Previous pages: K2 rises over Godwin Austen Glacier.

More than thirty mammal species live in the region and most of them are carnivores. Many of the carnivores and ungulates are endangered, including Markhor, Musk deer, Ladakh urial, Marco Polo sheep and Snow leopard.

The CKNP is a refuge area not only for threatened species, but also for not threatened but important "flag" species, i.e. blue sheep, Himalayan ibex, Himalayan lynx and Grey wolf. The status of those large mammals is almost unknown and they are rarely seen in open plains. The human presence in the area has confined these mammals to remote and higher places.

Large carnivores, as wolf, lynx, snow leopard and brown bear, are elusive and hard to pin down. Therefore, they are rarely seen and their presence in the area may be assessed through indirect signs, i.e. pugmarks, scats and territorial signs.

Snow leopards are solitary wild cats. They scrape their back paws in loose soil to mark their territory, leaving a small heart-shaped depression with a mound of soil next to it. Furthermore, they mark rocks, bushes and boulders with a pungent secretion from a scent gland near the tail base, sprayed with urine. Pugmarks left by a snow leopard have the heel-pad with two anterior lobes and a rectangular shape. Front pugmarks are distinctly larger than rear ones. Pugmarks left by a lynx are very similar but smaller in size and with a triangular shape and central toes slightly longer than external toes. As in all felids, no claw marks can be traced in both species but in very soft terrain.

Below: Snow Leopard

Lynxes have very short tails, with long powerful legs and large paws. The short tail has a thick black tip but no black rings above. Their ears terminate in long, black hair tufts, and their cheeks are framed by longer white and black hair. Their overall body colour is silvery grey, with reddish under fur, showing more reddish tones in summer coat. Immature lynxes have black spots all over the body, which gradually fade with age, although some adults still show faint spots on the outside of the upper limbs and forehead.

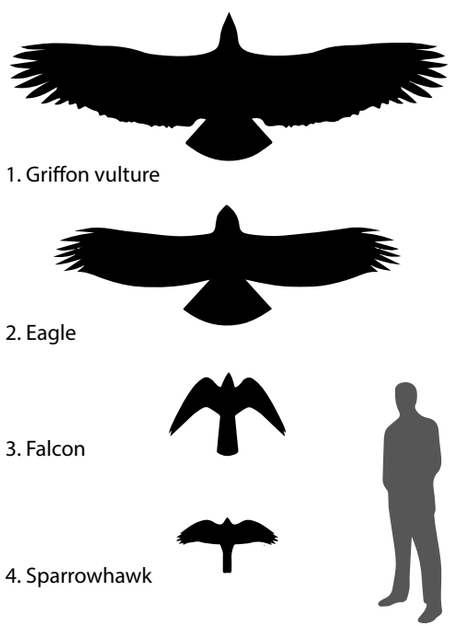
The brown bear differs from the other large carnivores in feeding behaviour, as well as in the ways he walks. It primarily feeds on vegetable matter, including roots, and mushrooms. Therefore, a bear scat will usually be substantial in volume, with seed and vegetable matter inside and a sweet smell. Furthermore, brown bears are plantigrades (i.e. walking with the podials and metatarsals flat on the ground) and can stand up on their hind legs

for extended periods of time. Thus, their pugmarks are similar to human feet (with 5 toes) but wearing large, curved and not retractable claws, those present on the forelimbs being longer than those on the hind limbs.

Wolves, of the region often stay together as a pack, but in disturbed, man populated areas they become solitary hunters. Their territories may be marked by scats that are similar in shape to those of snow leopards. Conversely, pugmarks are completely different: pugmarks left by a wolf have a heel-pad with a single anterior lobe and a triangular shape; as in all canids, claw marks are conspicuous.

Birds

The GB Region of Pakistan has one of the most diverse avifauna of the mountainous regions of the world. Around 90 species of birds are known to occur in the CKNP in 13 families. Their occurrence status varies from resident to breeder to migratory. Common snow cock, Chukar, rock pigeon, snow pigeon, oriental turtle dove, booted eagle, and common kestrel are among the common resident birds of the area. Common hoopoe, common cuckoo, common swift and Eurasian nightjar represent summer breeding birds of the area. Hen harrier, Eurasian skylark, Spanish sparrow, Himalayan accentor, Eurasian goldfinch, and pine bunting are winter visitors to the area. Some rare birds include Snow partridge, Himalayan Monal, Golden Eagle, Alpine Accentor, and Hume's Wheatear.



Alpine and moraine lakes are important stopovers on the Indus flyway hence becoming one of the largest migratory birds routes in the world. Both migratory and resident birds are observable in the area.

The Himalayan Griffon Vulture (Gyps himalayensis) is the largest of all the species of the genus Gyps: the wingspan ranges from 2.5 to 3.0 m (8.4 to 10 ft.). It inhabits mountains between 1500 and 4000 meters of elevation and may perform altitudinal movements during winter. The plumage is pale overall, with whitish to creamy-white body and wing-coverts. As in other vultures Gyps, the flight feathers and the tail are dark brown, while the under parts are very pale, with white thighs and underwings, and creamy-white body.

Both sexes are similar in outlook. Juveniles are darker than adults generally. The Himalayan Griffon Vulture feeds only on carrion.

Golden Eagle (Aquila chrysaetos) frequents open and deserted areas, mountains, plateaux and steppes. An adult

bird has fairly uniform dark brown upperparts, except for the paler crown, nape and median coverts which show pale fulvous-tipped feathers.

Their wings are broad and rectangular, and tail is fairly long and broad with rounded tip. Their feet are yellow with strong, long and curved black claws. A female has similar plumage but she is larger than male in size while a juvenile is dark chocolate-brown with white bases to flight feathers. A golden eagle feeds on medium-sized mammals such as rodents, rabbits and hares, birds (such as gamebirds), less frequently reptiles but it also takes carrion. It may hunt young and injured or vulnerable animals.

Above: Himalayan snow cock

Common kestrel (Falco tinnunculus) inhabits numerous kinds of open or slightly wooded areas with tall grass and low shrubs (i.e. grasslands, steppes or cultivated fields) and it is found from sea-level to tree-line in mountains. An adult male has reddish-chestnut upperparts that are heavily spotted with drop-like spots. The rump and tail are bluish grey and the tail shows black sub terminal bar, while tail feathers are finely white-tipped. Their underparts are yellowish-brown, streaked and speckled black. The under tail feathers are narrowly barred and show black sub terminal band. A female has browner upperparts with conspicuous dark bars while a juvenile is heavily streaked usually.

Common kestrel feeds primarily on small mammals (voles, mice, shrews) but it is also able to catch some passerines in open areas as well as some lizards and insects. It hunts by performing a very typical hovering flight at some height between 10 and 40 metres, carefully searching for prey on the ground. Once the prey is detected, it swoops down onto the prey in a rapid short flight.

Relatively, a small bird of prey (60-75 cm wingspan), the Eurasian Sparrowhawk (Accipiter nisus) is unobtrusive and difficult to observe. It lives in varied types of forests and more open woodlands, from sea-levels to mountains, foraging in summer up to the tree-line.

The male show white underparts, barred reddish on flanks and greyer on breast and belly. Underwing has white barred dark grey coverts, and white flight feathers with more conspicuous dark grey bars. The female is larger than male and it has grey upperparts with brownish wash but white barred grey underparts. The female lacks the reddish tinge of the male. This raptor is a very good hunter and its preferred preys are birds, especially small passerines for the male, and mostly thrushes,

Right: Satpara Lake near Skardu

starlings and even pigeons for the larger female. An adult male has blue-grey upperparts including wings and tail.

Reptiles and amphibians

The region hosts a unique herpetofauna, but the knowledge of Amphibians and of Reptiles of the Gilgit Baltistan and of the Central Karakorum, is largely incomplete and strong uncertainties persist on the distribution and taxonomy of many amphibians and reptiles. The Gilgit Baltistan represents an exceptional environment for both geographical and biogeographical reasons.

A study carried out on herpetofauna of the area, reported the presence of 23 species of reptiles belonging to eight families i.e. Gekkonidae, Agamidae, Scincidae, Varanidae, Boidae, Colubidae, Elaphidae and Viperidae. Whilst six amphibian species are recognized which belong to Ranidae, Bufonidae and Megaphrydae families.

Fresh water fishes

The fish fauna is relatively poor due to high turbidity, low water temperatures, high water speed, low benthic productivity, and long stretches of narrow gorges of rivers. Recent studies report about 17 species of native fish and three of exotic fishes, belonging to five families. Out of these native species only four are endemic to the Gilgit Baltistan and several other species that have restricted ranges remain confined to one or two localities. For example, species like Triplophysa stoliczkai, Ptychobarbus conirostis, and Schizopygopsis stoliczkai are only found in eastern water, heading up to Kachura, close to Skardu.

Below: Rush Lake

Among exotic species, brown trout was introduced in Gilgit agency during the early 1900s. This species is now well established and is found in most of the rivers and lakes of Gilgit and Ghizer districts. Particularly, upstream of the Ghizer river and its tributaries contain a large number of brown trout (AKRSP/DFID, 2000). Other exotic species include North America rainbow trout and Chinese carp introduced for aquaculture. However, it is not clear whether these exotics breed naturally or not. However, their distribution is very limited and they are found only in those water bodies where they were once stocked.

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Cultural and historical heritage

The CKNP and the surrounding territories belong to an area rich in history and culture that has evolved over time under diverse cultural influences and traditions which left their mark from the fifth millennium BC onwards.

Natural and cultural landscape

A cultural landscape represents the combined works of nature and of man, where the cultures are the agent, the natural area is the medium, the cultural landscape is the result. The landscapes of the Central Karakorum National Park are the result of a combination of factors related to the complex topography of the region and the specific climatic conditions that led to the formation of a unique territory, with a highly differentiated landscape, where the presence of glaciers and deserts gives life environments very different from each other. The formation of Hindu Kush-Karakorum-Himalaya system range is a result of a continental collision between the Indo-Australian Plate and the Eurasian Plate. The joint between the slabs produced the highest mountain ranges in the world, of which we can admire the vertical walls of solid rock covered with ice and snow. The mountains of the Karakoram - that climatically form a separation barrier between the plains of the Indian subcontinent, dominated by the monsoons, and the desert basins of Central Asia - present a mix of humid and arid environments that manifest themselves in various ways, depending on the specific conditions that the area offers to vary by latitude, longitude and altitude.

Below the wall of rocks and glacier, the park territory shows various landscapes: there

Left: view of Upper Braldo Valley from Testey

are the high pastures, favoured by the presence of meadows that feed water to dissolve, and then in specific parts, there are areas with humid-temperate coniferous forests, steppe following areas dominated by mugwort. You will find most of the permanent settlements there and finally, towards the lower area is the bottom of the valley. The deserted environments characterized by arid valleys of gravel and plans.

As the "natural" landscape presents an extreme variety, whereas the "man-made" landscape is very diversified and stratified, influenced by secular histories and cultures of peoples who, over time, have found ways to adapt to the extreme conditions of the territories of the Karakorum. Its valleys have been inhabited by people from various regions. The CKNP territory is an integral part of a system of intercontinental connections and for centuries it has been a place of passage of the ancient caravan routes that linked the Indian subcontinent Central Asia.

Natural landscapes

Among the landscapes that characterize the territories of the Karakoram, the glaciers are an essential part. The numerous and vast glaciers cover more than 16,500 square kilometres. The glaciers constitute the largest glacial system outside the Polar Regions and represent a reserve of water that is vital to all surrounding areas, for which they were defined as "water towers of mankind." The Biafo, join Hispar and Baltoro, which

Below: Baltoro Glacier, a debris-covered glacier (DCG)

merge with the Godwin Austen glacier finally, to form the broad glacial cirque Concordia, offer a spectacular landscape. This landscape is characterized mainly by the presence of blacks glaciers. They are "debris-covered type" glaciers (DCG), where the ice for most of the surface is not visible rather is hidden by the rock debris (moraine material) of various sizes. The moraine surface that covers the glacier has an important role to slow ablation. These glacier sizes would otherwise be impossible in such weather conditions.

The glaciers, someplaces reaching close to the valley floor, are a vital water supply for the people who live at the foot of the mountain range. In addition to the blacks glaciers in the CKNP territories, white glaciers can also be found and in some parts you can see the spectacle of forest of spires and pinnacles of ice or vertical walls of ice.

If the glacier's landscape is magnificent, no less impressive is the "desert of stone" landscape: the Karakoram mountain range is the result of geological activity which created a highly articulated topography, consisting mainly of metamorphic and intrusive rocks, mainly granites and gneiss, beyond which lie the rocks of sedimentary origin, mostly limestone.

Above: water basin on a debris-covered glacier

Along the valleys of the Karakoram you can find yourself completely surrounded by towering vertical sticks that show the performance of the violent processes of the various lithic materials have suffered at the time of their formation: evidence of rock layers, metamorphic processes, sedimentation alternate to form a landscape fascinating not only for fans mineralogists and petrologists, but also for the trekkers.

The valleys of the Karakorum are characterized by deposits of considerable thickness from the higher areas of the basins. They are glacial and glaciofluvial deposits, that often were incised by subsequent erosion and now they present as large flat terraces delimited by vertical walls or giant cones placed at the outlet of the smaller valleys.

The climate in the Karakoram, given the internal position and the shelter offered by the nearby Himalayas, is continental and overall rigid because of the high altitude of its territories. It is characterized by winds and storms from the west during the winter, which lasts six months and also during the summer monsoon.

The climatic conditions of the place have structured a harsh environment where besides to the glaciers, follow environments, characterized by valleys and gravel desert in the valley floors and only occasionally they leave space for the plains of sagebrush and sparse forests and green pastures.

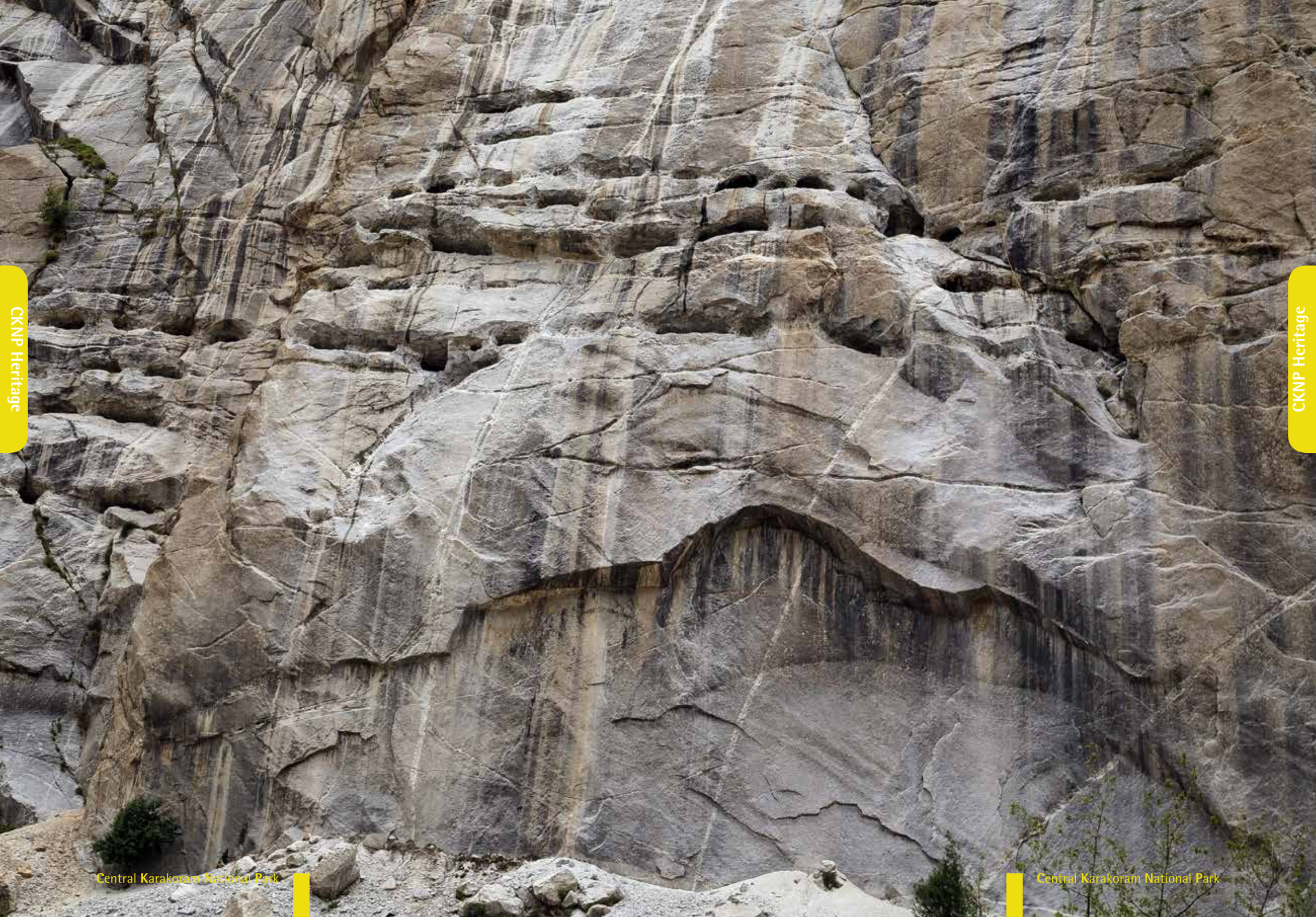
The most frequent image in the territories of the Karakoram is that of a wilderness

CKNP Heritage

Central Karakoram National Park

CKNP Heritage

Central Karakoram National Park



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Central Karakoram National Park

Preciding pages: Hispar Glacier, a debris-covered type glacier; Golden Peak and white glacier; mines in Lower Braldo Valley.

dominated by towering snow-capped mountains and characterized by long, deep gorges and barren flanks from where the water flows generated by glaciers. It is a desert environment, dominated by walls of stone whereas, the surrounding peaks typically have a pyramidal shape, due to the nature of the rocks present there. In fact, the breakup of the rocks is so intense and the sides of the valleys are, almost always, very steep, bare and rocky.

Additional valley terraces are often formed in ancient moraine deposits or alluvial, or large alluvial fans at the estuary of the smaller valleys. The most likely hypothesis is that they derive from ancient moraines deposited on the flanks, the material (even with large blocks) driven by frequent and destructive mudflows. although, these funds valley are at 3.000/4.000 m. under the peaks. Whereas, on the contrary, they have a share of more than 3,000 meters above sea level. In the larger basins, the stone area gives way to eolian deposits accumulated and shaped by wind (with sand dunes, such as the alluvial plain of Skardu).

Overall, the region is very poor timberline. The bottom of valleys are usually deserts. Sometimes, at some alluvial plains, glaciofluvial terraces, alluvial fans, there are some cultivable areas. While at higher altitudes, there are pastures (green meadows, often at the edges of the glaciers and flaps on the sides of the valleys) and high altitude forests of Firs, Birches, Cedars, Junipers and Willows.

Right: Lower Hushe valley.

Below: Shiyok river near Khaplu.

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Cultural landscapes

The aridity of the climate and the rugged landforms are not favourable to human habitat. The extreme severity of the territories of the Karakorum, makes one wonder as to how the early settlers would have survived such harsh environmental conditions. The traditional economy of the Karakoram oases is based on mountain farming. The survival of the inhabitants depends on the efficiency of irrigated crops and on the wellness of the livestock.

Above the village lands there lay the seasonal pastures and areas for the collection of herbs, fuel and timber. In fact, the Karakoram mountain range, in spite of the extreme difficulty of the place, is a collection of valleys inhabited by a melting pot of people gathered in small villages that dot the slopes of the valleys. These populations have built up their villages on the slopes of the valley floor by placing them in prominent places on the alluvial fans and fluvial ancient moraines. The valleys of the mountainous region have been colonized by populations seeking agricultural and pastoral spaces.

The man sought for ways to harness and utilize the available water with the aim of making the cultivation of small plots of land possible.

Wherever it was possible, the man has transformed barren and stony desert slopes into a series of meticulous and fertile terraces of lush oasis, beside which have sprung up in villages where people and animals find refuge. Thanks to the tireless efforts of the generations, who helped into creating areas that are suitable for agricultural use. Rest, outside the area, the mountain slopes are too steep to allow any form of cultivation.

It is not a coincidence that the first Western travellers describe the landscape of the Karakoram as "oasis in a desert horizontal vertical "(John Stanley). The green oasis's that meet in the middle of the stony slopes are almost always artificial. That also includes man made water channels that capture and convey water from upstream, at the terraced farming. The collection of water upstream is done via a pair of channels that go down to the coast to the two ends of the fan.

Generally, the channels are carved into the living rock or supported by dry stone walls in the highest part of their journey, while they are dug into the soil at the bottom. Sometimes, when the side of the mountain ends, the water is allowed to flow in canals built with trunks of poplar or willow excavated and supported by poles and

Right: Sassi village in the Indus river's gorge.

Below: green oasi in desert landscape

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Previous pages: Cultivated fields in Testey village, Upper Braldo Valley

walls. The course is generally protected by brambles, and constitutes the limits of the oasis: the cultivated fields downstream and upstream the arid stony. There are the two main canals that branch off the water from terrace to terrace in a dense network of secondary canals from where water flows in rotating shifts (there are 2 waterings daily, morning and evening) sanctioned by the tradition and marked by the time and determined by the position of the sun on mountains. The locks are flat stones with holes in the middle that are embedded vertically. To obstruct the whole and divert the flow of water there is sufficient clod of earth.

This ingenious water supply system requires constant maintenance, especially that portion of the channel which is dug in the ground, even during the winter when they are deprived of water. The channel facilitates the possibility to cultivate the fields and also used for domestic purposes.

These efforts of the generations have transformed parts of a barren desert into a flourishing oasis. Without it would be an absolute famine for the population of the entire region to face. To try to solve the problem of the variations of the flow of the streams (there are significant variations depending on the time of year) the villages often have large catchment areas that get drained during periods of drought are used by children to cool off. Without these hydraulic engineering works, it would not have been possible to develop the villages in the territories of Karakorum. They

Below: Traditional village of Sinaker in the Bagrot valley with its green terraces.

are necessary for the survival of the locals.

Many of these works are visible at a distance as in the case of mountain slopes, the green accompanying stripes make them even more conspicuous. The thin green stripes that usually run across the arid coasts of the valleys are nothing more than herbaceous or shrubby vegetation fed by the inevitable loss of the pipeline. In addition to their importance of great practical and historical functions, these works are an integral part of the landscape.

The position of villages and the cultivated land should be viewed in terms of natural inclination of the ground and also on artificial irrigation that exploits the presence of water course. In order to allow the cultivation of mountain slopes and ensure the necessary irrigation the locals initiated the construction of a dense system of terracing. The terraces are built by erecting stone walls along tens of meters. Their course is almost always circular. The height of the wall and the width of the terraces depend on the inclination of the slope. If there is more sloping land then there are high walls and narrow terraces. In some valleys, the terraces and alluvial fans with little inclination may be barely visible or altogether absent. Where ever, the slopes are very steep (e.g. Shyok Valley), the height of the stone walls is even greater than the depth of the cultivated land.

Above: green fields and terraces in Hispar

Regarding the agricultural landscape, the village oasis are dominated by poplars, which, among tall trees, are cleverly placed to protect houses, paths and channels by the wind. But there are also other tree species, such as willow, birch, walnut, mulberry, cherry and especially the apricot tree that grows wild and is cultivated at high altitudes. Outside these oases the tall trees are nearly nonexistent and only small shrubs can be found. The villages use their farmland for the cultivation of corn, wheat, barley, maize, millet and buckwheat in addition to vegetables, fruit and potatoes. Fields of cereals (wheat, barley, millet, buckwheat) alternate ones of peas and potatoes.

Traditionally, sowings are done in two ways. In August, after the harvest of barley, millet is sown. After the end of August, wheat and buckwheat are sown. In the oases, that are at higher altitude, the brevity of the season forces them to have a single crop.

The cereals ripen at different times depending on the altitude. It further depends on the variety of agricultural landscapes also. Agricultural production of CKNP territories represents a "mixed mountain farming system" essentially oriented

toward risk-reduction. The temporal and spatial distribution of crop and its variety re-distributes the risk of failure. Polycultures are maintained, which are based upon a diversity of species. Indeed, polyculture is often seen as a traditional strategy that promotes diet diversity, yields stability, reduced insect and disease incidences, the efficient use of labour, the intensification of production.

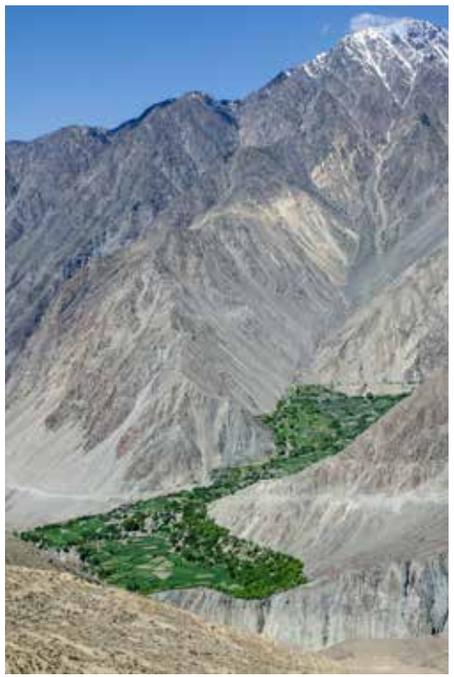
A fundamental role in the local feeding, in addition to the cereals, is carried out by fruit. There are numerous fruit trees such as cherry, apricot, walnuts, mulberry trees, vines. In particular, with respect to the apricot, only in Baltistan there are 20 varieties of apricots and more and more people use them as food in both ways, fresh and dried. With apricots, they also get oil that can be used for cooking.

Some species grow in soils at high altitudes (e.g. the oasis of Askole and Shimshal, more than 3,000 meters). Farmlands are related to landslides in complex ways: landslides and rock avalanches are generally experienced as destructive phenomena, able to submerge any living being, and to destroy any building. In effect, in the mountain valleys the landslides can cause dangerous obstructions to watercourses. Once removed out of the way, you can still have devastating consequences.

The territories of CKNP have an ambivalent relationship with landslides.

On the one hand, they are the bearers of destruction and desperation; on the other hand, they are the bearers of opportunities and advantages for human settlements.

Below: Village in Hushe Valley.



They have formed an area that otherwise due to its characteristics (vertical and desert) could neither be cultivated nor could accommodate permanent human settlements.

The logic of settlement of the villages and areas to agricultural use of the soil are closely related to the morphology of the territories resulting from landslides. Often villages are located directly above or adjacent to land, resulting from previous landslides.

The history of the peoples of Karakorum is also an extraordinary story of how they have been able to adapt to a "life of landslides", fitting in a continuous cycle of landslides/slumps and then reconstructions of an area which remains on constant alert geologically.

That is one such unique locality which presents the dangers and benefits of landsliding at the same time.

Fundamental for the human presence in the territories of Karakorum was the symbiosis between people and animals which for centuries has ensured the survival of both human and domestic species. Raising livestock is in fact one of the primary resources for the villages of CKNP. Goats, sheep, cows, yaks and their derivatives, donkeys, chickens are animals that live together with men and without them the man could not survive in an environment so difficult to adapt to the human conditions.

The close relationship that has developed between humans and animals is further facilitated by the way stables in the villages are made in Karakorum. In general the doors of stables open inwards. The animals there return to their stables when night falls, without anyone bringing them in. It is common to see domestic animals that roam in the villages. Their presence is evidence of the fact that the stables are often inside the villages. Outside the network of villages, the sheep tracks connect the oasis with the overlying object of transhumance grazing of flocks, goats and sheep. The domestic animals are usually led for grazing by children.

These animals make for the daily supply of milk. The cattle, however, at the beginning of the summer are to reach the distant pastures, located above 4,000 meters, often to the sides of glaciers. The animals remain there to graze throughout the summer, the season during which the meadows are in full bloom, while the rocky valleys below become particularly hot and dry because the rocky walls help reflect the heat of the sun.

Below: Darso Brok, basis of summer pastures

Archeological sites and petroglyph

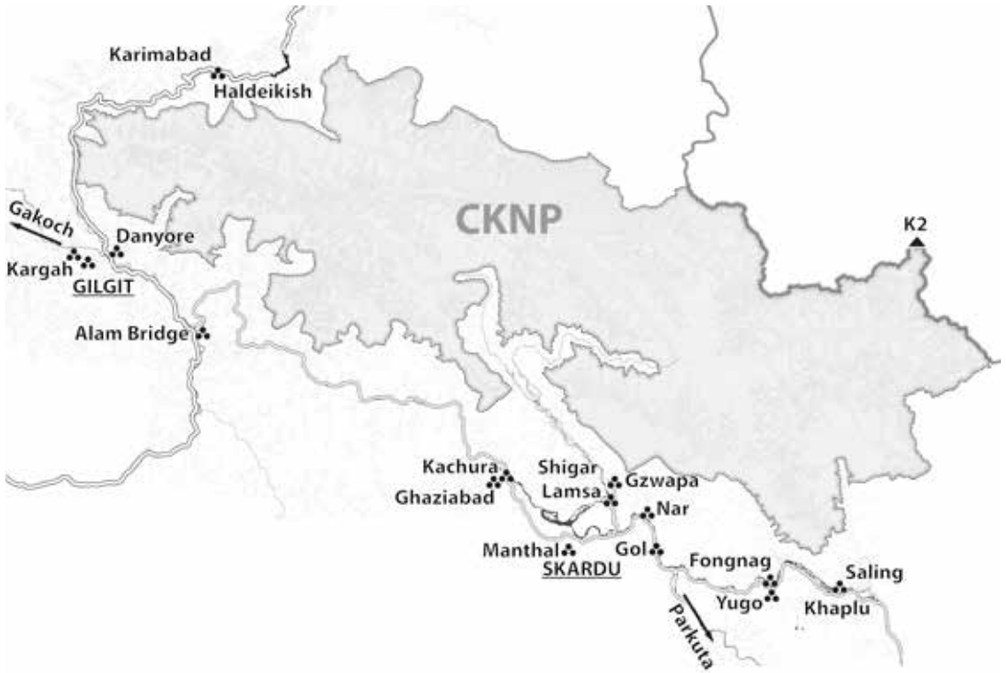
Since ages the humans have sought to address the tricky territories of the Karakorum. The first evidences of human presence are prehistoric signs carved into the rocks by hunters, travellers and pilgrims. The extreme conditions of the territory in fact, did not deter mystics and monks to undertake trips for their spiritual quests proselyte, nor has it prevented the entire ethnic communities to undertake major migratory movements. The first recordings are connected, according to contemporary scholars, in a landscape of veneration and they are considered sacred auspices hunting.

Archaeological heritage attests its long history and continuous vicissitudes of a territory that was a meeting place for traders and pilgrims, lands to conquer for emperors and kings from Central Asia and Persia. The rock carvings and inscriptions system indicate that Karakorum region was part of a very widespread network of travel and communications. Between Gandara, Kashmir and Central Asia, merchants and monks travelled via the Silk Route and through the mountain range.

The territories of Karakorum were the meeting place between the major centres of cultural influence of the surrounding regions. The centres, greek-Buddhist Gandhara and Taxila, the cities of Iran and Transoxania, the domains of Kashmir, Khotan and Tibet found ways to communicate and influence each other, especially

Left side: view of Shigar valley from Gzwapa, a petroglyph area near Shigar

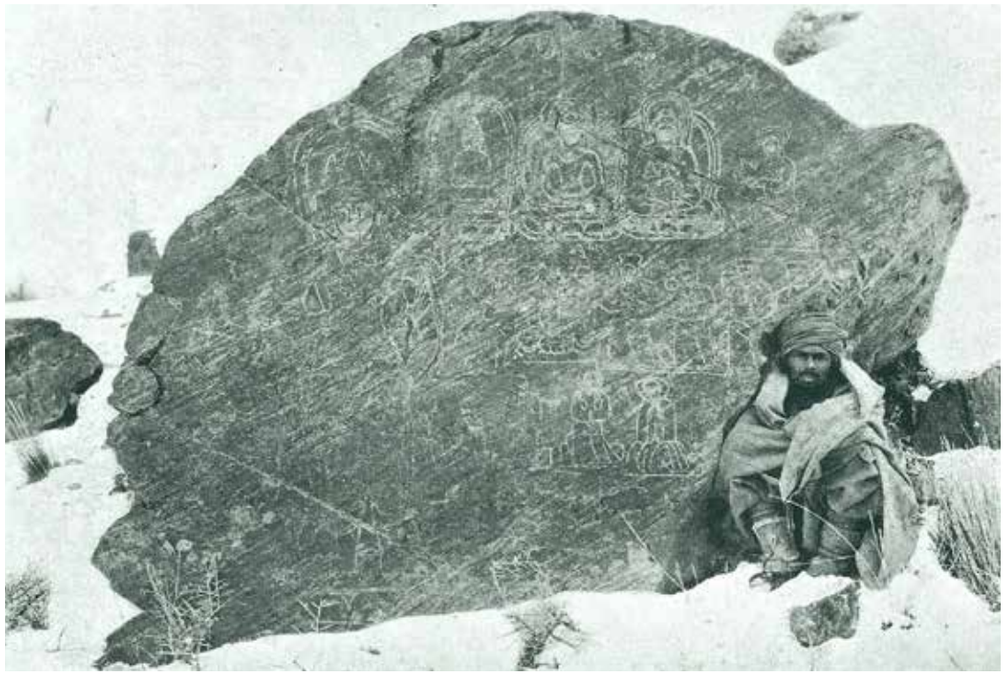
Below: Petrogliph sites around CKNP



in the border area and that they were passing through the high valleys of the mountainous complex. It's so that animism, Hinduism, Buddhism and various branches of Islam have left their imprints in the area and are layered to form a specific culture peculiar to the region. The locations of the rock carvings are often the entrances of important valleys or wherever a route crossed the Indus River. The existing networks of routes were used to pass preferably through the valley pathways and mountain passes, rather than running along the main rivers as it is today. The unique blend demonstrated by the wealth of cultural archaic traditions aroused the curiosity of the first European travellers, explorers and scientists – a simple interest grown gripping over the centuries.

The assets of the territory of the CKNP retain many traces of this material and non-material cultural exchange, witnessed by the numerous archaeological sites and monuments that dot the territories of petroglyphs of CKNP. The rock carvings in the area of CKNP are part of a set of signs that can be found from Shatial in Indus Kohistan-up to Gilgit, Hunza and Ishkoman, and extends up to Baltistan, Ladakh and Western Tibet. Overall, they represent one of the largest collections of images in the world and ancient inscriptions carved into the rock, extending over a wide area and with points of high concentration of petroglyphs. It refers to historical and cultural heritage that can be found in the side valleys of the Indus and the highest

Below: Rock with Buddhist carvings, in Skardu area, near Satpara. From G. Dainelli "Tipi Umani" Tav. XV



mountain basins, along the old routes travelled by pilgrims and merchants.

The engravings show ibex, hunting scenes, and often report stupa inscriptions in Kharosthi, Brahmi, Sogdiana, Bactria, Tibetan and Chinese are one of the most important epigraphic monuments in the world whose research and studies are in progress. According to the archaeologist H. Hauptmann, more than eight different main stages in stylistic development can be distinguished by different themes, topics, and styles, that reflect the range of the region's history.

The oldest group of petroglyphs (first period: prehistory), recognizable by the characteristic patina, is traced back to the eighth or ninth millennium, the epi-Paleolithic or Neolithic periods. They are limited in number (about 5%) and represent images of animals and hunting scenes. The engravings are performed in sub-naturalistic style and feature hunting scenes and animals. It is assumed that in similarity with other contexts, images of animals are related to magical practices of hunters, to cast spells on the prey.

The second group of sculptures (period the bronze age) include representations of mask-like figures, attributed to the end of the third millennium BC. It is assumed that the interpretations of these images pertained to shamanistic rituals: since in later periods hunters seemed to wear masks. Until recently in some areas of Karakoram's territories a mask with the shape of a fox is used for hunting birds.

Below: Detail of Sacred Rock of Hunza.

The third group chronologically and stylistically defined rock art in terms of the representation of animals that are attributed to Eurasian style. Probably, it is connected with the presence of 'nomads of the north' from the steppes of Central Asia. Assyrian sources mention various nomadic invasions in the Middle East for work of Gimmirai-Cimmerians in the reign of Sargon II (721-705 BC) and Ashurbanipal (669-662 BC). A first wave of Iranian-speaking nomads is indicated by sculptures of animals such as deer or wild goats that seemed to be "on tiptoes '. These images are located along the upper Indus and up to Ladakh and were frequently produced during the early Iron Age.

The fourth group of styles include stylistic engravings that are affected by the expansion of the Achaemenid Empire under the great king Kyros II (559-529 BC) beyond the confines of Media and Persia in the provinces of Gandhara and Sindh. Consequently, the influence of Iranian expansions through to the Upper Indus valley is depicted through the work of merchants who travelled

Sacred Rock of Hunza - Haldeikish

It is called the 'guest book of the Silk Route'. Inscriptions and petroglyphs record 2000 years of travels along the network of capillary routes through the Karakorum mountains. Haldeikish is predominated by petroglyphs of mountain goats (the name of Haldeikish is derived from halden, the Burushaski word for a male ibex or a domesticated male goat), which may indicate an ongoing connection with hunting expeditions. Pour large rock outcroppings form a conspicuous natural landmark near an important ford across the Hunza River and provide a convenient resting place for visitors who drew zoomorphic designs and abraded graffiti into weathered patches of desert varnish covering the sandstone and shale surfaces.

Since graffiti primarily record the arrival of visitors in epigraphic formulae and there are very few Buddhist petroglyphs, this site probably functioned as a transit station for long-distance travellers rather than a shrine for local devotees. Nevertheless, Buddhist personal names indicate that Haldeikish belonged to the capillary network of long-distance routes of Buddhist transmission between South Asia and Central Asia.

The Sacred Rock of Hunza is located along the KKH on the left bank of the Hunza River almost a mile away from Karimabad.

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On the dating of petroglyphs

The dating of the petroglyphs is done either through stylistic comparisons and overlaps or through analysing the technique of engraving and by assessing different stages of the surface patina called "Desert varnish". It is a thin veneer of clay, minerals and microbes that forms on exposed rock surfaces in arid environments. Shiny, dense and black varnishes form only on physically stable rock surfaces that are no longer subject to frequent precipitation, fracturing or wind abrasion. If this thin layer, for example, injured by pecking with a stone, the bright background reappears creating a high-contrast drawing. Once a drawing has been made, is to her a new patina that varies greatly depending on the age and, consequently, has different shades of color.

the trade routes. These petroglyphs are characterised by linear contours. Ibexes, stags, horses or fabulous animals are depicted in the typical 'Knielauf'-position (with knees bent), a characteristic motif known from Achaemenid art. The fifth group of petroglyphs (first Buddhist period) is made to coincide with the spreading of the Buddhist religion in the Karakoram territories with the first use of writing. The first Buddhist period is stretched until the third century AD. To this period belong the incision sites like Alam Bridge (near Gilgit) and the sacred rocks of Haldeikish in Hunza, which have inscriptions in Kharosthi (official script of the Persian state registries which derives from the Aramaic introduced by the Persians during the Maurya dynasty (320-185 BC) and was used mainly for official documents until the third to the fourth century AD.). The rock carvings of the first Buddhist period are extremely simple and of high artistic quality.

The sixth group of styles (golden age of Buddhism) comprises the rock carvings made especially between the fifth and eighth centuries AD, a period when the

Below: Petroglyph in Gzwapa, near Shigar.

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Kargah Buddha

The rock carving is located six kilometres west of Gilgit, in the Kargah Nullah on the left cliff face close to the bridge. It is identified as Chamba, the Tibetan Bodhisattvas Maitreya and it can be dated to the late 7th or early 8th century AD.

A local legend, tells of a ogress called Yakhshini who lived at Kargha. The village asked a passing saint to help them get rid of her. The saint succeeded in pinning the ogress on the rock and told the village that she would be unable to escape during his lifetime or even following his death, if the villagers buried him at the foot of the rock. The people immediately killed the saint and buried him as instructed.

In 1938-39 just 400m from the Buddah, a monastery and 3 stupas, were excavated following the discovery of so-called Gilgit manuscripts in 1931. Written in Sanskrit, the manuscripts comprise Buddhist texts and documents that reveal the names and dates of some of the local rulers and various important pilgrims. They are now housed in museums in London, Delhi, Srinagar, Rome an Karachi.

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region of Chilas became an important sacred centre, as evidenced by a single concentration of petroglyphs. The famous Gilgit manuscripts have revealed that the rock engravings of Danyor and Hatun, or those in the districts of Gilgit and Diamar, report the names of royal dynasties. Until the introduction of Islam in Baltistan, in the fifteenth century, the most widely spoken languages were the kharosthi (written from right to left) and brahmi, another Indian writing (written from left to right). The majority of the rock inscriptions are in Brahmi and in various forms (ranging from the late Kushan Gupta initial type of the fourth century AD).

The seventh group of styles is defined by the presence of inscriptions in Sogdian. Inscriptions in Sogdian confirm the presence of this important ethnic group in the territories of Karakorum. The inscriptions with the names typical of Central Asia, reveal the prominent role that the region held in international relations within the network of inter-Asian Silk Routes. The site's westernmost Shatial, the Upper Indus valley seems to be the main commercial centre for Sogdians from the north through the valleys of Tangir or Darel. The region was the centre of far-reaching international connections and it is also evidenced by the presence of a number of Chinese inscriptions, engraved by merchants, pilgrims, as also documented on Haldeikish in Hunza. The inscriptions in Tibetan (more frequent in Ladakh, but findable also at the shrine of Buddhist mountain of Shigar and Gilgit along the river), document the Tibetan domain on territories of the Central Karakorum during the eighth century AD.

The eighth and final group of petroglyphs reflect a new ethnic element along the Indus, which occurred between the ninth and tenth century, in the areas around Hunza. The sculptures of that era represent a primitive form of stupas that are still common, while the canonical representations of the stupa with anda, which contains the relics of the Buddha, are rare.

The stupas are represented with a silhouette shaped tower and their sacred character indicated by banner or tridents. These representations, mostly abstract, of ancient stupas

Manthal Buddha - Satpara Buddha

The Manthal Buddha - or Satpara Buddha - is a relief carved on rock between 700 and 1000 AD, in the time when the restoration of Buddhist faith in Tibet took place. In this time not rock-carvings but reliefs were the preferred medium of religious expression.

The mandala, with two Buddhas standing on both sides, depict the Sakyamuni Buddha surrounded by twenty similar Buddhas on a smaller scale. In the foot of this assembly there are Tibetan inscriptions. In the earlier times, there was a roof or canopy over this monument to protect it from weather affects, but it has gone in an unknown past.

The rock is located in Manthal, a village near Skardu, situated on the road to Satpara Lake.

Below: Minar of Taj Moghal, near Gilgit.

Right: Rock of the three buddha at Lamsa, near Shigar.

are often neglected executions and show no inscriptions of their donors.
This radical change of style indicates, of course, that Buddhism had lost its prominent position. Buddhist petroglyphs are integrated with (or even more damaged by) schematic sculptures. Battle scenes with knights and warriors carved in simple lines clearly show the troubled situations in the valley. The main images are a variety of axes and disc wheels that can be interpreted as symbols of the sun.
Stupas reflecting scenes of destruction are not lacking in number either. The battle scenes show foreign warriors who fought with Buddhists: these engravings indicate an anti-Buddhist movement of the new population, perhaps initially illiterate. Probably, they were the local tribes who lived in the higher mountainous regions.
It should also be noted that, unlike the above rebellion, in some specific parts of Karakorum territories between the IX and X centuries AD the Buddhism influenced the region like renaissance particularly, in some areas of the upper valley of the Indus and around Gilgit, as is evident from coeval engravings.
The famous reliefs of the Buddha of Naupura, near Gilgit, and of Manthal (Satpara), near Skardu, represent the late stage of the 'Golden Age of Buddhism' between the VIII and X centuries. Among these, there are monumental stupas that include the carvings of Buddha standing on a rock of Saling, near Khaplu, the relief of a Bodhisattva in Parkuta and the Buddha images around Kargil.

Below: Buddhist inscription at Fongnag, near Yugo.

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Shigar Gzwapa

The archaeological site of Gzwapa lies at the foot of a steep mountain slope, on a barren plateau, bordered by hillocks consisting of sediments.

On the bordering chain of the hillocks, four round platforms which turned out to be the ruins of stupas have been identified in the mid-80s by a German-Pakistan research team.

Together with the remains of walls, found in the depression between the slope and the hillocks, they indicate the presence of a former monastery.

A lengthy inscription engraved on a boulder, tells of the interference of a local administrator, maybe he had offered a present to the monastery. The specialists attribute the inscription to the 5th or 6th century A.D. In the basin of Skardu there was the centre or one of the centres of Bolor, the state of the Patola Sahis, the dominant Buddhist power in the Western Himalayas.

Nowadays the remains of the ancient stupas are not so obvious, but the presence of many petroglyphs testify the role of the place played in the past. In the picture taken the mid-80s, the ruins of stupas are clearly visible. Two others are situated at the left end of the chain of hillocks. Between the hillocks and the slope there are the remains of a large building. To the left there is an area destroyed by floods, landslides and falling rocks. Beyond is a precinct without Buddhist bruisings, maybe reserved for the cultic activities of the non Buddhists. Only animalr epresentations were found there.

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Chaghdo paintings

The only large-sized rock painting known in Baltistan is at Chaghdo near Nar. It show a magnificent stupa veneration scene.

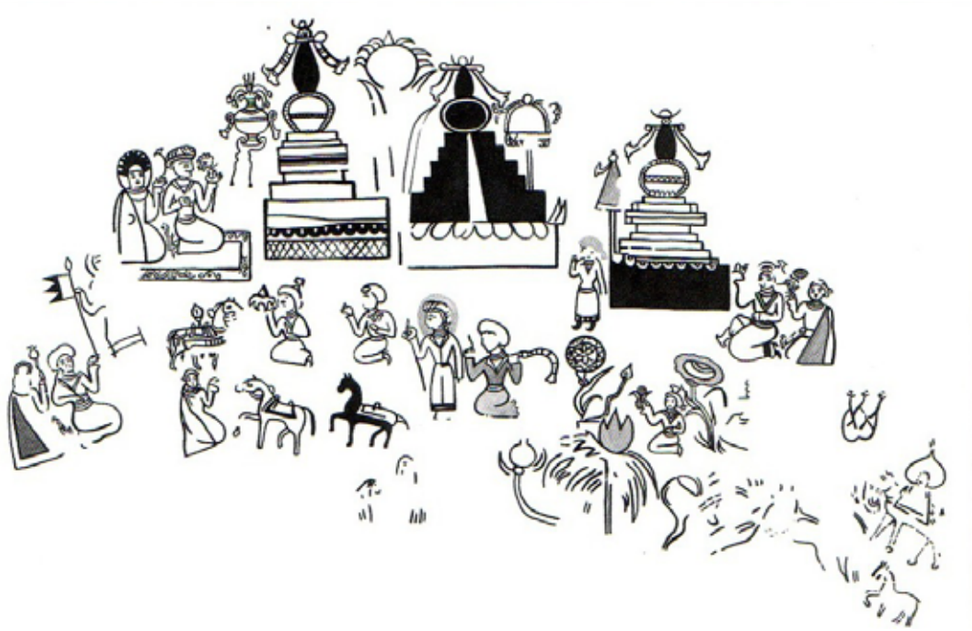
The motifs depicted refer to the 'seven precious possessions' of the Cakravartin: queen, minister, general, jewel, wheel, horse and elephant. The fresco attests to the final significant period of prosperity of Buddhism in the 12th century.

The revival of the old religion is also demonstrated by the engravings found in Bubur in Punyal and a recently discovered painting in Chaghdo, near the village of Nar. The fresco shows the veneration in which they held stupas - three Tibetan style stupas are shown on the terraces and the colourful scene consists mostly of faithful sitting in two separate groups of people seemingly noble and on saddled horses.

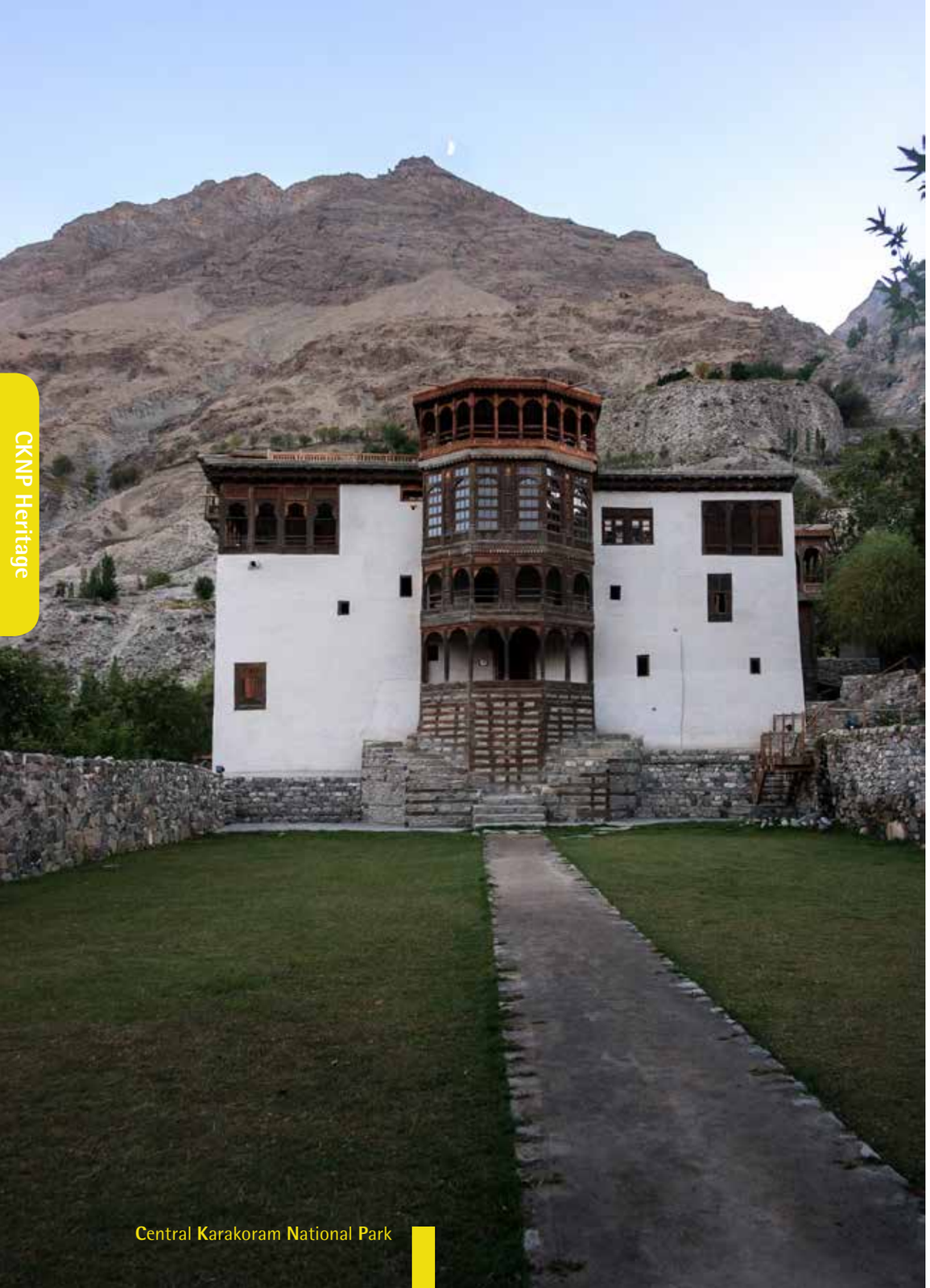
The archaeological sites of CKNP are a remarkable cultural heritage that is yet to be suitably esteemed and properly exploited. Shortly widespread is the knowledge, for example, of the stupas that are visible both in Gilgit (Naupura and Henzal) and in Thol. In 1992 it was possible to identify a monument of high value. They were actually the remains of a Buddhist sacred building, visible over Jutial to Gilgit called 'Minar of Taj Moghal'.

Along the ancient streets of the valleys you can still find many ruins of settlements, forts and shrines await to be counted, identified and seeking conservation works.

For example, in Shigar there is the important Buddhist archaeological site, above mentioned, where there are the remains of a monastery and several stupas. It is recommended that studies and researches should be carried out to complete the



Left: Buddhist painting in Chaghdo, near Nar. Reconstruction by S. Hauptmann-Hamza, E. Ochsenfeld.
Below: Shigar Gzwapa in mid-80'. (from K. JETTMAR, Cultural heritage of northern regions of Pakistan, 1992)



documentation of the site before looting and devastation completely destroy this heritage and its valued documentation.

Just like the monastery of Shigar, many other monuments that represent unexplored cultural and historical documents have emerged as a result of archaeological objects surfacing from illegal excavations. It is pertinent to mention that these monuments that still go unexplored are deeply endangered. More attention has to be paid to the protection of the unique archaeological heritage.

Traditional architecture

The stratifications of cultures and traditions in the CKNP territories have produced a complex cultural and built heritage, that is still accessible to be experienced. The movements of population, travelling traders and religious missionaries, treading along the Indus Valley and seasonal routes crossing Karakoram Range and connecting South and Central Asia have left deep impressions on the cultural evolution of the entire region. The imprints are still clearly visible in its villages and in its monuments which constitute a concrete evidence of the socio-cultural traditions that evolved over the centuries in each singular valley.

The territory of CKNP retains many traces of this material and non-material cultural exchange, and is present not only in the local beliefs and oral traditions, but is even more visible in the ways of settlements and of housing that determines the organization of space and techniques of construction. They reflect the influx of different traditions, the fusions of various ethnic groups and the extra-regional connections that have left deep impressions on the evolution of the entire region. The mountains of the Karakoram contain very significant number and variety of historic buildings of monumental scale and of considerable importance.

All the traditional buildings are characterized by the use of local building materials such as stone, earth (as blocks 'adobe' or 'pisé' slammed to the ground) and timber, these days conifers, but in the past above all deciduous. These materials have been used in the simplest of ways for ordinary buildings, usually self-built by the people. Only for the important buildings, they call some itinerant craftsmen, famous for the skills of structural engineering and experts in intricate carvings.

The older monuments illustrate overall the characteristics of indigenous cultural influences from the west (usually from Afghanistan, but also from the western

Khaplu Palace

Locally known as "Yabgo Khar", meaning "The fort on the roof", it was built in 1840 by the Yabgo Raja Daulat Ali Khan replacing an earlier fort located nearby.

The site of the palace was chosen by rolling a large stone down from a nearby cliff. It stopped at the Doqsai village, and the palace was built there, with the help of Kashmiri and Balti craftsmen. A carved wooden gate that Yabgo Raja Hatim Khan took from a fort in Skardu after conquering most of the Baltistan was erected at the entrance of the palace.

The Yabgo Khar is a fine example of the defensive-residential building and it served as a royal residence for the Raja of Khaplu. The palace now houses a hotel operated by Serena and a museum depicting the history and culture of Baltistan.

On left: The Raja Palace in Khaplu.

Turkey) and southeast (Ladakh and Kashmir) and in the whole region are buildings that represent splendid examples of elaborate techniques of building in wood.

It is very difficult to determine the dates of buildings findable in the territories of CKNP. There are some historical buildings which survived for more than five hundred years, although it is often difficult to recognize them, because habitually the edifices were built by retrieving materials, such as wood and stone, from previous constructions and maintaining the same construction techniques. Frequently, they look older than they are in fact.

The traditional buildings often were abandoned or replaced, because of the need of constant maintenance that these constructions require.

Most of the historic buildings, best preserved are the oldest sacred buildings such as mosques and astanas, which usually retain the original architectural features. Other ancient edifices that had a chance of surviving are several forts, the homes of Mir or some rajas palaces.

The architecture of the territories of CKNP, at a superficial glance, speak of apparent poverty. At a closer look, one cannot fail to appreciate the richness of cultures that led to the results of architectural solutions of great value. In all the territory of CKNP, you can find historic villages that are still intact, where a nucleus of the village is made up of a cluster of stables, residences, shops, mosques and other religious buildings. Historic mosques and tombs of saints (astanas) are found throughout the Karakoram and are, often, spectacular pieces of architecture that exemplify remarkable technical abilities pertaining to the construction details and proper usage of the materials available.

Below: Traditional Balti houses in the Basha Valley

The elements of great architectural interests are divisible into four groups: historic villages; houses; forts and palaces; mosques and religious buildings.

Above: Wooden pillar from Keris Khanqa.

Historic villages

The logic of settlement of the villages in the Central Karakoram region has always been closely linked to the dynamics of the mountains and their geomorphological processes: outwash fans and unstable scree slopes have always been a determining factor in the selection of locations. The historical settlements generally tended to avoid floodplains to prevent the hazards resulting from snow and rock avalanches, landslides, mudflows and glacier surges. Other criterions of selection of sites are: easy defensibility, good microclimatic aspects, water supply and accessibility of soil slopes for farming.

With the exception of the main centres, which have been deeply transformed over the past few decades, most of the villages in the valleys are preserved and present themselves with their characteristic clusters of housing, barns, stalls, warehouses, shops and religious buildings. Generally, the village structure is centralized with low houses, separated each from other by winding paths. The traditional villages tend to be circular in shape and densely built. The buildings are usually placed against each other to protect themselves from cold winds during winters. Solitary buildings are exceptions whereas, more frequently found are the mills or small buildings where the lower floor is used as sheepfold and the upper as barn.

The connections inside the village happen along narrow and crooked little streets, while another level of communication is made up by rooftops of the buildings (hundòk) which is a sort of an artificial soil, where all the open air domestic activities take place. From the "hundòk" level, it is even possible to pass from one house to another descending through ample openings in the roof, thanks to wooden ladders that bring more connectivity in people's lives. On the rooftops, apricots and other vegetable are placed to dry, juniper bushes are collected and

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kept in order to be used as fire wood and stowed away for the winter season.

The morphological structure of the villages vary from valley to valley, depending on the degree of land's slope (when the houses are huddled on the steep sides of the mountain the villages are spread over several levels), but also on the cultural influences and historical events. The villages located in the westernmost territories are bounded by fortified walls and defensive towers. Whereas, the villages to the eastern side are rarely surrounded by fortified walls, but often have a defensible tower around it which helps guard the population in case of invasion. Individual families remain involved in the cultivation of fields away from the village but you can also find some isolated houses with the tower. Indeed, the defence of crops is directly linked to the survival of the entire villages. This is the reason why in some areas, there are solitary towers near the slopes that have been finally turned into farmlands.

Above: Tower in Askole village in 1929 (M. Terzano).

Traditional houses

In respect of traditional housing in CKNP territories, a number of common characteristics can be identified: the buildings have mostly one or two levels; they are built very close to each other and hugged to the ground to limit the exposure of the freezing winter winds. Wood, stone and soil are the construction materials available in the area. Roofs are mostly flat and are protected with a compacted soil cover. The earth is used for its availability and easy use, but also for its high thermal capacity, which is advantageous in climates characterized by large daily temperature fluctuations. Moreover it offers the possibility to use the roof terrace for summer outdoor living.

On very steep slopes, houses are often terraced and follow the contour lines, so that the stepped roofs result in cascading verandas. Up in the mountain pastures, the summer houses are quite different to those in the valleys, no more than loosely clustered single-space round huts composed of low loose rubble walls with thatched conical roofs. Farm animals are kept in low-walled corrals.

The pattern of traditional house is somewhat like a big square with a central place for fire and around it encircles the rest of the residence. The kitchen and bedrooms are declined in many variations based on the spatial and functional needs, climatic conditions, socio-cultural and tribal traditions of each area.

Right: House in Farfoo, Bagrot Valley.

Preciding pages: The villages of Machulo, Hispar, Tissar, Askole and Testey.

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It may be noted that in the villages at high altitudes of east areas the houses have the built in basements where families live in winter times. Dug in the terrain and surrounded by stables, the kazà is the most protected and isolated room in the whole house. It's a large square room with a size of roughly 5 x 5 meters and as tall as a standing person.

The space is organised into a variety of specialised areas for each function of domestic life. The environment is smoky, dingy and dark. The only way to get some natural light is to get it from the top, through a small opening called carcòn. The carcòn is also the entrance to the kazà, and can be accessed with a wooden ladder.

The main structure is made with wooden beams and wooden pillars that bear the weight of the ceiling. The side walls have the only one function of containing terrain. The ceiling is made with wooden planks covered with branches, straws and layers of clay. In older kazàs, wooden parts are intricately carved. The ornamental patterns reveal Tibetan origins and borrowed influences from Kashmir.

The symbolic relevance of the "obùs" is underlined by its carvings; the capital shape, with large side shelves, recalls the head of wild sheep a form that, according to Tibetan indigenous culture, mountain gods are believed to shape

Previous pages: Kazà in Korphe village, Upper Braldo Valley.

Left : Traditional house in Baroshal.

Below: Balti level of a traditional house in Upper Braldo Valley .

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Previous pages: Traditional house in Stak Valley.

into. The kazà, with stables for sheep and cattle and a dry latrine is located outdoors but near the building. Kaza is the basic housing unit for the Baltì population. At the beginning of spring, families move into the house's upper level that is called baltì. It is the largest part of the house and it is directly accessible from the street- thanks to the portable wooden ladder. Space in the baltì floor is organized around a sort of open court (hangòn), an intermediate location between the lower level (kazà) and the rooftop (hundòk).

In further western (Hunza-Nagar) areas, the Kazà level is used for animals, while the living space of the house is built exclusively on the upper level, called baldì. At the center of the baldì floor there is the fire place, above which opens the only contact with the outside world, a square opening measuring less than a few square feet constitutes an outlet to the smoke.

The roof structure is supported by four wooden poles arranged around the central room (the core of the indoor space) formed by several layers of timber beams.

Each beam's layer is laid across the corners of the layer below and reduces the void above. It is a cover system stable with only a few dowel connections at strategic points. It gives to the indoor space a sort of semi-dome effect and it is a construction technique often used when the access to wood is reduced. It is a hedging technique known for classical antiquity and used throughout the area from the Mediterranean to India.

Left: An obus, the traditional carved pillar of the balti house;
Ganish village near Kharimabad.

Below: Ancient wood carvings in Upper Braldo Valley.

In almost all the villages, the old houses are decorated with woodcarvings, which is a distinguishing element reflecting the economic and social status of the owner family.

The wooden elements such as verandas, door frames, pillars and capitals, storage containers, cabinets, and furniture, in the homes of rich families, are richly carved. The quality and quantity of the artistic embellishments and intricacy of carvings represent the social strata and taste of its owner.

Moving away from CKNP areas it is always more frequent to find villages where recent buildings are characterized by concrete frames of columns and beams, walls in concrete blocks and roofs in corrugated galvanized steel sheet.

Forts and Palaces

Forts and palaces are one of the most interesting architectural attractions in the region. In the territories of CKNP, there are traditional forts that have been preserved well. Some of them have considerable value, as the forts and palaces of the territories in the west, like Hunza, Gilgit, Yasin, Gupis and those in the east, for example in Rondu, Skardu, Shigar, Kiris and Khaplu. These buildings are the survivors of a very significant number of forts in the area and they date back to the end of the nineteenth century, when the British army led to the complete destruction of many of them. R. Hughes identifies five types of forts.

The first type is composed by the "fortified" tower-houses. Usually this type of fort includes a free-standing tower of three or more floors with an enlarged top shooting gallery and with one or more attached single-storey basic living rooms. This type of fortification can be dated back to be more than one thousand years old (eg Altit fort) and has a long history which provides us with the evidence of the oldest surviving buildings in the Karakoram region.

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The construction of these forts suggest that there did exist, a complete network of defensive system for the valleys.

The second type buildings are purposely-built forts. They have a square structure with four corners called shikari towers. A brilliant example is the core structure of Gilgit i.e. Gilgit fort. This type of fort builds upon patterns of the west, for instance, the way forts are made in Afghanistan. Gilgit and Hunza appear to be the eastern limits of its distribution.

Another type, the third, of the local fort is the result of subsequent expansions of a smaller building. The irregular shapes of the various extensions, originating from the functional requirements and specific topographic conditions, are taken in a single distribution system and a unitary form (eg Baltit, Altit forts).

The fourth type corresponds to the 'fortified village'. It is the clustering of oldest houses and stables, often rather irregularly distributed, inside a defensive wall (i.e. Farfooh, ...). Usually, the defence's works were completed with shikari watch-towers. (i.e. Ganish, a fine surviving example where the buildings, even if only one of seven watch-towers still survives at the main village entrance). Baltit village, once also had a defensive wall and a ring of watch-towers around it. The line of the wall can still be traced but only one tower fully survives till day. The old mill above the Berber channel is the remnant of what must have been a five-or six-storey shikari.

To the fifth type, belong the dual functional mansions for fortification. They are the "Raja Palaces", residences of the Baltistan rajas.

The building is square or rectangular, two or three storeys high with a rectangular grid of rooms and with the top floor having a central courtyard with surrounding veranda. Such structures are nearly three hundred years old. Interesting examples are at Rondu, Skardu, Kiris and Khaplu.

Some historic forts in the CKNP area have been lost completely but some are in a state of repair and even some excellent buildings have recently been restored (transformed into museums or hotels) and can be visited (Altit, Baltit, Shigar and Khaplu). As e.g. Baltit Fort, in Karimabad area, built over seven hundred 700 years ago, when Ayasho II, Mir of Hunza, in the early 15th fifteenth century married Princess Shah Khatoon (Sha Qhatun) from Baltistan. The Fort, restored, was inaugurated on 1996 and it is now open to visitors and maintained by the Baltit Heritage Trust.

Above: Entrance gate of the fortified village of Farfoo, Bagrot Valley.

Previous pages: Kharimabad and Baltit Fort;
Raja Palace in Skardu;
Inside the veranda of Raja Palace in Khaplu.

On left: Altit Fort.

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Mosques and religious buildings

Ancient mosques and religious buildings are of great value and can be found throughout the Karakoram and often they are spectacular pieces of architecture. The local type of mosque is without courtyard and minaret. It is a prayer chamber with a squared plan, a flat roof and some skylight, a four- or six-sided 'lantern' crowned towards qaabbah. With few exceptions, the mosques of CKNP areas are quite small. Some are very tiny (3x3 metres), with one central column in the prayer room. It may be even at ground level or on a mezzanine floor and reached by a flight of stairs. The walls are made of squared wooden beams alternating to stone blocks. Along the cornice of the roof of the mosque, lanterns run a vertical wooden decoration. Windows with wooden doors are usually without glass.

The mosques feature rich carved decorations: their entrance doors and grilled windows are often decorated with beautiful carvings. On the front of the prayer room, in the eastern façade, the mosques generally have wooden arcaded verandas, often long and as tall as the building. Sometimes, they are surrounded by two arcades forming an angle and in some cases, by three arcades and the veradah being all around it. The verandah is the animated meeting point of the villages, all day it is full of people, who relish and recount the events of the day or at times, simply read the sacred books in groups. Among the main ancient mosques: Khilingrong-Moschee in Shigar, Amburiq-

On left: Baltit Fort.

Below: Ganish village, on the left Yarikutz Mosque, in the centre Mamorokutz Mosque, in the right Rupikutz Mosque around the "Jataq" the open courtyard a traditional communal space used for public meetings, ceremonies and festivals.

Moschee in Shigar, Chakchan-in Khaplu, Mamorokutz Mosque in Ganish, Noorbakshi Mosque in Saling, Thayur in Gambah Skardu, mosques in Gzwapa, Chutrun, Stak, Shigri, Askoli, Machulu. Other splendid examples of Islamic architecture in the CKNP territories are the "astanas".

They are built on the graves of the local saints and they also have the type of centralised structure generally surrounded by a veranda. The people in the neighbourhood arise, habitually, by the call of the prayer, from the "Khanqa". The most important astanas are in Kiris, Khaplu, Tagas and Shigar. They are central buildings, which are quite square in shape, with the Holy Sepulchre equipped with a wraparound porch. Its characteristics a are also the pyramidal roofs, with hexagonal or octagonal tower, crowned by a lantern-like structure, so very peculiar of Tibetan architectures.

They are built with the same wooden construction methods of cribbage pillars at the four corners. The four open sides of the inner buildings, constitute the tomb chambers that are screened with latticework. Most of the surrounding verandas may also be partially or totally enclosed with decorative carved timber panels. Amongst the prominent ancient astanas are Sayyed Mohammad in Khaplu, Sayyed Mir Yahya in Shigar, Hazrat Mir Mukthar in Kiris, Mir Ishaq and Mir Aref in Tagas.

The Khaanqah (also called Khanka or Khanqah) is a building mainly developed as a multi-purpose structure for the formerly more numerous Nurbakhshiye followers

Left side: Khilingrong Mosque, Shigar.

Below: Khanqah in Shigar

in Baltistan region and also for the Sufis of the Naqshbandiye. It serves as a congregational mosque - jamia masjid, and as a retreat centre for the mystics and Sufis, observing the chila - the annual forty-day retreat of the Sufi order. It is a heaven for those seeking spiritual retreat and character reformation. In the past, these centres served as hospices for Sufi travellers and Islamic students and at times they still do. In the territories of the CKNP there are more than ten Khanqas, particularly in the eastern area, the centre of the Nurbakhshiye followers. These building generally are massively big, they can measure up to twentythree/twenty-five metres on both sides and the height of the eaves can reach a height of about 6 meters and they constitute landmarks, dominating the skyline of many settlements.

The khaanqahs are made almost square in shape and its interior space is articulated by rows of columns and they always have flat roofs. They count four, six or more columns supporting the roof, and often feature six to eight rooms or cells on each side, used for retreats and overnight accommodations. All of them carry a large frontal verandah, (buraamdah or wacha), of the same height as that of the roof and they often feature balconies and large windows with complicated panjira latticework. Their roofs are either flat or tent shaped with a shallow slope, and probably all of them have a qubbah on top. The entrance is always preceded by a very high porch, which spans the entire width of the prayer hall. The height of the eaves rarely touch the height of about 6 meters.

Below: Khanqah in Kiris .

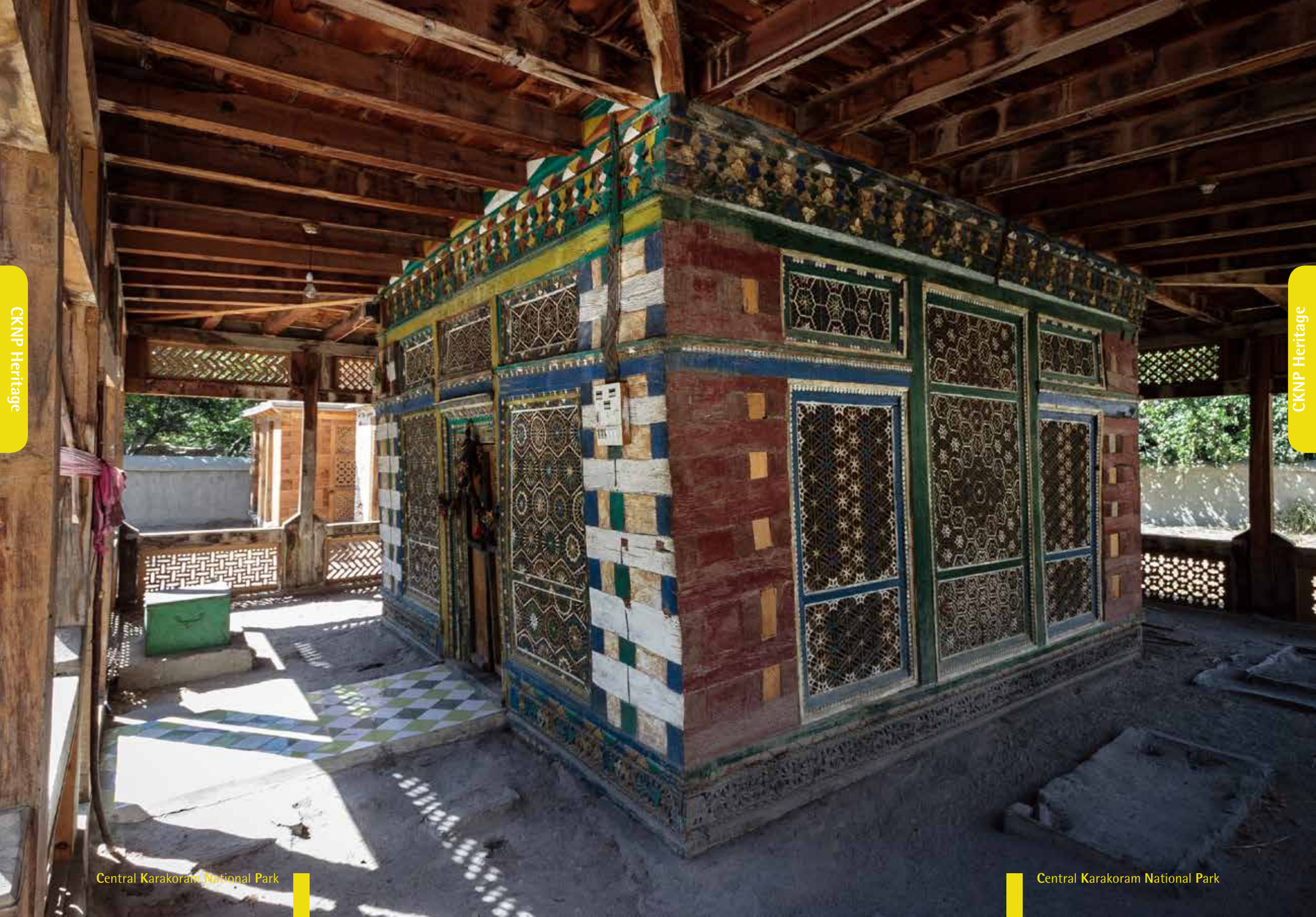
Above: Doko Imambargah.

The largest of the surviving original khaanqahs in Baltistan are located in Khaplu and Kiris. The structure in Khaplu has six huge columns with square bases and large bracket capitals, more than twenty additional smaller columns in support of the weakened roof beams, eight hujras and a four-metre wide veranda, which includes ten richly decorated arches, further beautified with varying panjira latticework.

Generally, founded by great Nurbakhshiye teachers and missionaries, certainly none of the existing khanqahs date back to the time of the great missionaries such as Sayyed Ali Shah Hamadani and Mir Shams-ad Din Iraqi. However, the exceptional wooden khanqah in Serfakhur (district of Churga, Shigar valley) is believed to be a creation by Shah Hamadani himself. The saint is also credited with planting a tree, around which a two-storeyed structure enclosing a court was built. The khanqah is reached after crossing that court, now dominated by a maple tree grown in monumental proportions. The oldest khaanqah is probably that of Mir Yahya in Shigar, which was founded in 1647. The largest structure, the khanqah of Sayyed Mohammad in Khaplu, is dated to the year 1712. The most reputed building, due to the saintly prominence of its founder, Mir Mukhtar, is the Khanqah-I Maulla in Kiris, founded in 1706. Some structures may date back to the nineteenth century but a few are very new, such as those in Machilu and Kande in the Hushe valley, to the north of Khaplu. The main ancient khanqahs of the region are: I-Maulla in Kiris, Sayyd Muhammad in Khaplu, Churga Sefarkhur near Shigar, Mir Yahia in Shigar, Syyid Ibrahim in Gambah Skardu, Tagas, Saling, Daghoni, Balghar, Kuru, Gowari,Tolti, Kharku, Haldi, Tsheno, Machulu, Talis, Hushe, Balagrong, Khane und Khande.

Imambargah, known also as Matam Serai o Hussainia, is a congregation hall in which Shia Muslims gather in the remembrance of Muharram. They were built especially to commemorate the martyrdom of Hussain Ibn Ali.

Once a year, Shia Muslims commemorate his martyrdom and observe the rituals associated. The Imambargahs are used also for sermons and memorial services for the dead. These buildings are generally larger than traditional mosques and smaller than large prayer building Khanqah. The walls have no windows hence, no chance to get the fresh air in. Lighting and ventilation often is secured solely by the stepped structure of the flat roof. Among the main ancient ImamBargahs are Askole, Stak, Gol, Kuardo and Shigri.



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Previous pages: Astana of Sayyed Mir Mukhtar, in Kiris; Sefarkhur Khanqah at Churga, near Shigar; Detail of a colored carved wood wall in Khaplu.

Traditional buildings system

All traditional buildings in the CKNP areas – houses, forts or religious buildings – illustrate a similar structural system, using the same basic set of components and the same simple materials such as wood, stone and soil. As all features of construction are visible and uncomplicated therefore, repairs of the buildings are sustainable with minimal finances. The materials are easily discarded, whenever, they are degraded. The complicated and ornamented columns are an exception.

If at all done, they become part of family's heritage and are transmitted from generation to generation.

The traditional stone walls of domestic rural buildings were built with stone rubble of variable qualities. The size and shape of stones vary in each valley according to local materials. The simple buildings generally have "one stone wide" walls.

The narrow stone walls are rapid to build but they are quite susceptible to distortion. In addition to the known climatic reasons (the low height of the rooms respond best to the peculiar harsh winter conditions) there are also some structural reasons that determine the house walls to be kept generally low, around two metres or even less. Mostly, the walls are made with large stones, which usually reduce in size as you go up towards more height. The portion of the wall, which exceeds more than a meter is usually made with comparatively smaller stones as they are to be lifted manually.

Right side: Astana in Husey Valley.

Below: Chaqchan Mosque, Khaplu.

Because of the smaller size of stone and blocks the walls are generally irregular and traditionally had sub-rounded corners (sharp corners having no interlocking load-spreading long quoins would have been weak). These walls are not drywall, usually, because the stone to stone contact means that they are volume stable. A thick irregular mortar mud is placed between the stones.

In the tall buildings, a system with a double wall of stones is more frequently employed; that presents stones for both inside and outside wall, its internal core is filled with small loose rubble, stone chips discarded from knapping and left over mortar. Sometimes, it is also thrown to fill the gaps and increase structural stability. The buildings which present 'through-stones' and long 'quoins' to structurally reinforce the wall, are very rare, almost never domestic buildings.

While the "cators and cribbage system", stone walls built with wood inserts, are widely used in the valuable buildings. Forts, mosques and expensive houses present the best quality walls. Often they have incorporated some timber elements – usually cators (horizontal timber straps found in wall faces) and occasionally cribbage (short pieces of squared timber staked up two at a time and then in alternative directions to form an open box. Progressively, they rise to become an open-frame column). The timber elements play a key structural role in the tallest traditional buildings. They provide a high degree of ductility, helping to strap the building walls together and enablingit to accept eventual large deformation strains.

Windows and doors have timber lintels that are relatively short. These are kept deliberately small, in order to avoid structural weakening. The frames also provide additional stiffening to the wall structure but can easily fall out in case of an earthquake, as the lintels are not so well tied into the wall. Most domestic buildings have flat roofs, thus recognising their functional uses. Roofs are universally supported on timber beams.

There are also house walls made with soil. Building soils are found throughout the region, they derive from a natural breakdown of the local rock and as a transported product of glaciers and rivers. There are infinite variations of soils, but consistent is the lack of clay minerals and the high silt and fine sand content. The soil is normally used as adobe blocks and its use in historic buildings suggest an introduction to the late nineteenth century. In the region, the traditional soil building methods are very popular till now. To minimise fissures because of shrinkage, people are very careful to the control of soil particle grading, the heavy compaction and the heedful use of water during its manipulation. Occasionally, straw and oils are added to help stabilise it and reach better stability.

It is clearly acknowledged that the soil has good thermal performance and the roofs are covered with earth to provide high thermal capacity, which is advantageous in climates with large diurnal temperature fluctuations.

Next pages: man at work in Khaplu.

"Timber lacing"

The combination of "cator and cribbage" is an earthquake resisting construction technique spreadly used in the wide area from Europe to Pakistan. Archaeological excavations shown that "cator and cribbage" is known since Bronze Age and used in numerouses variations. One of first descritions of "cator and cribbage" is done by Emperor Julius Caesar described classic murus gallicus the technique used by the Celts in the walls of their fortifications western Europe, especially in France. He describs walls constructed using an interlace of horizontal beams jointed where they crossed with large iron spikes; they have drystone walls on the front and back, the space between was filled with soil.

As Richard Hughes notes, the timber is generally prepared to a five to twelve centimetre square section and kept as long as possible. The horizontal beams are placed into both the inside and outside wall faces. The range of vertical intervals of cators is from 60 cm to 120 cm in function of the values of the wall: at walls of lower quality corrispond a timber use less frequent. The beams at the corners are also cross jointed and pegged so that the whole building is strapped or laced together. On the corners, the longitudinal beams are interlocked at a right angle. For further structural strengthening in the corners (and also inside the walls), one often finds vertical cages or boxes composed of pairs of short pieces of timber beams built up in alternating right angle directions ('cribbage'). They are pinned to the longitudinal wall beams, connecting them and tying them together into a semi-rigid frame. The void between the beams (or within the cages) is filled with stones or mud bricks and earth, which makes the walls become rather heavy and sturdy.

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TREKKING ROUTES

Following shepherd's track, originating from the villages in the valleys, the trekking paths reach out to the most remote areas and amazing places, leading the trekkers to discover the wild and extreme natural environment of the Central Karakoram National Park and its surroundings areas.

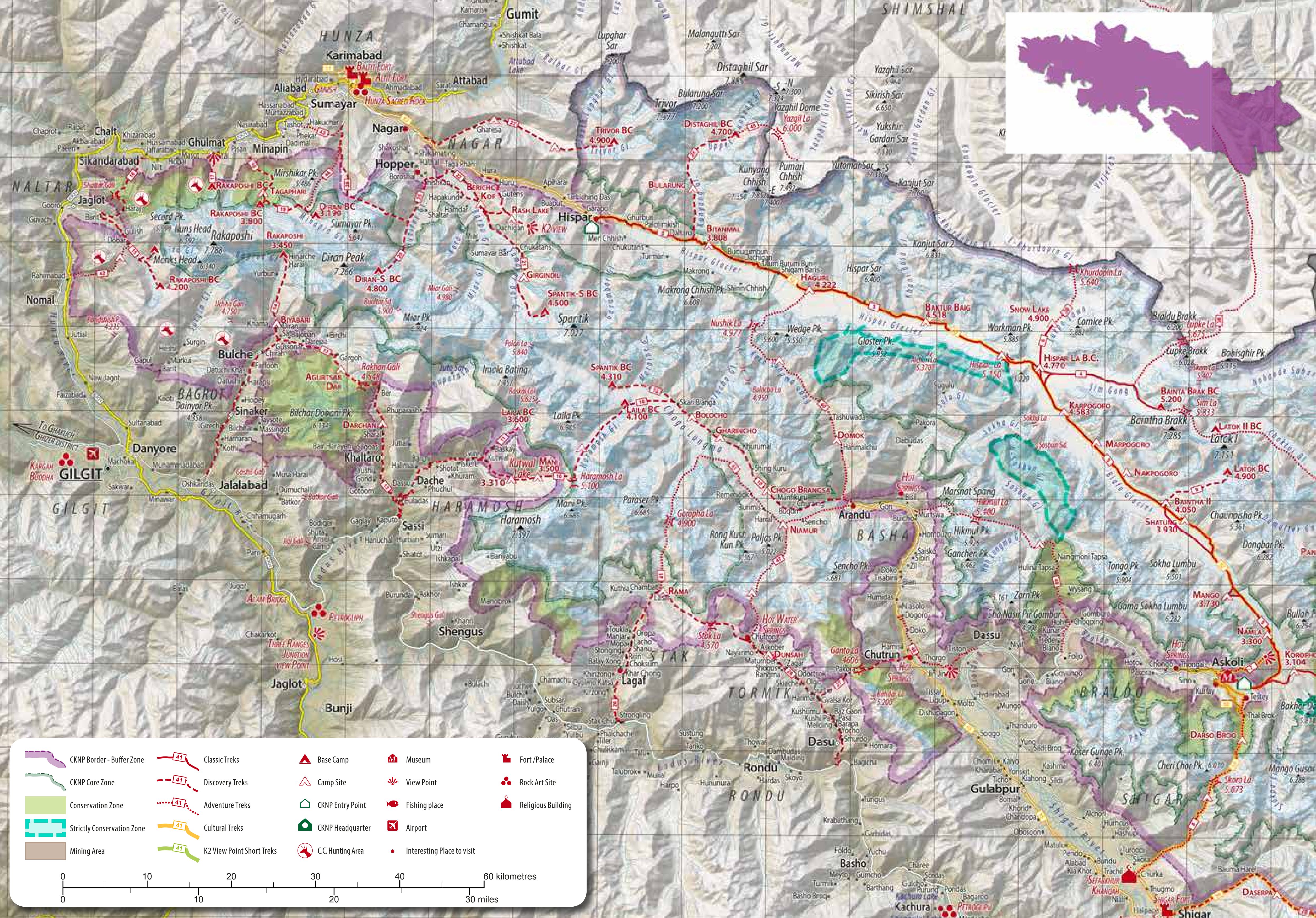
The combination of the unique natural environment, with the largest concentrations of high mountains in the world and the biggest and spectacular glaciers outside the polar region, together with richness of the history, cultural heritage and hospitality of the locals, make the CKNP a perfect abode to trek.

The identified trekking routes permit the tourists to have different levels and kinds of experiences while visiting the park. The itineraries do not cover all the valleys and important places of the park. Aiming to preserve the fragile existing ecosystem, the CKNP prohibits any diversions from the identified paths without special permits that can be acquired on specific requests.

The routes are organised into various categories: **Classic Treks**; **Discovery Treks**; **Adventure Treks**; **Cultural Treks**. All these categories are tailored to cater diverse public interests. Cultural treks, for example, are a combination of different treks with routes outside the CKNP boundary and are especially characterized featuring richness in history and the local culture.

A special section is dedicated to the **short treks**. The short treks meet the requirements of trekkers who are particularly interested in catching the view of K-2, having very few days at hand.

Left: going ahead safely on the glacier


CKNP Border - Buffer Zone
CKNP Core Zone
Conservation Zone
Strictly Conservation Zone
Mining Area
Classic Treks
Discovery Treks
Adventure Treks
Cultural Treks
K2 View Point Short Treks
Base Camp
Camp Site
CKNP Entry Point
CKNP Headquarter
C.C. Hunting Area
Museum
View Point
Fishing place
Airport
Interesting Place to visit
Fort /Palace
Rock Art Site
Religious Building
0 10 20 30 40 60 kilometres
0 10 20 30 miles
HUNZA
Karimabad
Aliabad
Sumayar
Gumit
Attabad
Nagar
NAGAR
SHIMSHAL
Chalt
Ghulmat
Minapin
Sikandarabad
NALTAR
Jaglot
Hopper
Hispar
Rakaposhi
Diran Peak
Spantik
Distaghil Sar
Nomal
Bulche
BAGROT
Sinaker
Danyore
GILGIT
Jalalabad
GILGIT
Dache
Khaltaro
HARAMOSH
Haramosh
Sassi
Shengus
Jaglot
Bunji
Arandu
BASHA
Chutrun
Dassu
Askoli
BRALDO
STAK
Lagaf
TORMIK
Dasu
Rondu
RONDU
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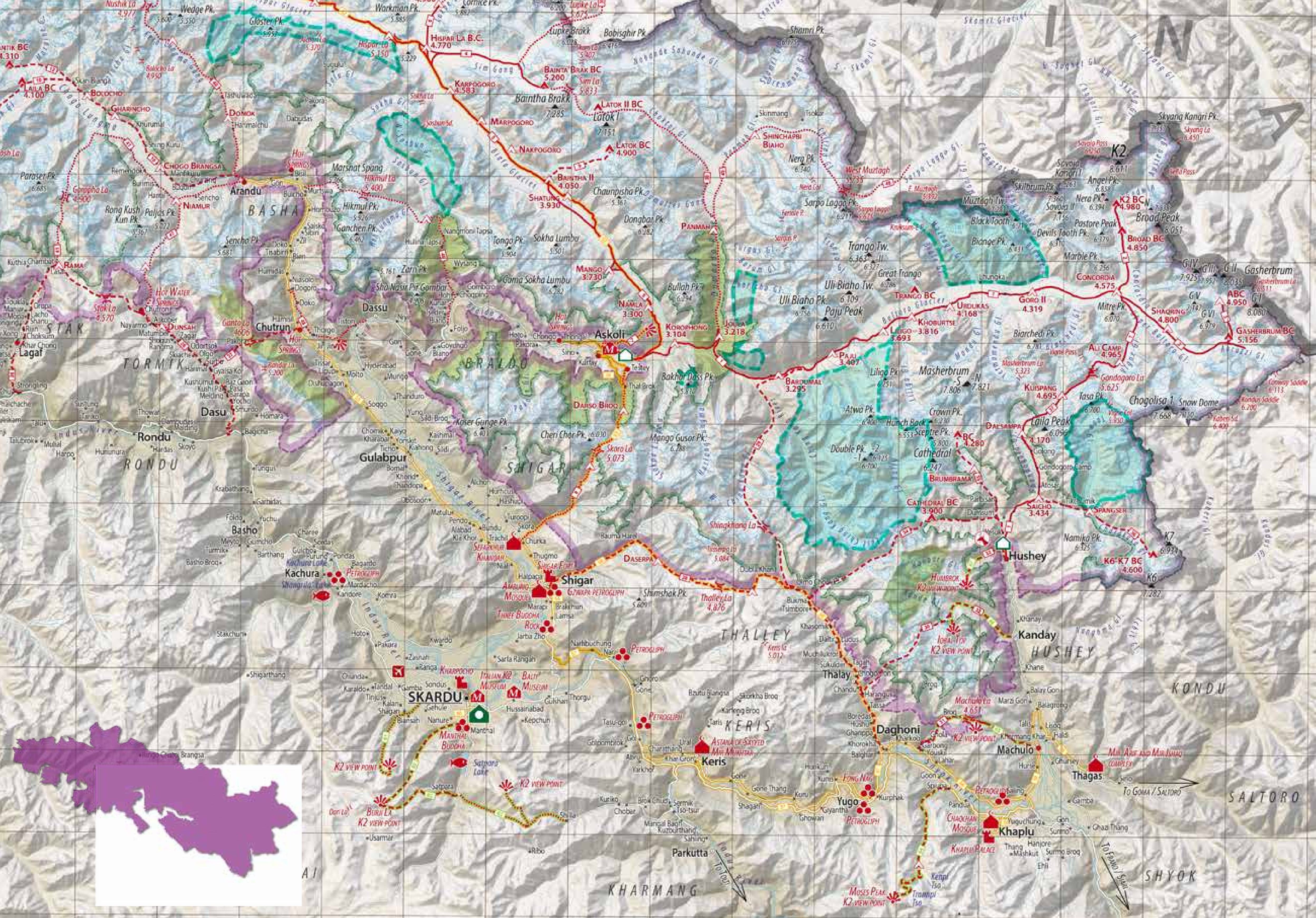
SHIGAR
Basho
Kachura
Shigar
Baintha Brakk
Latok I
Hispar La
Snow Lake
Skoro La



SKARDU
Shigar
Askoli
Hushey
Khaplu
Keris
Yugo
Daghoni
Machulo
Thagas
Kanday
Thalay
Gulabpur
Dassu
Chutrun
Arandu
Lagaf
Dasu
Rondu
Basho
Kachura
Parkutta
K2
Broad Peak
Gasherbrum
Masherbrum
Chogolisa
Concordia 4.575
Hispar La B.C. 4.770
Baintha Brak BC 5.200
Latok II BC
Latok BC 4.900
Paiju 3.407
Urdukas 4.168
Goro II 4.319
Ali Camp 4.965
Gondogoro La 5.625
Trango BC
Shaqring 4.800
Gasherbrum BC 5.156
K2 BC 4.980
Broad BC 4.850
K6-K7 BC 4.600
Saicho 3.434
Spangser
Dalsampa
Cathedral BC 3.900
Bardumal 3.295
Korophong 3.104
Jhola 3.218
Namla 3.300
Mango 3.730
Shatung 3.930
Baintha II 4.050
Marpogoro
Nakpogoro
Karpogoro 4.583
Panmah
Daserpa
Thalley La 4.876
Skoro La 5.073
Daiso Broq
Shigar Fort
Amburiq Mosque
Three Buddha Rock
Petroglyph
Kharpocho
Italian K2 Museum
Balti Museum
Manthal Buddha
Satpara Lake
K2 View Point
Burji La K2 View Point
Astana of Sayyed Mir Muhammad
Chaqchan Mosque
Khaplu Palace
Moses Peak K2 View Point
Machulu La 4.651
Ideal Top K2 View Point
Humbrok K2 Viewpoint
Mir Arif and Mir Ishaq Complex
To Goma / Saltoro
BASHA
BRALDO
SHIGAR
THALLEY
HUSHEY
KERIS
KHARMANG
KONDU
SALTORO
SHYOK
RONDU
TORMIK
STAK
CHINA
Indus River
Shigar River
Shyok River
Baltoro Glacier
Biafo Glacier

Classic Treks

The **Classic Treks** are the most famous and the representative itineraries for the mountaineering experience in the CKNP area.
Due to the high attendance rates, these areas remain pretty crowded. Since the conservation of nature is a top priority, visitors and tourists are requested to take responsibilities for individual disposals of waste products. Along these treks, campsites and services are available for the visitors.
These provisions are managed by CKNP in cooperation with the local community.
It is prohibited to camp outside the designated areas.
In the camps it is required to prefer environmentally friendly energy supply systems. In case of use of generators the maximum power allowed is up to 4 Kw.

1 Askoli – Hushey

Askoli – Korophong – Joula – Bardumal – Paju – Liligo – Khoburtse – Urdukas Goro II – Concordia – Ali Camp – Gondogoro La – Khuispang – Dalsampa – Saicho Hushey.
Zone: restricted **Grade**: demanding / extreme-technical (Gondogoro La crossing) **Season**: mid June to September **Duration**: 10/12 days **Distance**: 126 km **Max. Height**: 5.625m **Open Summit:** Gondogoro Peak (5.900 m)

Below: Upper Braldo Valley

2 Askoli – K2 BC

Askoli – Korophong – Joula – Bardumal – Paju – Liligo – Khoburtse – Urdukas Goro II – Concordia – Broad Peak BC – K2 BC (and back).
Zone: restricted **Grade**: demanding **Season**: June to September **Duration**: 12 to 14 days **Distance**: 92,8 km (one way) **Max. Height**: 4.980m **Open Summit:** Pastore Peak (6.379 m)

3 Askoli – Gasherbrum BC

Askoli – Korophong – Joula – Bardumal – Paju – Liligo – Khoburtse – Urdukas Goro II – Concordia – Shaqring – Gasherbrum BC – Gasherbrum ABC (and back).
Zone: restricted **Grade**: demanding / extreme-technical (up to ABC) **Season**: June to September **Duration**: 14 days **Distance**: 102 km (one way) **Max. Height**: 4.950m

4 Askoli – Baintha Brakk BC

Askoli – Namla – Mango – Shatung – Baintha II – Nakpogoro – Marpogoro Karpogoro – Hispar La BC – Baintha Brak BC (and back).
Zone: Open **Grade**: demanding / extreme **Season**: mid June to early September **Duration**: 10 days **Distance**: 70km (one way) **Max. Height**: 5.200m

5 Biafo – Hispar

Askoli – Namla – Mango – Shatung – Baintha II Nakpogoro – Marpogoro – Karpogoro – Hispar La BC Hispar La – Baktur Baig – Hagure – Bitanmal – Hispar Village (or vice-versa).
Zone: Open **Grade**: very demanding-technical (Hispar La) **Season**: mid June to early September **Duration**: 9 to 12 days **Distance**: 125km **Max. Height**: 5.150m

6 Hispar – Snow Lake

Hispar Village – Bitanmal – Hagure – Baktur Baig – Hispar La – Hispar La BC– Snow Lake (and back).
Zone: Open **Grade**: very demanding-technical (Hispar La crossing) **Season**: mid June to early September **Duration**: 12 days **Distance**: 70km (one way) **Max. Height**: 5.150m; **Open Summit:** Corniche Peak (5.882m)

Below: starting from left Gasherbrum V, G IV East face, G III and G I South face.

Discovery Treks

The **Discovery Treks** connect some of the main peaks of CKNP. The peaks are grouped on the basis of more frequently visited spots. These routes are not so popular, nevertheless they are very interesting and permit to reach many of the base camps of the main peaks of CKNP, like **Rakaposhi**, **Spantik** or **Masherbrum base camps**.

While trekking, visitors are **not allowed to quit the trails mid-way** and they should not impact nature or the landscape, in an effort to preserve natural resources. The main trails are tracked; signage and pedestrian bridges exist throughout. Spaces for camping are accessible and water is available but they are not equipped with other services. **Camping is permitted only in the designated areas.** In the camps it is required to prefer environmentally friendly energy supply systems. In case of use of generators the maximum power allowed is up to 4 Kw.

7 Chogo Broq view point

Askoli – Chogo Broq (and back)

Zone: open **Grade**: easy **Season**: April to October **Duration**: 1day **Distance**: 7km (one way) **Max. Height**: 4.200m

Below: Skoro La approaching from Darso Broq

8 Skoro La

Testey – Darso Broq – Skoro La – Churka

Zone: open **Grade**: moderate / technical (Skoro La crossing) **Season**: end of June to September **Duration**: 3 days **Distance**: 30km **Max. Height**: 5.073m

9 Latok BC

Askoli – Namla – Mango – Shatung – Baintha II – Latok BC (and back)

Zone: open **Grade**: demanding **Season**: June to September **Duration**: 7/8 days **Distance**: 52km (one way) **Max. Height**: 4.800m

10 Haramosh La

Arandu – Chogo Brangsa – Bolucho – Laila BC – Haramosh Gl. – Haramosh La Kutwal Lake – Iskere (or vice versa)

Zone: open **Grade**: extreme demanding – technical **Season**: late July to early September **Duration**: 8/10 days **Distance**: 57km **Max. Height**: 5.100m

11 Kutwal Lake – Laila BC

Iskere – Gure – Baskay – Laila BC – Baskay – Lake – Gure – Iskere

Zone: open **Grade**: moderate **Season**: May to October **Duration**: 3 days **Distance**: 27km **Max. Height**: 3.600m

Below: Upper Barchi Gah, from left Baskui Pk. (6400m) and Laila II Peak (6770m)

12 Spantik East BC

Arandu – Chogo Brangsa – Gharincho – Bolocho – Spantik BC (and back)

Zone: open **Grade**: demanding – technical **Season**: June to early September **Duration**: 6 days **Distance**: 35.6km (one way) **Max. Height**: 4.310m

13 Rakhan Gaali

Chirah – Agurtsab Dar – Rakhan Gaali – Darchan – Khaltaro – Sassi (or vice versa)

Zone: open **Grade**: demanding **Season**: June to September **Duration**: 4 days **Distance**: 39.5km **Max. Height**: 4.548m

14 Rakaposhi East and Diran BC

Chirah – Babaree – Khama – Biyabari – Rakaposhi / Diran BC (and back)

Zone: open **Grade**: moderate **Season**: June to September **Duration**: 4 days **Distance**: 13km (one way) **Max. Height**: 3.450m

15 Rakaposhi BC

Juglot – Barit – Gulish – Rakaposhi BC – Kunti Gl. – Rakaposhi BC – Dobar – Barit
Zone: open **Grade**: moderate **Season**: late June to September **Duration**: 2–3 days
Distance: 31km **Max. Height**: 4.200m

16 Nilt – Jaglot

Nilt – Biachin – Shaltar Gali – Haraj – Barit – Jaglot
Zone: open **Grade**: moderate **Season**: June to late September **Duration**: 2 days
Distance: 12km **Max. Height**: 4.300m

17 Rakaposhi BC from Ghulmat

Ghulmat – Rakaposhi BC (and back)
Zone: open **Grade**: easy **Season**: May to late September **Duration**: 1/2 days
Distance: 4,5km (one way) **Max. Height**: 3.500m

18 Rakaposhi BC from Minapin

Minapin – Tagaphari – Rakaposhi BC (and back)
Zone: open **Grade**: easy **Season**: May to late September **Duration**: 3–4 days
Distance: 8,4km (one way) **Max. Height**: 3.800m

19 Diran BC from Minapin

Minapin – Tagaphari – Shabren – Kacheli Lake – Diran BC (and back)
Zone: open **Grade**: moderate **Season**: June to September **Duration**: 4 days **Distance**: 14,6km (one way) **Max. Height**: 3.200m

20 Diran BC from Hopper

Hopper – Bualtar glacier – Diran BC (and back)
Zone: open **Grade**: demanding-technical **Season**: May to October **Duration**: 3 days **Distance**: 13,2km (one way) **Max. Height**: 4.800m

21 Golden Peak BC (Spantik)

Hopper – Shishkan – Hapakund – Bericho Kor – Dachigan Girgindil – Shuia Basa – Golden Peak BC (and back)
Zone: open **Grade**: demanding **Season**: June to September **Duration**: 6 days **Distance**: 27km (one way) **Max. Height**: 4.500m

Left: Bualtar glacier on the way to Diran BC.

Below: The hard work of the porters.

Trekking Routes

22 Rush Lake

Hopper – Tagha Phari – Barpugram – Bericho Kor – Rush Lake – Rash Phari Chhish K2 view point– Gutens – Huru – Hura (or vice versa)

Zone: open **Grade**: moderate **Season**: May to October **Duration**: 4/5 days **Distance**: 26km **Max. Height**: 5.000m

23 Trivor Peak BC

Nagar Khas – Shikam Khai – Changa Bul – Miza Basa – Nazar Beg – Trivor BC (and back)

Zone: open **Grade**: demanding **Season**: June to September **Duration**: 6–7 days **Distance**: 25km (one way) **Max. Height**: 4.900m

24 Distaghil Sar BC

Hispar – Daltanas – Bularung – Bumpari – Distaghil BC

Zone: open **Grade**: extreme–technical **Season**: June to September **Duration**: 5–6 days **Distance**: 30,4km (one way) **Max. Height**: 4.700m

25 Hopper – Sumayar

Hopper – Hopper Gl. – Bualtar Peak BC – Chmar Bakor – Sumayar

Zone: open **Grade**: demanding **Season**: June to September **Duration**: 4 days **Distance**: 24km (one way) **Max. Height**: 5.150m

26 Stak La

Shanu – Rama– Stak La – Chutron – Dunsah – Odortsok – Harimal (or vice versa)

Zone: open **Grade**: extreme–technical **Season**: June to August **Duration**: 3 days **Distance**: 32,8km **Max. Height**: 4.570m.

27 Ganto La

Harimal – Pakora – Ganto la – Matunturu – Chutrun (or vice versa)

Zone: open **Grade**: extreme–technical **Season**: June to August **Duration**: 2/3 days **Distance**: 13,5km **Max. Height**: 4.606m

28 Thalley La

Shigar – Daserpa – Thalley La – Dubla Khan - Olmo Chomik – Khasomik (or vice versa)

Zone: open **Grade**: moderate **Season**: June to September **Duration**: 3 days **Distance**: 45km **Max. Height**: 4.876m

Right: Kuthwal Lake.

Trekking Routes

Central Karakoram National Park

Trekking Routes

Central Karakoram National Park

29 Shingkhang La

Khasomik – Bukma – Olmo Chomik – Shingkhang Broq – Shingkhang La – Sofispang Onbu – Stakchatpa – Bardumal – Joula – Korophong – Askoli (or vice versa)
Zone: open **Grade**: extreme-technical **Season**: May to October **Duration**: 6 days **Distance**: 70 km **Max. Height**: 5.150m

30 Thalley – Kanday

Harangus Thalley –Harangus La – Kanday (or vice versa)
Zone: open **Grade**: extreme-technical **Season**: July to August **Duration**: 4 days **Distance**: 27km **Max. Height**: 5.300m

31 Machulo La

Ghola– Machulo La K2 view – Machulo (or vice versa)
Zone: open **Grade**: demanding **Season**: June to September **Duration**: 3 days **Distance**: 21km **Max. Height**: 4.651m

32 Iqbal Top

Kanday – Iqbal top K2 view (and back)
Zone: open **Grade**: moderate **Season**: June to September **Duration**: 2 days **Distance**: 11,6km (one way) **Max. Height**: 5.400m

33 Humbrok

Hushey – Humbroq K2 view (and back)
Zone: restricted **Grade**: moderate **Season**: May to October **Duration**: 2 days **Distance**: 8,5km (one way) **Max. Height**: 5.500m

34 Double Peak

Hushey –Wesuk – Dumsum – Aling gl. – Double Peak BC – Bukma
Zone: restricted **Grade**: extreme-technical **Season**: July to August **Duration**: 5 days **Distance**: 32km **Max. Height**: 5.450m

35 Masherbrum BC

Hushey – Wesuk – Dumsum – Paarbisan – Pashuka – Brumbrama – Chogospang - Masherbrum BC (and back)
Zone: restricted **Grade**: moderate **Season**: June to September **Duration**: 4 days **Distance**: 19,2km (one way) **Max. Height**: 4.280m

Preceding pages: Morning at Khar Khor in Stak Valley. Askole's fields with Bakhor Dass Peak.

Left: Hushey Valley guarded by the towering Masherbrum Peak.

Below: Ancient mosque in Hushey Valley

Trekking Routes

Central Karakoram National Park

36 K6 and K7 BC

Hushey – Odungstan – Saicho – Tikchumik – Spangser – Charakusa Gl. – K6 and K7 BC (and back)

Zone: restricted **Grade**: moderate **Season**: June to September **Duration**: 5 days **Distance**: 27km (one way) **Max. Height**: 3.600m.

37 Laila Peak View Point

Hushey – Odungstan – Saicho – Atosar – Golong – Dalsangpa – Laila Peak BC – Khuispang (and back)

Zone: restricted **Grade**: moderate **Season**: June to September **Duration**: 5 days **Distance**: 26,4km (one way) **Max. Height**: 4.695m **Open Summit:** from Khuispang Gondogoro Peak (5.900 m)

Adventure Treks

The Adventure Treks are characterized by a net of trekking routes and peaks with a lower number of tourist presence.

Therefore, the natural presence surrounding these areas becomes more relevant and hiking can be more fun and adventurous for tourists. The main trails are tracked but there are no services available.

Simple spaces for camping are present and water is also available on those sights. **Camping is permitted only in the designated areas**.

Regarding energy supply systems, it is required to prefer environmentally friendly energy supply systems. **The generators are not permitted.**

For the Adventure Treks, tourists must request permission from Central Karakoram National Park Directorate .

38 Lupke La

Askoli – Korophong – Laskam – Joula – Panmah – Chotkal Gl. – Latok II BC – Sim La – Baintha Brakk BC – Sim Gl. – Lupke La – Braldo Gl. – Shimshal

Zone: open **Grade**: extreme-technical **Season**: June to August **Duration**: 10 days to Shimshal or returning via Biafo Gl. **Distance**: to Lupke La 76km – to Shimshal 170km **Max. Height**: 5.675m

39 Khurdopin La

Snow Lake – Khurdopin La – Khurdopin Gl.– Shimshal

Zone: open **Grade**: moderate **Season**: June to August **Duration**: 6 days to Shimshal **Distance**: to Khurdopin La 15km – to Shimshal 85km **Max. Height**: 5.640m

Right: Lupke Lawo Brakk (6593m) south face from Snow Lake. Khurdopin La lies on the east side of the peak.

Trekking Routes

Trekking Routes

Central Karakoram National Park

40 Kero Lungma La (Uyum La or Nushik La)

Arandu – Domok – Kero Lungma Gl. – Nushik La (Kero Lungma La) – Haigatum Gl.– Shirin Chhish – Turman – Hispar Village (or crossing Biafo Gl. to Hagure – Bitanmal)

Zone: open **Grade**: extreme–technical **Season**: June to August **Duration**: 7 days **Distance**: 70km **Max. Height**: 4.977m

41 Arandu La

Shanu – Rama – Goropha Gl. – Goropha La (Arandu La) – W. Marpho Gl. – Chogo Lungma Gl. – Arandu

Zone: open **Grade**: demanding–technical **Season**: June to August **Duration**: 6 days **Distance**: 40.4km **Max. Height**: 4.900m

42 Holtar Top

Barit – Dobar – Darchit – Holtar Kam – Khai – Rahimabad (or vice versa)

Zone: open **Grade**: moderate **Season**: late May to October **Duration**: 2/3 days **Distance**: 18km **Max. Height**: 4.300m

43 Sumayar – Phekar

Sumayar – Chabaran – Uskoo Dadar – Phekar (or vice versa)

Zone: open **Grade**: moderate **Season**: May to October **Duration**: 1/2 days **Distance**: 10km **Max. Height:** 3.600m

44 Sumayar – Minapin

Sumayar – Silkiang – Gieng Tur – Shabren – Kacheli – Minapin

Zone: open **Grade**: moderate–technical **Season**: May to October **Duration**: 5 days **Distance**: 26km **Max. Height**: 5.100m

45 Yazgil La

Hispar – Ghurbun – Palolimkish – Daltanas – Chipurghutum – Bularung– Bumpari Distaghil Sar BC – Yazgil La and back

Zone: open **Grade**: extreme–technical **Season**: June to August **Duration**: 10 days **Distance**: 35km (one way) **Max. Height**: 6.000m

46 Hikmul La and Peak

Bisil – Murtswa – Hikmul La – Tsibu Gl. – Nangmoni – Hulina – Hoh Biano (or vice versa)

Zone: open **Grade**: demanding–technical **Season**: June to August **Duration**: 3 days **Distance**: 37.5km **Max. Height**: 5.400m

Preceding pages: Astana of Syed Abbas Al-Mussawi in Chutrun

47 Arandu – Tormik

Arandu – Sencho - Niamur – W Niamur Gl. – Chutran – Dunsah – Harimal - Khushumul - Melding - Dasu (or vice versa)

Zone: open **Grade**: demanding–technical **Season**: June to August **Duration**: 5 days **Distance**: 38km **Max. Height**: 5000m

48 Dassu – Chutrun

Dassu – Tiston – Simbi La – Thorgo – Doko - Dogoro - Hamisil - Chutrun (or vice versa)

Zone: open **Grade**: easy **Season**: April to October **Duration**: 1/2 days **Distance**: 13km **Max.** : 3.500m

49 West Muztagh Pass

Askoli – Korophong – Joula – Panmah - Panmah Gl. – Shinchapbi Biaho – Chiring Gl. – West Muztagh Pass (and back)

Zone: open **Grade**: extreme–technical **Season**: July to August **Duration**: 10 days **Distance**: 61km (one way) **Max. Height**: 5.735m

Below: Arandu and Chogo Lungma Glacier

On the opposite page

Above: K2 view from Iqbal Top

Below: Barah broq

K2 VIEW POINTS

K2, the highest peak of CKNP, is perhaps the most admired and loved mountain. It is a symbol for mountaineers worldwide. A pyramid pointing towards the sky is capable of activating the dreams of mountaineers, and, with its magnetism, to attract and fascinate people all over the world.
Trekkers can enjoy spectacular and magnificent views of the peak from different angles from inside as well as from the outside the park.

Rush Lake from Hopper village (trek n.22)

The Rush lake trek starts and continues along the Barpu glacier. Leaving the glacier on the left-hand side it is possible to reach the Rash lake in a few days. From there you can walk up to the K2 view point.

Machulo La (trek n.31)

From Kharkoo village a short trek (number 31), takes you through a small valley to Machulo La. Here, at an altitude of 4600 m, watching in north-east direction, K2 is perfectly and clearly visible. From Machulo La, it is possible to go down and get to Machulo village in the Hushey Valley.

Below: K2 view from Machulo La

Iqbal Top (trek n.32)

The name is given after Mr. Iqbal, who is a local guide. This short trek starts from Hushey Valley. It is the shortest possible trek in the area to see K2 and the other central Karakorum mountains such as Broad peak, Gasherbrum peaks, Masherbrum.
The trek starts from Kanday village continuing for two days to the top and one day descend to Kanday village.

Humbrok (trek n.33)

From Hushey, it is very easy to reach to Humbroq, K2 view point. Leaving the village on the right-hand side of Hushey valley, climbing up is quick and without difficulties.

Barah Valley Trek

The Barah valley is located near Khaplu, on the south of Shyok river. The valley is famous for its apricots. The Barah Broq trek is pretty simple and easy to follow. The trek takes you to Moses peak base camp. In order to view K2, you must reach the summit of Moses peak.
The view is uniquely sublime and it enables you to admire: K2, Nanga Parbat, Spantik, Latok, Broad peak, Masherbrum, Ghashabrum I-II-III-IV, Chogholisa, K7, K6, K12 and many other snow covered peaks.

Sadpara – Burji La

Sadpara village is located 7 kilometres from Skardu city. While walking to this village you can visit the world famous **Buddha Rock in Manthal** village and discover **Sadpara lake**.
There is a road that goes from Sadpara village to Sadpara top in Deosai plateau. It is about one and half hour drive if you go via jeep and if you opt to go walking it takes about 6 hours.
Tourists can also camp in the green flowery camp sites in Deosai. Taking a traverse, one can start climbing toward Burji La and after a steep walk of 5-6 hours, you will manage to catch the glimpses of the Karakorum

On the opposite page
Indus river at Skardu.

highest peaks such as K2, Nanga Parbat, Spantik, Broad Peak, Latok, Masherbrum, Gasherbrum I-II-III-IV and many other snow covered peaks.
Trekkers can camp on the pass and explore the historical camp site. Mr. Geofrey Thomas Vigne, a traveller and geographer was the first European who crossed this pass in 1843 AD, while heading to Skardu.
From this top, tourists descend through a narrow gorge and reach Skardu in about 5 hours.

Below: Skardu Bazar

Trekking Routes

Central Karakoram National Park

Trekking Routes

Central Karakoram National Park

The Baltoro experience

Askoli – Hushey

Askoli – Korophong – Joula – Bardumal – Paju – Liligo - Khoburtse – Urdukas – Goro 2 - Concordia – Ali Camp – Gondogoro La – Khuispang – Dalsang Pa – Saicho - Hushey Village

Zone: restricted **Grade**: demanding / extreme-technical (Gondogoro La crossing) **Season**: mid June to September **Duration**: 10/12 days **Distance**: 126 km **Max. Height**: 5.625m **Open Summit:** Gondogoro Peak (5.900 m)

This is the most popular trekking and mountaineering area in Pakistan. Rows of needle spires, shining granite towers glaciated mountains and snowy domes line the glaciers, providing one of the magnificent mountain scenery in the world.
The journey starts from **Askoli** for this specific route. Askoli is the last village of the **Braldo Valley** before the glaciers region. Historically it is a significant place, where most of the mountaineering expeditions and trekkers love to stop.
If you are going from **Skardu**, the village can be accessed via jeep. Notable spots that come on the way are the Shigar Valley and some breathtaking bare landscapes that are marked by the village's greens oases of the Braldu Valley.
Along the way, you can find the Buddhist traces left on the rock at **Lamsa** and **Shigar Gzwapa**, you can visit the beautiful town of Shigar with its fort and the wooden architectures of mosques and Astanas, and stop at **Churka** to admire the beautiful **Sefarkhur Khanqha**. All these things testify the cultural richness of the area, developed over the centuries.

Left: On the way to K2

Itineraries

Central Karakoram National Park

Itineraries

Central Karakoram National Park

Itineraries

Ghorocho

It is the place where the first inhabitants of the valley settled. It was called Maslas, and after it grew into a city, named Ghorocho.

It was the capital of the reign, together with its pleasures and excesses, that attracted people from surrounding countries for its famous carnival. Once, an Holy man came to this festival and asked a question. People paid no attention to him since they were drunk. Finally, an old woman gave piece of bread to the man. He broke the loaf in half, kept half for himself and gave the other half back to the old woman, telling here: "start running away from here, eating the bread at the same time. When the bread is finished, stop and look back." The old woman obeyed and ran to Mangoja, where her bread finished and she looked back. There he saw a mighty avalanche of debris and rocks sliding down the mountainside on to the settlement Ghorocho, destroying it completely. The woman stayed at the place she was on, and her children settled the territory of Mangoja.

Before joining into the Braldo Valley, leaving Shigar Valley, the road moves on to the unstable gravelly hillside, catted by many lateral streams. On the left side, the Shigar River flows in the bed of the broad valley characterised by a series of boulder-covered ridges. It is **Ghoro Cho (**in Balti means "heap of great stones") and the big stones are the remains of a large landslide that according to the traditions buried the ancient capital of the region.

Entered in the valley, the rough territory is interrupted by little alluvial plains, made fertile through ingenious artificial irrigation systems and the terracing of the slopes, allowing the installation of little villages and the development of the vegetation, characterized by high poplars, willows and apricot trees.

Proceeding towards the Upper Braldo Valley, the steep landscape leaves the space to wider ground strips. Here the valley is open and it is characterized by many villages located on fluvial terraces next to the alluvial cone side occupied by torrents to allow better use of the very fertile small areas.

Residential buildings are close to one another, and separated by narrow and tortuous paths. The main track is marked by the canal into which the water required for domestic use is diverted. The villages have a circular plant and are often surrounded by poplars.

Askoli (3048 m above sea level) is the most ancient village of the valley, as well as the latest permanent settlement before the access to the glaciated area. Thanks to its strategic position, Askole has increased in its importance and size, becoming a privileged stop for all expeditions that purchase supplies and hire porters.

Many people and travellers have described the village of Askoli and its inhabitants, including Fosco Maraini, who tells about a sort of *"magic Shangri-La, a city lost in time and space. [...] Everything here is legendary and in some sense charming... [...] Men seem really related to their land [...] The Balti from this faraway land have a behaviour which is far more daring then that of men from Shigar or Skardu.*

According to a tradition, it was founded around XVI century, by three brothers coming from Yarkand: Sangar, Goud and Chow. As attested by the names of family groups still living in Askoli today, the inhabitants descended from these three brothers. The village is composed by a close group of houses, crossed by one pathway, which touches the two mosques, the imam-bargah and the few local shops. This little business is an exception, within the framework of the valley's economy, which is characterized by subsistence agriculture. However the locals find little business during the summer months, at the beginning of the tourist season with the arrival of mountaineering expeditions.

Wandering around the village, one can be bewildered on how the buildings adapt themselves to the morphology of the ground: the external walls often adopt a circular shape on the corners, bounding the buildings attached to the houses, such as the stables, the lavatories and the little orchards. One can't help falling in love with the very distinct way of construction absolutely, suitable to the weather and the local lifestyles.

While staying in Askoli, trekkers can visit and explore the cultural heritage of the area and also across the hiking route which connects each village along the steep mountain slopes.

The richness of the cultural heritage is documented by the presence of the traditional **Balti houses** internally decorated with fine motifs carved on the wooden elements; by the religious buildings and by the organization of the agricultural land with terraces and water channels for irrigation.

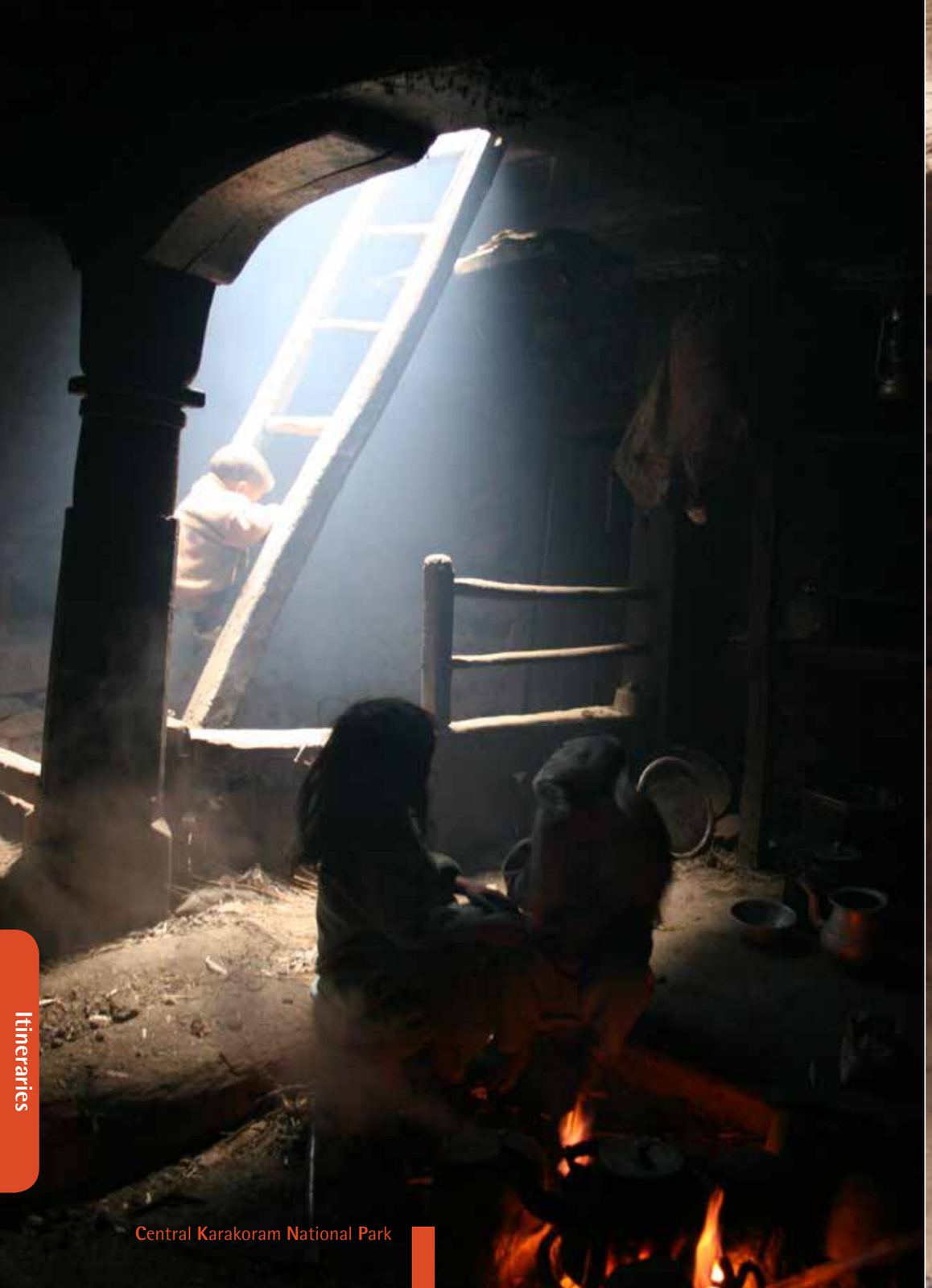
At the **Askoli House Museum**, an exhibition explains the history of the area and its cultural heritage through a collection of objects coming from the villages of

Below: Askoli House Museum

Preceding pages:
Rock with three Buddha at Lamsa; Petroglyph at Shigar Gzwapa; Khilingrong Mosque at Shigar; Shigar Valley; Sefarkhur Khanqha at Churka

Central Karakoram National Park

Itineraries



Itineraries

Preceding pages: Askoli Mosque; Tradidional Askoli house; Wooden decoration at Toha House in Khorphe.

the Upper Braldo Valley. The display works as a quick way of getting the cultural exposure.

Askoli – Korophong – Joula

Askoli (3050m) – CKNP Entry point (3050m) – Biafo Bridge (3040m) – Korophong (3100m) – Laskam (3215m) – Joula (3218m)

6-7 hours ⇔19,4km - ⇑ 510m ⇓ 342m - Easy

The trek starts from the village following the road placed at the foot of the cliff. Just beyond it, the landscape changes dramatically. The green cultivated fields give way to the brown deserted land. Here, at the limits of the Askoli's fields, up to sixty years ago there was a tower, used as observation point to prevent enemy incursions coming from Biafo Glacier and other passes. According to the traditions collected by the scholar Hasmatullah Khan, a fort was constructed in the middle of sixteenth century, for the security of the settlement and it used to have guards.

In 1864, H.H. Godwin-Austen wrote, *"It was by this way that the Nagayr men used to come into the Braldoh and loot the villages; their last raid was some twenty-four years since (about 1840), when around 700 to 800 men crossed over and carried off about 100 men and women, together with all the cows, sheep, and goats they could collect."* Further details were collected by Conway on July 1892, *"The leader of the band that crossed from Nagyr was Wazir Hollo. They came late in the year, three months later than now (October). The harvest in Nagyr had been bad, and the Nagyr folk needed provisions. The band did not attempt to attack Askoli, said the old man, but the Baltis gave them ibex skins and flour. The Nagyr people invited some of the Baltis to go back with them, but they refused, fearing the cold. The Nagyr men started to return by the way they came, but they all got perished in the snow except for Wazir Hollo, who alone reached home to tell the tale."*

Above: Upper Braldo Valley with the Biafo Glacier snout and Paiju Peaks far in distance.

About 40 minutes to one hour from Askoli, the Braldo river creates a large loop. On a big flatten alluvial terrace, is located the Askoli Maidan Camp Site and the **CKNP Registration Centre**. Here, every visitor has to complete the registration form and pay the entrance fee.

Across the river to the south, **Testey**, the last village of the valley, guards the entrance to the gorge leading to the **Skoro Pass** (see route n.8). From here to the **Biafo glacier** it is an easy one-two hours walk.

Above: autumnal view of Bakhor Dass from CKNP entry point.

Just after the confluence of the Biafo and Braldo river and before **Kesar Shaguran**, the route forks, straight on through the bridge for Baltoro Glacier, or on left over a ridge for the trail up the Biafo Glacier to Hispar (see route n.5). The people of Askoli have made it easy to cross this section of the route by building a foot-bridge over the main Biafo glacier outlet. Previously, one had to scramble about 90 minutes across the tortured ocean of moving builders and crevasses, at the four kilometres wide snout of this incredible glacier.

Korophong (bowl-shaped rock in Balti) is the green campsite located at the north-east margin of the glacier's snout, close to Braldo River.

A stream flow from the glacier becomes sandy in the afternoon and cut the site which is covered by scattered willow trees and thorn bushes.

The site takes the name from the gigantic boulder sitting on a plain, located 20 minutes beyond the camp, at the base of which the shepherds are accustomed to seek shelter at the night time.

Bakhor Dass *(5810 m)*

On the other side of the valley is Bakhor Dass (5810 m). The pyramidal shape that was visible from Askoli, now is completely changed and it's end portion elevates as a tower. On the back is Mango Gusor (6288 m), the highest peak on the south of the Braldo river. It became visible just before the Biafo Glacier snout. On July 2, 1980 an expedition of three Japanese made the first ascent to the place.

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Trek to **Korophong** (3.100m) is just 3 to 4 hours walking distance, you can do double stage and continue to Joula and walk for 3 more hours. Now the route follows the sandy trail along the river. After 60-90 minutes the trail turns east-north-east following the **Dumordo River** coming from the Panmah Glacier. From June to the end of August, the Dumurdo River, emitting from the Panmah Glacier, is too swollen to wade. Therefore, one must trek about a kilometre upriver to the bridge at **Laskam** (3215m). The trail across the cliff face is vertiginous, with the swirling Dumordo River below. The **Joula Camp** site comes after half an hour from the bridge. The name derives itself from the former cable crossing; the meaning of *Jhola* in Urdu is *"to be hanged"*.

From there the views are stunningly impressive with **Bakhor Das** (5,809m) and Paju Peak's needles in the distance. From Askoli, the trek is comparatively easy but if the sun is out the temperatures can reach up to 40 degrees and care must be taken to prevent sunburns.

From the bridge two treks are emerge following the Dumordo River.

One (route n. 38), going west following the Choktoi glacier leads to: Latok II Base Camp, Sim La pass (5833 m), Baintha Brakk base camp and finally Snow Lake and the Hispar Pass. While the other (route n. 49) turning east leads to the West Mustagh Pass (5735 m) at the head of the Chiring Glacier.

Above: The foot-bridge over the main Biafo glacier outlet on the way to Joula.

Joula–Paju

Joula (3218m) – Bardumal (3295m) – Paju (3407m)

6-7 hours ⇔20,1km - ⇑ 560m ⇓ 371m - Easy

From Joula you go through the valley carved by the Braldo river, fed by the Baltoro glacier and many other lateral glaciers. The route goes mainly along the riverside throughout the day, switching up and down, crossing boulder fields and side streams until reaching the Paju Glacier's outwash stream.

After 2-3 hours the trail reaches the confluence of the **Ching Kang** and Braldo rivers and after 30-45 minutes to **Bardumal** camp site. The word *Bardumal* means, *"Troublesome Place"* in Balti (*bardo* trouble, *mal* place or river bank).

The real name of the place is **Skam Tsok** (*Skam* means dry and *tsok*, thorny bush).

Previous pages: Trekking stages on the way to K2 base camp.

Left: Testey village guards the entrance to the gorge leading to the Skoro Pass.

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***Paiyu Peak** (6610 m)*

It was first climbed in 1976 by Major Bashir Ahmed, Major Manzoor Hussain and Nazir Ahmed Sabir, members of the Alpine Club of Pakistan. They reached on the top from the North side and since then no one has ever been able to step on the top again. Payu Peak is known for its vertical rock and steep ice. Its southern vertical walls have attracted the interest of mountaineers over the time. It was during the August of 1981 that the Italian climbers Gianni Calcagno, Tullio Vidoni, Pellizzari and Alberto Enzio climbed the so called "Red Pillar" for the first time. After them, three Basque climbers (Alberto Iñurrategi, Juan Vallejo and Mikel Zabala) have opened a new route, they managed reaching on the top of the pillars on July 26 th 2014 after having climbed a vertical rock wall of one kilometre.

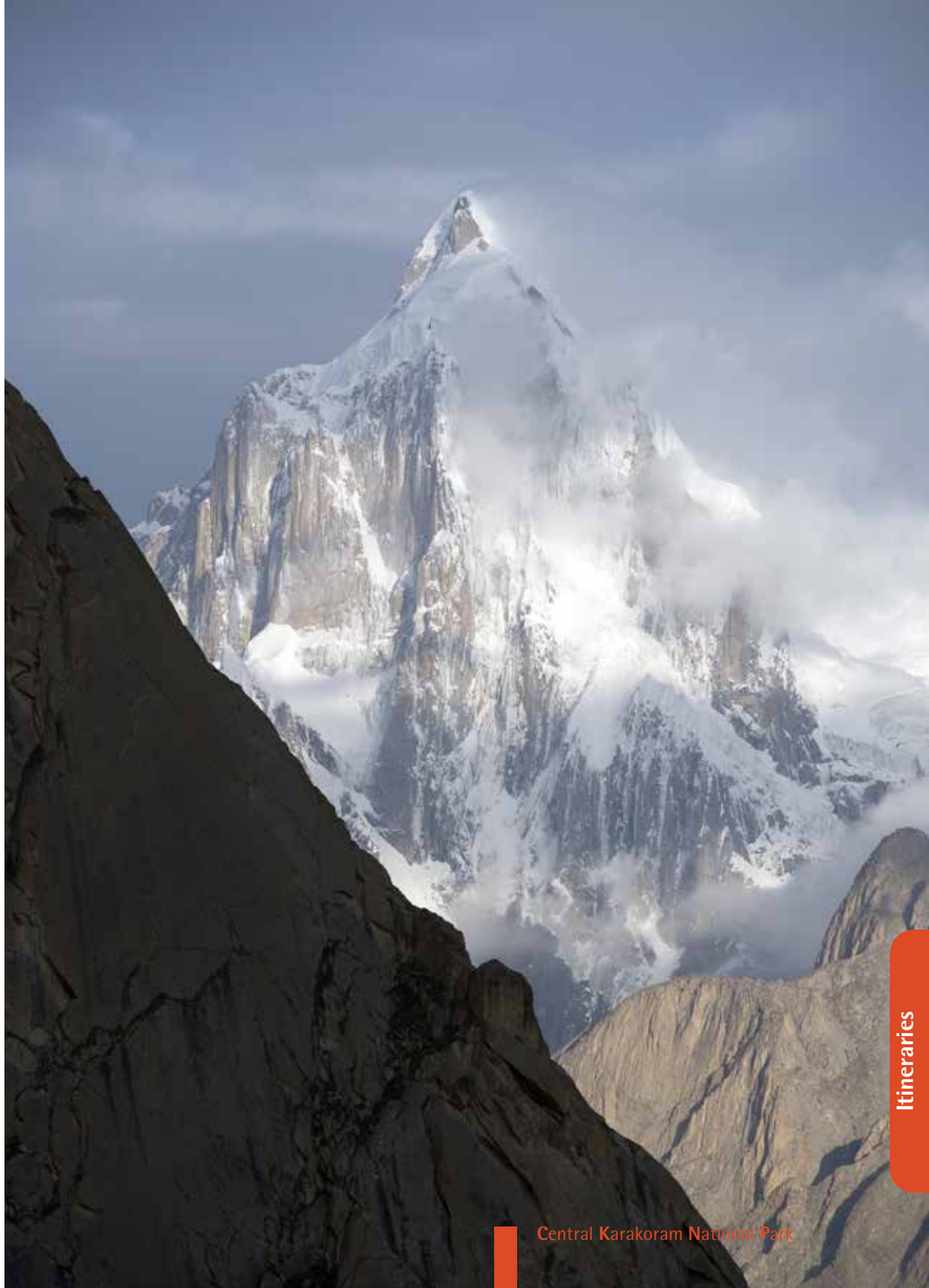
Bardumal (3295 m) is a desolate place at the riverbank. It comes 30 minutes before the point where the expeditions used to stop in the past. Following the Ching Kang River it is possible to reach **Talley Valley** (route n 29).

To cross the Braldu River, a bridge is placed from Skam Tsok to Paju.

Having left the camp site, starts an undulating walk and a stunning show begins with the first views of the mountains ahead. The very first are **Paiyu Peak** (6610 m), **Choricho Peak** (6756 m) and **Uli Biaho Peak** (6417 m), with its famous tower which is over 6000 meters high.

Arriving at the Paju Glacier outwash one enters into the real heart of Karakorum, where mountains, whose evocative names are well known by all mountain lovers, are placed. From vantage perspective, there are the snout of **Baltoro Glacier**, the **Cathedrals Towers** and on left of them the distinctive triangle of **K2** stands with all its grace - far in the distance. The trail is on the right-hand side of the valley and passes by **Bardumal** (3295 m), before rising towards the tree-lined oasis of **Paju** (3407 m).

Below: Admiring Mango Gusor (6788m)



Previous page:
Paiyu Peak (6610m)

Opposite page: The big boulder of Urdukas that partially collapsed in 2012. The elusive Nameless Tower (6239 m)

Paju means salt in Balti. The name is given after some rock salt deposits that are found at the base of this peak.
A legend tells the story that, in the ancient times, the mountain was completely white and made of salt. The fairies who lived on the mountains had told to the people who lived around, that they could have all the salt they wanted as long as they did not sell it. When they did sell instead, instantly, the mountain became a rock.
From Paju the gaze loses itself between the vertical peaks of **Biaho Tower**, **Cathedral**, and **Trango Towers** just hidden: the forbidden dream of every climber.
On this second stage, the altitude gap becomes more significant, normally, parties take an extra day in Paju for acclimatisation.

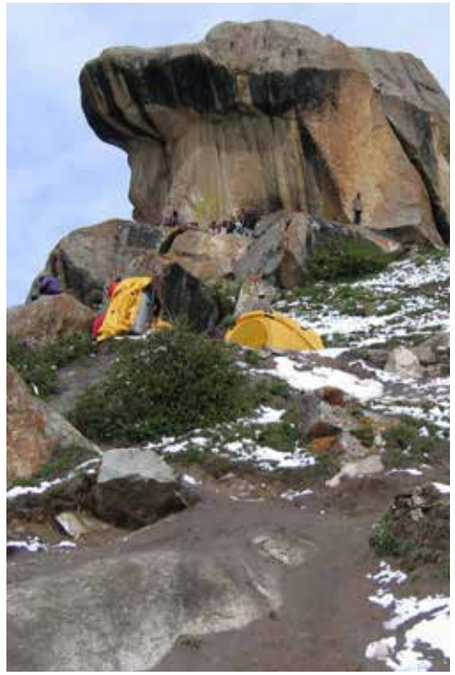
Paju – Urdukas

Paju (3407m) – Liligo (3693m) – Khoburtse (3816m) – Urdukas (4168m)
7-9 hours ⇔18,7km - ⇑ 1100m ⇓ 339m - Moderate

Below: Baltoro Cathedral Spires from Paju

After an hour, the trail leads onto the **Baltoro glacier** for the first time. The glacier appears in all of its vastness, stretching up in the valley as far as the eye can see, a vast turbulent sea of rocks and gravel which is 2 kilometres wide and 62 kilometres

long. The porters like to stop at the glacier and chant an auspicious hymn for welcoming the coming days.
The path on the glacier moraine is pretty good although, constantly, goes up and down. Special care has to be taken as the moraine on the surface is uneven. The trail swerves gently to south-east and crosses the glacier to reach on the lateral moraine at the left side of the valley. After 2½ hours, is the rest place of **Liligo** (3.693 m), the view is dominated by the impressive and pure granite towers of the Trango group.
On the other side of Baltoro, flows the **Trango glacier** where the base camp (4050 m) stands gracefully, for **Nameless Tower** and **Great Trango Tower**.
The glacier leads up to the **Sarpo Lago Pass**, which was discovered by Ardito Desio in 1929 and crossed by Eric Shipton and Harold Tilman in 1937.
One hour of walk across the Trango Glacier and just above the confluence of the North and South Hainabrakk glaciers is the elusive **Shipton Spire** (5852 m), with its fierce steep walls that rise out of the ice without hesitation.
Khoburtse (3816 m), the next camp, is on the other side of the **Liligo Glacier Valley**. Usually it is too difficult to ford the river that flows from the glacier; the water can be very deep. The easiest way is to return on to Baltoro glacier to avoid the Liligo Glacier's outwash stream, which periodically surges to form a lake and after 1½ hour of up and down to cross several moraine ridges, the trail reaches the camp. The name derives from Artemisia, a bitter but edible fragrant green sage called *Kho Bursay* by the locals. From Koburtse to Urdukas the route follows a good trail on the lateral moraine of the Baltoro. Two glaciers coming from the south-east join the Baltoro, cross them and after 3 to four hours is the camp site, placed on the hillside hundred meters above.
Urdukas (4168 m) is one of the most beautiful campsites on the route to k2. The first platforms for the tents were catted on the slope in 1909 during the expedition made by the Duke of Abruzzi. The correct name should be



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Shipton Spire *(5852 m)*

In 1929 Ardito Desio named this majestic mount "Haina Brakk", pronounced aa-ee-na brakk, (long aa, long ee and na).In Balti the word "Aina" means looking glass (mirror) and "brakk" means mountain. This name was suggested to him by the local porters, who helped him in that expedition. They told him an interesting ancient legend. Ages and ages ago, several villagers completed traverse of the Sarpo Laggo La (5675 m) to Yarkand and after encountering a long and endless storm while descending from the pass, suddenly, a delightful wall, sparkling in the sun like a mirror, emerged before their eyes.

The first very controversial ascent was achieved in 1996 by an American team. After his failed attempt in 1992, Greg Collum returned to the tower, accompanied by Charles Boyd and his son Greg Foweraker. Twenty days were needed to complete the route of 1350m, which was named "Falcon Baltese." Later, it was learned that the team had stopped at 10 meters to the summit, under a line of wet snow. Finally, it was assumed that the top of Shipton Spire was still a virgin until August 6, 1996 when Mark Synnott and Jared Ogden walked on to the summit snowfield to the summit without difficulty. The spectacular tower was named by the American team "Shipton Spire" in tribute to the man who made the detailed exploration of the region and published the first photo of the tower in the famous adventure story "Blank on the Map ".

In 2001, the tower of Shipton was chosen by the Italian Bole to test the physical limits of the technical free climbing at very high altitude. He tried to climb with impeccable ethics, not using artificial lift techniques, using simple, bare hands. He gained 100 m in altitude every day and after 13 days, he reached the summit on August 15 making history.

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Preceding pages: Paiyu Peak, Uli Biaho Tower and Trango group in the view from Urdukas.
Shipton Spire (5885m)from Trango Glacier.
Great Trango (6286m)

rDokas (the r is like a mere tap of the tongue). It means split rock (*rdo* is rock and *kas* is a shortened form of *kaspa* it means breaking or splitting. The term derives from the monster boulder above the campsite which had a huge fissure, causing it to partially collapse in 2012. The rock, with its fissure of about 40 centimetres, became part of the great history of the conquest of K2 when a young mountaineer, Walter Bonatti, challenging his mates, had the idea to climb on it following the 15 metres long fissure up to the top.

Six-hundred meters above the camp is the spot from where Colonel Godwin-Austen, during his expedition in 1861, saw for the first time, the immensely stunning triangular shape of the K2. In front of the campsite, there is the most treasured panorama, a dream for all mountain lovers. Starting from east, **Choricho** (6756 m) and the white, vertically striated pyramid of **Paiyu Peak** (6610 m), the soaring **Uli Biaho Tower** (6109 m) and the jagged granite needles and blocks of **Trango Towers** with the elusive **Nameless Tower** (6239 m) is behind it. The cliffs of the **Baltoro Cathedrals** (6024 m) dominate in the middle, separated from the **Lobsang Spires** (5707 m) by the ice tongue of the **Biale Glacier** with the **Biale Peak** (6772 m) being on the background. Finally, **Lungka Ri** (6307 m) and **Biange Peak** (6431 m) to end up to the East with **Cristal** (6252 m) and **Marble Peak** (6256 m) remaining far in the distance.

Below: H.H. Godwin Austen, K2 view from Urdukas

The scenery is so magnificent that it's worth planning a resting day at Urdukas than at

Paju. There are many advantages of spending a night here. Behind the campsite, there are pleasant walk through grassy slopes, surrounded by alpine flowers. Another advantage of staying there means adaptation gets easier and the acclimatization process can be more effective. The grassy slopes are high grazing pastures for ibex and the rocks are home to mouse hares, *Pikas*, and colourful hoopoe birds.
Above the campsite, lays the unclimbed **Urdukas Peak** that rises proudly at the altitude of 6320 metres. The peak can be approached from the glacier which is at about 30 minutes' walk from the campground.

Masherbrum La *(5364 m)*
It was crossed for the first time by an American expedition lead by Nick Clinch. They approached the pass from the Yermamendu glacier on the North and arrived in Hushey where they were received by the astonished inhabitants, who assumed that their valley was impregnable from the north. The trek was formerly used as an alternative route to exit from Baltoro glacier, before the opening of the Gondogoro la route. It is a technical trek that requires full equipment and good ice-climbing experience.

Urdukas – Goro II

Urdukas(4168m) – Goro I (4250m)– Goro II (4319m)
6-7 hours ⇔ 11,6km - ⇑ 544m ⇓ 393m - Moderate

Next Pages: Masherbrum North Ridge; Concordia Camp-site.
Below: Cathedral group, with the Nameless Tower on left and Biale Peaks, far in distance on right.

From Urdukas, the route returns to Baltoro glacier and moves towards the centre. After one hour, looking south, is the **Mandu Glacier** which flows down from

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Masherbrum

At 7821 metres, it is the 22nd-highest peak in the world and one of the hardest mountains to climb, above 7500m. It was reconnoitred for the first time in 1856 by Thomas Montgomerie who denoted the mountain K1.

The meaning of the mountain's name is unclear. It can come from the Balti words 'Mashadar ' (muzzle-loading gun) plus 'brum' (mountain) as the double summited mountain which resembles an old muzzle-loader but some argue that 'masha' means "queen" or "lady" and therefore Masherbrum means the "queen of peaks".

It was first climbed by the Americans William Unsoeld, George Bell, Nicholas Clinch and Pakistan's Jawed Akhter via the South East Face in 1960.The venture was once again undertaken after 23 years by a Japanese expedition (Masahiro Nomura and Takeyasu Minamiura).

In 1981, a Polish expedition succeeded in placing 3 men on the South West summit (7806 m) but the success shortly turned into a disaster and only one of the summiteers managed to return to BC alive.

The North Ridge was successfully climbed in 1985 by another Japanese expedition and just after one day an Austrian team reached the summit climbing the North West Face. It was the fourth and last ascent over the last 29 years; all other attempts to climb this challenging and awesome peak have failed.

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***Muztagh La** (5389 m)*

In 1887, Francis Younghusband visited this part of the Baltoro Glacier, arriving from China across the Old (East) Mustagh Pass (5,422 metres), which was a trade route until it was blocked in the middle of the nineteenth century. He walked down to Askoli in three days wearing sheepskin slippers.

Describing his adventure he remarked: "These mountain people are dreadfully nervous about strangers. They had thought the way into their country from the north was entirely closed, and they did not at all welcome this proof that it was not. Wali, the guide, was himself a native of this village, which he had left some thirty years before. Another of my men also belonged to it. But they said they feared these people would do some injury to them for having shown me the way, and they kept by me constantly, and left the village with me, subsequently returning to Yarkand by Leh and the Karakoram Pass, instead of directly by the Mustagh Pass, as they might have done."

The pass was one of the most important trading routes connecting Baltistan with the northern countries. According to Vigne, it was still open under Ahmed Shah, the last independent Rajah of Skardu in the first half of the nineteenth century.

In 1903, C. F. Ferber climbed up to the Muztagh Pass with E. Honigmann, and collected some interesting indications that seem to prove that Muztagh was once a familiar and regularly used route.

Upon a grassy slope near the Muztagh glacier, called Lobsang Brangsa, he found, to his surprise, a village of twenty-two huts, abandoned and in ruins, one of which contained a tomb. There were clear traces of camping grounds, and even an artificially levelled spot called "Chagaran", 260 metres long and 50 metres wide, which the natives told was in former times used for polo, played on foot by people of Yarkand and Baltistan, who used to meet there.

The game of polo, played it's due role in improving

the North face of **Masherbrum** (7821 m). **Muztagh Glaciers** lay on the opposite site, descending from north. It is the route that leads to a homonymous pass and it was the ancient trade route which connected the region with Yarkand and to the markets of the silk road.

The trail continues ascending on to the glacier, reaching at Goro I after one and half hour. It is placed opposite to the **Yermamendu Glacier**, which flows down from **Masherbrum La** (5364 m).

One of the unsolved and most challenging questions of the mountaineering rises from the glacier, that faces the immense north east face of the Masherbrum.

Three thousand vertical meters of hitherto unclimbed rock and ice, described by David Lama, last climber who has attempted in 2014 summer, as *"basically the north face of the Eiger with a Cerro Torre towering on top of it."*

The final destination of the stage, **Goro II** (4319 m), is just ahead after 2-3 hours. The entire route runs along the Baltoro glacier, on the way, the glacier is modelled by small and white icy walls and then suddenly emerging in front of you is the famous **Baltoro Sails**. From Goro the view is open, in south direction the Baltoro and the path covered, in north , at the head of the dark glacier is **Gasherbrum IV** (7925m).

It is the first of the "big ones" that is possible to see during the Baltoro trek.

The sheer-sided pyramid, with a flattened top, emerges ahead with its impressive West face, looming over everything around.

From its features derives the name of the mountainous group to which it belongs, Gasherbrum. In 1892, Sir William Martin Conway describes it as the *"shining wall"* but the correct translation would be the **"beautiful mountain"**, coming from the Balti words *rgasha* (beautiful) and *brum* (mountain).

Over the right shoulder of **G-IV**, rises the Peak of **G-II** (8035m) the last one of the 14 eight-thousanders.

Goro II – Concordia

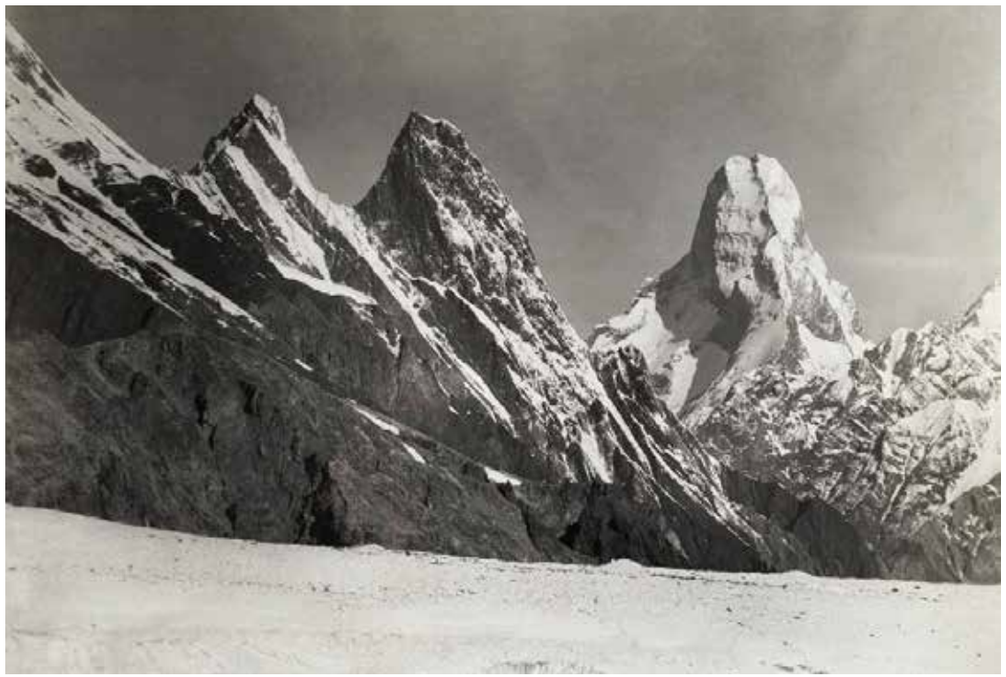
Goro II (4319m) – Concordia (4575m)

4-6 hours ⇔ 11,3km - ⇑ 485m ⇓ 229m - Moderate

From Goro the trek gets slightly easier than before. Soon after leaving, one finds that towards north, is the **Biange Glacier** headed by the vertical walls of the **Muztagh Tower** (7273m), the *"symbol of inaccessibility"* as it was defined by the French climber Guido Magnone after seeing the photograph taken in 1909 by Vittorio Sella (below). The view is somewhat misleading, the twin summits are perfectly aligned and the mountain seems like an impregnable thin tooth.

After 4-5 hours, following the black medial moraine up the glacier's centre is **Concordia** (4575m). It is the confluence of the Baltoro Glacier and the Godwin-Austen Glacier, an immense sea of ice covered in stones, so called by Conway *"as a similar place at the head of the Aletsch* [Switzerland] *glacier is called"*.

diplomatic relations between warring Karakoram chiefs. According to a tradition, a polo ground called Muztaghi Shagaran (pologround of the ice peak), was established by the ruler of Shigar on the fringes of the Shaksgam Valley. Locals claim that the rulers of Shigar made regular trips to the valley's north of the Karakoram ridge and during one of those visits, the Mir of Yarkand, modern East Turkestan, travelled across the Shaksgam River to greet the Raja and subsequently joined him for the polo match. From that time on, the rulers of both states arranged annual polo tournaments at the Muztaghi Shagaran with much fanfare, mostly in autumn to mark the end of the harvest season. Through polo diplomacy, the rulers and the people of Shigar and Yarkand who once nurtured political rivalry, established peaceful co-existence. Not only that, polo also helped the two communities enrich their civilizations through exchange of knowledge, music and literature.



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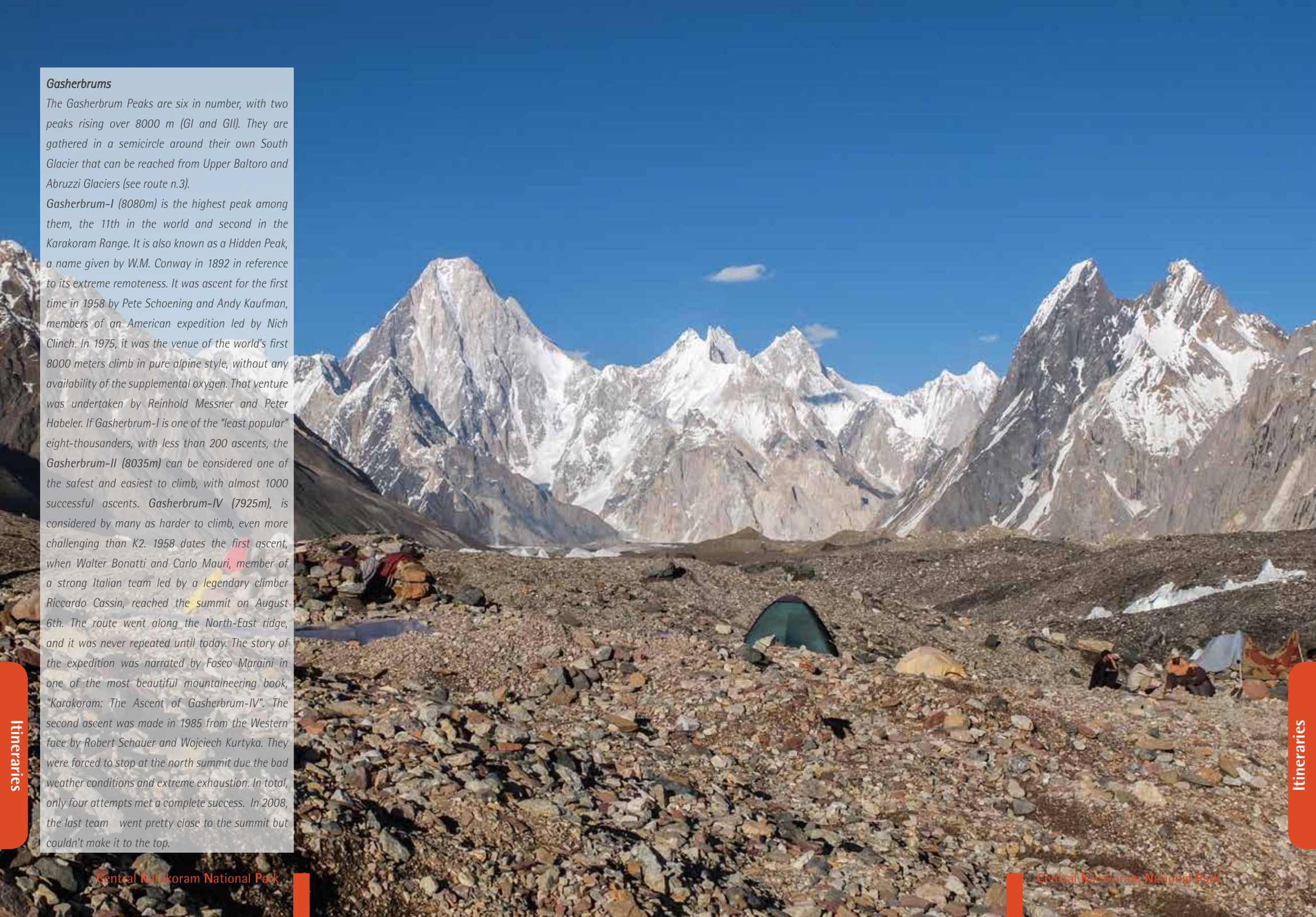

Gasherbrums

The Gasherbrum Peaks are six in number, with two peaks rising over 8000 m (GI and GII). They are gathered in a semicircle around their own South Glacier that can be reached from Upper Baltoro and Abruzzi Glaciers (see route n.3).

***Gasherbrum-I** (8080m) is the highest peak among them, the 11th in the world and second in the Karakoram Range. It is also known as a Hidden Peak, a name given by W.M. Conway in 1892 in reference to its extreme remoteness. It was ascent for the first time in 1958 by Pete Schoening and Andy Kaufman, members of an American expedition led by Nich Clinch. In 1975, it was the venue of the world's first 8000 meters climb in pure alpine style, without any availability of the supplemental oxygen. That venture was undertaken by Reinhold Messner and Peter Habeler. If Gasherbrum-I is one of the "least popular" eight-thousanders, with less than 200 ascents, the **Gasherbrum-II (8035m)** can be considered one of the safest and easiest to climb, with almost 1000 successful ascents. **Gasherbrum-IV (7925m),** is considered by many as harder to climb, even more challenging than K2. 1958 dates the first ascent, when Walter Bonatti and Carlo Mauri, member of a strong Italian team led by a legendary climber Riccardo Cassin, reached the summit on August 6th. The route went along the North-East ridge, and it was never repeated until today. The story of the expedition was narrated by Fosco Maraini in one of the most beautiful mountaineering book, "Karakoram: The Ascent of Gasherbrum-IV". The second ascent was made in 1985 from the Western face by Robert Schauer and Wojciech Kurtyka. They were forced to stop at the north summit due the bad weather conditions and extreme exhaustion. In total, only four attempts met a complete success. In 2008, the last team went pretty close to the summit but couldn't make it to the top.*

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Baltoro Sails

The Ice Sails are one of the most characteristic ice formations that are possible to meet while crossing the Baltoro Glaciers. Sometime called "Ice Ships", they are towering pinnacles of pure white ice that seem to emerge from the glacier rising up to 90 m into the air.

Their origins are debated but the phenomenon is probably related both to the differential ablation between ice covered with debris and naked ice, and also to the erosion caused by the melting waters; affecting on the sides helping accentuate the typical triangular shape.

Going up in to the valley, the "Sails" seem to emerge from the ground like sprouts in the spring. During the ascent their growth never stops and arriving in Concordia, they become like vessels that sail in the sea of black debris.

In the areas where the thickness of the detrital cover is a few centimetres, the ablation process is more intense on the covered ice as compared to the naked ice and the sails can emerge from the surrounding area.

Whereas, when the detrital cover is high to protect the underlying ice, the exposed ice of the sails loses its mass resulting, the surrounding area to reduce its dimensions. Finally, the sails get covered with the debris present around.

Other uniquely characteristic glacial feature that can be observed, are the "ice mushrooms" that seem to emerge from the glacier.

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Within a short radius of 15 Kilometres stand 41 peaks over 6500 meters- *"The throne room of the mountain gods"* as was defined by the famous wilderness photographer Galen Rowell.

The panorama is really superb there. Looking north, the perfect pyramid of **K2** stands isolated with its granite precipices jutting through the glaciers and snow. Moving eastward, the serrated and toothed crown of **Broad Peak** (8051 m) is followed by the **Gasherbrums** (IV, VII, V and IV). The **Baltoro Kangri** (7300 m), also known as **Golden Throne**, is on south east, soaring above the **Abruzzi glacier**.

In Conway's words, *"it is throne like in form, and there are traces of gold in its volcanic substance."*

The slope of **Chogolisa glacier** is on the left, surmounted by the **Kundus Peak** (6758 m) that emerges from the crest in between the **Khundus Saddle** on east and **Kabery Saddle** on South.

The **Mitre Peak** (6070m), famous for its shape that recalls a bishop's headdress, marks the confluence of the Baltoro Glacier with the Upper Baltoro and the Vigne Glacier. It is a majestic peak, but it is dwarfed by its giant neighbours. In 1980, the Italian-French solo climber Ivano Gilardini that reached to its top.

On the opposite, is the **Marble peak** (6256 m) that stands as a sentinel on the Godwin Austen-Baltoro corner, with the sharp ice point of **Crystal Peak** (6237 m) to its right side.

From there the Baltoro glacier appears in all its vastness, stretching in to the valley for over 30 kilometres. In the crystalline air of the morning, the light illuminates the magnificent panorama of peaks lining the glacier.

On the left side, **Biarchedi** (6781 m) and **Ghondogoro Ri** (6810 m) block the view of the **Masherbrum**, whilst on the right are **Paiju Peak**, the **Cathedral Spires**, the **Trango Towers** and the **Lobsang Spires**.

It is the coldest camp site on Baltoro which receives strong winds due to its exposition. It is pretty common for trekkers to stop there for two-three days to savour its beauty. From Concordia the route splits. On north, following Godwin Austen Glacier is the path to K2 (route n.2). Towards south-east departs the way that, climbing the upper Baltoro and Abruzzi glacier, leads to **Gasherbrums Base Camp** (5156 m)(route n.3), while, heading south, following the Vigne Glacier it reaches to **Hushey** via **Ghondogoro La** (5625 m).

Above: K2 base camp

Previous pages: Muztagh Tower view from Baltoro Glacier; Gasherbrums view from Goro camp-site; Baltoro sails;

On the opposite page: K2 view just after Concordia

Itineraries

Central Karakoram National Park

Concordia Rescue Team

To cope with the lack of a first aid service within the Central Karakoram National Park, starting from the summer of 2014, every year a rescue team is formed at Concordia during the tourist season. The rescue service is formed by qualified mountain rescue technicians and paramedics, all experienced, acclimatized and specifically trained for the task. CRT operates in partnership with the 1122 Pakistan Emergency Service.

The main tasks of the service are to provide immediate help and first aid in case of accidents on the mountains and to provide medical assistance to tourists, climbers and porters.

The Concordia Rescue Team (CRT) operates in the whole Baltoro region.. The initiative has been promoted by the ***SEED project*** *born in the framework of Pakistan-Italian debt for development, SWAP agreement (PIDSA) and coordinated by the Italian* ***EvK2Cnr Committee*** *and the* ***Karakorum International University.***

Itineraries

Central Karakoram National Park

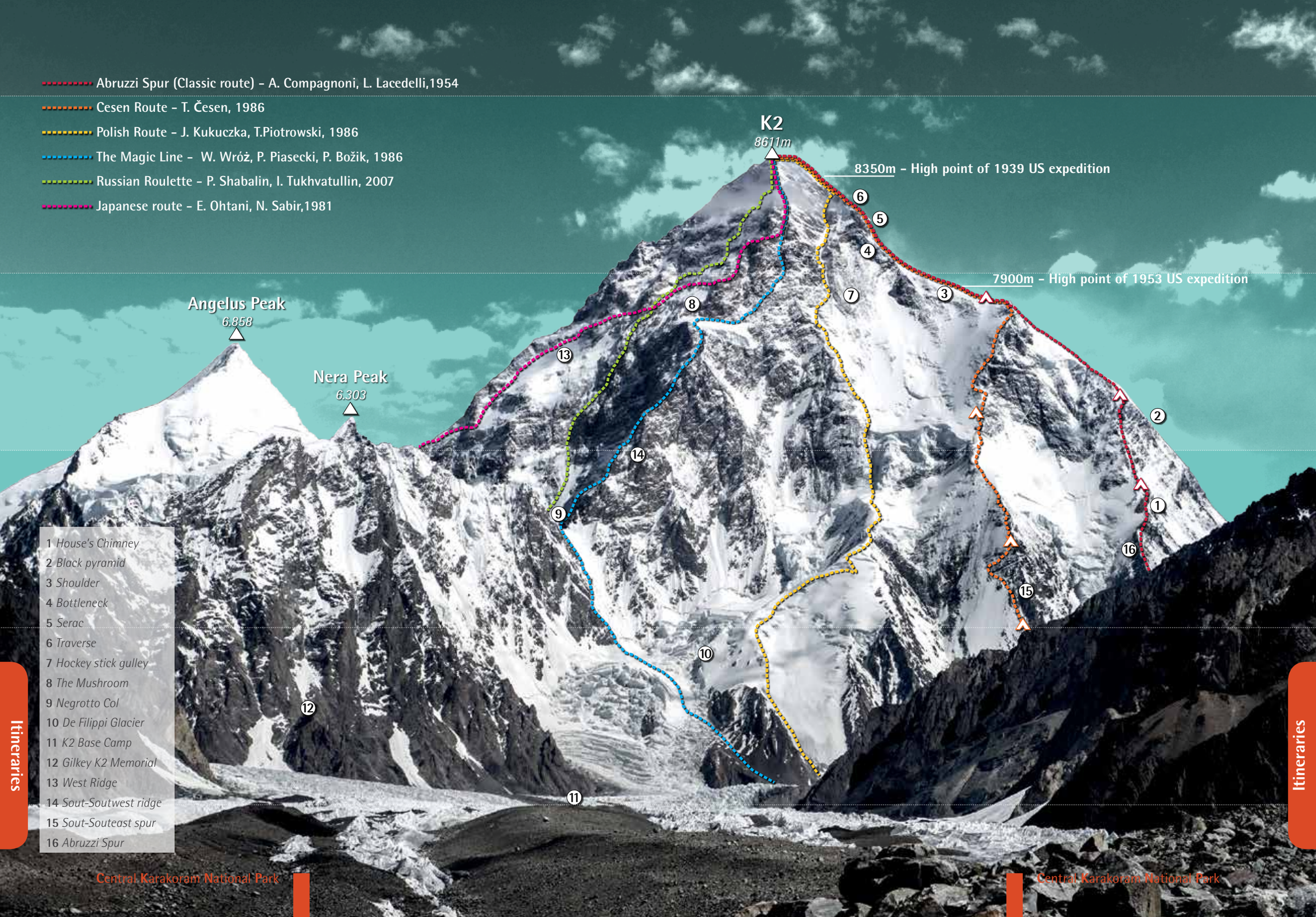
Broad Peak *(8047m) is the 12th highest mountain in the world. temporarily named K3 by G. Montgomerie. The present name came in use and widely accepted after Martin Conway wrote "a fine breadth of mountain splendour...a huge Breithorn, as it were, filing the space between K2 and the hidden Gasherbrum". At the mid of the last century, some purist geographer, tried to change the name but they did not find any credible local name. So, they simply translated Broad Peak into the local Balti language. The result was P'alchan Kangri/Ri.*

Three separate peaks characterize it's summit ridge which is over 1.5 km long. The three peaks are namely the main summit (8047 m), the central (8016 m) and the north (7582 m)summits. The summit was conquered in 1957 by Fritz Wintersteller, Marcus Schmuck, Kurt Diemberger, and Hermann Buhl.

Buhl became the first person to make two first ascents of mountains over 8000 metres, after the legendary solo ascent at Nanga Parbat in 1953. It was a remarkable expedition but got overshadowed by a bitter end. After returning to the basecamp, the group got divided. Schmuck and Wintersteller went to Skil Brum peak (7360 m) that was ascended in 53 hours only, while Buhl and Diemberger tried to summit Chogolisa (7668m). Both teams decided to go in pure alpine style, which had never been done before on Himalayan Mountains. On Chogolisa, at 7300 m, a storm hit the mountain and compelled Buhl and Diemberger turn their backs. Diemberger led the return in difficult conditions, but they didn't rope on. The ridge of Chogolisa was heavily corniced and suddenly Diemberger felt vibrations under his feet. Instinctively, he jumped away from the ridge and went on descending. After a while he halted to wait for Buhl to tell him that he nearly fell through a cornice but he couldn't see Buhl. He started to ascend again and saw the tracks of his jump action and the track of Buhl leaving his tracks and going on towards the disappeared cornice.

Itineraries

Central Karakoram National Park


Abruzzi Spur (Classic route) - A. Compagnoni, L. Lacedelli,1954
Cesen Route - T. Česen, 1986
Polish Route - J. Kukuczka, T.Piotrowski, 1986
The Magic Line - W. Wróż, P. Piasecki, P. Božik, 1986
Russian Roulette - P. Shabalin, I. Tukhvatullin, 2007
Japanese route - E. Ohtani, N. Sabir,1981
K2
8611m
8350m - High point of 1939 US expedition
7900m - High point of 1953 US expedition
Angelus Peak
6.858
Nera Peak
6.303
1 House's Chimney
2 Black pyramid
3 Shoulder
4 Bottleneck
5 Serac
6 Traverse
7 Hockey stick gulley
8 The Mushroom
9 Negrotto Col
10 De Filippi Glacier
11 K2 Base Camp
12 Gilkey K2 Memorial
13 West Ridge
14 Sout-Soutwest ridge
15 Sout-Souteast spur
16 Abruzzi Spur
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Preceding pages: Concordia Rescue Team; Broad Peak; K2 ascension routes.

Concordia – K2 BC

Concordia (4575m)– Broad Peak BC (4850m) – K2 BC (4980m)

5-6 hours ⇔ 11,6km - ⇑ 543m ⇓ 138m - Moderate

From Concordia the trek points north. Before reaching the medial moraine of the **Godwin Austen Glacier**, the way crosses difficult crevasses and glacial rivers.

To front, the incredible size of the perfect pyramid of K2 becomes apparent, on the left hand side, the smooth white wedge of the **Angel Peak** (6858 m) soars above. Looking back, **Chogolisa** (7668 m) or **Bride Peak** appears in all its magnificent glow. On the right side, the **Khalkhal Glacier** descends between the **Doksam** group and the **Khalkhal Ridge** which terminates on the Godwin Austen Glacier with its eastern peak - the **Pastore Peak** (6379 m). The peak is not too difficult to ascend and represents an interesting target for every trekker who is skilled in climbing and seeks the pleasure of a fantastic view of K2, Broad Peak and the surrounding mountains.

The advanced base camp (5200 m) is located at the foot of the mountain on the Khalkhal Glacier located at one hour from the main trek. The climb starts on a 40°snowy slope. At 5900 is the col, from where, the last step leads to the top with a gradient of 50°. The summit can be reached after 10-12 hours from the camp.

Below: Marble Peak (6256m)

Shortly after Khalkhal glacier, 2½-3 hours from Concordia, is the **Broad Peak base camp** which extends 30 minutes up to the light brown medial moraine.

One hour after passing the camp, the trail moves on to the white ice, at left side of the medial moraine, where it is more comfortable to walk.

K2's base camps are not far from this place rather just at 2-3 hours of more walk only. Slowly, the trail reaches the K2's feet. A cluster of mountains fill up the horizon as well as your senses.

Just 30 minutes before hitting the camp, the route turns slightly eastwards passing through a broken glacier and moraine. Westward, is the **Savoia Glacier** and the peaks of **Summa Ri** (7302 m) also known as **Savoia Kangri** and **Skilbrum** (7360m) which is divided from **Prada Ri** (7156 m) by a saddle at 6466 m.

A little ahead is **Nera Peak** (6394 m) which dominates the junction between the two glaciers. On an elevated spot up rocky slope, is the memorial to the most passionate deceased climbers that the world has ever witnessed. It's a good idea to spend a 'connecting moment' there for the daring souls, who even lost their precious lives on the magnificent K2.

Above: Mitre Peak (6070m)

The **K2 memorial** was placed in 1953 in memory of Art Gilkey, member of the American Expedition lead by Charles S. Houston.

Looking down, the base camps lie eastward on the moraine which begins at the mouth of the **De Filippi glacier**. From there, the stripped physiognomy of the Godwin Austen Glacier becomes more clear. A mass of moraines and ice feeded by the lateral glacier, that runs in straight lines toward the Concordia basin.

The peculiar striated effect comes from the lateral moraines of side glaciers that join the main ice flow and are squeezed into long, parallel ridges of ice, bordered by lines of rock and gravel.

Covering the distance of more than 90 km from Askoli, the route finally reaches at **K2's base camps** placed at the elevation of 4980 m.

Looking north-east, the Godwin Austen glacier continues up until it disappears behind the immense K2's South East Ridge, the famous **Abruzzi Spurs**. Following this line of ascent, the Italian expedition lead by Ardito Desio, was able to bring two of his members, Lino Lacedelli and Achille Compagnoni up to the summit on 31 July 1954 for the first time. The undertaking was possible also because of the decisive contributions of Walter Bonatti and legendary Hunza porter Amir Mahdi.

Central Karakoram National Park

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Preceding pages: View of Godwin Austen glacier and Concordia circle from C1 on K2.. On the right is the white cap of Masherbrum, while on the left is the snowy face of Chogolisa..

They climbed up at 8100 m to deliver supplementary oxygen to Compagnoni and Lacedelli for their final summit attempt.

Concordia – Ali Camp

Concordia (4575m) - Miksus (4750m) - Ali Camp (4965m)

4-5 hours ⇔ 10,5km - ⇑ 490m ⇓ 100m - Moderate

From Concordia, the quickest way to get out of the valley, is through the **Gondogoro La**. The route was established in 1986 to connect Concordia and the upper Baltoro with Hushey Valley. In spite of its popularity with trekkers, this is an extremely technical route with 50-degree snow slopes and objective dangers as: avalanche and rock-fall from which derives the name.(*gondo* means 'broken pieces of'; *gore*, 'rock'). For all the trekkers wishing to venture this particular route, traits such as good judgment, commitment, top fitness, prior acclimatisation and basic mountaineering skills are mandatory.

Below: View of K2 and Broad Peak, on right, from Gondogoro La (5625m)

From the pass, one can access the most overwhelming mountain panoramas of the world, with all of the Karakoram's 8000m peaks close at hand. To help climbers and trekkers, a team of highly skilled local climbers and high altitude porters stay at

the top of the pass to assist them. For such services they charge nominal amount but provide excellent quality of service.

The successful crossing of the Gondogoro La depends on good weather conditions, while approaching the pass. If the bad weather persists, the return via Baltoro Glacier is highly recommended.

Starting from Concordia the route heads south towards **Mitre Peak**, scrambling over several moraine ridges, it reaches the lateral moraine at the base of the mountain.

The path follows the moraine, turning around the foot of the mountain and after two hours from Concordia it comes to the **Vigne Glacier**. From there, it is possible to see the hidden peak of **Gasherbrum I** (8068 m) that emerges between **G V** (7133 m) and the **G VI** (7004 m) also called **Chochordin** - the last unclimbed Gasherbrum.

The glacier is snow-covered and fewer crevassed, but anyway insidious. Travelling in roped teams is highly recommended.

Above: Vigne Peaks on the way to Ali Camp.

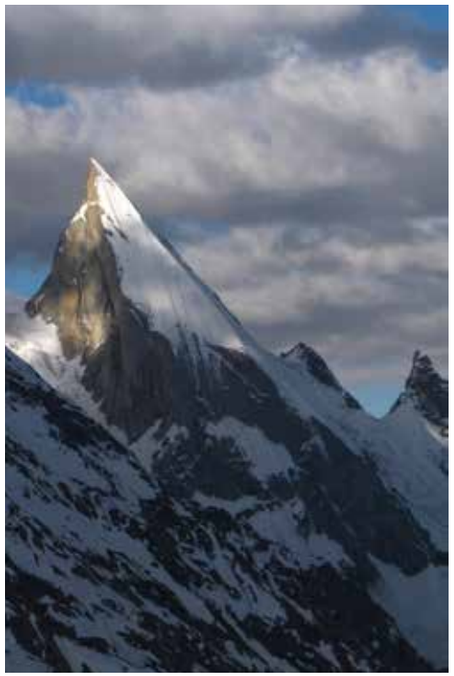
Going up the glacier, after 20 minutes and shortly after the first side valley on east, a cairn indicates the camp of **Miksus** (*mik* – eye, *sus*- pain). The camp is not frequently used, but it is a helpful reminder for all trekkers to wear sunglasses.

On half way to Ali Camp, a glacier descending from the Eastern face of **Ihakora** (6172m) flows into Vigne Glacier. The route continues in the midst of the glacier to avoid the crevasses along the margins and for an easiest walk on the more stable snow. Looking ahead, the shape of **Tasa Burakha** (6700 m), known as **Trinity Peak**, emerges from **Ghondogoro La** (5500 m) on north and **S. Vigne col** (5950 m) on South. On the other side of the glacier, the iced and snowed **Vigne Peaks**, (the highest is 6851 m) also called **Khumul Gri**, hide the view of **Chogolisa** which is placed in the back. Before Ali camp, the route reaches an altitude of 5000 metres, about 500 meters higher than Concordia.

Downwards, the white mass of the Vigne Glacier flows in the upper branch of Baltoro, with Broad Peak, Gasherbrums and the peak of **G II** (8035 m) that emerges over them in the background.

Ali Camp is after, 5-6 hours from Concordia at the base of the spur at the confluence of the Vigne and West Vigne glaciers. The approach is straight from the glacier, overcoming the insidious marginal crevasses that guard the camp. It is kept safe by the campsite's staff.

Itineraries



Above: View of Laila Peak from Khuispang

The name of the camp derives from Ali Muhammad Jungugpa. On 20 June 1986, crossing the Gondogoro La, he had opened the new route. . His name is still displayed on the cliff, in red paint, in an effort to acknowledge his contribution for mountaineering.

Ali Camp – Gondogoro La – Khuispang

Ali Camp (4965m) - Gondogoro La (5625m) - Khuispang (4695m)

7-10 hours ⇔ 10,8km - ⇑ 795m ⇓ 1065m - demanding, technical

Starting from **Ali Camp**, four to six hours are needed to reach the pass. To avoid the prospective dangers, trekkers must start early around 1-2 in the morning or may be a little later if they are very fit, moving in with a roped party and reaching on the top of the pass at sunrise.

At the base of the buttress, the trek starts gently heading diagonally west-south-west and after one hour over the firm snow of the west Vigne Glacier, it reaches at the foot of the black rocky spur descending from the ridge above. From there, starts the snow ascent that after 600 meters with three 50 degree sections covering 120 meters on fixed ropes, gets to **Gondogoro La**.

During the ascension looking northward **K2**'s summit begins to emerge above the ridge, in between the peaks of **Ikahora** and **Mitre**. The pass unfolds an unforgettable and breathtaking view for the trekkers. All the four Karakoram's eight thousanders, **K2**, **Broad Peak**, **G I** and **G II** stand ahead, rising over a multitude of lower peaks.

On south, **Ghondogoro glacier** flows heading south-west. The southern ridge of the valley culminates with **Tasa** (Trinity Peak), followed down in the valley, by the sharpened snowy granite cone of **Laila Peak** (6096 m). **Kuispang** (4695 m) comes down on right up to the grassy hillside, at the base of the spurs at the confluence with the northern branch of the glacier.

On the south side, the route descents on fixed ropes, the snow covered 50 degree slope. This is the more dangerous length. When snow starts melting, the exposed loose rock presents serious rock-fall danger.

***Laila Peak** (6096m)*

The first ascent was taken by the Britain's Simon Yates, Sean Smith and Mark Miller who climbed the peak in 1987 via the west face from the Gondogoro Glacier. The first 'official' ascent wasn't until 1997, by the Italian's Fabio Iacchini and Paolo Cavagnetto. On reaching the top, the Italians discovered a gas cartridge with the names of the British climbers scratched onto it. The line that the Italians climbed was however, slightly harder following the west face-north ridge as opposed to the west face-southern slopes.

Loosed the first 250 meters, the route starts traversing and after 150 meters more the slope angle decreases. The glacier is reached after 1½ hour and the route proceeds along the right margin.

After one hour, near a moraine pool, there are a few stone shelters of the **Gondogoro High Camp** (4800m), also known as Doug Scott Camp, named after the famous British mountaineer. After one more hour, the path reaches at **Khuispang** (4695 m) or **Xhuspang**. You would know that you are there once you see the lovely turquoise (*xhu*) flowers that blanket this beautiful grassy place (*spang)* in summers. Here is the most beautiful view of the **Laila Peak**. The straight line, 45 degree angled; of the north-west ridge emerges from the valley for more than 1500 metres.

***Ghondogoro Peak** (5650m)*

From Khuispang it is possible to climb above the Gondoghoro Peak. It is a straight forward technical single day ascension, easier than Gondogoro La, that involves 970 m ascent/descent. Some heavenly views, of Masherbrum and Chogolisa (7665m), open up from the summit.

Khuispang – Saicho

Khuispang (4695m) - Dalsampa (4170m) - Saicho (3434m)

6-8 hours ⇔ 16,6km - ⇑ 149m ⇓ 1410m - moderate

From Khuispang, the route runs along the ablation valley below the camp that in summer is covered by many rivulets and grassy islets. After 20 minutes, it climbs onto the moraine at the meeting point of the two branches of the glacier. From here, the way is not very clear; it changes frequently, year by year, finding different passages through the moraines of the east branch. They are crossed diagonally, heading the left side (East) of the glacier. After the long traverse on the glacier, next 5 kilometres can take 2-3 hours. The route finds the exit from the Gondogoro Glacier through its heavily broken left margin. From there, looking north-east, is the massive steep-walled granite prow of the **Gondoghoro Tower**. It is located above **Khuispang** and coming from Hushey, constitutes a reference point to find the route.

From the hillside, an easy trail through flowered pasture lands, grazed by yaks, reaches to **Dalsampa** (4170 m) in half an hour. In Balti, the meanings of *dalsampa* is a "field of flowers".

The term beautifully describes the camp, which lies in the

Below: Hushey Valley on the way to Ghondogoro

ablation valley between the two lakes, in a meadow that is covered with flowers and is found by a stream.

Looking northward, the **Masherbrum** Peak and the awesome icefalls descending from its ridges are reflected in the still water of the lakes, creating a gorgeous view.

The trek to Saicho resumes along the path on the left side of the lateral moraine, crossing several side streams. The next 1½ hour is an unpleasant scramble along the stony, sliding glacier edge, with huge boulders poised above, ready to fall anytime.

Having reached a flat area, a large boulder marks **Golong**, a pleasant place with a stream coming from the homonymous peak. There is a beautiful terrain for walk.

The trek runs through the shepherds trails along the flower filled ablation valley and after 4-5 hours, **Saicho** is reached.

On the way, the trail crosses the shepherds settlements of **Ghondogoro Camp** and **Atosar**. The first stop after 1½ hour, is marked by a big rock and few huts that are across the stream. Looking up towards the side valley of the stream, there's the rock spire of **Balti Peak** (6050 m)which rises above the glacier.

The second stop, Atosar, is just 1½ hour before Saicho. It is a flat grassy expanse with a lot of water, willows and junipers.

Saicho (sometimes Shaishcho) is placed at the confluence with the **Tsarak Tsa** Valley (better known as **Charakusa** Valley). Its name derives from the Balti words *sha* (meat) and *cho* (ruler) and it is a large shepherds summer settlement with its own mosque. It was the place where the Raja of Khaplu came and ate Ibex, brought to this place by his hunters.

The presence of good water, tamarisk, giant bushes of wild roses and junipers, make this a picturesque and pleasant place to stop.

From Saicho starts the route that, heading east, leads to **K6** and **K7** base Camp (route n. 36).

Saicho – Hushey

Saicho (3434m) - Odungstan - Hushey (3180m)

6-8 hours ⇔ 10,2km - ⇑ 140m ⇓ 394m - easy

From **Saicho** the trail head to south and after 20 minutes it reaches the footbridge crossing the Charakusa river. The route continues following a good path and after an hour, the summer settlement of **Odungstan** is reached.

Here, the joined Gondoghoro and Charakusa rivers meet the river coming from Masherbrum and Aling glacier to form the Hushey river. The walk continues down into the valley flanked by sheer granite walls and after two hours reaches the green irrigated fields at Hushey and the CKNP entry point. **Hushey** village is just five minutes ahead

Opposite page: Harvest time in Hushey Village.

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from this point. At the entrance of the village is the renowned "Refugio Hotel".

Hushey (3050 m) is the uppermost village in the valley of the same name.

It is a small community, where the life hasn't changed in centuries and same old and conventional lifestyle can still be seen, set against the rugged snow cloaked peaks and cobalt blue skies.

Like many of the upper valley villages in the Karakoram, Hushey is organised as nucleated settlement surrounded by a zone of cultivated land. The villagers take their livelihood from means of agro-pastoral system, which basically relies on the seasonal use of the fields close to the village for crop cultivation and higher pastures for livestock grazing. People grow wheat, buckwheat, peas and turnips. Domestic animals such as sheep, goats, cattle, yak and dzo (a cattle-yak hybrid) constitute the livestock, and also used for dairy products, wool and draught labour.

Hushey has a broad expanse of pastures that even extend to Chiling, Masherbrum and Gondoghoro valleys. Livestock, except yak, are moved farther and higher from the village as the summer progresses and the return to the village to be stall-fed through the winter. In Hushey, herders have distinctive livestock enclosures, called *Xalas* that are commonly seen during the trek. In the village, women are the shepherds, staying in pasture settlements, making butter that is carried to the village every couple of days.

Thanks to conservation programs established in the nineties of the last century, the valley is rich in wildlife with large community of Ibex, a growing population of snow leopards, foxes and wolves. Ibexs and snow leopards lives at high altitude, in the warmer, summer months of the year. They are rarely seen. Their presence in the area however may be assessed through indirect signs, i.e. pugmarks, scats and territorial signs. From November to end of March, Ibex come down to lower altitudes in search of winter grazing and it gets relatively easier to see them graze on the snow covered hill sides around the village.

The villagers are friendly and pretty receptive to tourism. Hushey's men began working as cooks and porters for mountaineering expeditions in the 1960s. Over the years they've literally carved their reputation as guides, cooks and high-altitude porters.

On left: Looking toward north from Hushey.

Itineraries

Central Karakoram National Park

Into the ice world

Biafo – Hispar

Askoli – Namla – Mango – Shatung – Baintha II Nakpogoro – Marpogoro – Karpogoro – Hispar La BC Hispar La – Baktur Baig – Hagure – Bitanmal – Hispar Village (or vice-versa).

Zone: Open **Grade**: very demanding-technical (Hispar La crossing) **Season**: mid June - early September **Duration**: 9-12 days **Distance**: 125km **Max. Height**: 5.150m

Biafo Glacier (60 km long) and **Hispar Glacier** (61 km long) meet each other at the 5151 m Hispar Pass forms one of the longest glacial systems outside the polar regions.

The region was explored for the first time by the British explorer Martin Conway in 1892, followed by the brave Fanny Bullock Workman with her husband in 1898. It was just before the world war II that the geography of the region became clearer with Erik Shipton, undertaking his second expedition in this region. His geographical surveys have enabled trekkers appreciate extraordinary accurate maps.

This contribution emerged as the result of a mountain adventure that lasted for 16 months. Shipton exclaimed the following "*England is at war (...) maybe even London, where we made our preparations is now, nothing else but chaos, ruins and terror. How this seemed unreal and highly ridiculous in our magnificent far away universe of ice and snow. As if to prove this contrasted statement, the fog disappeared and at that brief moment, the glacier bathed in a sunset full of light that was reflected by the summits. The huge granite arrows from Biafo detatched*

Central Karakoram National Park

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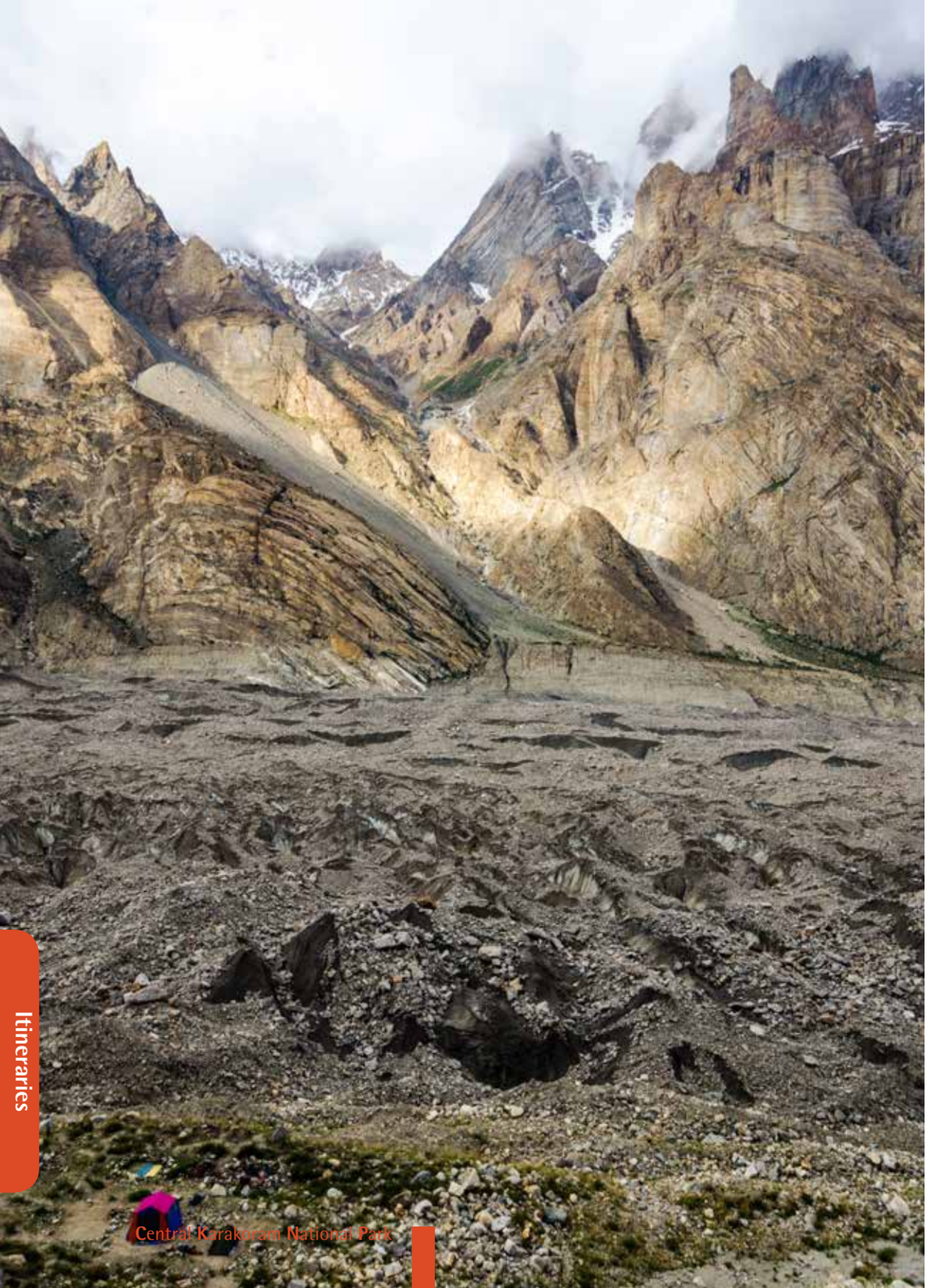

themselves from the dark blue sky. At least, this mountain universe to which I owe so much life and happiness, will survive all the broken hopes ruined by men and still be a heritage to generations of wise."

But this remote and pristine highway of snow, was not unknown to the local populations in the past. Relations between the ancient kingdoms of Hunza-Nagar and Baltistan, were pretty cordial. **Hispar La**, **Nushik La**, **Khurdopin La**, **Lupke La** and **Sim La** were the main passes linking, Baltistan, Hunza Nagar, Simshal and Yarkand through a network of commercial routes crossing Karakoram, with its immense glaciers and ice-covered mountains.

The trek connecting the baltì **Askoli** village to the **Hispar** village in Nagar district goes along a route of over one hundred kilometre. It is a two weeks of challenging trek that requires an excellent level of fitness, skilled guides, fully equipped porters and previous trekking experience with additional skills of using ice axe, crampons and walking roped up.

The region is very remote and it is the last stronghold for many animals; including ibex, markhor and the snow leopard.

R'Dzong La

Hispar La is also called R'Dzong La by the Balti people of Braldo Valley. It is a Tibetan word used to designate a type of fortress' architecture, really massive in style with towering exterior walls.

The name probably is only a reference to describe the inaccessibility, vastness and magnitude of the place, even if the oral traditions and the tales collected by early European explorers, may argue the idea that in the past there existed some kind of defensive structure for the protection of the people of Baltistan, from threats coming from the Hispar glacier.

Previous pages: View of Bullah Peak seen just before the Namla.

Askoli – Namla

Askoli (3050m) – Maidan CKNP Entry point (3050m) – Kesar Shaguran (3010m) – Namla (3420m)

6-8 hours ⇔ 16,5km - ⇑ 460m ⇓ 90m - easy

Starting from **Askoli**, the route takes the normal way to Baltoro glacier.45 minutes of easy walk leads to the entry point of the park, located slightly lower on the right of the path. On the opposite side of the valley is the village **Testey** and the entrance to the valley that takes 3-4 days to Shigar via Skora-La (see route n.8).

The trail continues for half an hour till the time it hits the splitting path. One can opt to either go straight on through the bridge for Baltoro Glacier (route n.1), or towards left over a ridge for the path up to the **Biafo Glacier** and finally to Hispar. **Kesar Shaguran** (Kesar's Polo Ground) is just beyond that place.

The trail continues on an inclined plain before reaching the moraine of the glacier with a steep ascent.

Once over the ridge, is a panoramic view down onto the boulders-strewn of Biafo glacier, stretching Northwest as far as the eye can see. Looking south is the

Opposite page: Biafo glacier at Namla camp site.

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pyramidal **Bakhor Das** (5,810 m), along the edge of the moraine. After 45 minutes of ups and downs, the route enters the glacier where the trail ends at a broken white rock. Following rare cairns, it moves onto the centre of the glacier where water lies in moraine pools. After three hours, on the glacier, one passes through a glacial valley which opens westward, with the route heading west to its margin. Off the glacier, 15 minutes of walk leads to the grassy area of **Namla** (3690m) with porter's shelters and sandy camp sites.

Namla–Mango

Namla (3420m) – Mango (3730m)

5-6 hours ⇔ 9km - ⇑ 360m ⇓ 50m - moderate

After leaving the campsite and descending the steep rocky moraine to the glacier, the route crosses the marginal crevasses and goes straight to the centre of Biafo reaching after 1½ hours on the large central rocky moraine. The path crosses the medial moraine and a white ice band to reach the eastern medial moraine which is even more levelled and easier to walk on. In 45 minutes or so, **Janping Chekhma** (3734m), a large, green, side valley, is visible to the west.

Below: rocky peaks along the Biafo glacier.

This side valley is very hard to reach, blocked by black ice towers and difficult broken glacier. The trail continues along the medial moraine, passing occasional cairns crafted by Askoli villagers who take their yaks as far as Mango.

Two hours after Janping Chekhma, the routes reach opposite a side valley to the west, marking the south end of the green **Mango** area. After 45 minutes of crossing the white ice, the western medial moraine and then broken rock-covered ice, the route hits Mango-I.

There two camps exist: **Mango-I** and **Mango-II**. Mango-I (3660m), at the south end of this 2km-long ablation valley, is the better camp site with greater views, a serene pond, profuse wild flowers and porter's shelters.

Mango– Baintha I

Mango (3730m) – Shatung (3930m) – Baintha I (4050m)

5-6 hours ⇔ 14km - ⇑ 370m ⇓ 50m - strenuous

From Mango, the route descends on Biafo retracing the path to the centre of the glacier on the medial moraine.

It follows the moraine for about three hours with good northward views of the **Latok peaks**: on the left side are Latok-II (7,108 m), Latok-I (7,145 m). and Latok-III (6,949 m)is at right side.

Having arrived in front of the **Pharosang Glacier** - an eastern tributary of the Biafo, the trail turns to east crossing the glacier up to the opposite margin aiming for a faint trail, visible on the grassy hillside ahead, that runs parallel to the glacier. The route continues to the hillside through grass and flowers. Up on the moraine, there is a small rock shelter.

After one hour descend into a large ablation valley with broad alluvial fan it turns towards a wide sandy plane. Below is **Shatung** (3930m), a sunny place at the base of a large boulder where crystal clear water flows.

There, the way follows the stream through the left bank. It's 1¼ hours of walk to **Baintha** (3990m) campsite, located just after a small moraine lake.

Baintha is a grassy area with a clear stream flowing through dense willow shrubs surrounded by flowers i.e. the last green patch and running water stream before reaching Baktur Baig Gut Delum on the Hispar side.

Usually all groups take a rest day in Baintha for acclimatisation, meanwhile, the porters get time to bake bread for the coming days. A local tradition dictates a lavish goat feast for the porters there.

From the camp site, an hour's walk on the **Baintha Lukpar Glacier** offers a beautiful view on the Latok Group, and a non technical ascent is possible to the

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Biafo Glacier

Biafo means 'rooster' and describes the glacier's snout, which resembles a cockscomb.

The debris covers the terminal lobe of Biafo Glacier which spreads into the Braldu Valley, damning the river course in the past, creating large-scale flooding. The last time it flooded was in the late eighteenth century. "This relative position of the Biafo Glacier to the Braldoh valley produced many years ago - how many I could not ascertain - one of those cataclysms to which the Upper Indus is subject. The valley of the Braldoh became wholly obstructed with ice, and the whole of the broad expanse above of sandbanks and lines of streams became converted into a deep lake, which extended several miles upward. Thus it continued for some time, and when the waters at last broke through their icy barrier, the damage done seems to have been considerable. The greatest flood chronicled in the traditions of this region is that which took place along this very tributary to the Indus some 200 years since, when the village of Spanboo was quite destroyed, and its Musjid carried almost entire into the Shigar River. This was considered to be a miracle, and its timbers were accordingly re-erected in one of the villages on the left bank, where they remain to this day."(H.H.Godwin Austen)

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Nakpogoro, Marpogoro, Karpogoro *take their name from the colour of the rocks near the site. In Balti rock is 'goro' while 'nakpo', 'marpo' and 'karpo' are respectively used to indicate black, red and white colours.*

rocky **Baintha Peak** (5300m).
Looking across the Biafo glacier, **Tongo** (5904m) and **Sokha Lumbu** (5869m) form a jagged wall of ice and granite. In front of them is **Ho Brakk** (5364m), which calls for a single day of snow and ice climb.

Baintha I – Marpogoro

Baintha I (4050m) – Nakpogoro (4380m) – Marpogoro (4410m)
6-7 hours ⇔ 12km - ⇑ 260m ⇓ 30m - moderate

After a short walk up the green ablation valley, on the small path that starts near the small glacial lake, the path reaches at the confluence of the Biafo and **Baintha Lukpar glaciers**. To the east, up the Baintha Lukpar Glacier, are Latoks and **Baintha Brak Base Camps.**
The trail descends directly towards the glacier, moves onto the Biafo Glacier and goes towards the smooth central ice flow which is close to the medial moraine. The trail avoids getting too close to the conjunction of the glaciers where the ice is more broken and crevassed. Finally, the route heads up the glacier, working around

Below: The icy highway of Biafo Glacier seen from above Baintha camp site. Far in the distance is the Sosbun Brakk

crevasses and ascending steadily for several hours. If the glacier is snow covered, it is recommended to walk in single file tied with a rope.
Under some prominent yellow rock spire towers , is **Nakpogoro** (4380m) and it is reached in three to five hours after walking 8 km on the glacier. To reach the campsite, start from directly opposite to it and go straight ahead. The access is through broken ice. It is a large area located in the ablation valley on the east margin of the glacier with clear water and some vegetation.
After 3.5 km up to the glacier and 2 hours from Nakpogoro, is **Marpogoro** (4410m), called also **Napina** by some trekking guides. The small camp site is just above a side valley, with frequent icefalls. The rock on the north side of the camp site is distinctly red. The way to reach the camp site points directly towards the red rock paying attention to the wide marginal crevasses.
The campsite is directly below the spectacular south face of **Lukpilla Brakk** (5380 m). The altitude of the summit is not very high as for Karakoram but from the base it looks like a stunning spire. The prominent mountain on the north bank of the Biafo Glacier is the **Uzun Brakk** (6422m) that means "steep mountain" or "sheer mountain" in Balti. Across the glacier, above the confluence with the Ghur Glacier, is a single-day snow and ice climb of **Ghur** (5796m).

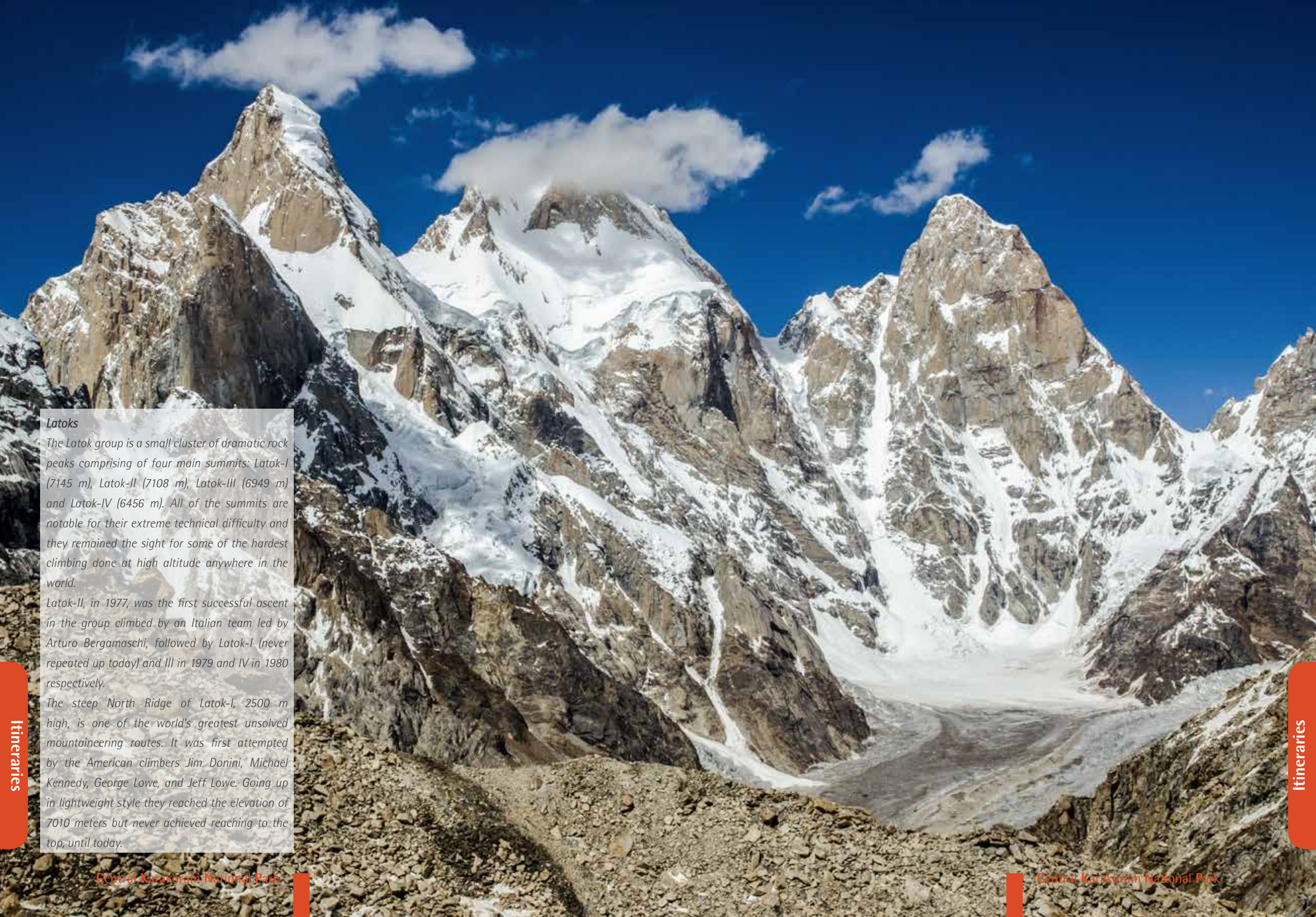
Below: Taking a rest on the glacier on the way to Hispar La

Marpogoro – Hispar La BC

Marpogoro (4410m) – Karpogoro (4583m) – Hispar La B.C. (4770m)
5 hours ⇔ 10km - ⇑ 400 ⇓ 40m - moderate

From **Marpogoro**, the route returns to the glacier. Now the Biafo loses its moraine of stones and is reduced to a river of white ice, furrowed by deep and narrow longitudinal crevasses. The course gradually moves to the centre of the glacier and continues straight in the direction of a clear change of slope where it passes, remaining on the glacier, with the seracs on the left side. The ascent is cold and weary; a steady breeze usually blows down the glacier.
After 6.5km on the white ice, the route reaches in front of **Karpogoro** (4680m), a small campsite located at the glacier's east margin, where **Sim Glacier** flows into Biafo. The approach to the campsite is rather difficult. It is guarded by marginal crevasses and the steep lateral

Itineraries



Latoks

The Latok group is a small cluster of dramatic rock peaks comprising of four main summits: Latok-I (7145 m), Latok-II (7108 m), Latok-III (6949 m) and Latok-IV (6456 m). All of the summits are notable for their extreme technical difficulty and they remained the sight for some of the hardest climbing done at high altitude anywhere in the world.

Latok-II, in 1977, was the first successful ascent in the group climbed by an Italian team led by Arturo Bergamaschi, followed by Latok-I (never repeated up today) and III in 1979 and IV in 1980 respectively.

The steep North Ridge of Latok-I, 2500 m high, is one of the world's greatest unsolved mountaineering routes. It was first attempted by the American climbers Jim Donini, Michael Kennedy, George Lowe, and Jeff Lowe. Going up in lightweight style they reached the elevation of 7010 meters but never achieved reaching to the top, until today.

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The Conway Ogre

Located beside the east margin of the Biafo Glacier is the Uzun Brakk Peak (6422m), the real Conway's Ogre, so named by the British explorer on 19th of July 1892 during his expedition. Entered in the corridor of Biafo Glacier from the Hispar La, he was overwhelmed by the stunning view that opened in front of his eyes "the clouds began to disperse, and we discovered new developments of mountain grandeur before us for which we were not prepared ... for some fifteen miles they rise, one beyond another, a series of spires, needle sharp, walled about with precipices, on which no snow can rest, and separated from one another by broken couloirs, wherein tottering masses of snow are for a while caught till they fall in overwhelming masses on the slopes at their feet...", and, referring to the Aiguilles of Chamonix in the Alps, that "are wonderful, and possess a grace of outline all on their own" Conway noted "these needles out jut them in steepness, outnumber them in multitude, and outreach them in size. The highest of them flings it's royal summit more than 23,000 feet into the air, and looks over a field of mountains that find no other superior in the world. I named the ridge on the north the Ogre's Fingers, and the great peak the Ogre."

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Baintha Brakk *(7285 M)*

Incorrectly known also as The Ogre, is a complex granite tower, steeper and rockier than most other Karakoram peaks. With its exceptional combination of altitude and height above local terrain, it is one of the hardest peaks in the world to climb. It's South Face rises over 3000 metres above the Uzun Brakk Glacier. The peak was first climbed by two Britons, Doug Scott and Chris Bonington, in 1977. It has been successfully climbed again in 2001 after twenty-four years and more than 20 unsuccessful expeditions. The British climbers climbed via the Southwest Spur to the West Ridge, and over the West Summit to the Main Summit. The ascent of the summit block required difficult rock climbing. They extended the boundaries of what had been done until then at over 7000 metres.

The descent proved more dangerous still: Scott slipped on ice during the first rappel and hit violently into a rock wall, breaking both legs above the ankles. Later, Bonington rappelled off the end of two ropes of unequal length, plunged about six meters, and finally broke two ribs. In addition to that much of the week-long descent to the base camp was ventured in a major storm. They were able to reach the base camp, where they waited long for assistance. A small helicopter finally arrived to pick up Scott but it crash-landed in Skardu. Scott and the other passengers were unharmed, but Bonington had to wait another week before he could escape the mountains.

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Above: The stunning granite spire of the Lukpilla Brakk soars above Marpogoro camp site.

moraine and is covered by many big boulders.
Here, the glacier is hidden by a layer of crushed stone and it's the last place where you can pitch your tent on the ground. Usually, the camp remains covered with snow up to the end of June. Fit and acclimated trekkers can cover in one stage the 22 km distance from Baintha-I to Karpogoro.
To reach at **Snow Lake BC**, the path passes the seracs on the west side to avoid crevasses. On the west side, at the right of the **Sosbun Brakk** (6413), is **Sokha La** (5100m). Where the Sim Glacier flows into Biafo, the glacier widens up gradually and the ascent becomes constant and measured. The surface of the glacier remains permanently snow covered. It is recommended to walk in roped single file tied with a rope. After 4 hours is the **Snow Lake BC** (4770m).
The highest section of the Biafo glacier is created by two other glaciers that are almost flat: **Lukpe Lawo**, in the North and **Sim Gang**, in the East. The vastness of the place (45 square kilometres) and the wideness of the view, gives the place the manifestation of a very impressive arctic landscape. The Snow Lake, far from the crowded Baltoro is very wild. Expeditions are still rarely seen there. Even if a less intrepid trekker sits down to admire sunset at Baintha camp or on the bank of Snow Lake, he/she can experience as a true worthy follower of the likes of Conway, Shipton, Bullock or Duke of Abruzzi.
From the Snow Lake, one can witness the full majesty of the **Northern Baintha Brakk** (7285m).
On east, the **Bobisghir** (6416m) is located close to the North-western angle of the **Panmah range** (*panmah* which means "the arc shooting", in reference to its characteristic form).

Hispar La B.C. – Hispar La

Hispar La B.C. (4770m) – Hispar La (5151m)
4-6 hours ⇔ 4,2km - ⇑ 381m - demanding technical

At rigth: walking roped on the glacier

From here the treks may lead to north which goes across the Snow Lake and the **Khurdopin La** (5790 m) to the **Shimshal Valley**. Towards east, up the **Sim Gang Glacier** where, heading north-east, the **Lupke La** (5675m) leads to the

Braldu Glacier. Towards south, the **Sim La** (5833m) leads to **Choktal glacier** and westward to the prominent **Hispar La**.

Before the sun hits the snow and softens it, one should commence the journey. The ascent to the pass is an easy, steady climb but it gets quite strenuous at this altitude. It is recommended to proceed in roped single file.

Chhish, *appearing as kish on some maps, means "mountain" in Burushaski).*

The route goes up to the middle, detouring to avoid numerous visible gaping crevasses and also for many more hidden ones. The broad and level **Hispar La** (5151m) makes a magnificent camp site in superior weather. In inclement weather, it is suggested to get off the pass and camp lower down on the Hispar Glacier.

The view is stunning, as Conway puts it beautifully, *"beyond all comparison the finest view of mountains, it has been my lot to behold"*.

On the east side are Biafo, Lupke Lawo and the Sim Gang Glacier; on the other side the Hispar Glacier down and, far to the west, the **Ultar peaks** far in the distance above Hunza. Just north of the pass, **Workman Peak** (5885m) forms a white pyramid. The peak was climbed for the first time on 1908 by the indefatigable Fanny Bullock Workman during the exploration of the Hispar-Biafo region.

Below: The Solu Towers

Hispar La – Baktur Baig Gut Delum

Hispar La (5151m) – Baktur Baig Gut Delum (4480m)

6-8 hours ⇔ 14,4km - ⇑ 50m ⇓ 721m - demanding

In one hour, the route crosses the pass, the trek on the top is gently undulated, and descents in the middle of the snow ramp, skirting crevasses with icefalls on either side. Beware of hidden crevasses, rope up, and it is recommended to walk in single file.

After one hour, once onto the lower **Hispar Glacier** (5040m), the way wends around the fissures and sinkholes. The Hispar side of the pass is more heavily crevassed than the Biafo side. The base camp for those crossing in the opposite direction is at the bottom of the steep part, on the glacier near pools. After 1 and a half hour, the crevasses decrease in number and the glacier becomes more flat. Roped up walk is no longer necessary.After 45 minutes, the route heads towards the moraine on the north side.

The trail runs parallel to the moraine and after less than an hour, reaches the **Khani Basa Glacier** (4511m),which is the first of four major glaciers that push into the Hispar Glacier from the north. The path climbs over the moraine and crosses two white ice sections of the Khani Basa Glacier. It enters the ablation valley along the north margin of the Hispar Glacier and ascends to the grassy hillside above. After thirty minutes, at the end of the ridge is the large camp site called **Baktur Baig Gut Delum** (4470m), which in Burushaski means "Baktur Baig pitched his tent here".

From this grassy area with a clear stream, flowers, porter's shelters and further beautiful views open towards **Bal Chhish** peaks, on the other side of the glacier, and Baintha Brak all of them rising over the Hispar La.

Above: Sokha La

Sokha La

Crossed for the first time by H W Tilman in 1937, the Sokha La is a very technical route, with steep snow slope on both sides, that leads to the Sokha Glacier and the Basha Valley in only 3 days.

Baktur Baig Gut Delum – Shiqam Baris / Hagure

Baktur Baig Gut Delum (4480m) – Hagure/Shangali Cham – Hagure (4222m) -Shiqam Baris (4170m)

7-8 hours ⇔ 18,2km - ⇑ 30m ⇓ 340m - demanding

The trail leaves the camp crossing the stream and moves on to the glacier's descending

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SNOW LAKE

W. Martin Conway, the first foreign visitor in the region, discovered this vast snow-covered place from the Hispar pass and gave it the name "Snow Lake". In 1899, a husband wife duo, William Hunter Workman and Fanny Bullock Workman came and speculated that Snow Lake might be an ice-cap like those in the polar regions, from which glaciers flowed out in all directions and estimated it's size at 300 square miles. It was not until Eric Shipton and H W Tilman explored the area in 1937 and 1939 that the true geography was known. During their permanence, Tilman and E Shipton noticed the traces steps of possible yeti and they followed them for about a mile. "The Sherpas judged them to belong to the smaller type of Snowman, or yeti, as they called them, of which there were apparently two varieties: the smaller, whose spoor we were following, which feeds on men, while his larger brother confines himself to a diet of yaks. My remark that no one had been here for nearly thirty years and that he must be devilish hungry did not amuse the Sherpas as much as I had expected! The jest was considered ill-timed, as perhaps it was, the three of us standing forlorn and alone in a great expanse of snow, looking at the strange tracks like so many Robinson Crusoes."

Snow Lake is a basin of ice (16 km. wide) surrounded by granite pinnacles yet to be climbed. Glaciologists have conducted various experiments on the lake and have found the ice to be approximately 1.6 km deep and that the glacier's surface moves 300m per year. Some go as far as to say that the Snow Lake represents the last of the original ice cap in the earth's temperate zones.

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Kanjut Sar

At the head of Khani Basa Glacier is the Kanjut Sar (7760m) which is the 29th-highest peak in the world. It was climbed for the first time in 1959 by Camillo Pellissier, member of an Italian expedition directed by Guido Monzino.

the steeply moraine and after half an hour reaches the boulder covered medial moraine.

To reach the campsite called **Hagure Shangali Cham**, a path can be taken in the center of the glacier to avoid the **Jutmaru Glacier**'s broken east margin where it impacts the Hispar Glacier.

The path reaches the cliff at the east corner of the Jutmaru-Hispar confluence, moving around the high ice walls, it ascends the cliff to the hill side following a steep trail.The trail on the grassy hill side has several camps used by the locals with excellent views and clean water. **Shiqam Baris** (4170m) is the biggest of all and is located after one and a half hour at the end of the grassy hill. A large stream descends from a side glacier onto an alluvial plain. Shiqam Baris means "green canyon" in Burushaski.

An alternate 5 km route follows the path along the grassy hillside from Baktur Baig Gut Delum to the Jutmaru Glacier.

The route can sometimes be blocked by mud slides and avalanches. However, the view across the valley is magnificent with hanging glaciers and frequent avalanches on the southern ice wall. A camp site called **Hagure Shangali Cham** is on the hillside.

Previous pages: The Hispar Glacer seen from the pass.

Right: South face of Pumari Chhish

Below: South Side of Hispar Sar (6400m

Shiqam Baris – Bitanmal

Shiqam Baris (4170m) – Hulum Burum Bun - Dachigan (3960m) - Budurumbun - Bitanmal (3808m)

6-7 hours ⇔ 10,7km - ⇑ 40m ⇓ 402m - moderate

Dachigan

Dachigan refers to a wall (dachi) blocking the trail (gan) to prevent livestock from straying.

A good trail continues for one hour to **Ulum Burum Bun** (white rock ahead) and crosses the large stream just beyond Ulum Burum Bun. Beyond the stream, the trail along the hillside towards the Pumari Chhish Glacier is preferable but occasionally remains blocked cause of rock fall and avalanches.

The alternative route descends the lateral moraine to the Hispar Glacier's north margin and follows it to the confluence with the **Pumari Chhish Glacier** (4080m) which flows off **Kunyang Chhish** (7852m), the 22nd-highest peak in the world. This exhausting, awkward route takes around three hours.

Crossed the Pumari Chhish Glacier in two hours, the route heads to the distinctive red lateral moraine of the Pumari Chhish Glacier, which bends west beneath cliffs

Pumari Chhish

From the junction between the Hispar and Yutmaru Glacier can be seen the east side of the Pumari Chhish massif with Pumari Chhish North (7492m) and Pumari Chhish South (7350m) in the foreground. The north summit has only been climbed once in 1979 by a Japanese team via the north ridge from the Upper Yazghil Glacier. The south summit was climbed in 2007 for the first time from the Yutmaru (aka Jutmo) Glacier.

Itineraries

Nushik La

The Haigutum Glacier leads to the difficult Uyum Pass (Nushik La), which crosses to the Chogo Lungma Glacier that requires a technical climb up an ice wall. The Uyum Pass is the lowest point in the 6,000-metre wall of the Balchhish Range. It was from Kero Lungma that Godwin-Austen climbed the Nushik pass (4,990m/1 6,371 ft) and is stated to have entered the 53-km-long Hispar glacier. He was perhaps the first European to reach it. He, however, did not survey it.

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Previous pages: Haigatum Glacier.

as it merges with the larger Hispar Glacier. Then there comes a place where the red moraine ends and rather meets the white moraine of the **Hispar Glacier** (4020m), the way climbs up the powdery cliff above the glacier's north margin to the hillside above (4080m).

After 30 minutes the trail reaches a camp site, where water sources may be dry after midsummer. The trail climbs above and around this dry camp site and joins the trail from the west side of the Pumari Chhish Glacier.

Dachigan (3960m) comes after 45 minutes. It's an ideal camp site with a large clear stream that waters the beautiful grassy area with grand views of the wall of 6000m peaks, south of the Hispar Glacier.

Bitanmal – Hispar

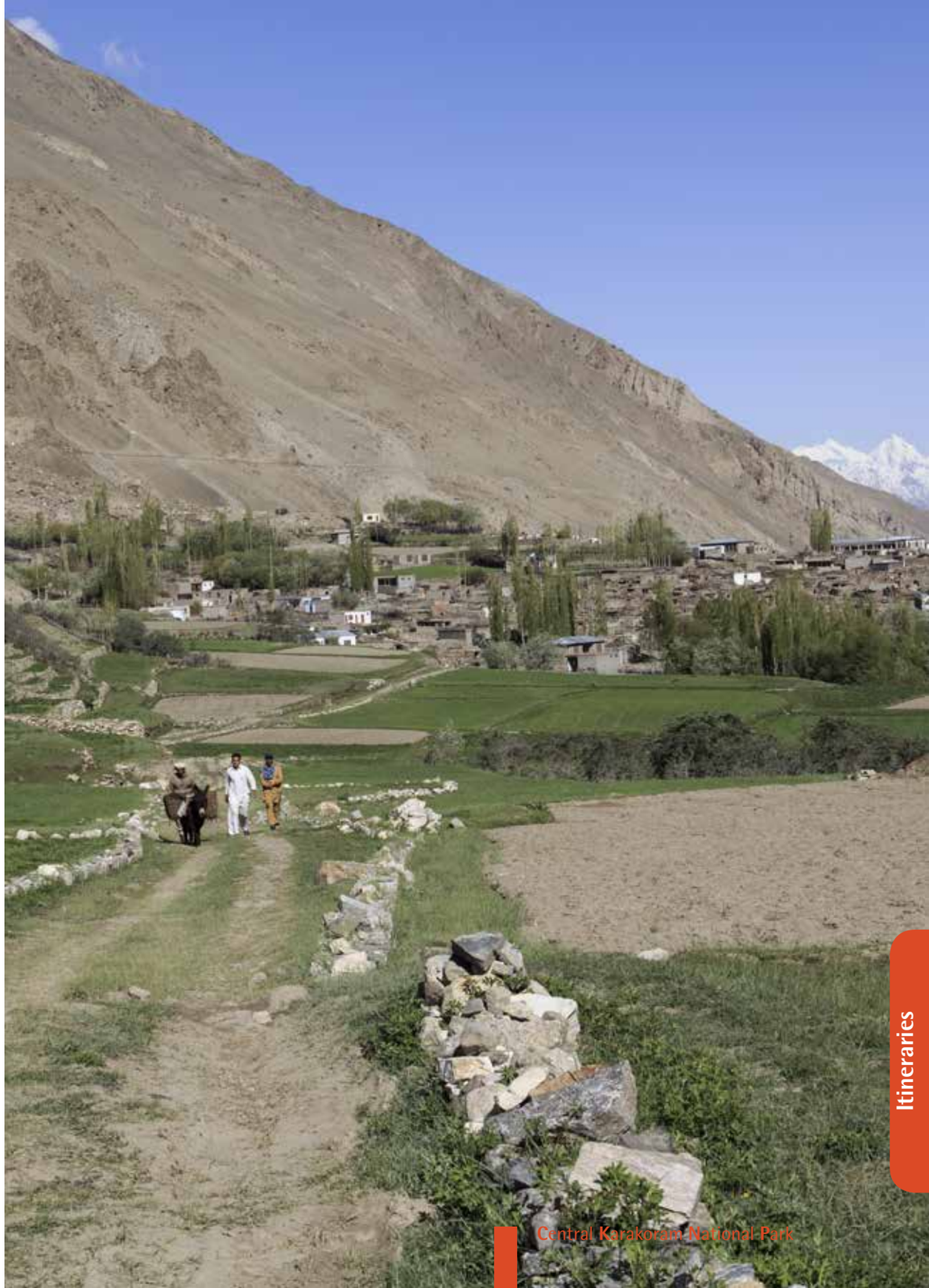
Bitanmal (3808m) – Daltanas – Palolimikish (3630m) – Ghurbun – Hispar village (3383m)

Right: Hispar Village.

7-8 hours ⇔ 16km - ⇑ 100m ⇓ 525m - moderate

Below: Pigeon houses at Hispar village.

After 45 minutes following a gentle trail, the routes reach the shepherd's summer settlement of **Bitanmal** (meaning 'shaman's field'-*bitan* is Burushaski



for 'shaman' or 'witch doctor'). Near the huts and livestock pens is a large rock and shrine.

A lofty **Makrong Chhish** (6607m) rises across the Hispar Glacier. From Bitanmal, after 15 minutes of walk across the meadow, the route descends steep talus to the Kunyang Glacier's edge. Following the small trail for one hour one reaches the easy crossing of the rock-covered Kunyang Glacier. Then comes a grassy hill on the far side which goes **Daltanas**.

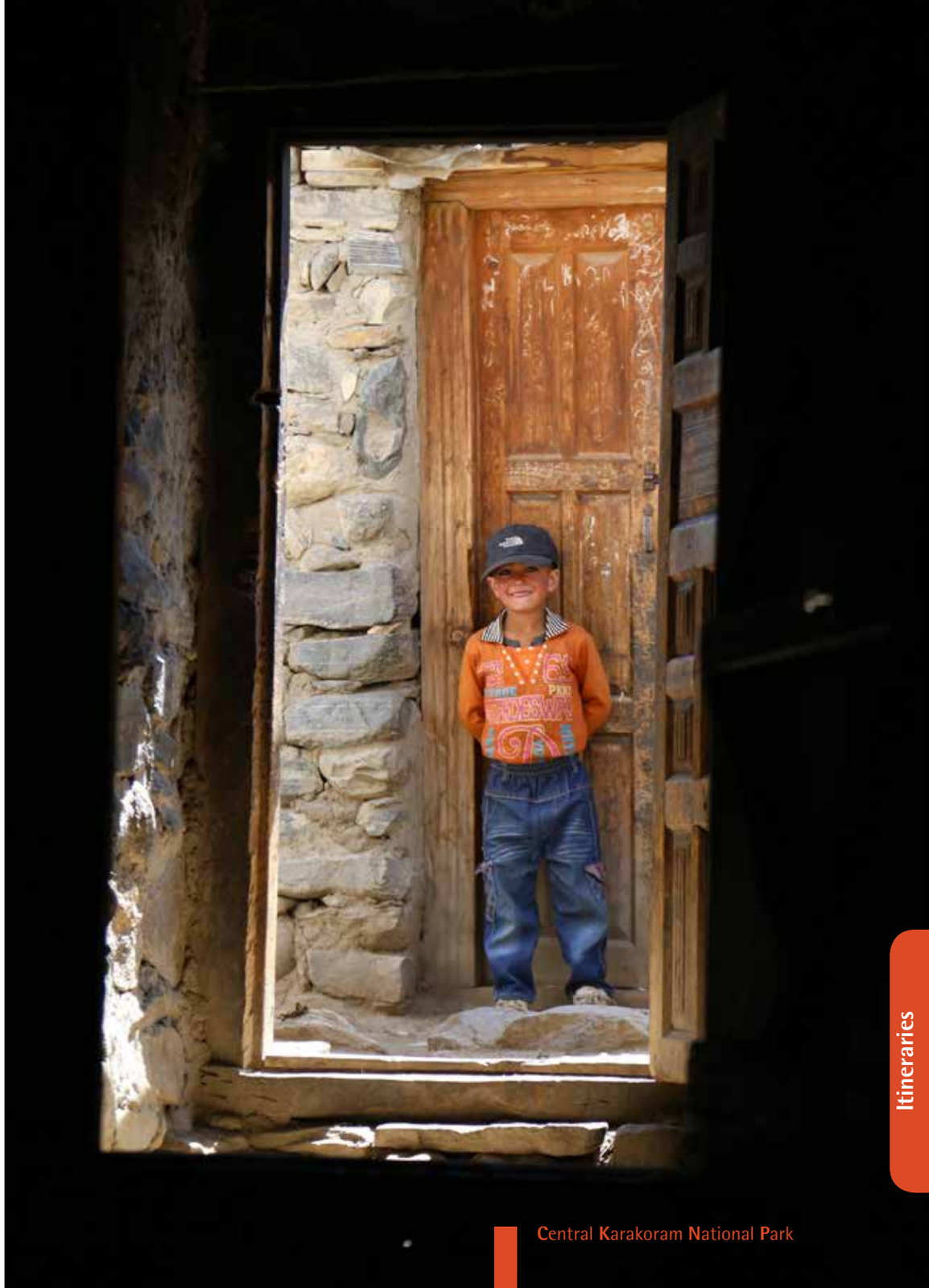
From there, it's just a gentle one hour walk down the ablation valley, through junipers and ephedra, passing herds of goats, cattle and donkeys.

The route finally reaches to **Palolimikish** (3630m), a field of tall noxious plants named "palolin".

The way continues beyond for half an hour, crosses a large stream and crosses one more after 30 minutes. **Ghurbun** with his clusters of houses is 30 minutes farther.

The final stream before Hispar village is often difficult to cross in the afternoon. If the water is too high, the best way is descending steeply to the Hispar River's true right bank and ford the side stream where it braids out through more level ground. The route passes a large spring and crosses the footbridge over the Hispar River, then climbs up the mud ramparts to the fields of wheat, buckwheat, peas, beans, turnips and potato, with a few scattered apricot trees, willows and poplars and finally the beautiful **Hispar village** (3383m) emerges, nearly after two hours from Ghurbun.

Right: Children from Hispar Village.



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