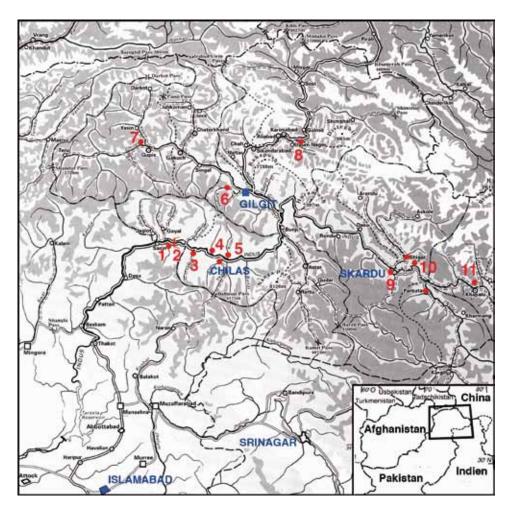
## PAKISTAN

## The Construction of Hydropower Projects in the Upper Indus Valley of Northern Pakistan and their Threat to the Rock Art Galleries

In the high mountains of northern Pakistan, in adjoining Hindukush, the western Himalayas, and Karakorum, one of the world's largest and singular rock art provinces is spread along the course of the Upper Indus and some of its tributaries from Indus-Kohistan in the south to Yasin, Hunza and Baltistan in the north. The mountain area corresponds in its main part with the province called Gilgit-Baltistan, the former Northern Areas, with its capital Gilgit. Petroglyphs of ingenious diversity and abundance cover boulders and rock faces not only along the ancient roads on both banks of the lower part of the Upper Indus, but also grace the routes traversing high mountain passes, thus marking the southern branch of the legendary Silk Road which connected China with historical India. A main cluster of rock carvings, however, is found between Shatial in Indus-Kohistan and Raikot Bridge extending over a stretch of more than 100 km. The centre of these unique rock art galleries in the Indus valley is located at the foot of the majestic Nanga Parbat (8125 m) around Chilas and Thalpan in the Diamer District. Altogether more than 50000 pictorial carvings and 5000 inscriptions are known to date representing a space of time of more than 10000 years from the Late Stone Age to the introduction of Islam. Their tremendous diversity permits insight into the history of various ethnic groups with their different socio-cultural and religious traditions. Since there are few records from Chinese or Tibetan sources about the distant Lords of the Mountains, the rock inscriptions and pictorial testimonies there represent the only medium to reconstruct the previously vaguely known rich culture and history of this intermediate region which in its long history likewise separated and connected the great civilisations of High Asia and the Indo-Pakistani subcontinent: the regions, where the empires meet.

The systematic investigation of the rock art province was inaugurated in 1980 after the opening of the 751 km long Karakorum Highway, the main connection between the People's Republic of China and the Islamic Republic of Pakistan, by a Pakistani-German team conducted by Karl Jettmar (1918–2002) and Ahmad Hasan Dani (1920–2009). Since 1989 the Pak-German Archaeological Mission of the Heidelberg Academy of Sciences and Humanities under the directorship of Harald Hauptmann were able to conclude the documentation of all archaeological sites between Shatial and Gilgit along the Indus and its tributary Gilgit and to survey also rich rock art clusters and historical sites in Yasin, Hunza and Baltistan.

The earliest group of rock carvings originating from the Late Stone Age (since 9th millennium BC) comprises naturalistic images of game and hunting scenes representing the world of early hunters and gatherers known from Siberia and Western Asia. Dramatic scenes showing a wider range of game chased by huntsmen and their dogs are dating to the Neolithic and Chalcolithic Periods. Most impressive are Bronze Age images of singular giant fig-



Major archaeological sites in Northern Pakistan and the site for the Diamer-Basha Dam:

- 1 Shatial,
- 2 Diamer-Basha-Dam,
- 3 Thor,
- 4 Hodur,
- 5 Thalpan,
- 6 Naupura,
- 7 Seleharan,
- 8 Haldeikish,
- 9 Manthal,
- 10 Chaghdo,
- 11 Saling



Hodur West, two Buddhas flanking a stūpa (6th-8th cent. AD)



Kino Kor Das, Achaemenid style fantastic animals (1st mill. BC)



Khanbary, giant figures above the Indus River (Bronze Age)



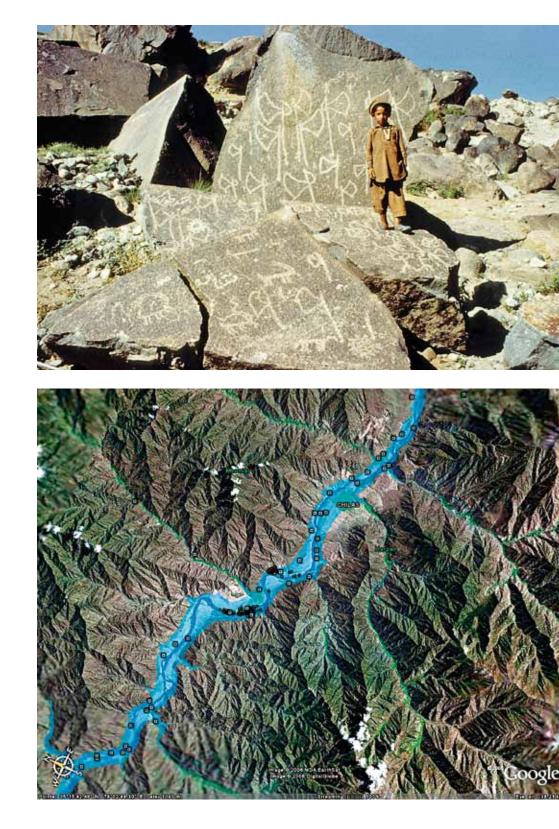
Thalpan, Buddha under the "Tree of Enlightenment" (6th-8th cent. AD)

ures engraved on rocks above the Indus with some examples also in Ladakh. Together with masks they reveal a shamanistic background, having parallels in Central Asia in the 3rd millennium BC. The new life-style of a chiefdom of cattle and sheep herders and husbandmen seems to have been introduced since the beginning of the 2nd millennium BC as rendered by drawings of chariots and humped cattle. The 1st millennium BC since its onset is marked by the intrusion of a new wave of northern nomads, the Skytho-Saka. Their images of ibex, deer, predators and animal hunting scenes are chiselled in the distinct Eurasian animal style paralleled in the Scythian art of Central Asian and Siberian kurgans. With the expansion of the Persian-Achaemenid Empire during the 6th century BC under the great king Dareios I Iranian influence is reflected by perfectly executed petroglyphs depicting warriors, stylised horses and fabulous creatures. With the rise of the Kushan Empire (1st-3rd centuries AD) Buddhism as the new belief system was introduced into the Upper Indus valley, which entered now the light of history. Images of stūpas worshipped by pilgrims in Scythian dress, scenes with enthroned rulers, and in particular, the first inscriptions

in Kharosthī testify the affiliation of the region around Chilas to the Kushan territory. During the golden age of Buddhism (5th-8th centuries) the existence of three kingdoms, Little Palur around Gilgit, Great Palur of the powerful Palola Shahi Dynasty in Baltistan, and the principality of the Dards in the lower part of the Upper Indus, is attested by inscriptions in Brāhmī. The Lords of the Mountains, controlling the gateways to India, increasingly got into the area of conflict between the great powers: the kingdom of Tibet and China of the T'ang Dynasty. This stage of prosperity is reflected in delicate representations of Buddha and stūpas with their worshipers. Scenes depicting episodes of Buddha's former lives are most striking owing to their artistic excellence. Numerous inscriptions in Brāhmī, few in Chinese and Tibetan, reveal the ethnic diversity in their personal names of local notables, monks, foreign pilgrims and traders. More than 700 inscriptions in Sogdian, Bactrian, Middle Persian and Parthian, but also images of fire altars and tamgas, heraldic symbols, testify the importance of the upper Indus valley as southern branch of the Silk Route for Central Asian traders, mainly from Samarkand. The last group of rock carvings show simple drawings of warriors, horsemen with their symbols battle axe and sun disc. The absence of inscriptions indicates an anti-Buddhist movement starting from the 9th century. Dramatic battle scenes reflect the invasion of Trakha (Turk) tribes which established Trakhan dynasties in Gilgit and Hunza, thus mediating the dark ages of the Middle Ages. In Baltistan, however, the Buddhist dominance survived until the introduction of Islam during the 16th century.

Since 2006 the significance of the systematic documentation and conservation of the ancient heritage in Gilgit-Baltistan has obtained a new dimension when the government of the Islamic Republic of Pakistan decided to construct a series of hydroelectric projects along the Upper Indus gorges at Dasu, Munda, Basha and Bunji to make progress in the future economic development of the country. The gigantic Diamer-Basha Dam is planned to be built about 40 km downstream of Chilas, the headquarters of the Diamer District. The impending Diamer-Basha reservoir covering an area of 32000 acres will not only affect the resettlement of more than 25 000 inhabitants, it also will inundate at a stretch of 105 km along the river 95 archaeological sites, including 75 rock art assemblages. They comprise 5759 engraved rock faces and boulders covered with 37116 petroglyphs, among them the remarkable amount of 3618 inscriptions. The Bunji Hydropower project further upstream will endanger other important rock carving assemblages. The upgrading of the Karakorum Highway, the construction of new bridges and settlements are another threat to some of the most import rock art sites, such as Alam Bridge at the right bank of the Indus near its junction with the Gilgit tributary or the 'Sacred Rocks' of Haldeikish in Hunza.

In cooperation with the Department of Archaeology and Museums in Islamabad a conservation program for the rock art galleries has been developed, which would include the relocation or reproduction of selected images. The rescue program would help to preserve a part of the ancient heritage to be preserved for future generations. The foundation of a 'Northern Areas Culture Centre' at Gilgit and a local museum in Chilas would be another challenge to present the unique ancient heritage of Gilgit-Baltistan to the whole world. The rock art of the Upper Indus represents not only testimonies of the vaguely known history of the intermediate region between Central Asia and historical India, but also one of the wonders of our world.



Chilas, post-Buddhist axe symbols (9th-11th cent. AD)

Archaeological sites affected by the future Diamer-Basha reservoir (image data by Google Earth)