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Carvings & Community: inclusive heritage solutions for protecting ancient Karakorum petroglyphs under threat

Marike van Aerde* & Abdul Ghani Khan**

This paper presents the initial report of our “Karakorum Rescue Project 2020-21” in the Gilgit-Baltistan region of Pakistan. The petroglyphs of the Karakorum Mountains are very important as it was crucial crossroads throughout ancient times and different routes were used by a wide diversity of merchants, travellers, caravans and pilgrims for thousands of years. These rock art sites in the region are in danger due to the construction of dam, destruction and vandalism of especially the Buddhist rock art continue to threaten the existence of these historical petroglyphs, including many that have as yet never been documented before. For the preservation and documentation of this heritage, we initiated this project with the support of the Prince Claus Heritage Emergency Grant and the Aliph Alliance. This helps us to outline the academic and fieldwork strategies we used and how we combined a (non-invasive) archaeological photographic rescue campaign with an active and inclusive outreach to the local communities of the research region.

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ABSTRACT

This paper presents the initial report of our “Karakorum Rescue Project 2020-21” in the Gilgit-Baltistan region of Pakistan. The petroglyphs of the Karakorum Mountains are very important as it was crucial crossroads throughout ancient times and different routes were used by a wide diversity of merchants, travellers, caravans and pilgrims for thousands of years. These rock art sites in the region are in danger due to the construction of dam, destruction and vandalism of especially the Buddhist rock art continue to threaten the existence of these historical petroglyphs, including many that have as yet never been documented before. For the preservation and documentation of this heritage, we initiated this project with the support of the Prince Claus Heritage Emergency Grant and the Aliph Alliance. This helps us to outline the academic and fieldwork strategies we used and how we combined a (non-invasive) archaeological photographic rescue campaign with an active and inclusive outreach to the local communities of the research region.

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Introduction
This short article offers an initial report of our rescue project in the Karakorum mountains. It is not intended as a scientific study or comprehensive analysis of the rock art assemblages, but focuses predominantly on our heritage outreach in the region with local communities, to ensure preservation of these important Pakistani archaeological data. As explained in more detail below, substantial work has already been conducted on Karakorum rock art by joint Pak-German teams from the mid-late 20th century. Our work, obviously, is built on this foundation and subsequently hopes to continue and expand upon certain parts of it, by means of newly available analytical techniques and, especially, community and educational outreach in the relevant mountain regions. The latter is the main focus of this paper.

The Karakorum mountain region of current-day Pakistan functioned as crucial crossroads throughout ancient times, connecting the Indian Subcontinent with the northern steppes and the Tarim Basin routes into ancient China. Following the Indus River and Gilgit River banks across the mountain valleys, multiple routes of exchange were used by a wide diversity of merchants, travellers, pilgrims and caravans for thousands of years. Tangible knowledge of these crossroads has been left behind in the form of hundreds of thousands of rock carvings on granite boulders and rock sides scattered along these ancient routes. These petroglyphs include a wide range of imagery (e.g. anthropomorphic, zoomorphic, Buddhist stupa shrines and decorative motifs) as well as inscriptions in ancient Brahmi and Kharoshti, indicating the complex networks of interaction, trade and migrations that continued to flourish throughout this region from as early as the Harappan era (ca. 2500 BCE) up to the Gupta empire (3rd – 6th century CE).

In present day, the Karakorum Mountains are situated in eastern Pakistan, bordering India to the south-east and China to the north-east. Their full range includes Pakistan’s Gilgit-Baltistan region for the most part, but also India’s Ladakh region, as well as part of China’s south-western Xinjiang region. As a geographical mountainous ecosystem, the Karakorum makes up the western edge of the Himalayas and joins with the Hindu Kush range at the western border between Pakistan and Afghanistan (fig 1).

While the historical relevance of the Karakorum petroglyphs are well acknowledged in academia, a large amount of them have not yet been documented or published. Nor have the many of the available documentations been analyzed comprehensively to enable pattern recognition between carvings sites, distribution studies of routes, or identification of new sites and regions of historical interest. A significant reason for this lacuna is the ongoing threat to many of the rock art sites in the region, and the difficulty this entails for accessing them for research. Not only the construction of the Diamer-Basha dam in the near future, but also destruction and vandalism of especially the Buddhist rock art continue to threaten the existence of these historical petroglyphs, including many that have as yet never been documented before.

For this reason, with the support of the Prince Claus Heritage Emergency Grant and the Aliph Alliance, we initiated our Karakorum Rescue Project in 2020-21. In this article, we outline the academic and fieldwork strategies that we used, and how we combined a (non-invasive) archaeological photographic rescue campaign with an active and inclusive outreach to the local communities of the research region. After providing a brief overview of the current state of academic research on the Karakorum petroglyphs, we provide a report of the different elements of our recent project, and we subsequently discuss the results in view of their successes, limitations, and future prospects for our approach.

Karakorum petroglyphs: state of the research
From 1979 several archaeological campaigns have been conducted with focus on the petroglyphs, when the Karakorum Highway provided accessibility to remote regions of the mountains. Initial documentations were coordinated by the German Research Council...
and subsequently by the Heidelberg Academy. The Academy’s ‘Rock Carvings and inscriptions along the Karakorum Highway’ project subsequently started in 1983 in collaboration with Pakistan’s Department of Archaeology and Museums (DOAM). Since that time, large-scale fieldwork projects in the region have been rare, and so far additional workshops and/or campaigns, while very important for highlighting the relevance of the archaeology of the region, have not published their findings or enabled wider study of the data. The petroglyphs catalogued and published previously by the German-led teams have mostly contributed to academic studies on ancient inscriptions and Buddhist iconography.

In 2019 and 2020, the present authors, Khan and Van Aerde, started collaborating in order to contribute certain new angles to the scope of the already existing expertise, namely, by means of conducting statistical and distribution analysis of the Buddhist rock art on record, which included applying new digital methods through database analyses, and the determination of distribution patterns through digital archaeology. We compiled a new database with detailed comparative interpretations of the anthropomorphic Buddhist rock art, identifying a wide variety of Jataka scene depictions and Bodhisattva iconography ranging from very early Gandharan to the Gupta era; in doing so, we applied new digital tools to the existing expertise of the MANP catalogues, which have list individual carvings per survey location in the form of archaeological catalogues. The predominant focus in studies of the Karakorum petroglyphs has been on Buddhist rock art. For this reason, we also turned to the scientific identification and distribution of zoomorphic carvings, in collaboration with archaeozoology specialists – and have so far identified clear connections between main Buddhist sites and the variations between depictions of domestic and wild animal species, which increases our understanding of the sequence patterns of the mountain routes on a much larger scale than focus on individual carvings allows.

In this way, our work was built on the strong foundations of the already published campaigns and studies, while also offering new angles for interdisciplinary expansions and additions. While doing this research, the need for new fieldwork to document many of the as yet unrecorded carvings in Gilgit-Baltistan was apparent. Along with this, we realised that a strictly academic focus on the archaeology of the region could and should not be approached separately from feasible strategies pertaining to the current threats to the rock art. For the continuation of our research we therefore sought for a balance between these two aspects: documenting and studying the petroglyphs as archaeological data, on the one hand, and finding solutions for overcoming the threats to and destructions of the carvings, on the other hand. Our resulting campaign focussed on heritage protection, community outreach, as well as on finding new scientific methods and tools for sustainable archaeological research. In the following report, we detail the threats encountered as well as our initial solutions,

3 The project was coordinated by Karl Jettmar in collaboration with A.H. Dani. The results were published in *Materien zur Archaologie der Nordgebiete Pakistans* (MANP) catalogues, Band 1–11. These publications were coordinated and edited by Harald Hauptmann, including volumes edited by Gérard Fussman, Karl Jettmar, Ditte König et al. between 1989 and 1994, and subsequently from 2003 to 2011, as part of the Heidelberg Academy.

4 This project was initially under the guidance of Karl Jettmar, and from 1989 of Harald Hauptmann.

5 Such more recent initiatives include a applied fieldwork hosted by Karakorum International University (KIU), supervised by Neelis and Taj (2019), as well as cultural heritage campaigns of the National College of Art at Lahore (at present unpublished), and sporadic recordings by the WAPDA Ministry (likewise unpublished).

6 E.g. Neelis 2011; 2014, and recent applied fieldwork hosted by Karakorum International University (KIU), supervised by Neelis and Taj (2019), as well as cultural heritage campaigns of the National College of Art at Lahore (unpublished), and heritage studies by WAPDA, coordinated by Feryal Ali Gohar, as well as an ongoing project by Mohammad Zahir, who has also published various papers related to Buddhism in the Karakorum region, see recently: Zahir 2019, 37-59.


8 Cf. Van Aerde & Mohns & Khan 2020, 105-134.

9 The first results of combining zoomorphic and Buddhist carvings analysis were published in Van Aerde & Mohns & Khan 2020, 120-21. A full zoomorphic database and analysis of the impact of archaeological biodiversity research are to be published soon (Van Aerde & Kneppers forthcoming).
alongside the archaeological details of the sites where our fieldwork took place.

**Karakorum Rescue Project 2021: heritage threats and solutions**

The Karakorum petroglyphs can be considered as under immediate threat. The most widely known threat is the planned construction of the Diamer-Basha dam: the completion of this dam is set to flood an estimated 37,051 individual carvings, on a total of 5,928 rock clusters across 16 different sites. Moreover, the dam is estimated to submerge more than 24 villages, which includes the households of over 25000 people who will have to relocate. For the Karakorum petroglyphs, however, relocation is not an option due to the immovability of the vast boulders and rock cliffs on which they have been carved; moreover, while removal would preserve the individual carvings, the valuable location-bound information on distribution patterns and the physical spread of trade routes across the region would be lost. Because the construction of the Diamer-Basha dam must be regarded as a near-future certainty, the most practical and indeed only feasible solution for the preservation of the rock art that will be flooded by its construction, is rescue fieldwork that allows for (digital) documentation of as many of the petroglyphs as possible, within the available timeframe.

However the threat of the dam, albeit perhaps the best known, is not the only obstacle to the ancient Karakorum carvings. We do not currently know the exact number of sites and individual rock carvings that exist in the Karakorum area, because a large number of them have already been destroyed during the construction of the Karakoram Highway in the 1970s, while others have been damaged beyond recognition through graffiti and destructions. This includes many carvings that were never previously recorded or photographed, as well as many of the rock art originally documented by the German teams, which as a result have become unavailable for future research in situ (fig. 2 and 3). In addition to human threats and destructions, the natural environment also continues to cause damage to these very ancient sites, through erosion, rock weathering, water and surface damage, exposure to sunlight, wild vegetation, and damage caused by animals such as termites, birds and mud wasps that build nests over rock art panels; due to the remoteness of many of the sites, in the heart of the Himalaya mountains wilderness, protection against such natural damages is very hard and in many cases impossible.

However, the impact of humans, by means of deliberate damage, is something that can and should be directly addressed. The rock art of Gilgit-Baltistan is under threat by increasing economic development (destruction of boulders to make way for roads or blasting parts of the rocks to use for construction), but for the most part by human looting (rock art panels are cut from rocks and sold illegally), graffiti and vandalism (especially in order to damage Buddhist imagery). These destructions seem to be increasing at a rapid pace, even though officially legislation is in place that makes intentional damage or disturbance illegal; in reality these forms of legislation have not stopped the rise of direct damage to rock art sites through human activities. An additional threat to rock art remains a lack of active, purpose-oriented involvement from local, regional and national government levels. Vulnerable rock art is rarely seen as a priority compared to the preservation of better-known (structural and architectural) archaeological sites or, in the case of the Himalaya mountains, compared to initiatives to support endangered flora and fauna that have been gaining worldwide support in a much more visible way.

Based on this complex situation, we set out to identify the main causes to the damage and loss of the Karakorum petroglyphs, in particular. These can be summarised as: (1) destruction due to deliberate human activity (looting, graffiti, theft, construction works); (2) damage due to

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12 Personal observations and reports from the field (Khan 2018, 2019), which were presented in our threat report for the Prince Claus Heritage Emergency Grant in 2020.
13 Pakistani government legislation identifies the illegal status of the damage, but in most cases there are no feasible networks or means in place among the local authorities in the region itself, to implement it. (Personal communication and experience, 2018-2020.)
inherent conditions of the natural environment; (3) insufficient means for damage prevention, due to a lack of long-term conservation and constructive management of existing rock art sites.

Simultaneously, we identified that one of the main causes for the human destructions is rooted in a lack of available knowledge and education about the rock art among the local communities of the region. As far as we were able to observe, no substantial educational programs or outreach are currently in place, and the majority of people we encountered outside of university or governmental spheres had little knowledge about the nature or meaning of these petroglyphs nor of their historical value. This has also led in some cases to prevailing superstition towards the larger images depicted, including monumental Buddhist art and Bodhisattva figures, due to absence of knowledge of their ancient age and original historical contexts. European-led research teams in the past appear to have rarely interacted with local communities to share information about the meaning of the rock art, and research publications are largely unavailable to these communities, especially when they are restricted to the academic publishing spheres. Moreover, nearly all publications are only available in English, German or French, without translations in Urdu or local languages such as Shina.

Based on these considerations, we added an active and inclusive outreach component to our archaeological heritage project, with particular focus on the local communities themselves. Our fieldwork campaign of March and April 2021, in essence, was a non-invasive documentation project, and as such it was met with the support and encouragement of the Gilgit-Baltistan government and archaeology department, and we stress the importance of conducting research with full collaboration and permissions of the authorities. But we also acknowledged the importance to reach out beyond the official networks and interact with the communities directly, within the framework and parameters of our archaeological heritage project. In this way, our fieldwork of March and April 2021 became twofold. We outline the two parts here, with main focus on the community outreach component.

**Archaeology heritage project**

As an academic heritage rescue project, our fieldwork was non-evasive and made use of digital photography, photogrammetry, and GPS coordinate recording to document three main petroglyph sites, Alam Bridge and Chilas II & III, which have not been previously published as complete sites nor comprehensively catalogued or documented; hence the rock art data from these sites have not as yet been included in wider studies of either rock art iconography or the distribution patterns of Karakorum trade routes, either. In the month of March 2021, we fully documented three main sites at Alam Bridge (A, B and C), including a total of 206 boulders, which included on average between 5 to 30 individual carvings and/or inscriptions per boulder. In April, the full site of Chilas II & III was similarly recorded, adding several hundred carvings and inscriptions recorded in clusters from a total of 22 boulders as well as rock cliffs. All these results will be catalogued and published in Open Access and should be available by 2022. Our data analysis and interpretation is currently ongoing: the petroglyphic clusters include a wide variety of types, e.g. Buddhist stupas and human figures, wild and domestic animals, hunting and travel scenes, board game carvings, decorative motifs, ancient Buddhist and Hindu religious symbols, as well as many Brahmi and Kharoshti inscriptions that need yet to be translated. This scientific work is ongoing and is a collaborative effort of our Pakistani archaeologist team together with a team of international

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14 All collaborations and information about our fieldwork were shared with local authorities in person by Abdul Ghani Khan and his team during the campaign in March-April 2021, and are likewise outlined in our reports for the Prince Claus Heritage Emergency Grant.

15 The rock art of Alam Bridge has been previously mentioned (in part and with focus on only some inscriptions and Buddhist carvings) in publications by Fussman (1978), Neelis (2014) and Hauptman (2009). However, no overview of the full site or catalogue of all petroglyphs exist as yet.

16 It is our intention to include translations of all inscriptions in our Open Access catalogues of all three sites, but this may not be feasible in every case due to rock erosion, damage and graffiti impacting the readability of several inscriptions.
archaeologists and specialists, including India, Sri Lanka, and the Netherlands, currently working from the facilities of Leiden University. (Examples of the rock art are shown in fig. 4).

**Community involvement**

Our project’s approach to the local communities was aimed to achieve the best available solutions to the ongoing heritage threats. The fact that our fieldwork team consisted entirely of young Pakistani archaeologists, led by Abdul Ghani Khan and with remote academic and organisational support from the Netherlands by Marike van Aerde, increased the accessibility to the communities because of language and cultural connections. Due to the COVID-19 pandemic, no foreign researchers would have been able to participate in the fieldwork as worldwide travel remained restricted, but apart from that practical aspect, the importance of inclusive and personal interactions also made a Pakistani-led team a priority for this pilot campaign in the region. A large part of the success of our approach, we have observed, can be seen as thanks to these personal connections and communications with both the local governments and the communities themselves. In this way, we were able to implement both a passive and active component as part of our community outreach.

The passive aspect focused on education: a four-day educational workshop was given at Chilas for the local population, in which presentations and videos by Khan, Van Aerde, and the field team of archaeologists offered historical context and information about the Karakorum, the rock art throughout the region, and the value of preserving this ancient heritage. We also prepared a booklet that provides information on both the historical value of the many different types of carvings and on the current threats to the rock art. This booklet was written in both English and Urdu and freely distributed among the communities; it was also made available for download on our research project website. All participants of the workshop were given a certificate afterwards, and the initiative was well-received in Chilas. Prior to this workshop, additional education talks were provided at Alam Bridge when local villagers and shepherds came to visit the site where our archaeologists were at work. These exchanges were also well-received, with people showing keen interest in learning more about the rock carvings once they were made aware of their old age and historical importance (fig. 5 and 6).

The second and active part of our outreach strategy aimed to directly involve the local communities in the documentation process of the rock art, on the one hand, and to encourage beneficial revenue opportunities by their means of newly gained knowledge of the carvings, on the other hand. A significant number of people from Chilas became active participants of our rock art documentation at the Chilas II site – importantly, we offered a salary payment for their work as part of our archaeological work, and we did not ask for volunteering work. In this way, participants learned new skills and insights into archaeological methods and techniques for the basic documentation and description of rock art clusters. This active and inclusive role, as part of our fieldwork, increased the communities’ interest in the carvings. It also increased confidence in people’s historical knowledge and their own ability to identify different carvings – which they can subsequently apply to potential revenue initiatives, with focus on tourism for which the rock art sites can function as open air museum contexts. Through their newly gained knowledge of not only the individual ancient carvings themselves, but also the important role of the Karakorum region throughout a long historical period, the local community can now act as educators themselves. Moreover, through their training as part of our archaeology campaign and documentation methods, they can potentially identify previously unknown carving clusters, as well as become experienced guides for tourist visits at the sites near their home towns. In this way, the communities can become active guardians of their own historical heritage (fig 7 and 8).

In turn, the increased knowledge and understanding of the heritage should significantly limit and prevent future destructions and graffiti to the rock art. Knowledge sharing can thus substantially ease the impacts of superstition, fear and lack of education. This, of course, will allow subsequent
archaeological teams to continue to document and identify unknown/unrecorded petroglyphs across the region. With our project, we intend to continue our work in this, through the twofold approach combining heritage archaeology with inclusive community outreach, and we hope that this active engagement with the local populations of the Karakorum region will be mutually beneficial for researchers and communities alike.

The local authorities and the Gilgit-Baltistan government and archaeology department have supported these initiatives as well. They officialised and attended the erection of three new sign posts at the Alam Bridge and Chilas II & III sites, together with representatives of the communities and our field team of archaeologist led by Abdul Ghani Khan (fig. 9). These signs now mark these sites as official heritage sites, and this will likewise help the local communities in their tourism endeavours, and will help limit future destructions.

**Conclusion**

In terms of the archaeological documentation of three significant threatened rock art sites, as well as our community outreach aims, our campaign in spring 2021 has been successful. The local and the global seem to have truly joined together, in our approach. Our academic research is conducted by an international team of archaeologists from diverse backgrounds, and we will continue to make our work available via Open Access to share results and data with academics as well as the wider public worldwide. But our work is deeply rooted, in many ways, directly on local inclusivity and outreach: we are visitors in the region and as such we rely on the hospitality of local communities. In turn, we share historical knowledge and actively encourage beneficial collaborations. We acknowledge the communities as the keepers of their own heritage, and in doing so we are also better able to seek inclusive and collaborative solutions for ongoing destruction of rock art heritage. In the case of the Karakorum petroglyphs, archaeological heritage research and community initiatives should not be regarded as separate endeavours. Local and global perspectives are inherently entwined not only in our own work efforts, but also in the complex history of the ancient Karakorum region and the trade routes themselves – ranging from the detailed carvings and inscriptions that highlight individual people who lived in the distant past, to the networks that spanned all the way from the ancient Indian Subcontinent towards China, Persia and even across the Indian Ocean. In the same way, research and outreach are (or should be) two sides of the same coin.

Our prospects for future research will, therefore, continue to follow these strategies and implement our proposed solutions to the heritage threats faced by the Karakorum petroglyphs. Our ongoing academic output aims to add new knowledge and understanding of the ancient Karakorum region by looking beyond individual carving iconography and including distribution charts and pattern recognition methods. However, all this knowledge (passive, global) should at the same remain rooted in the (active, local) collaborations together with the relevant communities. We thus hope to continue and expand our project, with equal attention for both carvings and communities.

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**Bibliography**


Bearbeitung der Inschriften durch Oskar von Hinüber und Thomas O. Höllmann (Herausgegeben von H. Hauptmann), Band 7. Mainz: MANP.


Dani A. H. 1983. Chilas, the City of Nanga Parvat (Dyamar). Islamabad: Published by Author.


FIGURES

Fig. 1 Satellite map of research areas Alam Bridge and Chilas II in the Gilgit-Baltistan area (GoogleEarth 2021).

Fig. 2 Human damage at Thalpan/Chilas
Fig. 3 Human damage at Thalpan/Chilas

Fig. 4 Preliminary examples of stupa and anthropomorphic rock art recorded at Chilas II (top) and various inscriptions at Alam Bridge (bottom).
Fig. 5 Our archaeologists and participants of the workshop conducted at Chilas in April 2021.

Fig. 6 Outreach and education at Alam Bridge in March 2021.
Fig. 7 Workshop participants documenting ancient Buddhist and animal rock art at Chilas, under supervision of Abdul Ghani Khan.

Fig. 8 Workshop participants documenting ancient Buddhist rock art at Chilas.
Fig. 9 Local officials and our archaeologists at the new sign post at Alam Bridge site.