

ACT-FIELD SCHOOL PROJECT REPORTS AND MEMOIRS

SERIES MINOR

4

LIVING AND ARCHAEOLOGICAL
LANDSCAPES OF SWAT

A GUIDE TO KANDAK AND KOTAH VALLEYS

A FIELD COMPANION TO *TALKING STONES*

CARLA BIAGIOLI

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EFREM FERRARI

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SHAFIQ AHMAD KHAN

MASSIMO VIDALE

FOREWORD BY ZAHRA HUSSEIN AND LUCA M. OLIVIERI



Pakistan-Italian Debt Swap Program
Italian Archaeological Mission in Pakistan
Directorate of Archaeology and Museums, KP Province

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PAKISTAN-ITALIAN DEBT SWAP PROGRAM

ISMEO ITALIAN ARCHAEOLOGICAL MISSION IN PAKISTAN
DIRECTORATE OF ARCHAEOLOGY AND MUSEUMS, GOVERNMENT OF KHYBER-PAKHTUNKHWA

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Luca M. Olivieri and others

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Shafiq Ahmad Khan and Massimo Vidale

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SIR AUREL STEIN AND THE 'LORDS OF THE MARCHES'
NEW ARCHIVAL MATERIALS
Luca M. Olivieri



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FOREWORD

What might a historic landscape such as Kandak and Kotah Valleys mean for the present?

Often heritage sites and buildings, monuments, shrines, stupas and any historical structures which are deemed worthy of conservation or preservation are approached in isolation to their surrounding landscape. This orthodox approach frames historic sites as 'object of the past' and detaches them from the context which gives them a meaning and life in the present. Especially in populated areas, where people live amongst / alongside these historical sites, this divide between past site and present site becomes a barrier for a well-integrated landscape. Landscape is not only the physical present that our eye may capture in the horizon; it is complex and multi-layered sediment, a repository of traces, memories, and cultural patterns embedded in a landscape that operates in a temporality somewhat different from ours. One must adopt Tim Ingold's '*dwelling perspective*', according to which the landscape is constituted as an enduring record of – and testimony to – the lives and works of past generations who have dwelt within it, and in so doing, have left there something of themselves' (1993, *The temporality of the landscape*, *World Archaeology*, 25, 2, pp. 152-174). Understanding landscapes as a socio-cultural repository unlocks a dialogue between our time and traces of the past. These traces are present as 'live sensors' not only in the land form, stones, water ways, vegetation and soil layers but also in the cultural practices and living patterns of the inhabitants of the landscape.

Kandak and Kotah Valleys are historic landscapes that are presently lived in. While the historic landscape belongs to the Buddhist community, the present landscape is populated by Muslims which results in a condition of segregation. The ACT field project is a unique effort to not only conserve the historic landscape but integrate the past and present to initiate a sustainable dialogue. The social, cultural and physical life of the inhabitants in these valleys have been acknowledged alongside the historic sites and integrated in the larger project of 'living landscapes'. This book introduces the reader to a range of elements that make up life in Kandak and Kotah valleys; the local communities, natural landscape, traces and objects of the past and the culture and traditions in the valley at present. It also includes a close look into the local cultural practices and living patterns, which must be understood as intangible heritage. The project accounts for the local communities' problems and struggles such as mobility of remote villages and access to clean water and has incorporated this in the project plan.

This project sets an exemplar for community-based/participatory landscape management and sustainable tourism which is a much needed approach when dealing with historic sites across Pakistan. Such an approach not only conserves the landscape for the present but builds network and alliances between all the elements which can pave way for a sustainable future.

Zahra Hussain

FOREWORD

My first visits to Kandak and Kotah occurred in the late 80ies. Both valleys looked very intriguing to me, although, in those years I never found time to pay more than few quick visits over there. During one of these visits, I managed to document some rock-paintings above Kafir-kot on the ridge of Mt Morah-sar (Kotah Valley).

Then, between 2000 and 2006 Massimo Vidale and I had great time walking together in the valleys and searching for more rock art sites. Our companions were - besides Akhtar Munir, aka Tota (the greatest 'self-made archaeologist' we have ever met in our careers) - shepherds and villagers of the valleys. We were welcomed by them, accompanied by them, and fed by their families. We were sheltered, offered tea and chicken *karahi*, *paratha* with eggs, corn *naan*, wild-bee honey, *masta* and *shomlai* (yogurth and lassi). In such hospitable landscape, we started loving that pristine mountain environment, spending days along crests and ridges to reach remote archaeological sites, like Amluk and China-bara, etc. During our explorations we found dozens of painted shelters.

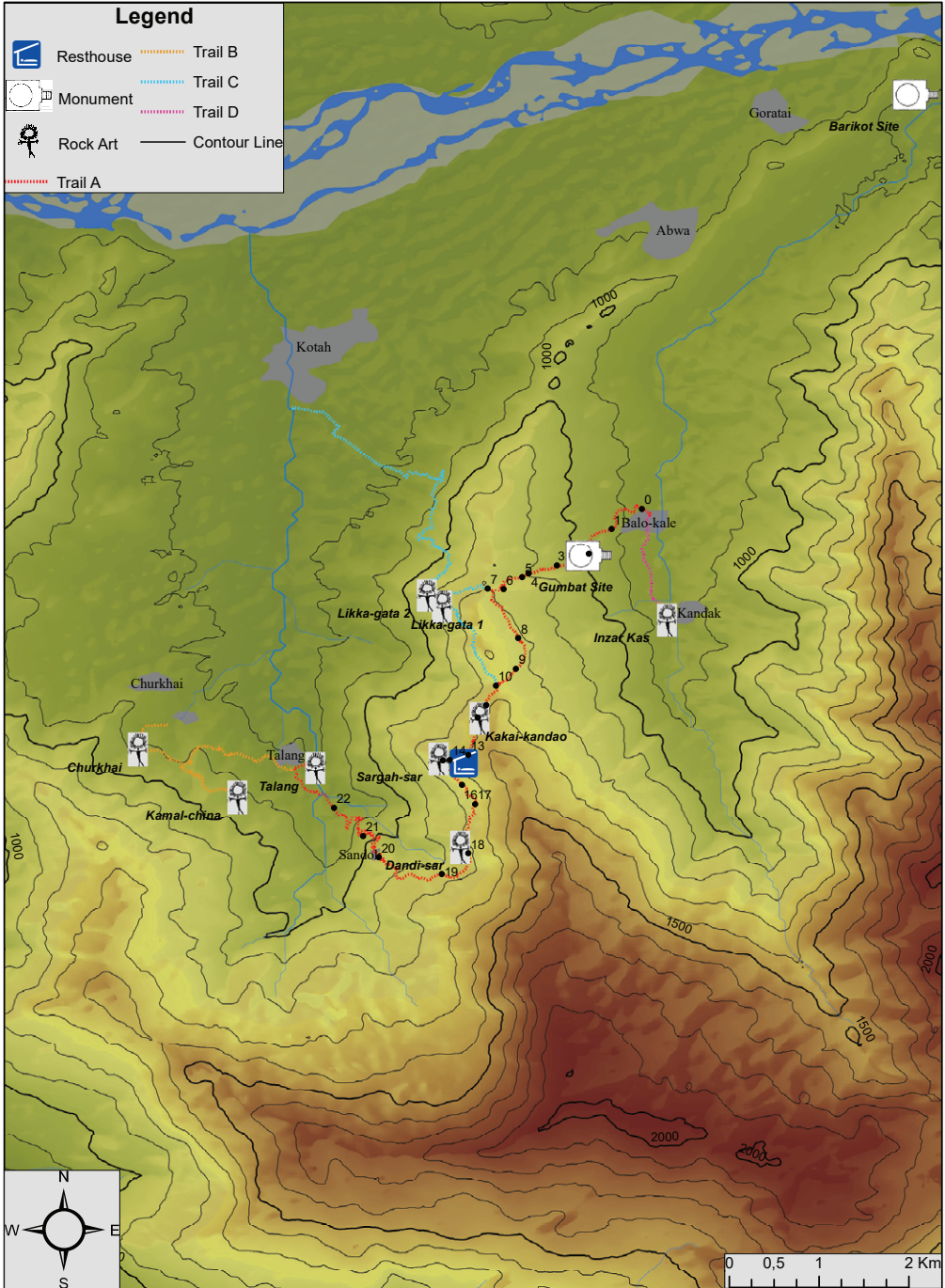
This is how Massimo describes in the Foreword to *Talking Stones* the discovery of rock-art sites in these valleys:

This is how I learnt that rock art is like one's dreams. When we have them, they impact on our mind and spirit with the force of another mysterious life. But when we try to recount these emotions to others, they almost vaporize under the logical structure of our words and sentences. When I first saw the gigantic face of Sargah-sar, and I suddenly realized the eyes, the open mouth, its saddle-shaped surface smeared with red ochre like a supernatural tongue, and the crowd of abstract signs, bowmen, animals and dancers that resurrected tales lost since almost 2000 years, my heart was tumbling hard as it never had done in front of a new archaeological evidence.

But the archaeological part of the venture was always framed within the breathless beauty of the natural landscape, and fostered by the incredible hospitality of its inhabitants. So, since then we started dreaming about the possibility of creating a sort of archaeological park in the area. We thought it would have been important if others would have had the same kind of experience. We thought that involving local families might have been the best way to protect culture (past and present), as well as environment. The initial response of the communities was, by and large, positive. And this is why we started the activity, whose results are briefly illustrated in this Guide.

Luca M. Olivieri

To the Communities of the Kandak and Kotah Valleys



© Pakistan Italian Debt for Development Swap Agreement.
 Based on data collected by ACT - II Project during spring 2016. Developed by E. Ferrari.
 The ASTER L1B data product was retrieved from the online Data Pool, courtesy of the NASA Land Processes Distributed Active Archive Center (LP DAAC), USGS/Earth Resources Observation and Science (EROS) Center

INTRODUCTION TO THE VALLEYS

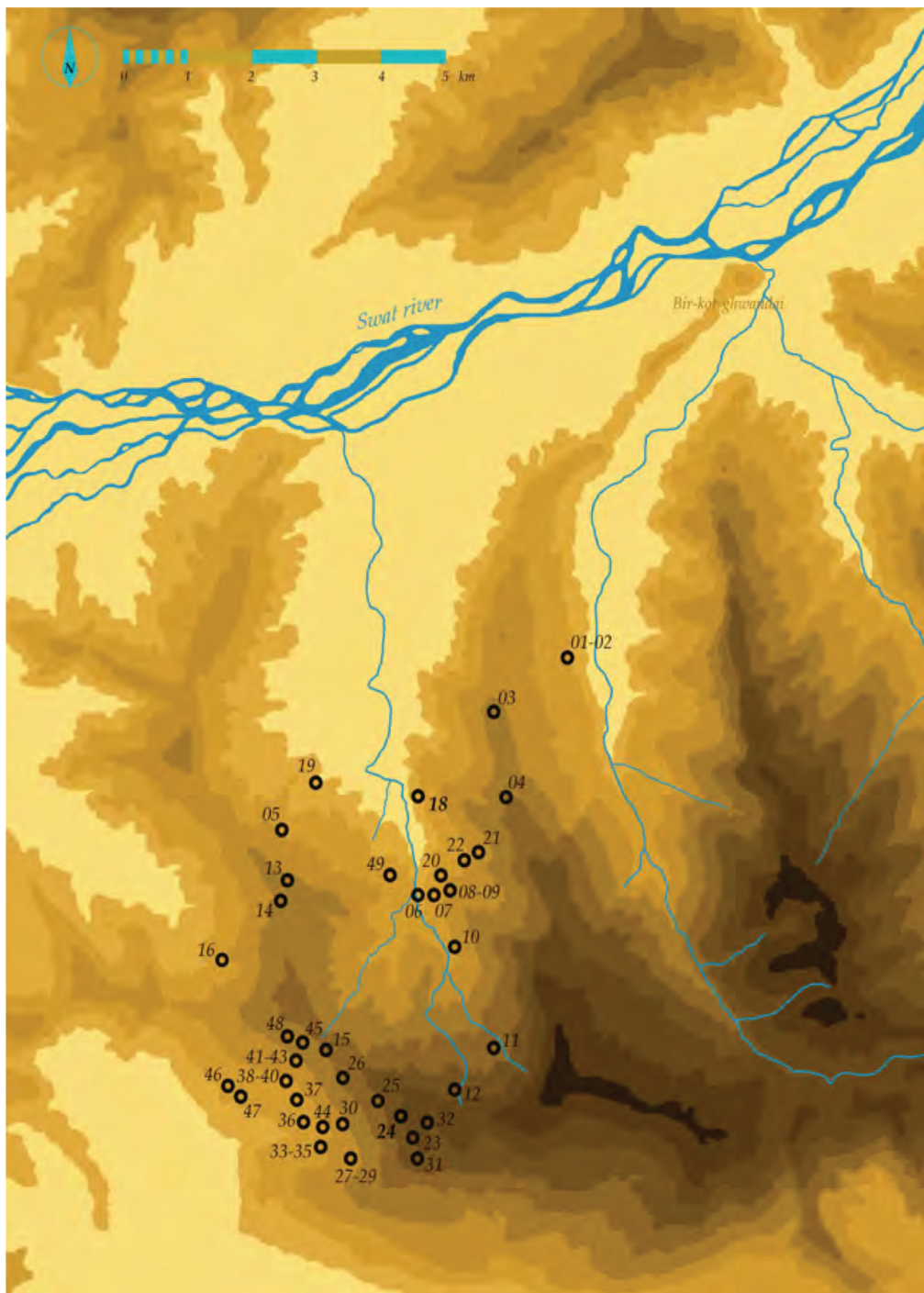
Geography

The area covers the upper half of two parallel valleys, oriented on a north-south axis, through which flow two streams, which are left tributaries of the River Swat. The easternmost of the two streams, the Kandak, flows into the Swat river, east of the hills of Barikot, but after having jointed with another tributary, the Karakar. The two valleys are separated by a mountain ridge (Jaurbanda-ghar) which pushes up to an altitude of 900-1800 m asl and reaches 2068 m asl with the peak of Doplai-sar (Topialai-sar) at the summit located south-east of the watershed. The Kotah flows into the Swat River to the south-west of Barikot, near the village of the same name. To the west, another orographic chain separates the Kotah valley from the more western Thana valley (Morah-ghar). Another interesting area lies just south of the east-west watershed, which separates Swat from the Mardan plain. This orthographic caesura runs, at an average altitude of 1700 meters asl, from the Doplai-sar peak to the east, to the Saffar-sar peak to the west (the Doplai-Saffar range). All the areas considered are characterized by a stony terrain typical of crystalline geology, relevant to the so-called Jambil Unit of the geology of Swat (Augengneiss). Many stretches have assumed a typical 'Inselberg' configuration as they have been heavily eroded by glacial action.

From an ecological point of view, the sector corresponds to sunny lands, which are rich in silicon and with substantial residues of humus (clay) typical of areas once covered with forests, now largely deforested of *Pinus roxburghii*, *Olea cuspidata*, *Quercus ilex*, i.e. the typical 'Sub-Tropical Chir Pine Forest' of Middle Swat. The area is full of water springs, mostly related to the rainy seasons, as is typical of granitic areas where rainwater is stored from one rainy season to another one in 'pans, crevices and pot-holes'. For this reason, there is no shortage of good pasture-land in the mountains. Among the wild species useful today or in the past, several stand out: in addition to conifers (timber), *Dodonaea viscosa* (*Ghwaraskay*, used to waterproof the roofs in vernacular architecture), *Ilex aquifolium*, *Quercus dilatata* (*Banj*), and remnants of wild *Vitis vinifera* (common grape vine). In some sectors of the area it is not uncommon to find outcrops of white quartz. Until not long ago, the material was used like flint (*bakara*). The area is also provided with convenient mountain passes connecting the territories between the Swat valley and the plains of Mardan. Such passes are important for settlements, trade and agriculture.



A zoomorphic rock on the top of the southernmost watershed of Kotah valley (Palwano-gata)
Photo by L.M. Olivieri



Distribution of rock-paintings in the area
 Map by L.M. Olivieri

WHAT TOPONYMS CAN TELL US

By Matteo De Chiara

From Olivieri (2015), pp. 133-134 (without footnotes)*

ROCK-PAINTING SITES (see distribution map, opposite site)

- 23 - Bacha-kot: children fort (koṭ, also 'castle').
06/07 - Badze: bad (bad) place (zay).
32 - Banj-smast: Cave of the banj; banj, *Quercus dilatata* (see p. 33).
30 - Bara Loe-banda: big (loi) upper (bara) shepherd hut (banda).
24 - Bus(us)-smast: cave (samist/smac) of the bran, cf. bus 'bran, cheff': probably a place where brans were stored by a Gujarī family.
37 - Chowra-dob: dark (čura) meadow (ḡab: see below Dob).
19 - Churkai: ruin; cf. čur broken, scattered, etc.; fragment; dust; ruin; sack, pillage' + suff. -kai (cf. palān-kai 'un tel', khuṭ-kai 'bouillonnement', khapas-kai 'cauchemar', etc.).
08/09 - Dandi-sar: peak of the pool: ḡand-e ('pool') + sar, s. sargah-sar.
38/39 - Dob/Dab: meadow. See also 'dipped' (ḡub); or 'hollow, depression' (ḡab).
01/02 - Dwolasmane-patai: field (paṭay) worth 12 (dwolas) mane, i.e. 'a rich, productive field'; mana is a weight unit; mane could be also read as 'apples'.
49 - Dwo-qumbojai: two qumbojai: the suff. -ojay, according to Darmesteter, is one of the "suffixes d'appellatifs et de qualifications", e.g. ast-āzai, ast-ōdzai 'apôtre'. Qumb-, could be interpreted following Urdu omophonemes like kumbā 'family, tribe', kambu 'conch, shell', kumbha 'water-pot, jar'; see kumbha-ja, vulg. kumbhaj, adj. (f. -ā) 'Born in a water-pot'.
11 - Gwarejo-patai: field (paṭay) of the blossoms (ɣwarejo). Most probably *Indigofera heterantha* (see p. 31).
31 - Gweluno-ghar: mountain (ɣar) of the flowers (gweluno).
44 - Haji-smast-banda: shepherd hut of the Haji's cave. Haji is a person who has performed hāji, the holy pilgrimage.
17 - Hinduano-hatai: mound (xat) of the Hindu.
13/14 - Kafir-kot: fort (koṭ) of the infidels.
03 - Kakai-kandao: kakai's (wife's paternal uncle) pass (kandao)'.
05 - Kamal-china: 'beautiful/perfect (kamāl) spring (čina)'.
46/47 - Khaista-kamar: 'very beautiful (xaista) rock'.
25 - Kwar-patai: 'grape's (kwar) field (see pp. 34, 36).
27/28/29 - Lal-kamar: 'red (deep crimson)/ruby's rock'. Kamar ~ sar are terms that indicate parts of the human body and are frequently used as connotative in toponymical names.
33/34/35 - Lal-kamar-china: spring of Lal-kamar.
36 - Loe-banda: big shepherd hut.
10 - Malak-ziarat: sanctuary (ziyārat) of the angel (malak).
15 - Marano-tangai: defile (tangai) of the snakes (marāno).
41/42/43 - Palangai: alcova; cf. Urdu palang 'bed'.
12 - Palwano-gata: boulder of the giant.
1/2/3 - Ram-dunai: bonfire (dunai) of Ram (?).
45 - Saffar-kandao: pass of the journey (safir).
04 - Sargah-sar: peak of the head: sarya means the place of the head, or face, while the suffix -sar indicates any peak or hill top. See above Lal-kamar.
16 - Shamo: pavilion.
18 - Talang: quarter; from ṭal 'quarter, group of houses' + suff. -ang.
26 - Thakht-gat: boulder, rock, of the throne.
48 - Trema-palangai: muddy (trama) palangai.

Others:

Likha-gata: hanging rock.

Topialai-sar: peak of the hat (=a peak looking like a hat)

*French terms are from J. Darmesteter (1888-90) *Chants populaires des afghans*, Paris.

THE TRAIL



Photo by L.M. Olivieri

The trail covers an area of approximately 50 sq Km, across the two valleys.

Trail A (red in the Map)

Trail A is marked on the ground with red-white-red marks and progressive numbers, well visible along the path.

The path has been regularized for almost its length, and it is paved with flattish undressed stones in some tracts; difference in slope is filled, when necessary, by irregular flights of steps.

Trail A is 11.6 km long, with a gain in elevation of 650 meters, concentrated in the first section (from the start to Point 7), followed by a relatively flat tract (between Points 7 and 15) and the final descending portion to Talang (Point 15 to end) for a total descend of 700 m.

Between Points 1 and 7 (distance: 3 km, average walking time: 01.00', uphill climb: 400 m).

Between Points 7 and 10 (distance: 1.5 km, average walking time: 00.30', uphill climb of 100 meters).

Between Points 10 and 15 (distance: 1.5 km, average walking time: 00.30', uphill climb: 100m).

Between Points 15 and 22 (distance 5.6 km, average walking time: 01.45', uphill climb: 50m, downhill climb: 600m).

Trail B (orange in the Map)

Trail B connects Point 22 i.e. the village of Talang to the village of Churkhai. The trail is unmarked; it covers a total of 4 km with a total elevation climb of 200 m. The trail reaches first the rock-painting site of Kamal-china (protohistoric, Iron Age) (distance: 2.4 km, average walking time: 1.30', gradient: 150 m.). After Kamal-china it reaches the village of Churkhai (distance: 1.6 km, average walking time: 0.30', uphill climb: 100 m.). From Churkhai the trail brings to the rock-painting site of Kabbal-dab (protohistoric, Iron Age). Visitors can directly approach the village of Churkai by car either from Kotah (NA95) or from Talang: junction on the Kotah-Talang road (unmetalled) 2.5 Km from Kotah and approx. 1 Km from Talang.

Trail C (blue in the Map)

Trail C connects Point 10 to the village of Kotah. A shortcut can be used to reach Point 7. The trail is unmarked; it covers a total of 5.5

km with a total downhill climb of 650 m. The trail first reaches the rock-carving sites of Likha-gata 1 and Likha-gata 2 (distance: 1.4 km, average walking time: 00.45', downhill climb: 200 m.). From the latter a shortcut connects to Point 7 (distance: 0.7 km, average walking time: 00.20', downhill climb: 100 m.). From Likha-gata 2 trail connects to Kotah distance: 4.2 km, average walking time: 1.45', downhill climb: 450m.).

Trail D (purple in the Map)

From Point 0 to the prehistoric megalithic altar of Inzar Kas (see pp. 42-43; 0.5 km, average walking time: 0.10', downhill climb: 0 m).

**THE VILLAGE OF BALO-KALE, THE SITE OF GUMBAT AND SURROUNDING AREAS
(POINTS 1-9)**

Archaeology



The archaeological site of Gumbat (Pashto for 'stupa') is a Buddhist shrine (the Great Shrine, also called 'Great Vihara'), originally hosting a relic, cult statue or votive stupa.

The site is located at the center of the Kandak Valley, on the left side ($34^{\circ}37'51''\text{N}$, $72^{\circ}10'46''\text{E}$), at an altitude of approx. 986,00 asl. The archaeological terraces rise above the village of Balo Kalai or Balo Kale, along an ancient path leading SW up to the pass of Kakai-kandao (Point 10). After the pass the path enters the Valley of Kotah at the height of Talang and Sandoka villages where other major Buddhist sites have been discovered in the recent past (Olivieri, Vidale et al. 2006).



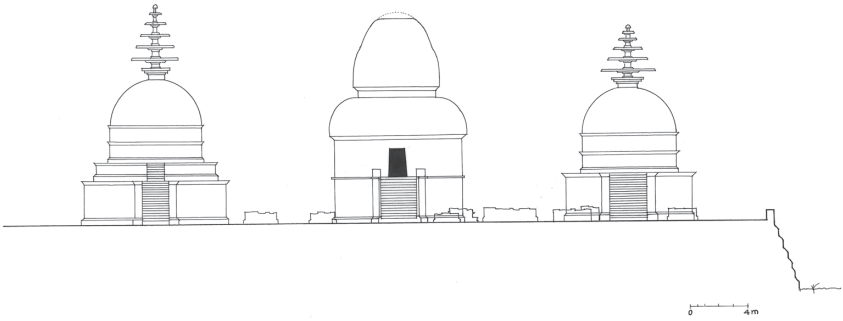
The double-domed shrine of Gumbat-Balo Khale (c. 1st-2nd century CE) is possibly the best preserved monument of the Swat Valley. In danger of collapse, the shrine was urgently restored in 2011, first by the Pakistani army under the auspices of the ACT project, and later on by ACT (whose intervention, besides the completion of the restoration work, focused on the excavation of the surrounding monuments). The construction features a Buddhist shrine with a square plan and enclosed cloister set on a high podium. Its entrance lies to the east. The external walls are separated from the inner cells by a vaulted corridor with roof supported by a row of cyma reversetype brackets. The Great Shrine was supposed to host a stupa-reliquary or a large votive stele or statue in stucco.



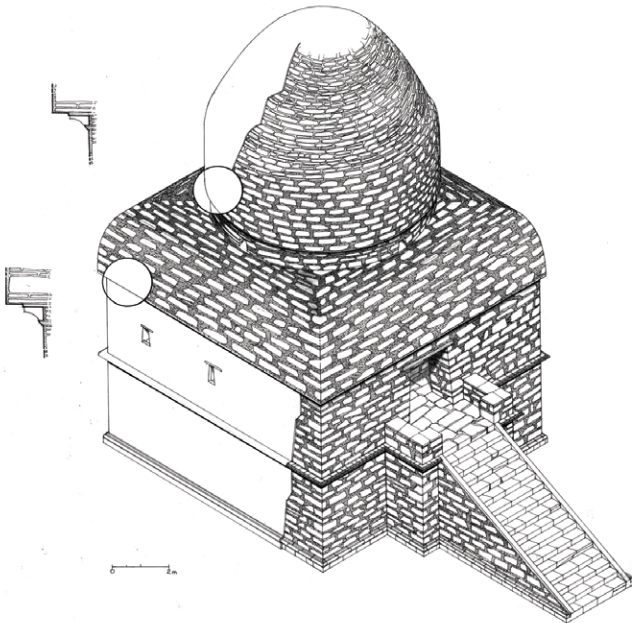
Gumbat Buddhist Shrine



A conjectural reconstruction of the Gumbat stupa terrace viewed from East
Drawings by F. Martore



Reconstruction of the Gumbat double-domed Buddhist shrine (1st-2nd century CE)
Drawings by F. Martore



THE VILLAGE OF BALO-KALE, THE SITE OF GUMBAT AND SURROUNDING AREAS (POINTS 1-9)

Living landscape



The “living cultural landscapes”, are “ linking together human beings and nature”, they “express the long and intimate relationship of the people with their environment” and they are characterized by their strong anthropic dimension.

The concept of living cultural landscape invites to take into account the relationship between topography and links, traces and memories of those who have shaped it all along the years but it is seen also as a dynamic construction of those who live in it daily.

Complex concept and polysemic, the living cultural landscape raises specific questions.

The extent of cultural landscapes induce the question, on how their complexity can be expressed into the tourism development process, as tourism usually is fixing places into aesthetic and museified, simplified iconic images.

The living cultural landscapes reflect the life and the activity of the local populations but the expectations of these different worlds - those who live and work there and those who visit as tourist - are not always the same.

From the 6e séminaire 2015 Chair Unesco and network UNITWIN «culture, tourisme, développement» on the living cultural landscapes in the challenge of tourism

The concept of “living cultural landscape” implies the existence of productive activities whose sustainability is implicit, while a tourist activity contributes mainly to an aesthetic transformation of places. But on the other side, it can be an opportunity, for the development of related economic activities on the same spaces.

Large number of actors are involved and a deeply analysis of their role and positioning in the development, should be taken into consideration in order to preserve the complexity and the variety of these territories while developing a more responsible local tourism activity.



Photo by E. Ferrari



The present Eucalyptus landscape is the result of a recent work of reforestation.

According to the scientific analysis, the wood used for the Gumbat shrine timber parts, (in particular the inner dome beams) belongs to the species of *Acacia modesta*, a hardwood of Mimosaceae Family.





In ancient times, as well as nowadays, the landscape was dominated by *pinus roxburghii* and *quercus ilex* (*Banj*) in the mountains and savannah-like lower areas. These latter are characterized by various species of *Acacia*, including the sp. *modesta*.



Ancient quarry areas (phylladic stones) used by Buddhist communities 2000 years ago. Other quarry areas are visible between Points 19 and 20 (picture at the bottom).



Photo by L.M. Olivieri

Acacia modesta
Gumbat Site

This plant has a great ethno botanical value. Extraction of oil and gums is used in popular medicine for different purposes. Foliage is used as fodder, fencing/hedge plant. Because of its hardness and resistance, it is used in the manufacture of ploughs and other agricultural tool but also as roof beams and lintels of doors.

The wood is very dense and heavy, hard and very strong and durable even in exposed positions and in contact with water. These characteristics combined with the color (decorative wood) and the quick growth of the trunk, made this tree a valuable forestry asset since thousands of years as proved at the Great Shrine of Gumbat.

There, *Acacia modesta* was used for lintels of the clerestory windows, and for the supporting beams of the inner dome (1st-2nd century CE).



Map of the natural growth area of *Acacia Modesta*. The red dot is the site of Gumbat - From Olivieri and others (2014)

Palosa

Acacia modesta

Besides its building use, its gum is used in medicine and the tender twigs for cleaning the teeth.

The leaves and the gum used for dysentery and as stimulant, tonic.

Flowers oil, gum, resins and sticks are used for honeybee.

Acacia modesta in Pakistan is found at 1.200 m. in the foothill ranges of the Himalayas and also in the piedmont areas.



**THE VILLAGE OF BALO-KALE, THE SITE OF GUMBAT AND SURROUNDING AREAS
(POINTS 1-9)**

Water sources



The ancient water sources have been recently restored in the framework of the ACT Project.

Local families, and especially women and children, have recently re-appropriate these water areas and thanks to the creation of paths and itineraries, the water transportation have been facilitated.







Photo by L.M. Olivieri



Walking paths created or restored in the framework of the ACT Project in order to provide access to archaeological sites are having a great impact on the most remote families' mobility.





The restoration work of the water sources has provided a clear separation, between the animals drinking area and the area where people collect their water.



THE VILLAGE OF BALO-KALE, THE SITE OF GUMBAT AND SURROUNDING AREAS
(POINTS 1-9)

Ethnobotany 1

Kadu

Cucurbitaceae
Pumpkins



Jarughai
Shargage

Saccharum bengalense
N.B.:Used for baskets, brooms



Podina
Mint

Mentha viridis



Villaney
Mint

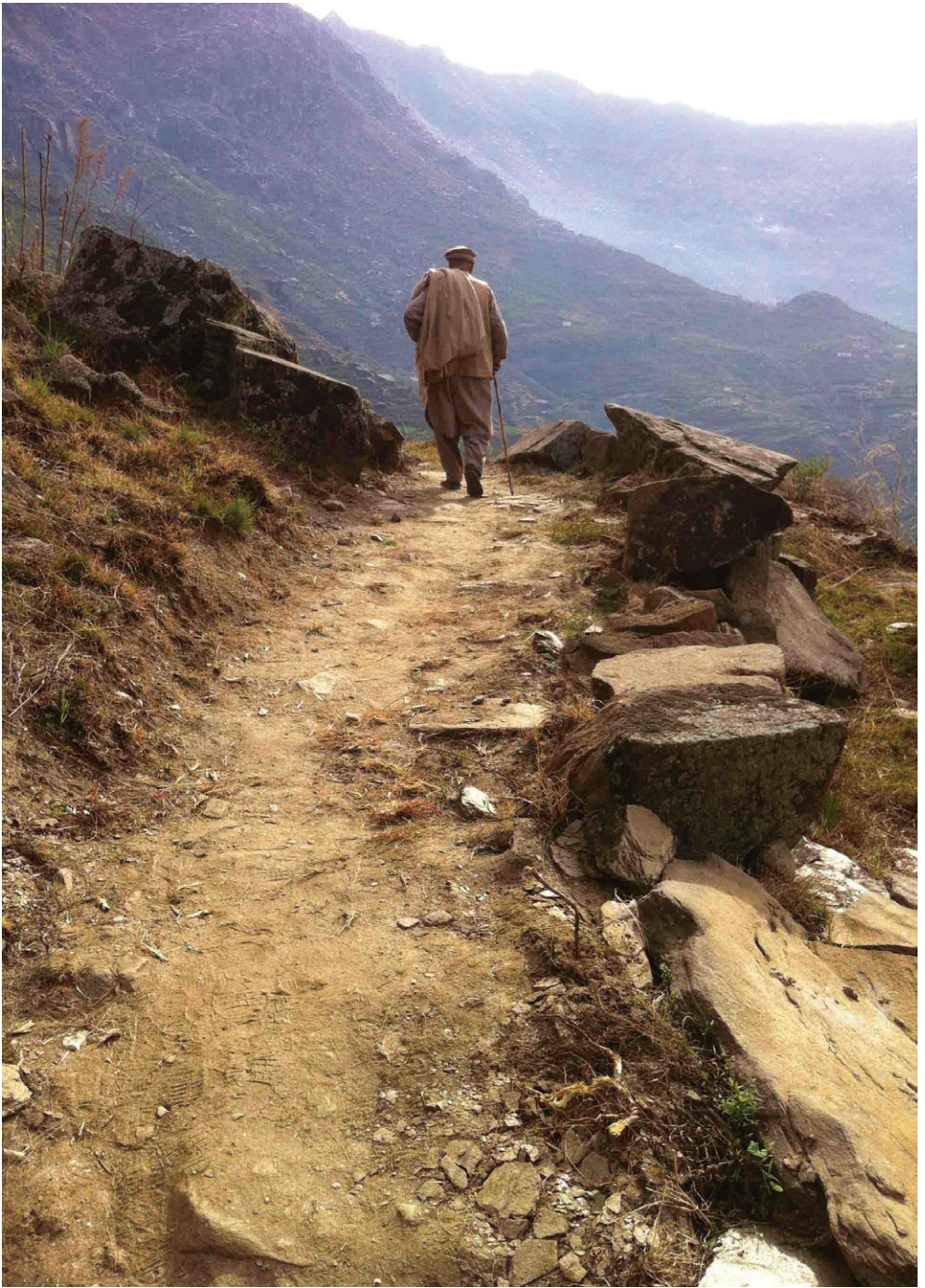
Mentha longifolia



Gandherai
Oleander

Nerium oleander

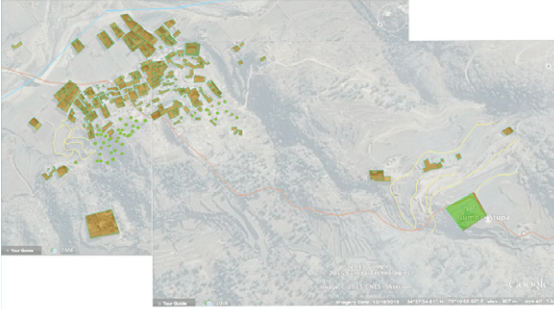




The Trail - Photo by Shafiq Ahmad Khan

THE VILLAGE OF BALO-KALE, THE SITE OF GUMBAT AND SURROUNDING AREAS (POINTS 1-9)

Rural habitat



Rural villages settlements are usually situated at the bottom of the valleys. Buildings form a landscape of terraces accessible by narrow climbing streets and steps, which follow the contour of the land.



The terrace village system links together one-storey and flat roof neighboring buildings. Strong windowless high walls are built, to fulfill the “purdah” system (isolation of women and girls from public view) and defensive needs.





The first space of the house is an internal open courtyards area that is partially covered by a veranda. From that “public” space, which generally houses the *hujra* (or guest space), access to the inner rooms is controlled.

The flat roof can be reached by the courtyards by means of stairs and is generally used by children and women also to reach neighboring houses.

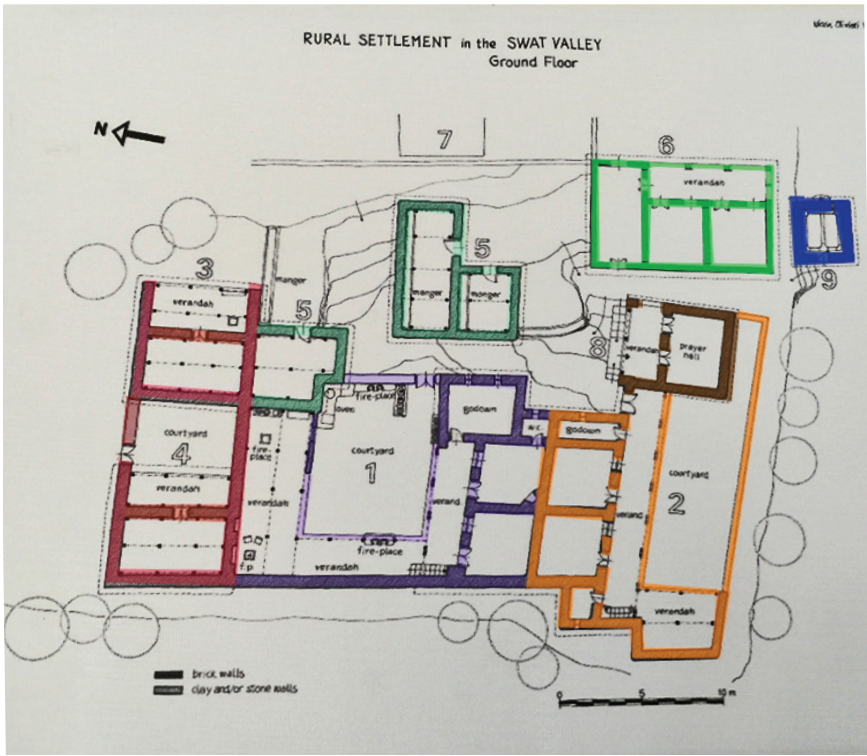




Buildings mainly have a rectangular form. The main materials used are clays as a mortar, and local stones, generally undressed and plastered with mud. Bricks masonry and modern concrete are increasingly used even if the color and the texture of the clay is still the predominant tone.



Roofs used as internal streets by children and women



Traditional house typology

- 1 Older brother House (violet)
- 2 Second brother house (orange)
- 3-4 Servants house (red)
- 5 Stables (dark green)
- 6 Hujra, guest house (light green)
- 7 External Area
- 8 Mosque (brown)
- 9 Tobacco drying house (blue)



The Trail resthouse near Sargah-sar (Point 14) - Photo by E. Ferrari

A shepherd's house (*banda*) - Photo by L.M. Olivieri



THE VILLAGE OF BALO-KALE, THE SITE OF GUMBAT AND SURROUNDING AREAS
(POINTS 1-9)

Domestic architecture





Wood Building Craft

In the Kandak Valley the slopes were covered with forests so timber naturally forms an essential part of the building traditions of these valleys.

Wooden architectural parts of the inner house are generally decorated with sophisticated carved compositions. A careful proportioning of every detail is integral part of the house and of its elements.



Wooden Churn

The household wooden churn is used for making butter and it consists in a dasher with a whisk-like lower extremity. In the butter making process, the dasher is inserted into the pot containing the milk cream. The pot is usually placed up against a pillar secured to it by a cord passing through two locks inserted in the dasher. A lower one serves as a lid to avoid milk splashing out during the processing. The dasher is made rotate by the means of cords as at the two ends of the cord are two small bones, often chicken or goat bones by which it can be grasped.



Examples of *hujras*





Veranda

The traditional veranda (whether be “private” or “public”) is constructed with an extended porch on the front.

Mainly, people use this porch for resting but the whole concept of such verandas is to leave an open space to the entrance of the home.

Pillars are richly decorated and artful reliefs are created all around the numerous storage spaces and niches.





The veranda inside the house (“private”) may have a specific space for a baby cradle or baby swing as women and children mainly use the area.

Mural Paintings

Long beams and high pillars and capitals support the weight of the roof. Ceilings is richly decorated with colored patterns. Very often pillars are carved and painted.



Walls are regularly plastered with mud and whitewashed.

In springtime walls, beams and other parts are painted anew, sometimes with floreal patterns. Elaborate mud decorations are generally created around windows and niches.

The earth floor is also frequently refreshed.



The rooms themselves are poor in terms of furnitures. However, there is an ample supply of woolen rugs and blankets.



THE VILLAGE OF BALO-KALE, THE SITE OF GUMBAT AND SURROUNDING AREAS
(POINTS 1-9)
Ethnobotany 2

The valley is very rich in plants and in particular medicinal ones. Most of the local inhabitants are using these plants as a primary source of health care

Lachi

Eucalyptus globulus
N.B.: allocthonous/re-forestation



Ghwaraskay

Dodonaea viscosa
Hopbush



Inzar

Ficus carica /variegata
Fig-tree
N.B.: see Inzar Kas on pp. 42-43



Jwar

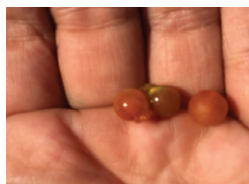
Zea mays
Maiz, Corn





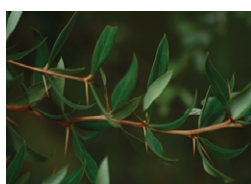
Dambara

Xanthoxylum armatum



Khachmachu

Solanum miniatum



Kwarey

Barberis lyceum



Guareja

Indigofera heterantha



Speshtare

Medicago minima



Spulmaey

Calatropis procera

Sharsham

Brassica campestris
Mustard plant



Hamesha

Tagetes minuta



Juarjare

Cajanus cajan



Khobanai

Prunus armeniaca
Apricot-tree





Baykar

Justicia adhatoda

Other plants

Marchanei
Ziziphus sativa

Baganna
Rubus sanctus

Bindhi
Hibiscus

Spin Toot
Morus alba

Tor Toot
Morus nigra

Shamakay
Origanum volgare

Kubanay butay
Carduus argentatus

Banj
Quercus dilatata

Palak
Spinacea oleracea

Chinar
Platanus orientalis

Tagha
Celtis caucasica

Karela
Memordica charantica

Peeuch
Pinus wallichiana

Banj
Quercus ilex

Pyazakay
Lilium regale



Marcondey

Tribulus terrestris



Chingarwala

Salix lanata

Tora Bikana

Melia azedarach



Da Zamki Toot

Fragaria indica
N.B.: Fruit is laxative



Gwaz

Juglans regia ghidar
Walnut-tree



Kwar

Vitis domestica
Grape



IMPORTED PLANTS

Malta

Citrus
Orange-tree





Aam

Mangifera indica
Mango



Amrud

Psidium guajava
Guava



Anaar

Punica granatum
Pomegranate

Possible encounters...

Baz
hawk

Skunr
porcupine

Kaperak
bat

Karboray
agama lizard

Sur gidar / Khwar gidar
fox

Samsara
monitor lizard

Pisho prang
linx
jungle cat

Spin gidar
jackal

Charmaxkay
lizar

Batur
eagle

Mar
snake

Chamchamar
cobra

N.B.: Generally
snakes are venomous.
Stay away!



During the reconnaissance of the Kandak and Kotah valleys dozens of boulders were documented with quadrangular or irregular basins carved out of them, as well as slabs with deep quadrangular carvings; basins and carvings were all provided with an overflow hole or canal. It was therefore a triple typology: the first is the most common one – rectangular tanks with an overflow hole (a type widespread in both Kandak and more particular in the upper Kotah valley); the second type is characterized by sub-circular cavities connected to basins placed at a lower level, or else by basins connected to holes to house levers (documented only in the Saidu valley sites); the third type consists of the so-called 'palettes': rectangular carvings, having the same size as the tanks, carved out of inclined boulder and joined by an overflow canal (Kandak and Kotah).

ANCIENT GRAPE-PRESSES

Photos by L.M. Olivieri



This study unequivocally showed that they were devices for pressing grapes, i.e. wine-presses comparable the Kalasha wine-presses documented by ethnographic research during last century (see drawings above).

SARGAH-SAR, KAKAI-KANDAO AND SURROUNDING AREAS (POINTS 10-15)

Archaeology



Dwolasmene-patai rock-paintings (ca. 100 CE)

PAINTED SHELTERS (Pre-islamic cultures of Swat)

The Italian Mission has explored Kandak, Najigram, Karakar and Kotah Valleys, as well as other valleys, over the past 20 years as these valleys are facing Bir-Kotghwandai archaeological area to the east and south-east.

The valleys of Kandak and Kotah in particular have been areas of study and survey campaigns in 2004 for the AMSV realization (Archaeological Map of the Swat Valley).

Pre-Protohistoric settlements are represented by rock-art/artifact sites like painted shelters, carvings, and cup-marked boulders. Hundreds of them have been discovered in the past years.

Photos by L.M. Olivieri



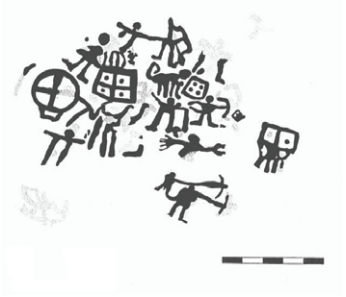
Dwolasmene-patai rock paintings (ca. 100 CE)



Sargah-sar rock-paintings
(ca. 1000 BCE)



Kakai-kandao rock-paintings (c. 1000 BCE)
Photo by L.M. Olivieri



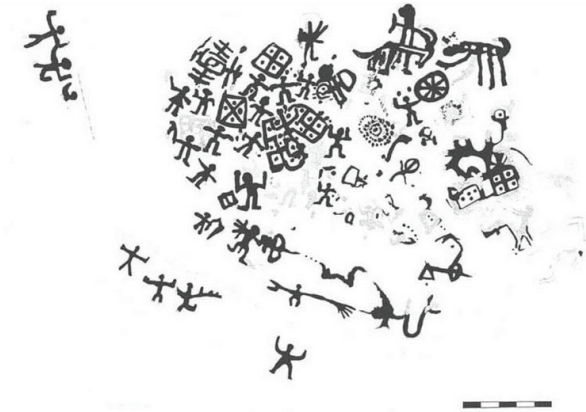
Drawings by F Martore



Cup-marks and game-boards



Sargah-sar



Sargah-sar - Drawings by F. Martore



Dandi-sar rock-paintings (ca. 100 CE) - Photos by L.M. Olivieri

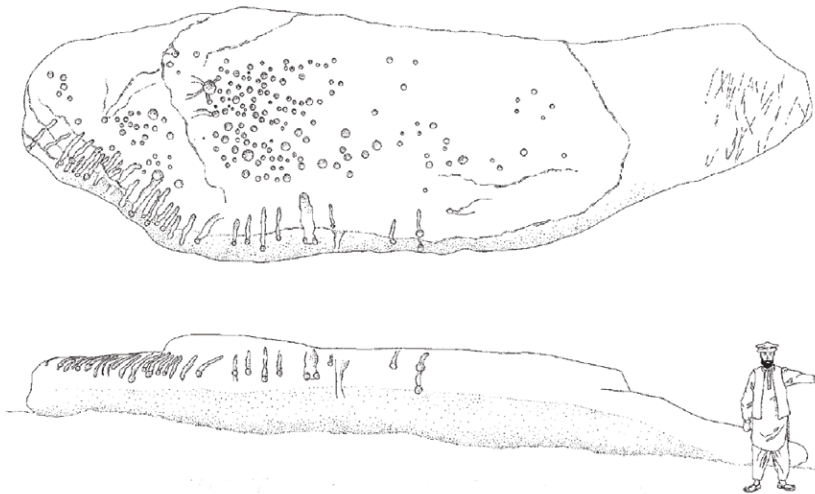
Loe-banda rock-paintings (ca. 300 CE) - Photos by L.M. Olivieri





Churkhai rock-paintings (ca. 500 BCE) - Photos by L.M. Olivieri

Some paintings include pictograms of warriors and domesticated animals like bulls and horses. While in some older paintings the horse is absent and scenes of agriculture is possibly emphasized, in other examples, like at Kamal-china, warriors are associated with horse riding. The horse icon was associated to Assakenoi-Asvakayana, the hill-tribes in Swat at the end of 4th century BCE according to Alexander's historians accounts.



Megalithic altar of Inzar Kas (Trail D) - Drawings by F Martore

On that boulder, located near a ford opposite Kandak village (see fig. on next page), more than hundreds cup-marks were documented. These cup-marks form permutations that may represent enigmatic designs. Certainly it is an important prehistoric monument (ca. 1000 BCE), which must have had a religious or cultic function.

SARGAH-SAR, KAKAI-KANDAO AND SURROUNDING AREAS (POINTS 10-15)

Living landscape



The arrow indicates the position of the prehistoric cup-marked boulder of Inzar Kas (see previous page)
Photo by A. Rana



Palwano-gata - Photos by L.M. Olivieri



Kandak valley in 1977. Barikot hill (left) and the peak of M. Ilam (right) are visible in the background



Upper Kotah Valley. The hills of Malakand are visible in the background



The mouth of Kotah Valley



Photo by Italian Archaeological Mission



Photo by A. Rana



Photo by E. Ferrari

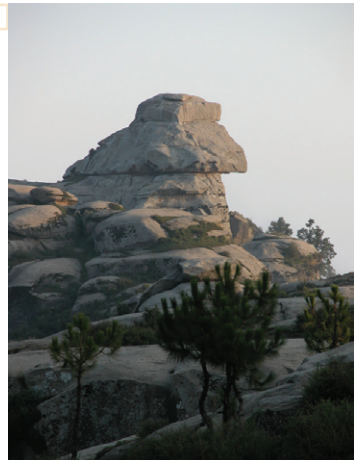


The hydronym Kandak is probably a non-Pashto term. However, Pashtun interpret the term as *khandak* or “ditch”, “moat”, or *kandag* or “stony”, “full of stones”. In fact, this was how the valley looked before the forestation program started in the 90ies (see on previous pages the photograph below taken in 1977). More probably the hydronym recalls a Munda (pre-Indo-Iranian) term for “water” quite common in the north of the Indo-Pakistani Sub-Continent (as *gandak* or *gandaki*; see also the plant name *gandherai*, oleander).



Kafir-kot

Topialai-sar



Photos by L.M. Olivieri

SARGAH-SAR, KAKAI-KANDAO AND SURROUNDING AREAS (POINTS 10-15)

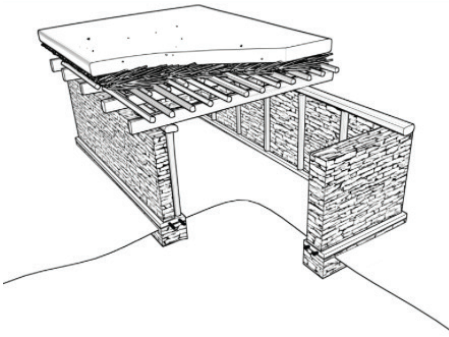
Rural habitat



Thatching Craft

This is the craft of building a roof with dry vegetation such as straw, water reed, rushes, or heather, layering the vegetation so as to shed water away. It is a very old roofing method and has been used in both tropical and temperate climates. Thatch is still employed by local builders, usually with local vegetation.

The Hujra



Drawings after Garnier (2011)

Mud-and-stone layers as main architectural materials.
Mixture of mud and straw for plastering



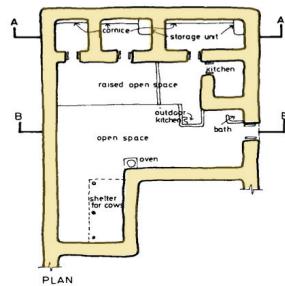
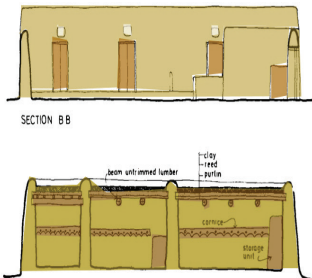




Photos by E. Ferrari



Drawings after Khan Mumtaz (1981)



SARGAH-SAR, KAKAI-KANDAO AND SURROUNDING AREAS (POINTS 10-15)

Domestic architecture



The traditional vernacular stone house in Swat has a main room with attached store-rooms and a cowshed. The house has traditionally one storey and a flat roof.

Traditional building materials are local stones, tree trunks and mud. The walls are made of stones with or without layers of wooden beams and mortar. Generally walls are plastered with a mixture of mud and straw.

Walls are thick, often 2 to 3 feet, and the flat roof consists of a heavy layer of earth laid on a thick pile of reeds over a structure of timber joists and beams. Thanks to the building technique rooms are well insulated throughout the year.

A depression for the fire in the earth floor is realized inside the main room, surrounded by a raised edge, molded in clay. A common addition is a tripod stove of molded clay columns protruding out of the floor to support a cauldron or other utensil over the fire.



The main room contains one or two large earthen grain storage bins, and most rooms have a long decorated timber shelf that proudly displays the family elements.

There is an outside kitchen against one of the courtyard walls or a low earth parapet, which protects the stove from the wind; occasionally an additional kitchen is provided with a roof or thatched shelter.

On one side of the court a gate leads to the stable where are housed the animals: milk cattle and sheep.

SARGAH-SAR, KAKAI-KANDAO AND SURROUNDING AREAS (POINTS 10-15)

Ethnobotany

Bhang

Cannabis sativa



Kashmire or Tomater

Locopersicon esculentum
Tomato



Kela

Musa acuminata
Banana-tree



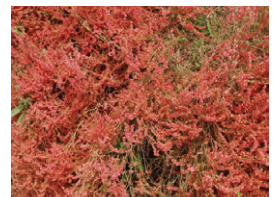
Noorparas

Helianthus annus
Sunflower



Tarookei

Rumex hastatus
Courtesy: <http://www.hillsofmorni.com/wp-content/uploads/2013/07/Rumex-hastatus-2.jpg>





Khona

Olea cuspidata
Wild olive-tree



Nakhtar

Pinus roxburghii



Peepal

Ficus religiosa
N.B.: Rare, imported from Punjab; traditionally regarded as a propitious plant by Gujari families.

Photo A. Rana



Shelkai

Rumix dentata

Kalkundeī

Citrulus colocynthis



Buti

Ajuga bracteosa



Celoai

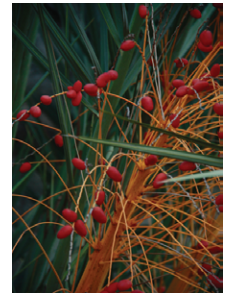
Amarathus viridis



Phoenix dactylifera

Date palm

N.B.: Rare, imported by Gujarī workers migrated to the Gulf. The plant is revered in Islam.



Sarkanda

Saccharum munja





Talmeera

Nasturtium officinale
Watercress



Carwara

Rubus fruticosus



Krachi

Andrachne cordifolia



Sheesham

Indian Rosewood
Dalbergia sissoo



Khar Wag

Salvia moorcroftiana



Ilanai

Ziziphus oxiphila

THE VILLAGE OF TALANG AND ITS SURROUNDINGS (POINTS 16-22)

Archaeology

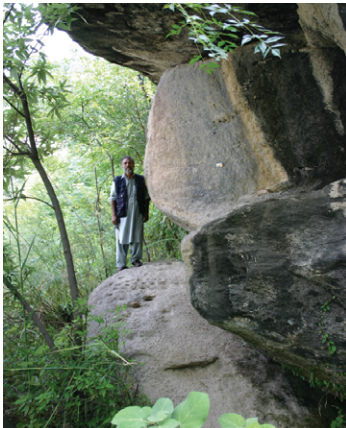
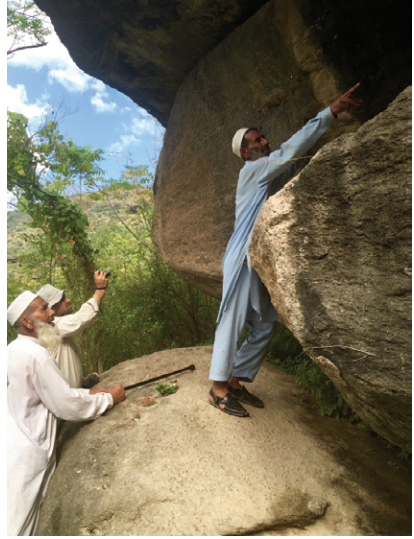
At Talang, near a ford one can see a large shelter where a succession of different types of rock graphics is concentrated. The earliest phase is represented by permutations of highly eroded cup-marks. On the sides of the shelter traces of red paintings have been partly cancelled out by carvings depicting warriors on horseback. The incised scenes have themselves been covered by five lines written in Brahmi scripts dating to the medieval age. Large 'permutations' of cup-marks, are also visible at this spot, on the rock floor below the inscribed rock, but also on the top of its projecting boulder.

The rock beneath the large boulder (about h 2.00 m and w 3.00 m) bears an inscription in the central part.

The inscription consists of 6 lines of Brahmi script, similar to the late Śarada variety, large in size (h 0.20 m c.), with a ductus 4 mm deep c. The conditions of the epigraph have been affected by exposure to atmospheric agents, which make its interpretation less than immediate.

Several characters (ka, ta) display similarities with 'medieval inscriptions' from Chilas and, as in the case of the Gondophares Rock, dated to the mediaeval period. Therefore, considering the cultural context of the Swat valley, the text may be provisionally dated, according to available palaeographic evidence, as between the 10th and 13th century.

The paintings at Kamal-china (dark red ochre) may be seen below a very low shelter protecting a spring. Designs include horse riders, right hands, humped bulls and battle axes. Near the shelter there are cup-marks and some modern carvings. A protohistoric graveyard was documented nearby.



Photos by L.M. Olivieri



Brahmi-Sharada inscription of Talang (ca. 10th-12th century CE) - Photo by L.M. Olivieri



Kamal-china (ca. 500 BCE) - Drawing by F. Martore

THE VILLAGE OF TALANG AND ITS SURROUNDINGS (POINTS 16-22)

Agriculture



Cutting Bikana (*Ailanthus*) as feed for cattle. Bikana is an invasive allochthonous species.



TERRACING

In agriculture, a terrace is a piece of sloped plane that has been cut into a series of successively receding flat surfaces or platforms, which resemble steps, for the purposes of more effective farming.

This type of landscaping, therefore, is called terracing. Graduated terrace steps are commonly used to farm on mountainous terrain. Terraced fields decrease both erosion and surface runoff, and may be used to support growing crops that require irrigation.

In the past, terraces were made to cultivate mustard (*sharsham*). Nowadays are mainly used for maize cultivation.



THE VILLAGE OF TALANG AND ITS SURROUNDINGS (POINTS 16-22)

Pastoral culture



CATTLE MARKET

During Eid Al-Adha celebrations, the livestock are decorated and taken to the local large cattle markets for sales of sacrificial animals.

Along the valleys large areas are left for pastures for herds of cattles and sheeps.

The Gujars and Ajars (hindko-speaking) are the two major groups living in these valleys having a nomadic Agro-pastoral style of life.

LAND TENURE

In the past the most privileged agricultural lands were those owned by the ethnic Yusufzai landlords (*khans*) while the off-center lands were inhabited by semi-nomadic communities of tenants: Gujars (semi-sedentary) and Ajars (semi-nomadic). But nowadays the situation is changing and the Gujars are transforming themselves into landowners.



Photo by A. Rana

The local mode of production of this semi-nomadic society, allows the landowner possessing sufficient land to assign another man, with a pair of bullocks and a plough, to work upon his fields, and share the harvest with the tenant, sufficient for his basic needs, keeping the surplus for himself. In the wider valleys of the mountain regions, a man can gain in wealth proportionate to the land he owns. And this is based upon the structure of feudal society in Pakistan. Usually in the past the Pashtuns of Barikot were the landlords and the Gujars their tenants, but today the situation is changing and many Gujars are nowadays prominent members in the society, landlords, traders and local politicians.



THE VILLAGE OF TALANG AND ITS SURROUNDINGS (POINTS 16-22)

Habitat

The traditional village of the northern Pakistan morphology characterized by mud or stonewalls dwellings, with water channels, basins and drinking water cisterns. Every village is a model of architectural harmony in itself.

The compact unity of the entire village is perfectly integrated into its landscape and environment



Most Pathan dwellings are, in fact, not so much individual nuclear family houses, but rather clan compounds, shared by as many as 20 households, with a common protective wall enclosing the entire compound.

The high wall is the only element visible to an outsider. The larger compounds with numerous courtyards and streets become, in effect small-fortified villages, and a large village may consist of a collection of such compounds.

Vegetal Texture Craft

The vegetal texture that forms this roof construction provide a light-weight structure with a low thermal capacity, essential in a warm humid climate, and permits the constant sea breeze to filter in through the walls.



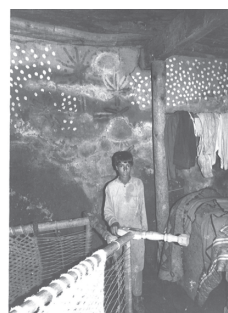
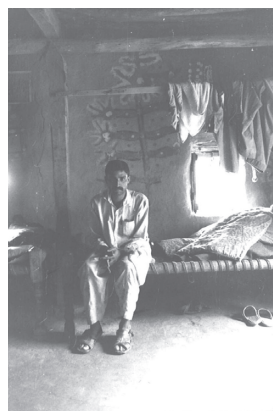


Bricks decorative door-frame



Each village is a microcosm of Pakistan's rural society, bearing the traces and the memories, like a fossil, of six millennia of history.

Photos in black and white were taken by L.M. Olivieri in the 1990s



CHILDREN PLAYGROUND

By Massimo Vidale

Resting and playing grounds under rock shelters used by children while herding goats – are still part of the landscape.

Here we found models of dolls' houses built with "walls" of aligned stones representing the rooms of domestic spaces. Within these grids one sees models of furniture and domestic infrastructures made with river pebbles, cloth-made dolls, miniature vessels in unbaked clay, clay models of domestic ovens, pots and dishes, brown drugstore glass flacons, and white shards of tea-cups in cheap China ware. Inside, pebbles are sometimes arranged to imitate pestles and grinding stones, while white plaster fragments are crushed and ground to powder to simulate ground flour.

These highly specialized sites are mostly structured and managed by young girls, which take care of the herd and, at the same time, of their younger brothers and sisters, involving them in their work and games, while actually taking care of the family's animals.



Photos by L.M. Olivieri

FOOD AND HOSPITALITY



- 1 Sur Amluk
- 2 Manna
- 3 Shin Chai
- 4 Guara
- 5 Masta
- 6 Ghuaz
- 7 Shomlai/Lassi



- 8 Malai
- 9 Kwuch
- 10 Pay
- 11 De ghwa ghwari



- 12 De mekhe ghwari
- 13 Gabin
- 14 Khwar
- 15 Juwar



- 16 Paratha
- 17 Chai
- 18 Amrasa



More vegetables ...

Piaz

Allium cepa - Onion

Ooga

Allium sativum - Garlic

Tendorhai

Asparagus officinalis - Asparagus

Nashpatai, Tangu

Local varieties of *Pyrus communis* - Pear






Hospitality is comprehensive and generous among the communities of Barikot valleys, Kandak and Kotah. It means not only food drinks and shelter but also protection.




Lemon grass (used for green tea, *shin ciai* or *kava*).

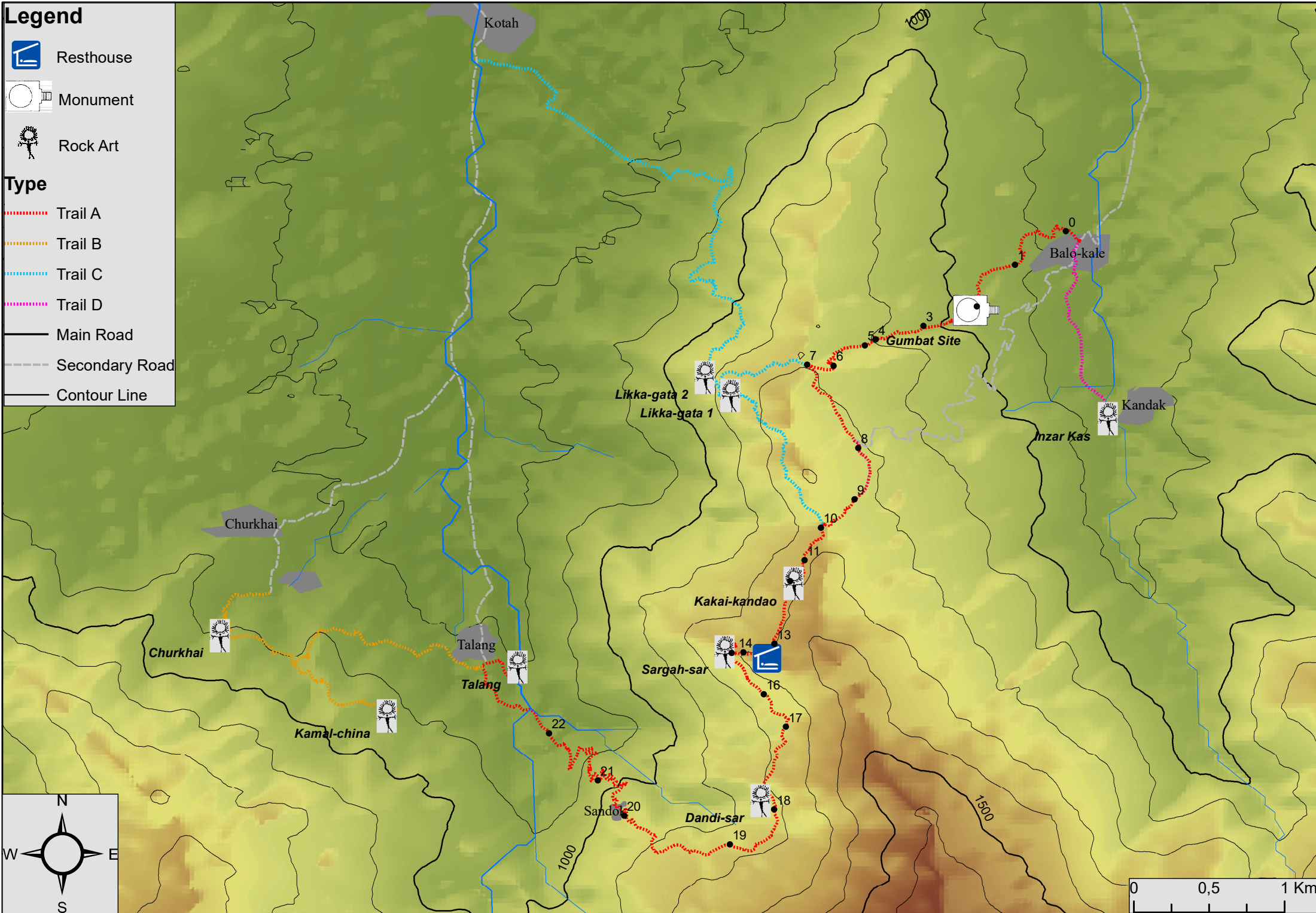
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Legend

-  Resthouse
-  Monument
-  Rock Art

- ### Type
-  Trail A
 -  Trail B
 -  Trail C
 -  Trail D
 -  Main Road
 -  Secondary Road
 -  Contour Line



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