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Cover Photo:

Detail of the head of an elephant in panel S 241, after Faccenna, D. *Il fregio figurato dello stūpa [...] di Saidu Sharif I*, ISIAORepMem XXVIII, Rome 2001, pl. 21a.

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Editorial Note

The authors are responsible for the linguistic and technical qualities of their texts. The editors only tried to ensure minimum coherence to the articles. The editors always reserve the right to make any changes to manuscripts to maintain the Journal's standards. Articles with serial numbers are evaluated through the blind reviews to ensure compliance with the ethical rules of this Journal and the guidelines of Higher Education Commission (HEC), Pakistan.

**The Italian Archaeological Mission in Pakistan, 1956-1986.
(Conference delivered in Islamabad
on the 26th of October 1986)**

Domenico Faccenna

Edited
[Alice Casalini]

Editorial note

The present manuscript was recently retrieved in the archives of the Mission House in Saidu Sharif by Prof. Luca M. Olivieri, Director of the Italian Archaeological Mission, who asked me to edit the manuscript and update the references. The manuscript is the text of a public lecture given by Domenico Faccenna in 1986. The lecture was delivered on October 27, at a conference in Islamabad, which was jointly organized by the International Islamic University and IsMEO, and promoted by the Italian Embassy.¹ In the lecture, Faccenna gives an overview of the activities

¹ See IsMEO Activities 1986, *East and West*, 36, 4 (December 1986), pp. 341-348. See in particular p. 344: "With the aim of illustrating the Institute's 30 years' uninterrupted work in Pakistan, a Conference promoted by the Italian Embassy and organized jointly by the International Islamic University and IsMEO was held in Islamabad on October 27 and 28. The President of IsMEO took part in the Congress and reports were presented by Dr D. Faccenna, Prof. U. Scerrato and Prof. M. Tosi on the Institute's three main areas of activity. The Congress, which was closed with a final report by the President, was attended by numerous scholars, experts and representatives of the institutions concerned. Subsequently, on October 29 and 30, a series of lectures promoted by the Italian Consulate General was held in Karachi to illustrate the work carried out at Mohenjodaro, and IsMEO organized a documentary exhibition of photographs for the occasion. Here too the proceedings were closed by the President, who dedicated particular attention to IsMEO's future plans for Mohenjodaro and the southern provinces (Sind, Balochistan). Again, the occasion met with considerable success. During his prolonged visits to Pakistan the President has had many meetings with representatives of the Government and Pakistan culture and has consistently encountered real interest in Italy and IsMEO and a spirit of true friendship." According to Prof. Olivieri, the text was prepared for a publication (only figs, captions and references are missing in the manuscript), which was never published. It is no coincidence that this text is published in this journal, as the *Journal of Central Asia* (JAC) was deeply appreciated and read with interest by Faccenna. Whenever Olivieri or other young Faccenna's collaborators traveled to Pakistan, Faccenna would give them a letter or postcard for Prof. Dani, asking them to

carried out by the Mission over the thirty years of uninterrupted presence in Pakistan—from the beginning of the work in 1955 to 1985-1986—and highlights the three main areas of inquiry: pre- and proto-historic period, pre-Islamic historic period, and Islamic period. fig.

*While it may seem that they come late, it is still important to publish Faccenna's words even now, more than 35 years after this lecture. This piece in fact lays out in a quick but incisive sketch many of the ideas that Faccenna would later develop in other work, such as his masterpiece, *Il fregio figurato dello stupa principale nell'area sacra buddhista di Saidu Sharif I* [*The figured frieze of the main stupa in the Buddhist sacred area of Saidu Sharif I*], published in 2001, still one of the foundational text for the study of Gandhāran art.² It is fascinating to trace historically the first instances of many of the ideas we read about in his later work: we are seeing here Faccenna thinking in sweeping strokes through the archaeological objects and through the territory to give his audience a summary of thirty years of accomplishments by the men and women of the Italian Archaeological Mission. It is a grand overview that takes into consideration not only the materiality of the things themselves, but also their relationships with their archaeological context—which is historical and cultural, but also human and environmental. The present manuscript, therefore, offers a great counterpart to Faccenna's more specialized academic work while at the same time, it also clearly recaps thirty years of archaeological work in the Swat Valley and connects it to other work carried out in the neighboring regions by both Pakistani and other European archaeological excavations.*

In an effort to remain as close to the script of the lecture as possible, I have tried to preserve the semi-formal nature of the text, and I edited it minimally for the sake of consistency and clarity. This operation included moving some paragraphs to group together similar content so

visit him and bring him his greetings, and if possible, to have two copies of the latest issues (or missing issues) of the JAC delivered, one for the Mission Library in Swat, the other for Faccenna's personal library in Rome.

It should also be noted that in 1985, which was the 30th anniversary of the Mission, Faccenna had some of his collaborators' contributions published in a special issue of the CNR (Italian Council for Scientific Research) (see his introduction to them: Id. (1985) *La Missione Archeologica Italiana dell'IsMEO in Pakistan, Quaderni de «La ricerca scientifica»* (Scavi e ricerche archeologiche degli anni 1976-1979), CNR, 112, 303-304).

² D. Faccenna, *Il fregio figurato dello stūpa principale nell'area sacra buddhista di Saidu Sharif I (Swat, Pakistan)*. IsIAORepMem 28. IsIAO, Rome, 2001.

that it could be put under headings, and changing some language to make it more legible. I have also added footnotes with references to the works of other scholars mentioned in the talk, as well as to recent fundamental work by scholars who have developed some intuitions and ideas Faccenna is advancing in this conference. Although my edits cannot in any way improve on the clarity of Faccenna's ideas, I hope that my editorial intervention³ (albeit minimal) will make the content of the talk widely accessible to all.

Keywords: Swat, Proto-History, History, Gandhara Art.

1. Introduction

I am sincerely grateful to His Excellency, the Italian Ambassador in Pakistan, Mr. Amedeo de Franchis, for the opportunity to illustrate the research carried out by the Italian Archaeological Mission in Pakistan and the results recently obtained. Recent as it is, our research has consistently followed the guidelines established since the Mission was founded in 1956 by Prof. Giuseppe Tucci, to whom we owe eternal gratitude. Our aim was to get a detailed, analytic, and complete picture of one of the most important areas in northern Pakistan, Swat—or Uḍḍiyāna, to give it its ancient name. Uḍḍiyāna means “garden”, and so it must have appeared to the Buddhist pilgrims arriving here from China and Central Asia, having crossed the forbidding inland areas. There are echoes of the wonder Swat aroused in the memoirs of Fa-hsien [Faxian] (c. 403) and Song-yün (520), who described a verdant land of flowers and over a thousand monasteries.⁴

³ References and bibliographic updates were added to footnotes. Therefore they do not follow the standards in use in this Journal.

Only in a few cases was it possible to find a substitute for some of the original illustrations referred to in the manuscript. The position I think Faccenna would have wanted to give these illustrations is indicated with [fig.] without numbering, to avoid confusion with the numbering of the replacement figures (Fig.), which are indicated with a number.

⁴ J. Legge (tr.), *Record of Buddhistic kingdoms, by Fa-Hsien, being an account by the Chinese monk Fa-Hsien of his travels to India and Ceylon (AD 399-414) in search of the Buddhist Book of Discipline*, Buddha Dharma Education Association Inc., 2016, first published in 1886. As demonstrated by L.M. Olivieri in his *Stoneyards and Artists* (L.M. Olivieri, *Stoneyards and Artists in Gandhara. The Buddhist Stupa of Saidu Sharif I, Swat (c. 50 CE)*. Serie Marco Polo, 1. Edizioni Ca' Foscari, Venezia, 2022), the interpretation of Uḍḍiyāna as garden was certainly the result of a fortunate paretimology, the original

Today the eye is drawn along by the practically uninterrupted line of brown remains of monuments, stupas and viharas, fortifications and dwellings, stretching along the mountain slopes around the whole valley. The historical and artistic remains in this region provide evidence of human activities covering a very long period of time, from the third millennium BCE to the most recent Islamic period. The name of Alexander the Great, who arrived here in 327 BCE, is still closely associated with these valleys—it is a name that has acquired a certain symbolic significance, representing a link between East and West, and between Classical, eastern Iranian, and Indian culture. The link in fact became a concrete reality thanks to the historical and cultural unity represented by his successors, the Indo-Greeks, who were then absorbed by the Parthians, the Sakas, the Kushanas, and the Sassanids.

In this later period, Swat was one of the greatest centres of Buddhist culture and a vital nucleus for the dissemination of the doctrine throughout Asia. It was here that Buddhism passed from Hinayāna to Mahāyāna, became increasingly universal and subsequently underwent a profound process of transformation towards gnostic, tantric, and magic approaches which then fused together in the esoteric doctrines of Vajrayāna. Swat was also the birthplace of the great exorcist and thaumaturge Padmasambhava, who arrived in Tibet in the eighth century. Here King Indrabhūti wrote his tantric commentaries, the *Uḍḍiyānapīṭha*. It was here in Swat that, finally, Islam arrived brought by the great Mahmūd of Ghazna (c. 1000): a new era had begun.

After the first surveys carried out by the British archaeologist and explorer Sir Aurel Stein in 1926, and by Evert Barger and Philip Wright in 1938—of the University of Bristol and the Victoria & Albert Museum respectively⁵—Tucci turned to the historical study of the area, approaching it through a deep study of Chinese, Tibetan, and Indian classical literary sources. In 1955 and 1956 he proceeded to carry out a careful field survey, finally determining in 1956 the precise locations to be

meaning having most probably to do with the “land of the Oḍi” the royal family ruling in Swat in the last centuries BCE and until the time of Kujula Kadphises.

⁵A. Stein, *An Archaeological Tour in Upper Swat and Adjacent Hill Tracts*. Memoirs of the Archaeological Survey of India, 38. Calcutta, 1930; E. Barger and P. Wright, *Excavations in Swat and Explorations in the Oxus Territories of Afghanistan: A Detailed Report of the 1938 Expedition*. Memoirs of the Archaeological Survey of India, 64. Calcutta, 1941. See also L.M. Olivieri, ‘Frontier Archaeology’: Sir Aurel Stein, Swat, and the Indian Aornos, *South Asian Studies*, 31(1), 2015, pp. 58-70.

excavated. It was this decision that prompted the work of the Italian Mission, which, as soon as it was formed, inaugurated the work of IsMEO (Istituto Italiano per il Medio ed Estremo Oriente) in Asia. The work here in Swat—including the excavation, preservation, and study of the material—is now in its thirtieth year. It has been covered by a number of publications as well as exhibitions both in Italy and Pakistan, the latest of which was held in Peshawar in 1982.

The first sites destined for excavation were Udegram and Butkara, near Mingora. They constituted two basic fields of study, the former concerning dwellings, private and public buildings, and the material culture of everyday life, the latter concerning a sacred Buddhist area with its monuments, art, and votive objects. As time went by, the excavation was extended to other centres, and the research area has expanded consistently both chronologically and culturally. The constant flow of new data spanning a period from proto-history to the Islamic age called for in-depth studies along with the creation of new guidelines. The Mission was therefore organised around three phases in diachronic sequence: 1) pre- and proto-history; 2) pre-Islamic history; 3) Islamic history. Interdisciplinary inquiry is brought to bear on each phase, with the intention of performing a thorough survey of the territory both from the archaeological and the environmental point of view. Our eventual aim is to have a complete picture of the past in this area, including everyday life, historical events, and culture.

The following are some of the main points of interest that have emerged after recent research on subjects connected with the protohistoric and historic pre-Islamic periods. Inquiry into the area of Islam was undertaken by the Mission under the guidance of Prof. Umberto Scerrato, who has already illustrated some of the most significant results obtained with the excavation of a mosque of the Ghaznavid period—the most ancient in North Pakistan.⁶ News of these results have also appeared in the daily press.

⁶ Faccenna is here referring to the lecture given by Scerrato before him. For references of Scerrato's work at Udegram see A. Bagnera, *The Ghaznavid Mosque and the Islamic Settlement at Mt. Raja Gira, Udegram*. ACT Field School RepMem, V. Sang-e-Meel, Lahore, 2015. For an overview of the relevant publications by members and collaborators of the Italian Archaeological Mission, see L.M. Olivieri, *The IsIAO Italian Archaeological Mission in Pakistan: A Selected Bibliography (1956-2006)*, *East and West*, 56, 1/3, 2006, pp. 301-318.

2. The protohistoric period

Before the Mission started its work, there was practically no documentation on the protohistoric period. It was thanks to Tucci's rare intuition that between 1956-1958 came the discovery of a number of graveyards, which were subsequently excavated between 1961 and 1965—the graveyards of Butkara II, Loebanr I, and Kātelai I (2nd half of the 2nd millennium—c. the middle of the 1st millennium BCE). Excavation in the area sheltered by rock in Ghālīghai, guided by Prof. Giorgio Stacul, produced an uninterrupted sequence of seven periods.⁷ The sequence served as a time-scale to map out the succession of cultures in Swat from the 3rd to the middle of the 1st millennium BCE, while at the same time it provided a key to trace the relations between the cultures of the Indus, Iran, and Central Asia over an even larger area.



Fig. 1 - Vase inv. no. A 380 from Aligrama (after Stacul, Tusa 1977: fig. 75).

⁷ G. Stacul, Excavations in a Rock Shelter near Ghalighai (Swat, W. Pakistan), *East and West*, 17, 3-4, 1967, pp. 185-219, and Id., Excavations near Ghaligai (1968) and Chronological Sequence of Protohistorical Cultures in the Swat Valley (W. Pakistan), *East and West*, 19, 1-2, 1969, pp. 44-91.

While the graveyards were being excavated, research also went ahead on the settlements of the same period, and exploration in Aligrāma has recently been completed by the team led by Dr. Sebastiano Tusa.⁸ The settlement, on the right bank of the river Swat, had a very long history, covering seven periods from the 18th century BCE to the 4th century CE. Here we only have time to briefly describe the most significant stages of its existence. In the beginning (I period) there was a village of circular huts dug into the clayey riverbank. In the successive periods II to IV, various phases of settlement alternated with alluvial periods. At this time, the dwellings were built of stone and had square rooms. The pottery was fashioned on a slow wheel: we have one exceptional example of this pottery type, a pot from period IV (beginning of the 1st millennium). The find is almost unprecedented in the whole of the subcontinent, with the exception perhaps of one object found in Kalibangan [fig].⁹

The paleosol, covered by a thick layer of alluvial shingle, reserved the surprise of showing the furrows made by the plough when the land was last tilled in a perfect state of preservation. They are regular, parallel, somewhat shallow and V-shaped in section, one side steeper than the other, suggesting that they were of the “spillway” type, a type that is no longer found in the area. The Aligrāma ploughed field, then, attests to the use of this revolutionary kind of plough centuries before the Romans introduced it to most of the known world. Evidence that agricultural techniques were particularly developed in Aligrāma is also provided by a study carried out by Dr. Lorenzo Costantini on vegetable remains singled out by bio-archaeological research on soil samples.¹⁰ The wide range of

⁸ G. Stacul and S. Tusa, Report on the Excavations at Aligrāma (Swāt, Pakistan) 1966, 1972, *East and West*, 25, 3-4, 1975, pp. 291-32; Eid., Report on the excavations at Aligrāma (Swāt, Pakistan) 1974, *East and West*, 27, 1/4, 1977, pp. 151-205. See also A.V. Rossi and L.M. Olivieri, Sebastiano Tusa e gli scavi dell'IsMEO. In S. De Martino, M. Marazzi, L. Milano (eds), *Orizzonti d'Oriente: tra Mediterraneo e Asia centrale: studi in ricordo di Sebastiano Tusa*. Orizzonti d'Oriente, Firenze, 2022, pp. 179-186.

⁹ It is unclear which vessel Faccenna was referring to. Given this uncertainty, Olivieri suggested publishing another rare vase from Aligrāma instead (inv. no. A 380), which is associated with a chronology in phase with the Maurya period (Fig. 1).

¹⁰ L. Costantini and L.C. Biasini Laboratory of Bioarchaeology, *East and West*, 35, 4, 1995, pp. 331-336. See also G. Forni, Irregolarità dei solchi fossili e presunta presenza dell'aratro asimmetrico ad Aligrāma (Nord Pakistan) nel secondo millennio a. C., *Rivista di storia dell'agricoltura*, XXV, 1, 1985, pp. 73-78; S. Tusa, L'insediamento protostorico di Aligrāma, *Quaderni de «La ricerca scientifica»* (Scavi e ricerche archeologiche degli anni 1976-1979), *CNR*, 112, 1985, pp. 315-325.

crops—rice was grown from the earliest times of the settlement, as well as barley, wheat and oats—is a useful indicator for the reconstruction of the environment and anthropic activities.

Period V (8th—5th centuries) marks the settlement's richest period. The buildings had various rooms and beaten clay floors. The area distribution inside the structures of the different functions can clearly be discerned: the cooking area, where hearths with terracotta andirons were installed; storerooms, with moveable or fitted containers made of clay, such as large pitchers; cylindrical pits lined with stones for foodstuffs. The flourishing pottery industry produced further developments of terracotta and metalwork, attested to by the moulds for ornaments and utensils found on the site. A large isolated building with a square ground-plan was erected towards the end of this period. It must have had a rather special function, as a hearth-altar stands at the centre of it with a large round stone, and is surrounded by a semicircle of smaller stones in front of it. We can suggest that this building was perhaps a temple.

The following period (Period VI, 4th-3rd centuries), marked by a shrinking of the settlement, offers some novelties in the pottery industry. Along the earlier types, new kinds of pottery such as carinated bowls were produced. The end of this period coincides with the destruction of the settlement, as evidenced by traces of a great fire and the hasty interment of bodies in the ruins themselves. This event must have occurred at the time of Alexander the Great's expedition and might have even been a direct or indirect result of it. The inhabitants were probably the Assakenoi—and this is the name of the people Alexander fought and conquered. The city was probably Māssaga or Māzaga.

Well into the historic period (Period VII), in the Maurya and the Kushana ages, the area was built up as a military post, with walls and rooms following the line of the mountain ridge enclosing the valley to the East. Aligrāma, with its complex and subtle phasing of periods, offers thus an invaluable key for problems relating to the sequences in the late 2nd and early 1st millennium BCE (the Iron Age) in the North-West area of the subcontinent.

We have now acquired far more data on this period, above all on the material culture —rather less on the social and religious culture. The data derive from excavations of graveyards—including those performed by our Mission in Swat and Buner (under the guidance of Giorgio Stacul,

Chiara Silvi Antonini, Sebastiano Tusa, and Editta Castaldi),¹¹ by the Archaeology Department of the University of Peshawar in Dīr (led by Prof. Ahmad Hasan Dani)¹² and by the Pakistan Archaeology Department at Zarif Karuna near Peshawar (led by Rafique Mohammad Mughal and Gulzar Mohammad Khan).¹³ New data also comes from excavations of inhabited areas, such as the excavation now in progress at Bīr-koṭ-ghwaṇḍai (Barikot), those carried out earlier at Udegram, Bārāma, Butkara, Gōgdara III by our Mission,¹⁴ and those at Balambat and Damkot in Dir, carried out by Prof. Dani of the Archaeology Department of the University of Peshawar.¹⁵ To these we can add Sir R. E. Mortimer Wheeler's excavations of Bālā Hissar and Charsadda,¹⁶ the excavations of Bhir Mound carried out by Sir John H. Marshall, Sir Wheeler, Mr. Muhammad Sharif Ghosh,¹⁷ and those of Hathial in Taxila conducted by F.

¹¹ G. Stacul, Scavi a Loebanr III e Bīr-koṭ-ghwaṇḍai (Swāt). Scavi e ricerche archeologiche degli anni 1976-1979. *Quaderni di ricerca scientifica*. CNR, 112, 1, 1985, pp. 305-14; Id. Transhimalayana. Testimonianze archeologiche della prima metà del II millennio nelle valli del Kashmir e dello Swāt. In G. Gnoli, L. Lanciotti (eds), *Orientalia Iosephi Tucci memoriae dicata*. *SOR*, LVI, 3, 1985, pp. 1385-90. Roma. S. Tusa, Notes on Some Protohistoric Finds in the Swāt Valley (Pakistan). *East and West* 31, 1-2, 1981, pp. 99-120. C. Silvi Antonini and G. Stacul, *The Proto-historic Graveyards of Swāt (Pakistan)*. *IsMEORepMem*, VII, I II. Rome, 1972. E. Castaldi, La necropoli di Kātelai I nello Swāt (Pakistan). Rapporto sullo scavo delle tombe 46-80 (1963). *Atti della Accademia dei Lincei*. Memorie, VIII, III.7, 1968, pp. 485-486.

¹² A.H. Dani and Durrani, F.A., A new grave complex in West Pakistan. *Asian perspectives*, 8(1), 1964, pp. 164-165.

¹³ F.A. Khan, *Pakistan Archaeology*. Karachi, Department of Archaeology, 1964. G.M. Khan, G. M., Excavations at Zarif Karuna, *Pakistan Archaeology*, 9, 1973, pp. 1-94.

¹⁴ Among others, see G. Gullini, *Udegram*. *IsMEORepMem*, I. *IsMEO*, Rome, 1962. D. Faccenna, Preliminary Report on the 1963 Excavation Campaign of Barama I (Swat Pakistan), *East and West*, 15, 1-2, 1964-1965, pp. 7-23. Id., *Mingora: Site of Butkara I*. *IsMEORepMem*, I. *IsMEO*, Rome, 1962.

¹⁵ A.H. Dani and A. Rahman, Report on the Excavation of Balambat Settlement Site, *Ancient Pakistan*, 3, 1967, pp. 235-288. A. Rahman, Excavation at Damkot. *Ancient Pakistan*, 4, 1968, pp. 103-250.

¹⁶ M. Wheeler, *Chārsada, A Metropolis of The North-West Frontier*. Government of Pakistan and the British Academy. Oxford University Press, Oxford, 1962.

¹⁷ J. Marshall, *Taxila: An Illustrated Account of Archeological Excavations Carried Out at Taxila*, 3 vols. Cambridge, 1951. M.S. Ghosh, Taxila (Sirkap), 1944-45, *Ancient India*, 4, 1947-1948, pp. 41-84, with a postscript by R. E. Mortimer Wheeler. M. Sharif, Excavation at Bhir Mound, Taxila, *Pakistan Archaeology*, 6, 1969, pp. 6-99.

Raymond Allchin, and by G. M. Khan of the Pakistan Archaeology Department.¹⁸

While the relative chronology of this period has been fairly well established, the absolute chronology remains a vexed question, as recently demonstrated by Hermann Müller-Karpe¹⁹ and Reinhard Dittman,²⁰ through a re-examination of the relevant materials and a clarification of certain elements which had been misplaced and had thus affected dating).²¹ The imminent publication of the Aligrāma excavations conducted by Tusa and his collaborators, with a detailed examination of the stratigraphy and materials, promises to represent a decisive contribution in this respect, as Aligrāma provides the links between the protohistoric and the historic period—evidence of which came from the other excavation of the Mission.²²

In the course of inquiry into the protohistoric settlements, with special attention being paid to the period corresponding to the earliest stages of Aligrāma (Period I, 18th-15th centuries=Period IV in Swat, 1700-1400), the excavation under way at Bīr-koṭ-ghwaṇḍai, near Barikot, headed by Stacul, has proven to be of great significance.²³ Here too the earliest features are pit-like structures, between circular and oval, with vertical walls and generally of rather small dimensions. Around the middle of the second millennium, they are supplanted by dry-stone structures with a four-sided ground plan. Animal and vegetable remains on the beaten floors of the houses shed light on the inhabitants' diet and on some of their economic activities. Among the remains of cultivated plants identified by

¹⁸ M.K. Khan, Hathial Excavation, *Journal of Central Asia* 6, 2, 1983, pp. 35-44. See also F.R. Allchin, How old is the city of Taxila? *Antiquity*, 56(216), 1982, pp. 8-14.

¹⁹ H. Müller-Karpe, *Jungbronzezeitlich-früheisenzeitliche Gräberfelder der Swat-Kultur in Nord-Pakistan: unter Zugrundelegung der Fundvorlagen von A.H. Dani, G.M. Khan, C. Silvi Antonini u. G. Stacul* (MAVA 20), Beck, München, 1983. Reviewed by G. Stacul in *Praehistorische Zeitschrift*, 61, 1986, 90.

²⁰ R. Dittmann, Problems in the Identification of an Achaemenian and Mauryan Horizon in North-Pakistan, *Archaeologische Mitteilungen aus Iran*, 17, 1984, pp. 155-193 (pp. 172-174).

²¹ The *vexata quaestio* of the chronology of the protohistoric Swat graveyards was definitely solved by the recent excavations of the Italian Mission in Swat (see M. Vidale, R. Micheli and L.M. Olivieri *Excavations at the Protohistoric Graveyards of Gogdara and Udegram*. ACT Field School RepMem, III. Sang-e-Meel, Lahore, 2016).

²² For an overview of Tusa's work in Swat, see Rossi and Olivieri 2022 quoted above.

²³ G. Stacul, Excavation at Bir-kot-ghundai (Swat, Pakistan), *East and West*, 28, 1-4, 1978, pp. 137-50.

Costantini were wheat, barley, rice, rye, lentils, peas and even vines, pointing to one of the most varied diets evidence has been found for in the protohistoric sites in the subcontinent.²⁴ The animal remains identified by Dr. Bruno Compagnoni included the main species of domesticated animals, among which was the horse (*equus caballus*).²⁵



Fig. 2 - Equid attacked by a bird or other fantastic creature (inv. no. BKG 500)
(after Stacul 1987: pl. XLIVa).

The pottery type of this period is represented by a very fine production in red clay with black painted decoration, showing not only linear and geometrical patterns but, interestingly enough, others of naturalistic design, with plant patterns such as the pipal leaf. Animals often include birds such as peacocks, oxen and felines. Usually they appear alone, but in one case there is a scene of an equid attacked by a bird or a fantastic beast (Fig. 2).

²⁴ L. Costantini, Notes on the Palaeoethnobotany of Protohistorical Swat. In M. Taddei (ed.), *South Asian Archaeology 1977*, 2. Istituto Universitario Orientale, Naples, 1979, pp. 703-8.

²⁵ B. Compagnoni, Preliminary Report on the Faunal Remains from Protohistoric Settlements of Swat. In M. Taddei, ed., *South Asian Archaeology 1977*, 2. Istituto Universitario Orientale, Naples, 1979, pp. 697-700.

The representation of the equid is the earliest found in the subcontinent—the small clay Pirak horses are of a later date.²⁶ In another case, a bird of prey (possibly an eagle) swoops down on two other animals (a dog and an antelope) according to the “aggression pattern” known from the Mesopotamia area. There are also trident and sun patterns. Altogether, these designs invite us to draw some parallels with the pottery found at Cemetery H at Harappa (about the middle of the 2nd millennium). Apart from these, there are also examples of polished grey-black pottery production with a great variety of styles, some of which recall those dating from between the end of the 3rd and beginning of the 2nd millennia BCE found on sites in the northern Iranian plateau (Hasanlu, Gyan, Shah Tepe). Recent excavations in Afghanistan (at Dashly, for example) have shown that the latter type gradually spread east, and therefore it seems likely that there is some direct connection with the findings in Swat. However, we have not as yet sufficient evidence to say whether the arrival of these styles in the north-west regions of the subcontinent was due to trading, cultural importation, or actual ethnic migration.²⁷

There can be no doubt, however, that the culture attested to in the earliest Bīr-koṭ-ghwaṇḍai settlements reflected a society that was already specialised in short and long distance trading or, in other words, in interregional, intercultural exchanges. This is demonstrated not only by products that are clearly coming from the southern plains areas and even from the ocean shores—such as shell ornaments, coral, onyx, and cornelian—but also by products coming from the opposite direction, beyond the great mountain chains that separate the subcontinent from Central Asia. This is in fact the only possible explanation for the existence in Swat of a number of objects peculiar to the Chinese cultural area (including bone pins with *t'ao t'ieh* [taotie] heads, green jade ornaments, pierced stone knives). The likelihood of such trans-Himalayan relations there is also attested to by the culture of Burzahom in nearby Kashmir, dating between the middle of the 3rd and the middle of the 2nd millennia BCE, where elements seemingly deriving from northern China appear. Traffic between the opposite sides of the great mountain chains is likely to have used various passes in the Karakorum, Hindukush, and Pamir. It is

²⁶ G. Stacul, Swāt, Pirak and Connected Problems (Mid-2nd Millennium B.C.). In J.P. Gerry, R.H. Meadow (eds), *South Asian Archaeology* 1989, Madison, Wisconsin, 1992, pp. 267-71.

²⁷ See G. Stacul, *Prehistoric and protohistoric Swat, Pakistan, c.3000-1400 B.C.* IsMEO RepMem, XX. IsMEO, Rome, 1987..

hard to say, however, whether this is really evidence of long-distance trading, or whether there was an intermediate cultural “strip” along the upper mountain valleys that could have acted as go-between in these relations.

As the excavations demonstrate, the Swat Valley was on the fringe in the formative processes of the great civilizations, but fully active or, at any rate, playing an autonomous role. After a period of close contact with the regions of Kashmir, China, and with the Indus Valley until the middle of the 2nd millennium, the valley seems to have shrunk back on itself. As a result, many elements peculiar to what is now defined as Gandhara Grave Culture,²⁸ North-Western Culture, Swat-Complex, or Swat-Aspect²⁹ (or, alternatively, Swat Culture)³⁰ were developed independently, as local autonomy increased in the regional culture, particularly in agricultural technology.

This state of affairs lasted until the 5th-4th century, when again the valley became more outward-looking. Local craftsmanship was significantly affected by the change. Alongside traditional pottery styles, in fact, new forms appeared, such as carinated bowls and tulip bowls, and Northern Black Polished (NBP) Ware arrived in Swat. This was a period of new political unity, when various kingdoms arose and united at first under the Maurya, and subsequently under the Kushana dynasty. Buddhism was to play a significant role in this process of cultural integration.

The Italian Archaeological Mission’s pre- and proto-historic research was devoted to obtaining a concrete diachronic view of the cultural development in the Swat Valley of this period. The results so far achieved can be considered satisfactory, as they give a fairly clear picture of the human activities. At the same time, a whole series of new historical and archaeological problems has emerged—we now call for extension of the research area.

The main issues to explore are:

- a. The human presence in the area before the 3rd millennium;

²⁸ According to Dani 1967.

²⁹ According to Müller-Karpe 1983.

³⁰ According to Dittmann 1984. The current definition is Swat Protohistoric Graves (SPG) (see Vidale et al. 2016, quoted above).

- b. The mechanisms that led society in Swat and the north-west part of the subcontinent to adopt the model of an agricultural and pastoral economy;
- c. The exact nature of the links between Swat cultures in the 3rd and 2nd millennia BCE and other cultures, ranging from Kot-diji to Early and Mature Harappan Civilization;
- d. The extent to which Swat was integrated with the neighbouring areas to the south during the development of Gandhara Grave Culture (*i.e.* North-Western Culture), which characterised the Iron Age in the north-west area of the subcontinent.

The first campaign organised to tackle these problems began a survey to the south of Swat under the guidance of Tusa this spring. Attention was focused on the area of the Kalpāni River basin, in the Mardan District. The results have so far been encouraging: much evidence of pre- and proto-historical settlements has been found, confirming the importance of this area as a link between the Indus cultures and those of the valley and mountain areas.³¹ Specific archaeological research on this issue in the future should prove fruitful.

Along with all the research now in progress, we also returned to the hard task of examining the archaeological deposit in the well-known Sanghao Cave, for the knowledge of which we are indebted to Prof. Dani.³² He was the first to explore it: subsequently, a survey was conducted by Peshawar University by Prof. Farid Khan and Farzand Ali Durrani, and by the American team of Temple University.³³ The brief investigation so far performed has revealed stratigraphic seriation up to the Neolithic period. Another aim of this survey in the Kalpāni River Valley is to draw up an archaeological map of an area which also shows a great wealth of monuments of the historical period, and to trace out their context in the road system linking the area with the north.

³¹ S. Tusa, Report on the First Archaeological Survey in the Kalpani Valley and on the Soundings in the Sanghao Cave, *East and West*, 36, 4, 1986, pp. 479-95.

³² A.H. Dani, Sanghao Cave Excavation - The First Season: 1963. *Ancient Pakistan*, 1, 1964, pp. 1-50.

³³ A.J. Ranere, Human Occupation in Northwest Pakistan During the Late Pleistocene. In S. Pastner, L. Flam (eds) *Anthropology in Pakistan*. Karachi, 1982, pp. 124-144. See also D. Faccenna and S. Tusa Pakistan-1: The Italian Archaeological Mission in Pakistan, *East and West*, 36, 4, 1986, pp. 473-511.

3. Historic period

But let us return to the theme of settlements in the historical period. When excavation was suspended in Udegram, Gogadara III, Bāramā, and Butkara I, the attention was moved onto the excavation in progress at Bīr-koṭ-ghwaṇḍai, carried out by the group led by Dr. Pierfrancesco Callieri. Above the protohistoric levels dating up to the 4th century BCE, there stand the historical-age structures of one of the greatest ancient centres in Swat.³⁴ The hill of Barikot stands alone in the middle of the Swat Valley, where it widens out and is joined by roads coming from the north, south and east, from Buner—a position of considerable commercial and strategic importance. The top of the hill, surmounted by the remains of a stupa, is surrounded by fortifications of the late Hindu-Śāhi period, and impressive bulwarks can be seen to the north. The trenches dug there have revealed sections of walls superimposed on each other to a height of ten metres, showing how long and complex the life of the settlement must have been. In fact, it covered ten main periods through successive phases, from the Indo-Greek period (2nd century BCE) to the Hindu-Śāhi era (8th-10th century CE), with some signs of activity even in the following Islamic (11th-13th centuries CE) [and Dardic [14th-16th centuries CE) periods]. The walls are superimposed in such a way that each level cuts into the one before. Two great parallel walls belonging to Period V (1st century CE) must certainly have formed part of the public works. The walls belonging to Period VII (1st-2nd centuries CE), with a series of rooms and a stretch of road, are the most clearly visible in extension. At the foot of the hill stands a tower belonging to a later period [8th century CE]. The front follows a straight line, with semicircular bulwarks at the sides, and the whole is built in small blocks alternating with slabs with excellent technical finesse. It is not clear how this “tower” was connected at the sides, but it certainly formed part of a defence system. A number of

³⁴On the chronology of Barikot and the Indo-Greek fortification see L. M. Olivieri, F. Marzaioli, I. Passariello, F. Terrasi et al., A new revised chronology and cultural sequence of the Swat valley, Khyber Pakhtunkhwa (Pakistan) in the light of current excavations at Barikot (Bir-kot-ghwandai), *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 456, 2019, pp. 148-156; L.M. Olivieri, Urban Defenses at Bīr-koṭ-ghwaṇḍai, Swat (Pakistan). *New Data from the 2014 Excavation Campaign, Ancient Civilizations from Scythia to Siberia*, 21(1), 183-199.

isolated buildings standing on top of the hills on the other side of the river must have belonged to this defence system as well.³⁵

During the last campaign, some sturdy structures belonging to a third and older defence system were discovered in an area lower down in the plain. They consist of a three-metre wide wall still standing up to a height of three metres, running straight in a north-south direction with a series of towers on the outer side. The towers are rectangular in plan with escarpment at the base. They probably date back to the Indo-Greek period, when the city was founded (or rather re-founded).³⁶

This discovery has added significant detail to our picture of the organisation of the town and the events it lived through as well as the great changes that must have taken place in the course of its long history. Various factors help us place these events, such as the study of the material remains—above all pottery—and the results of thermoluminescence analyses which are being carried out by the Laboratory of the Physics Institute's Solids Group of Milan University, in collaboration with ENEA and Prof. Ninina Cuomo di Caprio.³⁷

The objects found include:

- 1) A small female head in terracotta with decidedly Hellenistic features;
- 2) Some terracotta figurines of various kinds and techniques;
- 3) A grotesque terracotta mask of the Hellenistic kind;
- 4) Among the coins, one of Apollodoros I, the Indo-Greek king (160 BCE);

³⁵ See Olivieri 2003. Recent excavations at the site revealed that the tower was an isolated building, it had a cultic function, and it is associated to a 8th-10th centuries CE palatial area.

³⁶ As already commented, many recent publications have been devoted to the urban fortification, which is now firmly dated to the Indo-Greek period (see Olivieri et al. 2019 with refs). Evidence of an earlier fortification (4th-3rd centuries BCE) was also documented. The first urban levels documented at the site go back to the 5th-4th century CE.

³⁷ These data were later published in P. Callieri and L.M. Olivieri, *Ceramics from the excavations in the historic settlement at Bīr-koṭ-ghwaṇḍai (Barikot) Swat, Pakistan (1984-1992)*, 2 vols. (Serie Orientale Roma n.s. 22; ACT-Field School Reports and Memoirs, Special Volume, 2). Sang-e-Meel, Lahore, 2021.

- 5) Among the pottery fragments, one bearing graffito inscriptions in Kharoṣṭhī letters.³⁸

These objects give us an idea of the historical succession that took place here: the Indo-Greeks entered the region at the beginning of the 2nd century BCE with the Greek-Bactrian King Demeter; then the Sakas, a nomadic people originating in Central Asia, arrived from the north and south-west to supplant the Indo-Greeks at the beginning of the 1st century BCE, in turn superseded by the Parthians with king Gondophares in the first half of the 1st century CE. Finally, they too were overwhelmed by newcomers, the Kushanas, who were originally also nomads from Central Asia. In the middle of the 3rd century, the Sassanids arrived from Iran. Then came the Śāhi from Kabul and the Hindu-Śāhi from Hund between the 8th and 10th centuries. Finally, Mahmūd of Ghazni conquered the region.

The name attributed to the town of Bīr-koṭ-ghwaṇḍai as a result of the identification suggested by Stein and accepted by Tucci is Bazira/Beira, mentioned in classical sources and conquered by Alexander the Great. Curtius Rufus wrote of its opulence, and Arrian described its lofty and extremely well-fortified citadel in his *Anabasis*.³⁹ The present place-name, Bīr-kot/Barī-kot, bears out the probability of this identification. Barī/Bīr supposedly derives from Bazira, and from Bazira it is possible to reconstruct the palatal form Bajira/Bayira which would then become Baira/Beira, becoming Bīr. Evidence also appears in a Sanskrit inscription referring to the last Śāhi king, Jayapaladeva, which was in fact found near Barikot and is now in the Lahore Museum. It mentions the city of Vajīrasthāna, corresponding exactly to the name Bajira-Bazira.⁴⁰

³⁸ Many more Indo-Greek coins and inscribed shards have been documented in recent excavations at the site (see refs above).

³⁹ Curtius Rufus, VIII, 34 and Arrian, *Anabasis*, IV, 27.

⁴⁰ See on this S. Baums, A survey of place-names in Gāndhārī inscriptions and a new oil lamp from Malakand. In W. Rienjang and P. Stewart (eds) *The Geography of Gandhāran Art Proceedings of the Second International Workshop of the Gandhāra Connections Project, University of Oxford, 22nd-23rd March, 2018*. Archaeopress, Oxford, 2019, pp. 167-174. L.M. Olivieri, Vajīrasthāna/Bazira and beyond: Foundation and current status of the archaeological work in Swat. In H. Prabha Ray (ed.) *Buddhism and Gandhara. An Archaeology of Museum Collections*. London, Routledge India, 2017, pp. 173-212. L.M. Olivieri, Temples of Swat: the Śāhi archaeological landscape of Barikot. In H. Prabha Ray, S. Kulshreshtha, U. Suvrathan (eds) *The Routledge Handbook of Hindu Temples. Materiality, Social History and Practice*. London, Routledge India, 2022, pp. 253-278.

Our excavation brought to light two pottery shards with graffito inscriptions of Greek letters, one of them undoubtedly written in the Greek language, as Prof. Giovanni Pugliese-Carratelli has demonstrated.⁴¹ Another shard with graffito Greek letters bearing the name “Nous” — also published by Prof. Pugliese-Carratelli⁴² — was found by Prof. Giorgio Gullini in his excavation of Udegram, identified by both Stein and Tucci as Ōra (from Ude), the other city in this region conquered by Alexander the Great.⁴³ It is certainly no mere chance that Greek inscriptions were found in these two sites.

The study of towns of the historical period must take into account the general layout, individual dwellings, private and public, as well as military architecture—as in the case of surrounding walls. Swat offers plentiful documentation of all these aspects: some of the houses are detached, others are arranged in rows along the ridges and slopes of the hills, or form larger agglomerations; some have extremely simple ground-plan and elevation, others are spacious, complex in structure and rise to several storeys, at times in the type of tower-houses such as can be found in the Jalada-Landakai area of between Tana and Kandag Valley. Circuits of fortified walling can be seen at Udegram and Aligrāma, while fortresses with round bulwarks at the corners are typical of Bīr-koṭ-ghwaṇḍai and Parrai, which stands on the opposite bank of the Swat river and must have belonged to a look-out and defence system together with other sites standing at various points along the river.

4. Buddhist archaeology

As we pointed out in our introductory notes, one of the main themes the Mission is engaged on is the study of sacred Buddhist architecture. A number of excavations have been carried out in this regard and include the

⁴¹ G. Pugliese Carratelli, Greek Inscriptions of the Middle East. *East and West*, 16, 1-2, 1966, pp. 35-36. See on this O. Tribulato and L.M. Olivieri, Writing Greek in the Swat region: A new graffito from Barikot (Pakistan), *Zeitschrift für Papyrologie und Epigraphik*, 204, 2017, pp.128–135.

⁴² Gullini 1962.

⁴³ See on this O. Coloru and L.M. Olivieri, Mount Aornos and the Operations of the Macedonian Army in Swat. Sources and Archaeological Data, *Pakistan Heritage*, 11, 2019, pp. 105-122.

well-known Butkara I and Panr, and the recently completed Saidu Sharif I.⁴⁴

These excavations represent a great contribution to our knowledge of a style of architecture which still holds a number of puzzles for the scholar, despite being fairly familiar by now. Apart from the usual monuments, such as stupas and *vihāras*, a new kind of structure has appeared in Saidu Sharif I. It consists of a solid, four-sided structure standing on a base and topped by a dome inside which the funerary reliquary was placed.⁴⁵

Additionally, our excavations yielded many examples of the column monument, otherwise not at all common. It stands on a pedestal that may be square or circular in plan, smooth with moulding. It is composed of a base, a shaft, and a capital which supports one of the Buddhist symbols, either the lion or the chakra. The stupa and the column, as our excavations in the sacred areas show, were designed on different planimetric patterns: at Butkara I, the columns stand in a crown-formation around the main stupa, which is circular in plan. At Panr, they are placed diagonally at the four corners of the main stupa, which is rectangular in plan. At Saidu Sharif I, they stand at the sides of a flight of steps to the north in front of the main stupa which, again, is rectangular in plan.

The stupa at Saidu Sharif I, which can be dated to the beginning of the 1st century CE, has another very interesting feature: the columns are not only set by the staircase leading up to the podium, but also on top of it at the four corners. We found them at the sides where they had collapsed, and noted the canonic Gandhāran-Persepolitan capitals. This type of stupa with columns obviously reflected a particular cosmic-religious symbolism in its architectural language: the four columns, symbolising Buddha in the world of phenomena, radiate from the main axis which is, in fact, the

⁴⁴ See also Olivieri 2022. On the question of Gandhara and Hellenism, see P. Callieri, Barikot : An Indo-Greek Urban Center. In D. Meth Srinivasan (ed.) *On the Cusp of an Era: Art in the Pre-Kusana World*. Leiden, Brill 2007, pp. 133 - 161. On p. 160, Callieri wrote about the likelihood that Bactrian-Greek workshops were established in Gandhara that explained some of Barikot's findings as well as the important transmissions of certain styles into the region (see on p. 161 Taddei's thought that Gandhara itself is a province of late Hellenism).

⁴⁵ Here Faccenna refers to the typology of the so-called pseudo-*viharas*. Faccenna termed as *vihara* – in this following A. Foucher – a shrine or a chapel. *Vihāra* should only refer to the inhabited part of the monastery where monks reside.

chattravali, symbolising the *noumenon*.⁴⁶ A large ‘column stupa’ of this type can be found also in Swat at Tokar-Dara, near Najigrām, while smaller ones are to be seen at Taxila (Sirkap, Block G), and Hadda (TK 1a), belonging to the Saka-Parthian period. The stupa at Giaur-kala (Merv), in Turkmenistan, is of a later period, but a parallel example to this one is the ‘pillar stupa’ in Andhra Pradesh, at Āmarāvātī and Nāgārjunakonda, both dating to a period later than the one we are concerned with.

What we see represented in concrete architectural terms can also be seen faithfully reproduced in different media:⁴⁷

Reliefs. Those illustrated here are reliefs in the Museums of Saidu (Fig. 3a), Peshawar (Fig. 3b), Lahore, Berlin, and Milan (Fig. 3c); see also the *ayāgāpatas* at Mathura, now in the Museums of Mathura and Lucknow (Fig. 5);

Reliquaries. Schist or bronze reliquaries and models represent in their small dimensions authentic forms of micro-architecture (Fig. 4). The one in [fig.] is in a private collection, and the one in [fig.] was found in an antique market. We can also include the base of the monk Naradakha’s reliquary, from Shaikhan Dhari and now in the Museum of the Archaeology Department of Peshawar University. The slots for the four columns at the corners can be seen on the base, while the central element has yet to be identified.⁴⁸

Originally the top of the column came up as far as the base or tip of the *chattravali*, but subsequently, when elements of Indian style were introduced, the columns became shorter than the star-shaped stupa. Such elaborate plan for the stupa form can be seen in the clay seal-impressions of Harwan, in the small stupa models in clay at Ghazni, and in examples in bronze now Peshawar and Rome, as well as in the rock graffiti at Chilas.⁴⁹

⁴⁶ This interesting intuition by Faccenna plays out in the inspiring work of Anna Filigenzi on the double temporality of the stupa (A. Filigenzi, *L’arte narrativa del Gandhara*. In P. Callieri and A. Filigenzi (eds) *Il Maestro di Saidu Sharif. Alle origini dell’arte del Gandhara*, Museo Nazionale d’arte Orientale, pp. 93-106. ISIAO, Roma, 2002). For the chronology of Saidu Sharif I Olivieri proposes a date around 50 CE (Olivieri 2022).

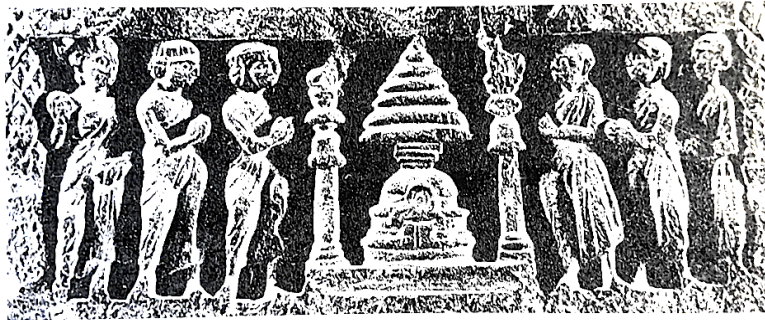
⁴⁷ The original illustrations here indicated as figs 3-10 are substituted by some of the plates of D. Faccenna, *Saidu Sharif I (Swat, Pakistan). The Buddhist Sacred Area. The Stūpa Terrace*. ISMEORepMem XXII, 2. ISMEO, Rome, 1995 (Figs 3-6).

⁴⁸ A.H. Dani, Shaikhan Dhari excavations. *Ancient Pakistan*, 2, 1965, pp. 17-714.

⁴⁹ See M. Taddei, Inscribed clay tablets and miniature stūpas from Ġaznī. *East and West*, 20, 1/2, 1970, pp. 70-86.



a - Saïda Sharif, Swat Museum, Inv. no. MK 3; detail. See p. 567.



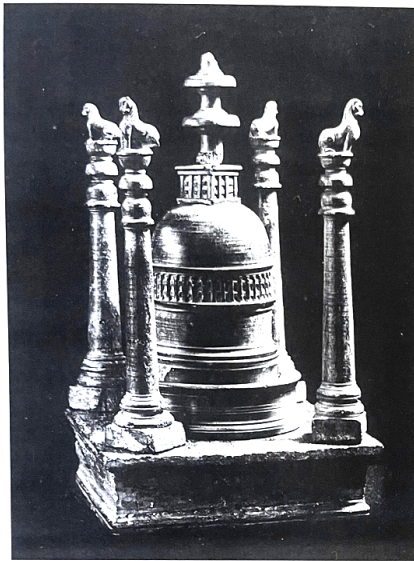
b - Peshawar, Peshawar Museum, Inv. no. 1846; detail. (After Ingholt 1957: no. 167D). See pp. 542, 567.



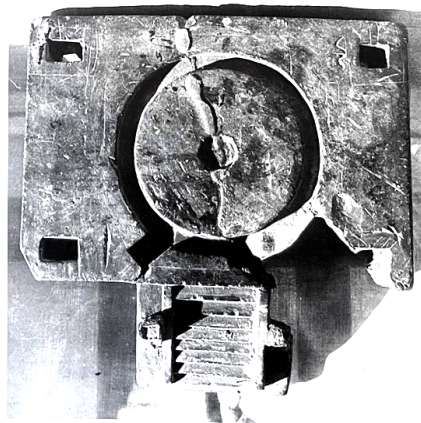
c - Milan, Civiche Raccolte Archeologiche, Inv. no. A 18500. See p. 567.

Fig. 3 - After Faccenna 1995, pl. 274.

Pl. 280

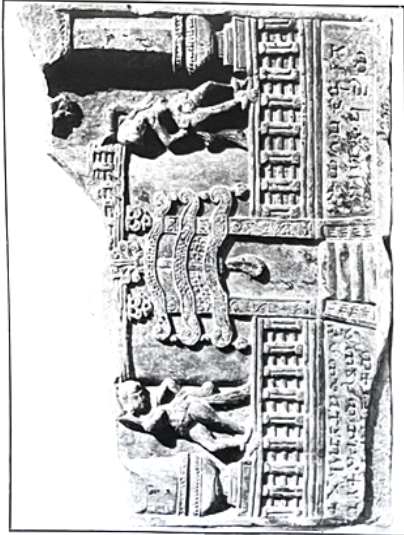


a - USA, private collection. (After *Octagon* 1979: 6).
See pp. 529, 550, 568.

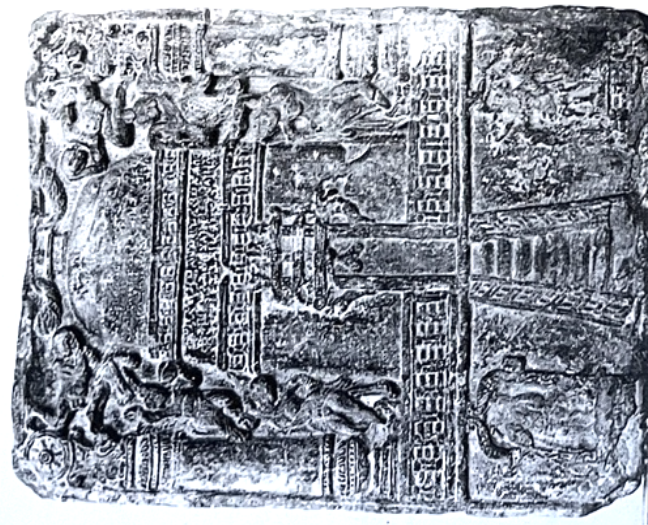


b - Peshawar, Museum of the Department of
Archaeology, University of Peshawar; from
Shaikhhan Dheri; reliquary of the monk
Naradakha. See pp. 53, 569.

Fig. 4 - After Faccenna 1995, pl. 280. The stupa reliquary at the top is now in the Art Institute of Chicago, acc. no. 2006.185.



b - Lucknow, Lucknow Museum: *āyāgapata* of Śivayāsā. (After ASIAR 1922-23: pl. XXXVIIIc). See p. 571.



a - Mathura, Mathura Archaeological Museum: *āyāgapata* of Nādā. (After Franz 1965: fig. 222). See p. 571.

Fig. 5 - After Faccenna 1995, pl. 284.

In this context it is worth mentioning another construction that belongs to this general typology. It consists of a stupa which is circular in plan with columns beside it—the structure is all set on a Gandharan-Corinthian capital which serves as a base. It can be seen in reliefs in Peshawar and Lahore, and documentation suggests there was actually a full-scale one in Taxila, at Kalawan.⁵⁰

Other problems being examined at present involve the upper part of the stupa, the *harmika*, the *chattravali* with the disks and the intermediate elements and the supports. These were mostly found scattered in fragments in the excavations and often had not received due consideration. However, the assembling of the whole superstructure shows a great degree of complexity that required a wide range of technical devices for the connection of the various components. This operation involved technical skills and craftsmanship that was often quite subtle and deserves further study.

The main stupa at Saidu Sharif I gives us the opportunity to consider another very interesting aspect, that of figurative decoration—which is important because it also concerns the consolidation and restoration of the stupa itself according to an agreement with the Pakistan Archaeology Department. Around the stupa we found a number of fragments—about 140, but unfortunately only fragments—belonging to one single frieze that must have decorated one of the cylindrical components of the stupa, probably the second. This cylindrical part must have measured 13.58 metres in diameter, and so the frieze must have extended to a length of 42.70 metres, practically 43 metres. It was composed of panels of green schist, each including to the left a semi-column with Gandharan-Corinthian capital within a cornice, and a figurative scene to the right. The panels were set on a smooth base and topped by a cornice of acanthus leaves. Panels, base, and cornice were carefully locked together and held to the surface of the wall with nails passing through the panels, and cramps on the back of the cornice. All the elements were finished before being assembled according to the signs cut into each piece.

Each panel was 44.5 cm high and probably about 60 cm long. Therefore the frieze, which was about 43 m long, consisted of about 65

⁵⁰ One later example of this type is the bronze reliquary in the shape of a stupa now in the Metropolitan Museum of Art, acc. no. 1985.387a, b.

panels.⁵¹ Unfortunately none of them have survived intact. The fragments we have must have formed part of at least 21 panels, as can be deduced from the upper parts of the semi-columns and capitals that have survived. Each panel (or group of panels) showed a scene in the life of the Buddha: the dream of Māyā, the birth of Siddhārta, the elephant killed by Devadatta, the Great Departure, the change of clothes, Kanthaka's farewell, the transport of the relics, and so on. Apparently, the scenes follow the established canons, and the division of the frieze with semi-columns is also a traditional feature that can be seen in many examples, including the friezes from Sikri in the Lahore Museum [fig.].⁵²

The artistic quality is particularly striking, as can be seen in the following examples. The fragment in Fig. 6 shows a group of hunters in the scene of the meeting with Siddhārta and the change of clothes, after the abandonment of the bride. The hunters wear armour on the dhoti and turbans with chin-straps. The one on the right bears a slaughtered goat on his left shoulder, holding the four legs together in his left hand, the tail in his right, with a perfectly easy air. Another occupies the foreground, bending with his left leg stretching out in front of him. Behind him stands yet another, and the crisscross patterns of arms and legs in various attitudes according to the various actions the figures are engaging in creates an atmosphere of liveliness and spontaneity. A tree in the background shows that the action takes place in the open air. The figures are somewhat elongated, and great care has been taken over all the details of parts of the body and dress. The composition is also noteworthy: the figures are not isolated, but grouped through various planes of depth. Despite this spatial arrangement, the heads are all shown at the same level. The figures in the middle ground are shown with part of the body, those in the background only with the head and the relief thins as the planes recede.

⁵¹ The recent discovery of parts of the central panel lead L.M. Olivieri to reconstruct the Frieze in 60 panels and a central larger panel (Olivieri 2022).

⁵² The illustration named as fig. 11 has been omitted as the Sikri friezes are certainly well known to the reader.



Fig. 6 - Hunters. S48. After Callieri and Filigenzi (eds.) 2002, pl. V.



Fig. 7 - Horsemen. S 709. After Faccenna 2001, pl. 37.



Fig. 8 - Competition scene. S 246. After Faccenna 2001, pl. 22.

The overlapping of various planes, conveying a sense of spaciousness and vitality, can also be seen in another fragment [fig.].⁵³ It shows two warriors struggling together: the one in the foreground, armed with a sword, is seen from behind. Beside him, there are other warriors in armour with disks on their chests. Again, there is a tree in the background. Yet another fragment shows horsemen riding out through a city gate (Fig. 7). A sense of depth is conveyed with the foreshortening of the walls, shown sloping upwards. The horsemen, who are supposedly aligned, are in fact shown at different levels, with those towards the background further forward as if seen in a three-quarter view from the left. The elephant-gift fragment [fig.]⁵⁴ offers another example of the representation of a group with all the heads appearing at the same level.

The relief of a competition scene (Fig. 8) is extremely interesting. In the foreground a row of seated figures must represent the judges, and behind them are other standing figures. The attitudes of their bodies and positions of the heads all tend to the right, towards the focal point represented by a youth shown frontally at the margin of the scene, holding the staff of a flag that waves above. Great care has been taken to convey the relationships between the judges and the protagonist of the scene with a refined sense of depth. Even though the heads may appear uniform, as they are all of the same elongated and compact type, they are in fact subtly different and distinguished by outwards elements such as moustaches, turbans or jewels—but above all by their attitudes, glances, and gestures. The attitudes and positions are calibrated in such a way as to draw attention towards the centre of the scene: heads shown frontally, in three-quarter view, and in profile. Some of the heads in the background face the opposite direction with the result that, while attention is focused towards the centre by the converging gazes and lines of the bodies and heads, monotony is nevertheless avoided and the scene has a lively, spontaneous air. The flag waving in gusts of wind above casts shadows on the heads, partially concealing them. To judge by the position of the figure with the flag to the far right of the panel, the scene must have continued on an adjacent panel. Therefore, the semi-column that must have stood there originally was not conceived of as a dividing element, but rather as an architectural feature behind which the scene was enacted.

⁵³ S 708. Callieri and Filigenzi (eds) 2002, pl, VIII, p. 187.

⁵⁴ S 1112. Callieri and Filigenzi (eds) 2002, p. 137.



Fig. 9 - Youth taking part in a competition. S1124. After Faccenna 2001, pl. 49.



Fig. 10 - Detail of the head of an elephant in S 241, after Faccenna 2001, pl. 21a.

The attitudes of the bodies and the positions of the torsos, arms and heads are all significant compositional elements, while at the same time they reveal the relationship between the characters and create a sense of space and depth. Let us take another example. The torso of the seated figure in [fig. 17: missing]⁵⁵ twists around with a powerful sense of tension, the right arm folded in front and the left opening in a complex play of perspective. Complexity of planes and perspective is also a feature in the scene of a youth taking part in a competition (Fig. 9). He holds a vase under his left arm, pouring water from it into the hands of a companion who is about to splash it onto a fallen figure. The anatomical features of these elongated bodies, legs, torsos, and arms, are represented with great attention to detail. The female heads are strikingly expressive. We can admire the craftsmanship and naturalistic approach revealed by the head of an elephant in Fig. 10. All such devices reveal real powers of expression in the artist.⁵⁶

We can better appreciate the features of the frieze from Saidu Sharif I if we compare it with the frieze already mentioned above of the Sikri stupa, now in the Museum of Lahore. This is the best preserved of all complexes. As in the previous case, the scenes are divided by semi-columns with Gandhāran-Corinthian capitals. Since it is of a later date (3rd-4th century), the Sikri panels reveal a totally different stylistic approach. This can be observed in many elements, such as the composition of the scenes that are all based on a central axis; the rigid and simplified spatial distribution of the figures, who are also superimposed or standing alone in a space that becomes a neutral background to the whole scene, all converging in oblique parallel lines towards the central axis; finally, in the formal elements displayed in the representation of the figures themselves.

As its length would lead one to suppose, it seems fairly certain that a number of craftsmen worked on the Saidu Sharif I frieze. In parts the details are sharp and somewhat flattened, the articles of clothing and the Gandhāran-Corinthian capitals of the semi-columns have an almost metallic look, while in other parts the forms are softer and relatively full-bodied. However, the conception and style have a basic unity. The fact that a number of hands were involved reveals the organisation of a

⁵⁵ Perhaps here Faccenna refers to the fragment S I 1246.

⁵⁶ The original illustrations (indicated in the manuscript) are substituted by plates in Faccenna 2001 and Callieri and Filigenzi (eds.) 2002.

workshop that could produce works of great stylistic unity from a team of craftsmen. The near 43 metres of this frieze represent a triumph of art and faith. It is the product of a person of real artistic distinction who amply merits the title “the Saidu Sharif Master.” His work belongs to a particularly happy period of artistic production in Swat.

These artists conceived things on a large scale, tackling ambitious works with the considerable skill and understanding of their medium they had by now acquired, assured of well-organised and well-trained assistance in their workshops. A number of works from other sites is evidence of this approach to the décor of large monuments. One such work of considerable technical interest is the Butkara I frieze. It is made of juxtaposed panels, each of them occupied by a figure, that form a sort of procession around the stupa. Another is the Great Departure relief, also from Butkara I [fig.]. It can be reconstructed from several surviving fragments to a height of about three metres.⁵⁷

In the research on the art of Gandhāra, the excavation at Butkara I has represented the first opportunity to study a complex of sculptures coming from one single centre. Butkara I may well have been the region’s most important artistic centre at the time, with neighbouring centres like Panr and Saidu Sharif I gravitating around it. Analysis of each individual piece was carried out on the basis of extrinsic and stylistic elements, thus leading to the definition of three groups which we have labelled “drawing style,” “naturalistic,” and “stereometric.” The first group owes its name to the particular way of representing hair, drapes and the folds in them, with a sense of lines predominating over volume. In the naturalistic group the images are rich in tones, with a marked sense of form. The stereometric group is so called for a certain conception of large volumes, where solid and fleshy bodies stand out with simplified folds in the drapes. Each group includes various series and has a typological repertory of its own, together with a characteristic way of distributing figures over the surface area of the panel, and employs particular techniques for figurative representation. Reliefs that have undergone re-elaboration on either side at different times can be chronologically placed relative to each other, while some of the data derived from excavation offer absolute chronology, at least for some group series.

⁵⁷ See D. Faccenna, *Note Gandhariche -2. Sulla ricostruzione di un grande rilievo da Butkara I raffigurante la partenza di Siddhārtha da Kapilavastu*. In G. Gnoli, L. Lanciotti (eds), *Orientalia Iosephi Tucci memoriae dicata*. SOR, LVI, 1, 1985, pp. 325–41.

Stupa 14 and 17 and pillar no. 135 in Butkara I are of particular significance for our research. Stratigraphic evidence suggests for them a dating around the end of the 1st century BCE and the beginning of the 1st century CE. They show a series of figurative, decorative, and stylistic elements—that can also be found in cornices with busts and some reliefs—belonging to the group we call “draftsmanly.” The Saidu Sharif I frieze, which can be dated to the beginning of the 1st century CE, also belongs to this group. This dating has been endorsed by Prof. Johanna E. van Lohuizen de Leew, subsequent to examination of some of the sculptures from Butkara I, and through comparison with sculptures from Mathura.⁵⁸ As we have seen, the Butkara I complex is far larger than Saidu Sharif I and covers a much wider range.

An interesting point which I can only deal with briefly here is the connection between these sculptures and the problem of the origin of the image of the Buddha, and in particular whether it is to be attributed to the school of Mathura or of Gandhāra, or whether it derived independently from both schools at the same time. This is the “great debate” between Alfred Foucher and Ananda K. Coomaraswamy, which has involved recent contributions offering different solutions, and different chronological attributions.⁵⁹ Van Lohuizen-de Leew and Joe Cribb attribute the creation of Buddha in human form to Mathura, the former dating it between the end of the 1st century BCE and the beginning of the 1st century CE, the latter in the period of Kanishka.⁶⁰ According to Tanabe, it occurred at the same time in Gandhāra and Mathura under the Kushanas at the time of Kanishka, as a consequence of the influence exerted by the Kushana religion at the time of Kanishka on the original Indian Buddhist conception, combined with Graeco-Roman technique and iconography (in

⁵⁸ J.E. van Lohuizen-de Leeuw, New evidence with regard to the origin of the Buddha image. In H. Härtel (ed.) *South Asian Archaeology 1979*. Dietrich Reimer Verlag, Berlin, 1981, pp. 377-400.

⁵⁹ A. Foucher, *The Beginnings of Buddhist Art: And Other Essays in Indian and Central-Asian Archeology*. Paris and London, Paul Geuthner and Humphrey Milford, 1917. A. Coomaraswamy, The Indian origin of the Buddha image, *Journal of the American Oriental Society*, 46, 1926, pp. 165-170.

⁶⁰ van Lohuizen-de Leeuw 1981; J. Cribb, The Origin of the Buddha Image—The Numismatic Evidence. In B. Allchin (ed.) *South Asian Archaeology 1981*. Cambridge University Press, Cambridge, 1984, pp. 231-244. Note that J. Cribb since 1984 was in favour of a mid-1st century chronology for Kanishka.

this case, however, dating Kanishka around 200).⁶¹ Finally, John Huntington cites an image of Buddha on a small urn or jar of steatite in the National Museum of History in Taipei, which can be dated to 36 BCE.⁶² The real problem, however, is not the origin of the images, but why and exactly when they were first produced in stone, if we accept the evidence of a literary tradition suggesting that images in perishable materials like wood had previously existed.

Arrangement, classification and study of the sculpted material for further contribution to what has so far been published is by now nearly complete. Our work should represent a real step forward in the understanding of Gandhāran art which, thanks to the contact it had with various civilizations and cultures, acquired a composite character that was at the same time highly original. As our study approaches completion, we are bearing in mind the possibility of carrying out a project I proposed at the Peshawar Conference.⁶³ This would entail digitization of a corpus of sculptures using video-disks, and has already aroused the interest of Pakistani, French, and English colleagues, suggesting that there are very good chances of accomplishing the task.

5. Rock sculptures

Another field being studied at present includes the rock sculptures and steles of Swat. A survey carried out by Stein, Tucci, and Dani in Dīr has

⁶¹ K. Tanabe, Iranian Origin of the Gandharan Buddha and Bodhisattva Images. *Bulletin of the Ancient Orient Museum*, VI, 1984, pp. 1-28.

⁶² J. Huntington, A Note on a Buddha Image from China Dated to the Year 36 of the Pre-Christian Era (Former Han Chien Chao Third Year). *Lalit Kalā*, 22, 1985, pp. 27-31. A note on the pot, however: experts in Chinese ceramics and epigraphy convened that the pot was as a fake, a fact first confirmed in writing to Rob Linrothe (he wrote about it later in R. Linrothe, Inquiries into the origin of the Buddha image: a review. *East and West*, 43, 1/4, 1993, pp. 241-256). Huntington retracted his previous work on the pot via a short note published as The Buddha Image of 36 B.C. Published in *Lalit Kalā*, No. 22 is a Fake. *Lalit Kalā*, 23, 1988, pp. 44-45.

⁶³ Italian Archaeological Mission (IsMEO) Pakistan, Swāt, 1956-1981. Documentary Exhibition. On occasion of the First International Conference on Pakistan Archaeology, Department of Archaeology, Peshawar University, Peshawar March 1-4 1982. Peshawar 1982.

revealed that they are in fact very numerous.⁶⁴ The sculptures belong to various periods, some being decidedly ancient but the majority rather late (6th-9th centuries). They stood in sacred places or along roads where monks, pilgrims, armies, tradesmen, and artists were wont to pass. They reveal the role of Swat as a link between the Peshawar plain and the northern regions (Gilgit, Hunza, and Baltistan).

On the basis of the topographical and historical picture largely defined by Prof. Tucci and enhanced by Prof. Dani and Prof. Karl Jettmar's discoveries, an archaeological survey is at present being conducted in the valleys of Kandia (Swat), Darel and Tangir (Gilgit). In these northern areas the Pakistan-German Study Group, led by Profs. Dani and Jettmar of Heidelberg University, has been producing widely acclaimed results in the fields of history, topography, religion, ethnography, linguistics, and the visual arts.⁶⁵ This research has shed new light on the complex and therefore intriguing border-situation of these areas, dwelt by peoples of various traditions and ethnic roots. The Mission looks forward to a period of undoubtedly fruitful collaboration with the Pakistan-German Study Group, assured that it will prove reciprocally advantageous.

The study of certain aspects of the later Buddhist period and the dissemination of the doctrines in the direction of Tibet leads us in the footsteps of the great thaumaturge Padmasambhava along the northbound roads with their sculpted images. And so we find ourselves actually following the scheme long cherished by Prof. Tucci. In fact, at the beginning of his report on the Swat surveys of 1955 and 1956, Prof. Tucci had written: "It is Tibet that led me on to Swat."⁶⁶ And many years later, he wrote in his preface to the catalogue of the exhibition on our activities, held in Peshawar in 1982: "Thus the road which led me from East (Tibet) to West (Swat, Dardistan, Gilgit) must be inverted: West-East."⁶⁷

⁶⁴ Stein 1930; G. Tucci, Preliminary Report on an Archaeological Survey in Swat, *East and West*, 9, 4, 1958, pp. 279-328; A.H. Dani, Buddhist Rock Engravings in Dir, *Ancient Pakistan*, 4, 1968, pp. 251-257; A. Filigenzi, *Art and Landscape: Buddhist Rock Sculptures of Late Antique Swat/Uddiyana*. Austrian Academy of Sciences Press, Vienna, 2015.

⁶⁵ Jettmar's contributions are numerous; the reader can find a complete bibliography in the special number of this Journal, XXI, 1-2 (*Masters of Understanding. German Scholars in the Hindu Kush and Karakoram 1955-2005*).

⁶⁶ G. Tucci, *La via dello Svat*. De Donato, Bari, 1963. (2nd ed., Roma 1978).

⁶⁷ *Italian Archaeological Mission (IsMEO) Pakistan, Swat, 1956-1981. Documentary Exhibition. On occasion of the First International Conference on Pakistan Archaeology*,

6. Conclusions

We have traced the outlines of research at present undertaken by the Italian Archaeological Mission, and we have seen some of the results that have been achieved, starting with a full in depth inquiry into the Swat region, and then looking north and south at the neighboring areas. This is an attempt to reconstruct the cultural and historical environment of the valley in the context of the north-western region of the subcontinent—an area that is rigidly considered a crossroad between east and west, a crucible where the blending of many various ideas and experiences has produced a wealth of interest. Our work has offered us the opportunity to approach the great problems of history and material culture in concrete terms, superseding the traditional divisions between the classical and eastern worlds in order to offer a new vision of Eurasian unity. This is the contribution that the Italian Archaeological Mission wants to make to Pakistan, a country as close to the Mission as Italy is. In the course of its activity, our Mission has assembled a sizable collection of graphic material, photographs, and files. We are now proceeding to a general review and arrangement of all this material, with direct examination of buildings of which very little has been published, if anything at all. Settlement by settlement and area by area, we intend to outline the history of sacred architecture. Many aspects of the subject are generally ignored, and yet it has some extremely expressive and at times magnificent examples to offer.

It is hardly necessary to say that all our tasks require much time and the constant involvement of our scientific and technical staff, as well as considerable economic resources. But above all it is the respect and friendship of the Archaeological Department of Pakistan that has made the collaboration with the Italian Archaeological Mission so felicitous over our thirty years of activity. The feelings are mutual and fully reciprocated. And here, a special mention must be made of the past directors of the Archaeological Department, Dr. F.A. Khan and Dr. Ishtiaq Khan, and of the present director, Mr. Sheikh Khurshid Hasan, as well as of all the officials and technicians of the Department. Our thanks also go to the federal and local authorities, and in particular to His Majesty Major General Miangul Jahanzeb Abdul Huq, the former Wali of Swat, and to

Department of Archaeology, Peshawar University, Peshawar March 1-4 1982. Peshawar 1982.

Prince Miangul Aurangzeb and Prince Ahmedzeb, whom we fondly remember after his recent and tragic death. Our thanks are also due to the Italian Embassy, to its officials, the ambassadors, and in particular the present ambassador His Excellency De Franchis, who has been constantly attentive to our scientific work and logistic problems. Finally, we extend our gratitude to the local workers' intelligent help in our excavations.

To all of you: my most heartfelt thanks, which I can also express on behalf of the Mission as a whole, of IsMEO, and of Prof. Gherardo Gnoli, the present chairman of the Institute—together with the wish that our collaboration may not only continue, but also increase in scope and results.

Mineralogical analysis of schist stone from the Buddhist Complex of Zar Dheri (Mansehra, Pakistan)

Shakir Ullah / Muhammad Zahoor / Ahsin Shah / Owais Khan

Abstract

The Buddhist monastic site of Zar Dheri is of great historical importance due to its unique architectural elements and artistic style. In the 1990s, the archaeological mission of the Tokyo National Museum found the site with the main stupa. The archaeology department of the Hazara University of Mansehra, with the financial support from the Higher Education Commission under National Research Programme for Universities (NRPU), carried out a recovery excavation in 2020 to document what remained. The result of this excavation revealed important material remains, including pottery, bones, inscriptions, fragments of stone sculptures and structural remains. These remains are being used to reconfirm the chronology of the site. The present research was conducted to clarify the provenance of the schist stone used by the craftsmen of Zar Dheri for the production of sculptures. For this purpose, a portable XRF analyser, a non-destructive technique for measuring elemental composition from Magnesium (Mg) to Uranium (U) was used to analyse three samples from Zar Dheri and three from the local query. The mineralogical analysis of the schist stone indicates that the source from which the artists obtained the raw material is located in Kaly Parr, approximately 1 km north of the Zar Dheri site.

Keywords: Zar Dheri, Schist Stone, Cruciform Stupa, Gandhara, Urasa.

1. Introduction

Zar Dheri, a well-known Buddhist monastic complex, is located near Tambah, a small village on the right side of Shinkiyari-Dadar road in District Mansehra of Hazara region. The latter comprises of the modern six north-eastern districts of Khyber Pakhtunkhwa in Pakistan: Haripur, Abbottabad, Mansehra, Torghar, Battagram and Kohistan. The three massive boulders situated close to Bareri Hill near the modern city of

Mansehra and recording fourteen edicts of Ashoka indicate that the region was, in the 3rd century BCE, under the control of the Maurya dynasty.

The important Buddhist complex of Zar Dheri was first recorded and published by Harold Hargreaves, then Superintendent of the Archaeological Service of India, in 1922-23. The first large-scale excavation project was initiated in 1995 at Zar Dheri, Mansehra, by the Tokyo National Museum Japan with the cooperation of the Department of Archaeology of the Government of Pakistan. The excavation project ran for five consecutive seasons from 1995 to 1999 and led to the discovery of the oldest cruciform stupa with a monastic complex. The recovery of 146 panels of schist stone sculptures, pottery, iron objects, bones and stucco objects was the result of this project (Koizumi 2011; Hameed 2012). However, due to limited time and security concerns, the Japanese team was unable to cover the entire site area and document every aspect to provide a complete historical profile of the region. After the completion of the excavation project of the Tokyo National Museum, the Buddhist complex of Zar Dheri was again under the influence of treasure hunters, locals and antiquities dealers for the next 20 years. Locals occupied the entire monastic complex and built many residential houses, while looters destroyed the Stupa complex to plunder its treasures. Recently, the archaeology department of the Hazara University of Mansehra conducted a salvage excavation with the financial support from the Higher Education Commission of Pakistan (HEC). The result of this excavation revealed important material remains, including pottery, bones and stone wall structures, stone inscriptions and fragments of stone sculptures (Shakir, Hameed and Zahoor 2021).

In 1999 the Japanese mission discovered 146 stone sculptures, mostly made of schist but also including stucco and stone architectural remains, were discovered in a 3x3-metre monastery cell, during the clearing of the monastery. They were discovered in three separate stacks of pieces (north, south and west block). According to Japanese scholars, these sculptures are stylistically similar to those discovered in Swat (Koizumi 2011). The Japanese team, due to the lack of relevant material known from the Hazara Division, conducted a comparative analysis of the sculptures discovered at Zar Dheri, at various sites in Swat and Butkara I, and at the stupa of Saidu Sharif I in particular. Based on the stylistic analysis of sculptures, the radiocarbon dating of the Himalayan cedar log from the threshold of the monk's cell F2 and the palaeographic observations made on the corpus of Kharoṣṭhī inscriptions, Koizumi

tentatively placed the sculptures in “the first half of Kushan period”, without excluding that “the date should be put to a later period” (Koizumi 2011, 401).

With regard to petrographic surveys throughout Gandhara, the work initiated by Domenico Faccenna (see ref. in Olivieri 2022) is important. Scholars such as Farooq Swati (1997), Badshah Sardar (2005) Tahira Tanweer (2010) and Amjad Pervaiz (2015) are also of the opinion that schist quarries in Swat are widespread and varied in colouration and texture. Huge quarries are also found in the Buner district. However, no shale quarries for sculpting Gandharan Buddhist sculptures have yet been found in the Taxila Valley and Hazara region. Sir John Marshall also pointed out that schist stone was not available in the Taxila Valley; most stone carvings were imported from the Northwest Frontier Province, present-day Khyber Pakhtunkhwa, where schist stone was readily available (Dani 1986). The present research is therefore an attempt to reconfirm the source of the raw material (chloritoid-biotite-muscovite schist in Koizumi, 2011, Appendix 3) used to produce the stone sculptures at Zar Dheri, and to assess whether the sculptures were produced locally in a style comparable to that of ancient Uddiyana or whether the sculptures were imported from other regions (see also Pons 2019; Pons forthcoming).

2. Previous research in the region: an overview

Ancient Urasha (Ali et al. 2009: 145), the modern Hazara region of Pakistan’s Khyber Pakhtunkhwa province, remained a junction between Central Asia, West Asia and South-East Asia during the Achaemenid, Greek and Maurya periods of Indian history. Trade and commerce between Central Asia and the western world took place via the ancient silk routes that passed through this region. The Buddhist religion reached Central Asia and China through a dense network of routes connecting major centres across Gandhara, among which those of Taxila and what is now Hazara (Neelis 2011; Shakirullah, Junaid and Nawaz 2016). The region of Hazara has numerous archaeological sites of national and local importance that link us to our past as custodians and attract thousands of tourists from all over the world. The following is an overview of previous studies conducted in the Hazara region, including Zar Dheri, the subject of this study. This was the time when Hargreaves was appointed superintendent of the Frontier Circle, in the modern Pakistani province of

Khyber Pakhtunkhwa. Hargreaves pointed out many archaeological sites, such as the Ashoka rock edicts and the stupa of Zar Dheri in the Mansehra district and the sites of Jaulian, Pippala, Jandial and the Badalpur monastery in the Haripur district. He also initiated a series of measures for the conservation and preservation of endangered sites and estimated and fixed the expenses for this work (Hargreaves 1922).

Later, when the report of the Archaeological Survey of India was published, exploration work continued in the Taxila valley, which lies partly under the Hazara division (part of the Haripur district) and partly in the Rawalpindi district of the Punjab province. But the northernmost districts of the Hazara region, namely Abbottabad, Mansehra, Battagram, Tor Ghar and Kohistan, were neglected. Exploratory activities continued after the creation of the archaeology department of the Hazara University of Mansehra. The Abbottabad district, home to the Hazara division, was first the subject of a detailed survey by the same department in 2006-2007. In the results of this survey, many sites from the Buddhist, Hindu Shahi, Islamic, Sikh and British periods were reported (Ali et al. 2010).

Archaeological activity in the Haripur district was initiated by foreign archaeologists and traced back to the prehistoric period with the discovery of Khanpur Cave in 1964 by Eden Johnson and later by Farid Khan. In 1988, the Pakistan government's archaeology department discovered a Buddhist complex at Garh Mauriyan, near Sarai Saleh (Qamar 1990). Recently, the Directorate of Archaeology of the Government of Khyber Pakhtunkhwa took the initiative to carry out surveys in the Ghazi tehsil of the Haripur district in 2003. The result of the exploration revealed 73 Buddhist, 3 Hindu shahi, 3 prehistoric and 4 Islamic sites. The remaining area of this district was investigated by the archaeology department of the Hazara University of Mansehra in 2007-2008. The same department conducted an extensive exploration in the Mansehra district in 2014-16 in collaboration with UNESCO, Islamabad. The survey was later extended to the Tehsil Mansehra and Tanawal regions. Although these field surveys uncovered hundreds of archaeological sites/monuments, due to limited funds, archaeological investigation in the remaining unexplored parts of Mansehra was initiated from Babu Sar Top, the highest residential area in the district occupied by seasonal nomads during the summer season (Hameed et al. 2021).

Archaeological remains excavated by Eden Johnson in 1964 in Khanpur Cave have traced the cultural history of the Hazara region back to the prehistoric period (Ali et al. 2009). From the evidence of Iron Age

cemeteries (also known as the Gandhara grave culture), the archaeological history of the Hazara can be traced back to the Mauryas (but also to the Achaemenids). The political rise of the Indo-Greeks and Saka-Parthians is well documented, in addition to the discovery of a silver coin of Menander at Bedadi Mansehra (Ali et al. 2009), by the pottery from Pir Manakrai (Khan 2003) and Panian in the Haripur district (Qamar and Khan 1998), which presents remarkable similarities with the pottery from Bhir Mound, Sirkap, Barikot and other sites in ancient Gandhara. The Buddhist monuments (stupas and monasteries) still visible in the Hazara division, particularly in Zar Dheri, were all built during the Kushan and post-Kushan period (2nd-4th century AD).

After Hargreaves' survey (1922-23), the first long-term scientific excavation was conducted at the Zar Dheri site by a joint team of archaeologists from the Tokyo Museum in Japan and the Federal Department of Archaeology of Pakistan from 1995 to 1999. The five consecutive seasonal excavations at the site led to the discovery of a cruciform stupa with monastic complexes (Koizumi 2011).

3. Objective

To re-confirm the source of schist stone found at Zar Dheri, a team of the archaeology department of the Hazara University carried out a mineralogical analysis on a sample of sculptures from the site. The results could potentially help to understand whether the production of sculptures was indigenous or whether it depended upon an adjacent centre of production of Buddhist art.

4. Methodology

A portable X-ray fluoresces (XRF) (model TrueX 960 Drawell LAN Scientific mineral analyser) (Fig-6) was applied for mineralogical analysis of schist stones from Zar Dheri and from the local quarry called *Kaly Parr*. The XRF is a sensitive technique that requires free contamination samples with minimum preparation. It is a non-destructive method for determining the percentage of magnesium (Mg) or uranium (U) in an elemental mixture. It has two major parts: Energy dispersive system (EDXRF) and the wavelength dispersive system (WDXRF). For a single XRF analysis,

time depends on the number of elements to be determined and the required accuracy and varies between 2000 to 5000s (Okunade 1999).

The experimental work is performed in the Experimental Archaeology Laboratory (EAL) at the Department of Archaeology, Hazara University Mansehra, Pakistan. To determine whether the instrument was in the best condition before analysis, it was tested by standard calibration block (316ss LANScientific) (Fig-5) having the standard data. The instrument has a standard sample for spectrum analysis which is tested by Institute of Iron and steel and published by the research institute, which is suitable for metal material quality inspection, calibration equipment, evaluation methods, unified test value and can also be used for product control, finished product quality supervision and so on (Fig-6).

For sample collection, an unfinished schist stone slab recently reported from Zar Dheri (Fig-2c) was selected. Three samples (s#288, 289, 290) taken from three different positions of the schist stone slab after removing the surface layer. Similarly, three samples (s# 285, 286, 287) from the local quarry of *Kally Parr* in the vicinity of Zar Dheri site were also selected. The central core of the samples was selected for analysis to avoid any traces of alteration on the surface of the samples. These samples were again grinded and turned into powder-samples of about 100 grams each. The instrument then simply pressed on the sample's powder and 'fired' using a trigger. An area up to 5mm deep and 8mm broad corresponds to the examined volume. The detector inside the device measures the spectrum of secondary X-rays that an X-ray beam shot into the sample emits. These secondary X-rays reflect the overall chemical composition of the volume being analysed. Before each analytic session, a calibration function that is incorporated into the instrument's CPU was executed. The procedure analyses the X-ray spectrums and calibrates the internal electronics and sensors using factory settings. The results of analysed samples are explained and discussed in table 1 and figures 6-13. The results show that the percentages of Titanium (Ti), Manganese (Mn), Iron (Fe), Zinc (Zn), Zirconium (Zr), Magnesium (Mg), Aluminium (Al), and Silicon (Si) in all analysed samples is almost similar. It is found that Iron (Fe) and Magnesium (Mg) are the dominant elements in the samples along with other minor elements that clearly indicates that there is no such difference in the provenance of raw material selected to produce stone sculptures at Zar Dheri Buddhist complex.

5. Results and Discussion

The introduction of stone sculptures in Taxila became more popular in the Gandhara school of art in the 1st century AD (Marshall 1960). All the evidence points to the introduction of these sculptures from outside, i.e. from proper Gandhara (cis-Indus) and Swat (Faccenna 2005; Olivieri 2022). The Gandhara school of art, which used shale as a raw material, followed the technique of relief carving: the shale blocks were hewed out of the hills, the flat surfaces were chiselled, and finally, figures were drawn with a pointed tool, which were then rubbed and polished. According to Sir John Marshall, schist stone was not available in the Taxila Valley. Most stone carvings were imported from other regions in Gandhara (Dani 1986; Faccenna 2005; Olivieri 2022). The fact that all the architectural components of Zar Dheri are composed of the same material called schist is the most significant aspect to point out. The same applies to almost all archaeological discoveries in the Hazara division. Zar Dheri is located in an area in which no local source of schist stone has been found, and the Buner district has been considered as the main source of schist stone located too far from Zar Dheri (Koizumi 2010). The result of the present study (Figs. 6-13) revealed the authenticity of the origin of schist stone, which is the local quarry in Kaly Parr.

According to the results of this analysis (Figs. 6-13), the concentrations of each element in both schist stone samples are similar, which shows no difference in their composition. Based on these results, it can be cited that Kaly Parr was the source of schist stone for the production of stone sculptures at Zar Dheri. These results also reconfirmed the previous perception on the origin of schist stone, which was imported from Buner. Table 1 shows that iron is the main component (56%) of the schist stone used in the sculptures from Zar Dheri, where the concentration of iron was also high (63%) compared to the rest of the elements. The other elements also show the same percentage ratio in both samples, as shown in the table above.¹

During the height of Buddhism in the area, Hazara, or ancient Urasa, was another important centre for Buddhism and Buddhist art, but so far little investigation has been done to explore its importance. This is also confirmed by the statement of Xuanzang, who does not mention the

¹ For the composition of stones from other regions, see the refs in Pannuzi ed. 2015 [in particular Giuliano 2015 and Guida et al. 2015] and Arrighetti et al. ed. 2019).

name of the capital of ancient Urasa but mentions the existence of a stupa and monastery 4 or 5 li (1 km) south of it (Li Rongxi 1996). A recent investigation conducted by the writer could provide credence to this claim. Very dilapidated remains of a Buddhist establishment at the Mochikot site in Abbottabad were identified about the same distance from Mangal, the probable capital of Urasa/Hazara. Due to its proximity with Kashmir, the Hazara region likely received influences from this region. What is more, being located along the historic Silk Roads, Hazara must have been significantly influenced by those who travelled there, blending their artistic influences with local art. Its border was touched by Gandhara and Uddiyana, which greatly influenced its art, although Uddiyana seems to have played a unique role in the formation of its cultural artefacts (cf. Olivieri 2022).²

6. Conclusions

Investigating the composition of the schist stone at the Zar Dheri site was an important component of this study. The composition of the schist stone was statistically identical to that of schist stone found in nearby quarries. The excavation team from the National Museum in Tokyo was unaware of the area and local questions and, on the basis of comparison, concluded that the schist raw material for the Zar Dheri site was imported from Buner (part of ancient Uddiyana), while the present study shows that the material, particularly the schist used in the production of artistic and architectural elements at the Zar Dheri site, was acquired from the local source in the nearby mountain known as *Kally Parr*. However, it is significant to note that no individual Buddha or Bodhisattva sculptures were discovered at Zar Dheri; all that was discovered were panels, jambs and architectural components. This is a feature that can also be observed in the production of sites such as Butkara I and Saidu Sharif, and one that sets aside these productions with those from the Peshawar Valley, where statues of the Buddha and of Bodhisattvas hold a prominent position.

² It should be considered though that it is difficult to speak of Hazara, Gandhara, Uddiyana as separate geographic entities (for instance in the sense of modern districts). Certainly, as recent research shows, these regions might have been - at least for some time - governed by local elites / different princely lineages. But eventually, they also became under the control of the Kushans. Clearly, these different regions were tightly connected to each other.

Hazara is thought to have had a special geographical location. It lies north-west of Taxila and north of Kashmir, close to the east of two other ancient provinces, Uddiyana and Gandhara, known to be important Buddhist centres and home to a significant number of Buddhist institutions. Moreover, it was accessible to Indian and Western influences at the same time. The area and its art may therefore have been influenced by various sources and it is likely that its artists created their own distinctive style in the form of the “Urasa school of art”, just as the artists of Uddiyana did, receiving direction and influence from the major centres of Gandhara. However, further investigation may be needed to further strengthen the current evidence.

Acknowledgments

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Figure 1 a) A typical Gandharan-Corinthian pilaster; b) false-gable excavated from Zar Dheri; c) a false-gable excavated from Zar Dheri (Source, Peshawar Museum).



Figure 2 a) quarry with cup marks; b-c) natural formation of the schist stone d) local quarry of schist stone with chiselling marks (Courtesy Ahsin 2020).

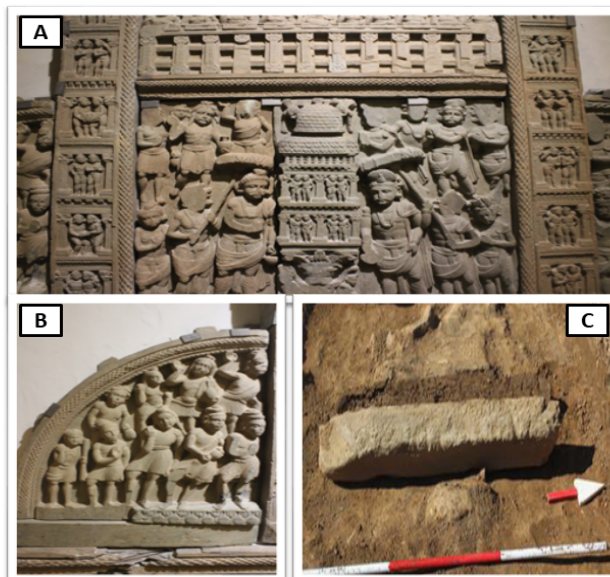


Figure 3 a-b) a false-gable excavated from Zar Dheri; c) unfinished schist stone reported for Zar Dheri.

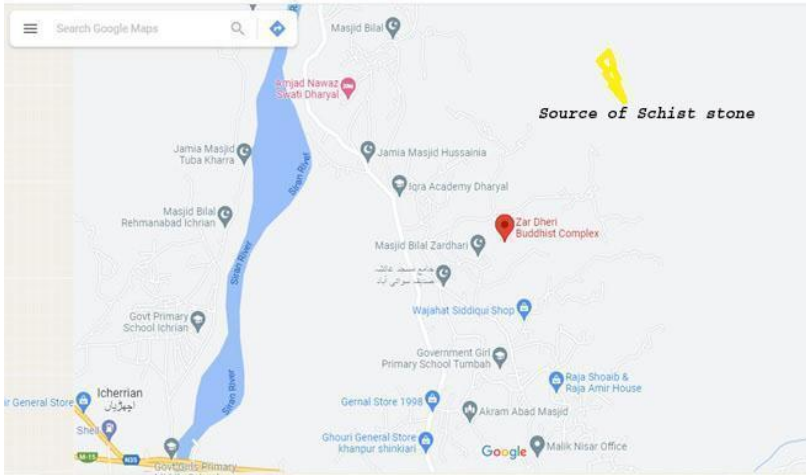


Figure 4 - Source of schist stone nearby Zar Dheri (Google Map).

Standard sample certificate
Standard samples for spectrum analysis
Certified Reference Material
Standard number (SS316)

Set date: 2017-1-2 Standard number: SS316 Release date: 2017-1-10

Data description

This series of spectrum analysis standard samples, Tested by Institute of Iron and Steel and published by the research institute which is suitable for metal materials quality inspection, calibration equipment, evaluation methods, unified test value, and can also be used for product control, finished product quality supervision and so on.

Standard value of standard samples for spectrometer analysis

Elements	Cr	Mn	Ni	Mo
Value	16.75	1.09	10.29	2.15

The handheld XRF 316SS Standard sample error range:

Elements	standard value	Machine error	Upper limit	low limit
Cr	16.75	+/-5%	15.916	17.591
Mn	1.13	+/-15%	0.961	1.299
Ni	10.29	+/-5%	9.775	10.805
Mo	2.15	+/-10%	2.047	2.263

Figure 5- XRF standard samples for spectrum analysis.

Mineralogical analysis of schist stone...



Figure 6- Portable XRF used in analyzing schist stones.

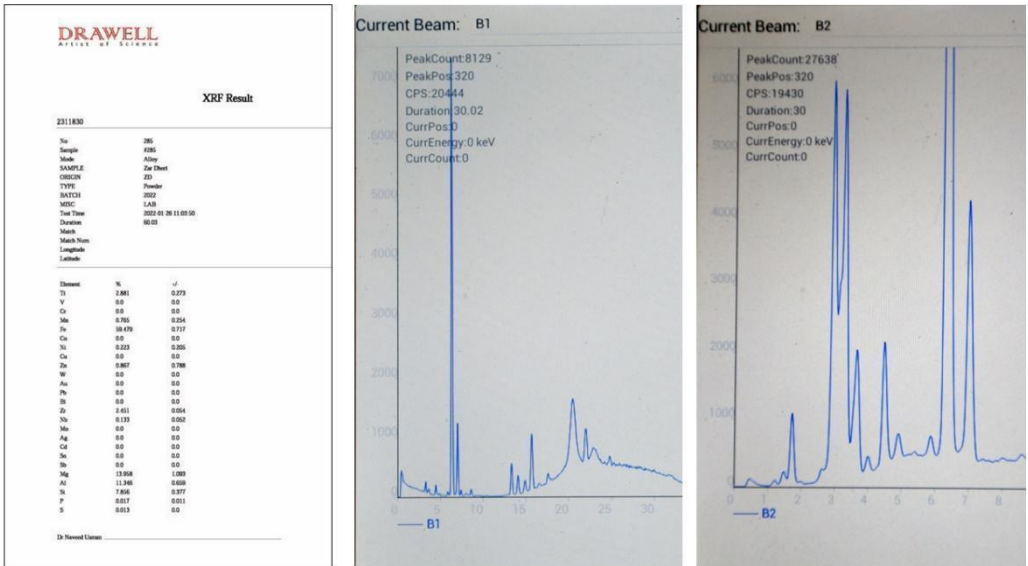


Figure-6 Spectrum and percentage result of schist stone from local query (sample 285).

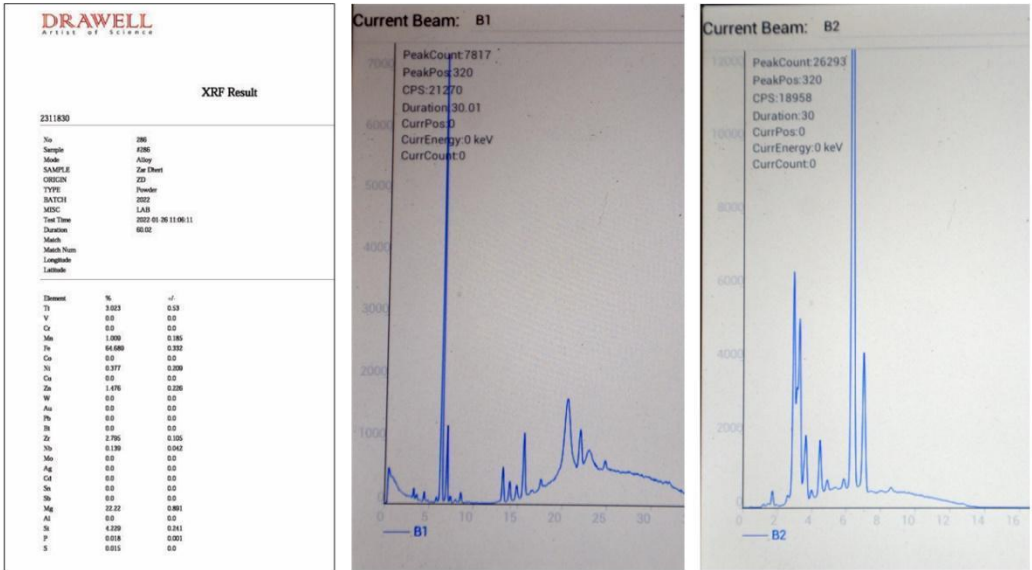


Figure -7 Spectrum and percentage result of schist stone from local query (sample 286).

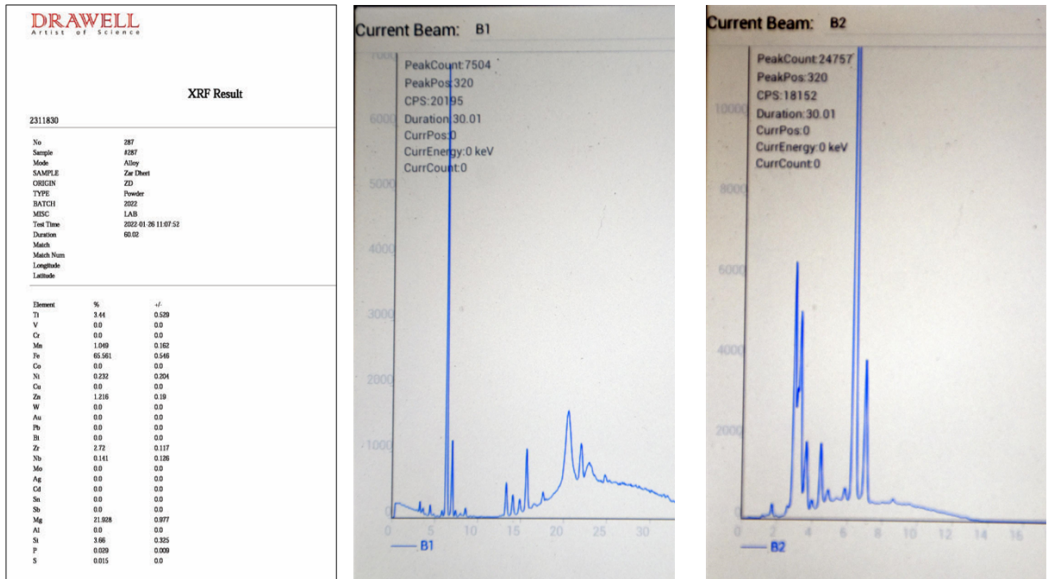


Figure-8 Spectrum and percentage result of schist stone from local query (sample 287).

Mineralogical analysis of schist stone...

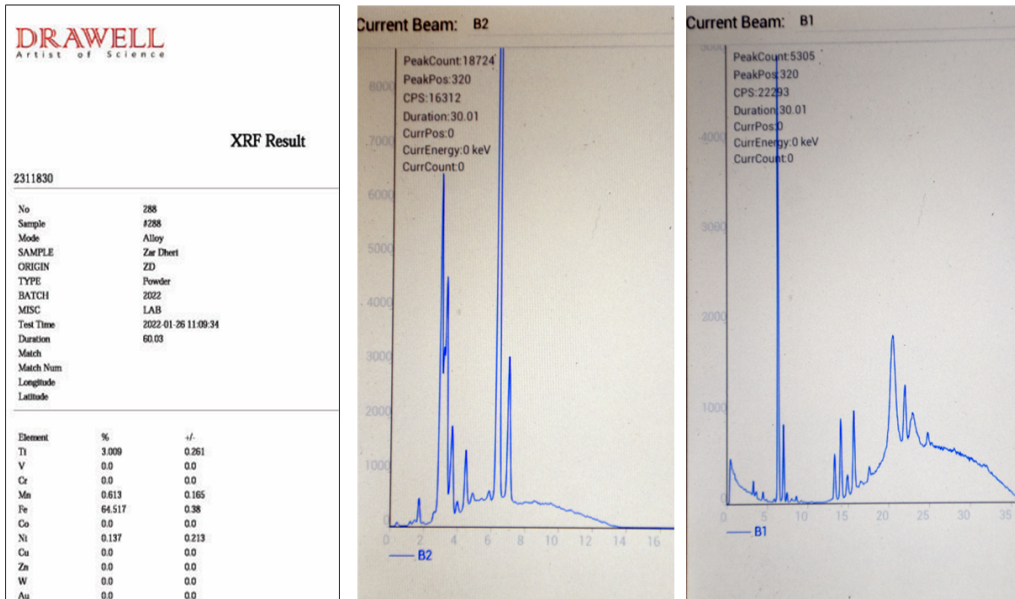


Figure-9 Spectrum and percentage result of schist stone from Zar Dheri (sample 288).

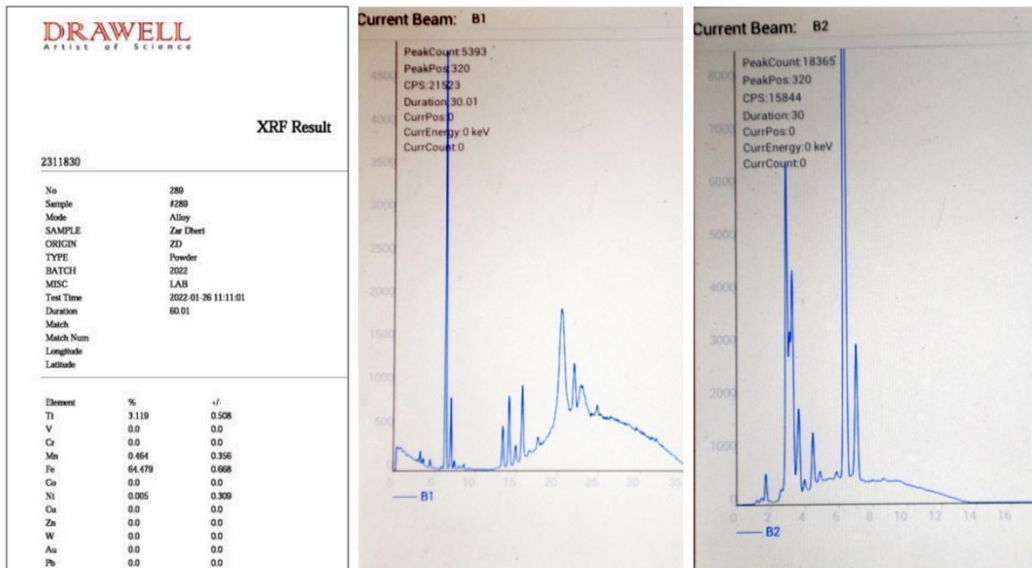


Figure-10 Spectrum and percentage result of schist stone from Zar Dheri (sample 289).

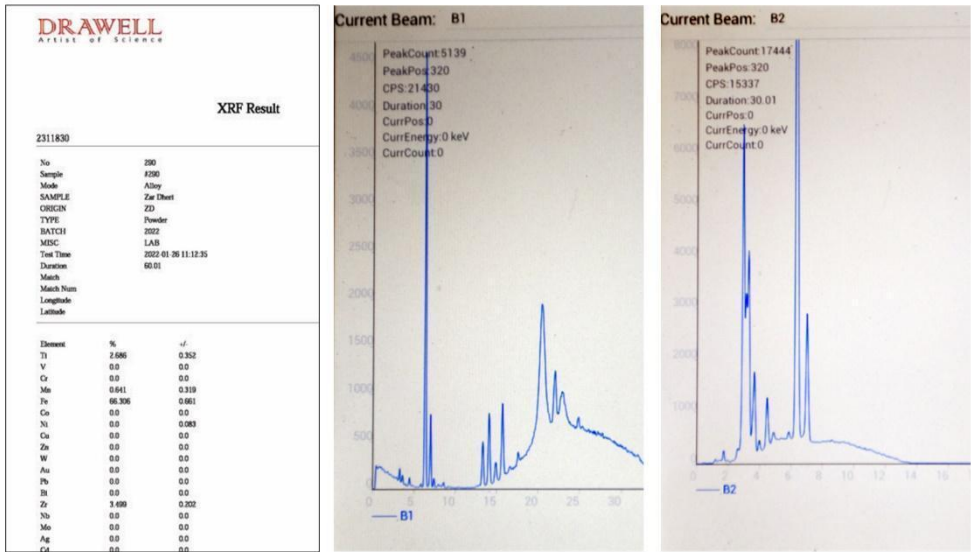


Figure -11 Spectrum and percentage result of schist stone from Zar Dheri (sample 290).

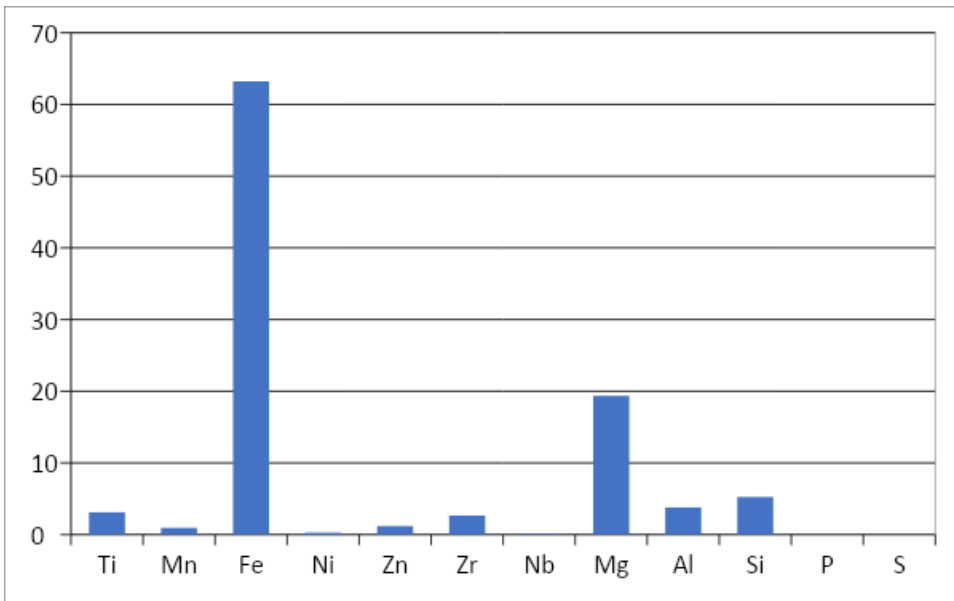


Figure-12 Composition of schist found in Zar Dheri.

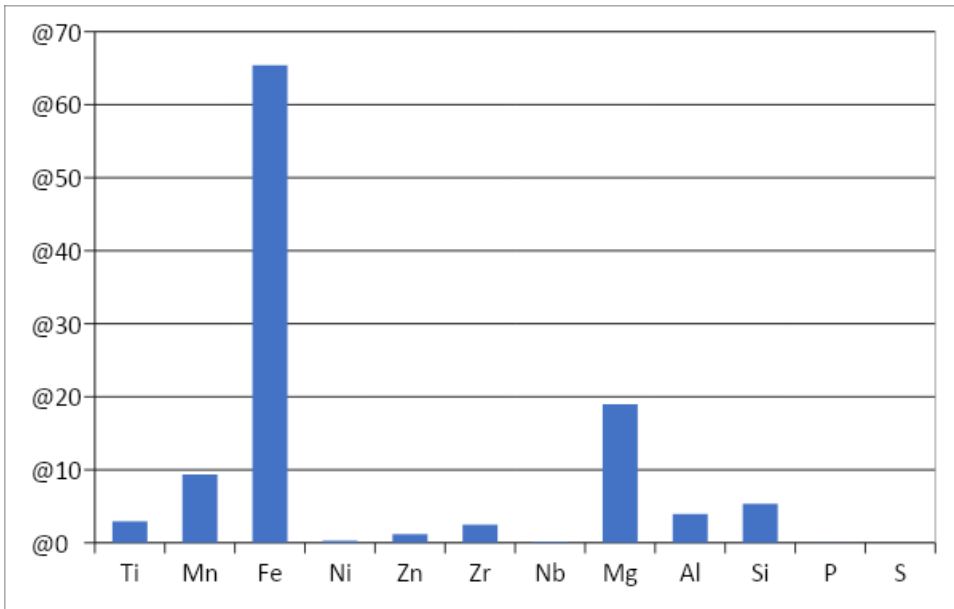


Figure 13. Composition of local schist at Kaly Parr quarry area.

Table of elements				
S.No.	Sample from Kaly Parr quarry area		Sample from Zar Dheri site	
	element	percentage	element	percentage
1	Ti	2%	Ti	2%
2	Mn	4%	Mn	1%
3	Fe	59%	Fe	63%
4	Zn	2%	Zn	2%
5	Zr	3%	Zr	3%
6	Mg	20%	Mg	20%
7	Al	4%	Al	4%
8	Si	6%	Si	5%

Table 1. Comparative table of components of schist from Zar Dheri and Kaly Parr quarry area.

Buddhist Exchanges between Ancient Pakistan and China

Guo Yaling / Wang Hua / Mazhar Alam

Abstract

There is a long history of Buddhist communication between ancient China and ancient Pakistan (the region where Pakistan is located now). From the 1st to 7th century AD, three waves of Buddhist Communication between the two regions emerged, with a large scale of eastward spread of Buddhism and westward pilgrimage. A two-way traffic of communication was formed when Chinese Buddhism travelled backward to ancient Pakistan. The history of friendly exchanges between China and Pakistan thus can be dated back 2000 years earlier. This interaction along the “Silk Road” has great implications for the “Belt and Road” initiative and the communication between China and Pakistan.

Keywords: Eastward Spread of Buddhism, Westward Pilgrimage, Backward Flow, Two-Way Traffic.

1. Introduction

The construction of “China-Pakistan Economic Corridor” has strengthened all-weather friendship between the two countries and people-to-people ties. It is generally believed that the friendly bond between China and Pakistan began in 1951 when they officially established diplomatic relations. This view has greatly shortened the history of China-Pakistan communication, which is not helpful for the development of all-round cooperation by seeking common historical ground and to some extent weakens the link between the two peoples.

The friendly exchanges between China and Pakistan can be traced back to the period when Buddhism was first introduced to China. Ancient Pakistan occupies an important position in the development and dissemination of Buddhism and has a profound influence on Chinese Buddhism. There were frequent and close Buddhist exchanges between ancient China and ancient Pakistan, a fact that was scarcely explored. Previous studies mainly focused on Buddhism, communications from the perspective of political science and generally referred to ancient India, ignoring the fact of the geographical location of ancient Pakistan.

Therefore, Buddhist interactions between ancient Pakistan and China were thus covered up by the term “Sino-Indian Buddhist Exchanges”.

Buddhism spread along the Silk Road, which was hence called “the Buddha Road”. In the context of “the Belt and Road Initiative”, it is of great historical and practical significance of reexamining the Buddhist exchanges between the two peoples. To explore the mutual learning between the two civilisations on the ancient Silk Road is conducive to enriching the new “Silk Road” spirit and building a community with a shared future for mankind.

This study analyses three large-scale waves of Buddhist interactions between ancient Pakistan and China from a geographical perspective. Buddhism has an oral tradition. In history, it was developed and disseminated mainly by monks preaching, searching for and translating scriptures. From the 1st to 7th century AD, there was an endless stream of Pakistani monks coming to China and Chinese monks going to ancient Pakistan. Chinese monks digested, promoted Buddhism, and spread these new developments back to Pakistan. Three culminations of Buddhist exchanges emerged from the two regions.

2. The First Wave of China-Pakistan Buddhist Exchanges

Buddhist exchanges between China and Pakistan began in the Kushan Empire (30-375 AD) in the 1st century AD. Kushan Empire is mostly an ancient Pakistan kingdom whose capital was once in Peshawar (Capital city of Khyber Pakhtunkhwa Province) and later in Taxila (near Islamabad). It became the centre of Buddhism dissemination due to geographical advantages, historical reasons and political support. By that time, the Silk Road had been established, with the trade routes in the western regions unblocked and the maritime trade routes greatly expanded, making possible the spread of Buddhism both by land and sea. As the hub of the Silk Road, Kushan Empire was ready to spread Buddhism to other parts of the world. The historical reason is that Brahmanism eradicated Buddhism in Middle India in the 2nd century BC, forcing Buddhism to move northward. In North India, Buddhism was preserved without being affected. Gradually, North India (the region where ancient Pakistan was located) became the main source of Buddhism. The political support from Kushan rulers served as the third reason to make the religion flourish and spread eastward along the road. Consequently, in

the 1st and 2nd centuries AD, the first wave of communication between ancient Pakistan and China appeared.

During the period of Kushan Empire, Gandhara was not only a gathering place of eminent monks, scriptures and teachings, but also a centre for cultural exchanges between the East and the West. Gandhara, also known as “Jia tuoluo”, “Qian tuoluo”, “Qian tuowei”, “Qian tuo” or “Gan tuowei” in Chinese, was an ancient region comprised of Kabul, Peshawar, Swat, and Taxila regions what are now northwestern Pakistan and eastern Afghanistan.

Kanishka I (127-150 AD), the king of Kushan, was a pious adherent and patron of Buddhism. During his reign, the Sarvastivadin prevailed in Gandhara where Vasumitra, Dharmatrata, Parsva were among outstanding monks who were proficient in sutras. Kanishka once summoned Vasumitra, Asvaghosa, Parsva and others to perfect Buddhist sutras. It took them 12 years to finish the work. The gathering had a great impact on the development of Buddhism. Kanishka sent Buddhists abroad to preach the religion, giving impetus to the dissemination of Buddhist culture.

Before Buddhism spread into China, Buddha statues had been introduced into Central China via the coast in the 1st century AD (Wu 1991, Sen 2012), a fact indicating that the enlightenment of Buddhism in China originated from the Kushan Empire. The delivery of the Buddha image can be viewed as the earliest Buddhist exchanges between ancient Pakistan and China since image worship is one of the early beliefs of Buddhism.

In the Eastern Han Dynasty, Buddhism was introduced to China from the Kushan Empire (Wang 2014). According to legend, the golden Buddha statue which appeared in Emperor Ming’s dream is the sign of the emergence of Chinese Buddhism. According to *A Record of Buddhistic Kingdoms* by the Chinese Monk Faxian, the figure of the Buddha is in Tuoli Kingdom, (a place in Northern Pakistan, Jammu and Kashmir (union territory) and parts of Northeastern Afghanistan). The eighty feet high statue of Maitreya signified the beginning of the eastward spread of Buddhism. After this Buddha statue was established, Buddhist monks embarked on their journey to the East for missions. Faxian inferred that the tall golden Buddha statues in the dream of Ming Emperor was this, Maitreya.

A reliable record on the beginning of Buddhism is related to the Han court (Wu 1991, Zürcher 2007, Sen 2012). Emperor Ming’s brother,

Liu Ying, the king of the Chu, was reported in *History of the Latter Han* (Hou Hanshu) (72: 1082) to recite the subtle words of Huanglao¹ and respectfully perform the gentle sacrifice.

Following the official introduction of Buddhism to China, foreign monks came to preach Buddhism since Chinese believers lacked a deep understanding of the sutras. From the Han Dynasty to the Three Kingdoms period, more than half of the foreign monks who came to China to propagate Buddhism came from Kushan Empire, the region of ancient Pakistan.

When Kushan monks first came to China, they usually took the transliteration of their ethnonym “Zhi” as their surname since Kushan Empire was established by Da Yuezhi. Lokaksema (Zhi Lou Jia Chen, or Zhichen, 支娄迦讖) is the earliest eminent monk who introduced and translated the Classic of Mahayana Buddhism in China. He came to Luoyang in the late Eastern Han Dynasty (around 167 AD). From 178 AD to 189 AD, he translated more than ten Sanskrit Buddhist scriptures such as Mahaprajaparamita-sutra (Daoxing Borejing 道行般若经), Bhadrपालasutra (Banzhou 般舟) and Surangama Samadhi Sutra (Shoulengyanjing 首楞严经). His translation exerted a significant influence on Chinese Buddhism. The Prajna (Bore) doctrine was popular with the ruling class and the populace from Han (BC 206-220 AD) to the Southern and Northern Dynasties (386-589 AD).

Zhi Chen, Zhi Liang (Zhichen's disciple), Zhi Qian (Zhiliang's disciple) are known as “Three Zhi” because of their proficiency in Buddhism. Zhi Qian was the first to propose the theory of Buddhist text translation (Chen Fukang 2000). In 223-253 AD, he translated 88 books, including 118 volumes. His notion of “following the original meaning without any embellishment” is the earliest literal translation theory (Luo and Chen 2009).

Zhiyao, another member of Yuezhi clan, came to Luoyang during Emperor Ling's reign in Han Dynasty (around 185 AD), and then successively translated the Sutra on the Completion of Brightness (Cheng Ju Guang Ming Ding Yi Jing, 成具光明定意经) and other Mahayana sutras and Hinayana sutras of 10 fascicles.

Apart from preaching from the Kushan Empire, ancient China learnt a lot from the Western Regions (a Han Dynasty term for the area

¹ Huanglao refers to the combination of tenets of the Yellow Emperor Huangdi and Laozi, the founder of Daoism.

west of Yumenguan 玉门关, including what is now Xinjiang and parts of Central Asia). The initial spread of Buddhism was carried out by non-Chinese nations, who adopted the relay-like mode of “sending sutras to the East” and “sending images to the East” (Ye 2015). They first imported Buddhism into Xinjiang, China, and then into the Central Plains through the Hexi corridor. Monks of Western Regions played an important role in this process, but its origin is still in the Kushan Empire.

Before the last years of the Eastern Han dynasty, there were only oral instructions of the *Sutra of Buddha (Futu Jing, 浮屠经)* and *Sutra in Forty-Two Sections* by an unnamed translator. By the time of Emperor Huan and Emperor Ling in the late Eastern Han dynasty, foreign monks from ancient India and Western Regions had translated a large number of Buddhist classics with Luoyang as the centre. In the early years of Emperor Huan (147-167 AD), An Shigao, an eminent monk of the Parthia of the Western Regions, translated 35 kinds of sutras, 41 fascicles, such as *Anapanasati Sutta (An Ban Shou Yi Jing, 安般守意经)* *Yin Chi Ru Jing (阴持入经)*, *Five Methods and Four Noble Truths of Abhidharma (阿毗昙五法四谛)*, *Twelve Nidanas (十二因缘)*, *Eight Right Approaches (八正道)* etc. He is the first translator of Hinayana Buddhist sutra and the founder of the Chinese translation of Buddhist scriptures. Some scholars (e.g. Jiang 1929/2013) believes that the history of Buddhism in China began from the time when Zhi Chen and An Shigao came to China.

In the first wave of Buddhist exchanges, China was in a passive position of acceptance, while ancient Pakistan was actively exporting its religion. After its introduction, Buddhism showed no signs of popular appeal, and then the Chinese scholars promoted it together with the thoughts of HuangLao. In the Three Kingdoms period, Buddhism was mainly spread by oral transmission (Xing, 2012), in which monks communicate face-to-face with followers. The sutras were mainly translated by foreign Buddhist monks, or their descendants, assisted by Chinese monks.

3. The Second Wave of China-Pakistan Buddhism Exchanges

The second climax of China-Pakistan Buddhism exchanges was during the 4th to 5th centuries AD. Around 380 ADs, a huge tide of eminent monks swept into China from North India, and the wave lasted to the mid-5th century (Zurcher 1999). It should be noted that ancient North India was mainly located in present-day Pakistan.

The ancient Pakistani monks who preached in China set up translation institutes with support from the rulers. While translating the Buddhist scriptures, they taught Chinese monks, training a large number of Buddhist talents for China. Unfortunately, few of them can be found in historical records.

Buddhacinga (Fotucheng) (232-328 AD) converted to Buddhism in Uddiyana (now Khyber Pakhtunkhwa) and then came to Luoyang to preach Buddha Dharma in Jin Dynasty. His theory cannot be found in historical record but judging from his numerous disciples such as Dao An, he must be a great master of Buddhism. Zhi Shilun arrived in China and began to translate scriptures during the Liang period (343-403 AD).

From the 4th century to the 6th century AD, there were close exchanges between Gandhara and China. Mahayana Buddhism was practised by the Gandharan Buddhists and among many others, Asanga (Wu Zhu 无著), Vasubandhu (Shi Qin 世亲), Man Ūrhitā (Ru Yi Lun Shi 如意论师) were the famous masters.

Bodhisattva Asanga was a Gandharan monk who practised Hinayana but ended in dissatisfaction. Then he went to central India to learn the classics of Mahayana. Later, he wrote hundreds of Mahayana treatises and taught about a thousand disciples. He converted his brother Bodhisattva Vasubandhu to Mahayana. A large number of scriptures written by him were translated into Chinese, such as《摄大乘论》 (Mahayanasamgraha-sastra)《瑜伽师地论》 (Yogacharyabhumi Sastrakarika) 、《显扬圣教论》 (Prakaranasyavaca-sastra)《显扬圣教论颂》 (Prakaranaryavaka) 《大乘阿毗达磨集论》 (Abhidharmasamuccaya) Mahayana-samgraha-sastra, Yogacara-bhumi-sastra, Aryavacaprakaraṇa-sastra.

In the 4th-5th century AD, Vasubandhu wrote thirty fascicles of Abhidharmakosa-sastra (Jushelun 俱舍论 or Abhidharmakośa 阿毗达摩俱舍论), promoting the doctrine of Sarvastivadin. Many works of Vasubandhu were translated into Chinese such as Trijwika (唯识三十颂), Vijwatikavatti (唯识二十论), Karmasiddhiprakarana (大乘成业论), Pabcaskandhaka-prakarana (大乘五蕴论), Madhyanta-Vibhagabhāsyā (辩中边论), (Mahayanasajgrahabhāsyā (摄大乘论释) and Abhidharmakosa-bhāsyā (阿毗达摩俱舍论).

Because of the oral tradition, the teachings of Buddhism were often misunderstood. The invention of papermaking made it possible to copy and translate Buddhist sutras. Most of the original Buddhist classics in China were rendered from western regions, not directly from ancient

India. After being translated many times, these translations may be distorted and have many errors compared with their original Sanskrit versions, even suffering from losses and additions. In order to eliminate misunderstandings, Chinese monks embarked on a long journey to ancient India for Buddhist scriptures.

The first Chinese monk to seek Buddhist scriptures was Faxian of the Eastern Jin Dynasty. In his time, China had a considerable number of Buddhist scriptures, but lacked complete Vinaya. In 399 AD, Faxian, along with Huijing and other monks went westward to seek Vinaya. He visited about nine kingdoms in ancient Pakistan: Darada Kingdom (Tuoli), Udyana (Wuchang), Suheduo, Gandhara, Takshasila (Zhushashiluo), Fulousha, Luoyi, Bana and Pitu.

Fa Xian and his team first arrived in Tuoli (now the Gilgit District of Pakistan), where they paid a visit to the image of Maitreya Buddha, “the golden Buddha” in the dream of Emperor Ming and found the legendary birthplace from where Buddhism was first introduced into China. Then they reached Oddiyana (now Swat District, Khyber Pakhtunkhwa Province). Xuan Zang recorded it as Udyana in Great Tang Records on the Western Regions. Oddiyana is the farthest north that the Sakyamuni travelled to preach after he became Buddha. Later, Fa Xian and other monks came to Suheduo. The current geographical location of the country has not been agreed in academia. It is probably located in the Hindu Kush Mountains between Swat River and Indus River in the territory of Khyber Pashtun Province.

Fa Xian and his party stayed briefly in Gandhara, and then went to Takshasila (Zhushashiluo, now Taxila) and Fulousha Kingdom (now Peshawar). In Fulousha, they witnessed the world’s first pagoda and the grand celebration of Buddhism. At that time, the kingdom was the Buddhist centre of Northern India. Finding that the Buddhist scriptures were taught orally and there were no manuscripts, Faxian decided to write down the scriptures.

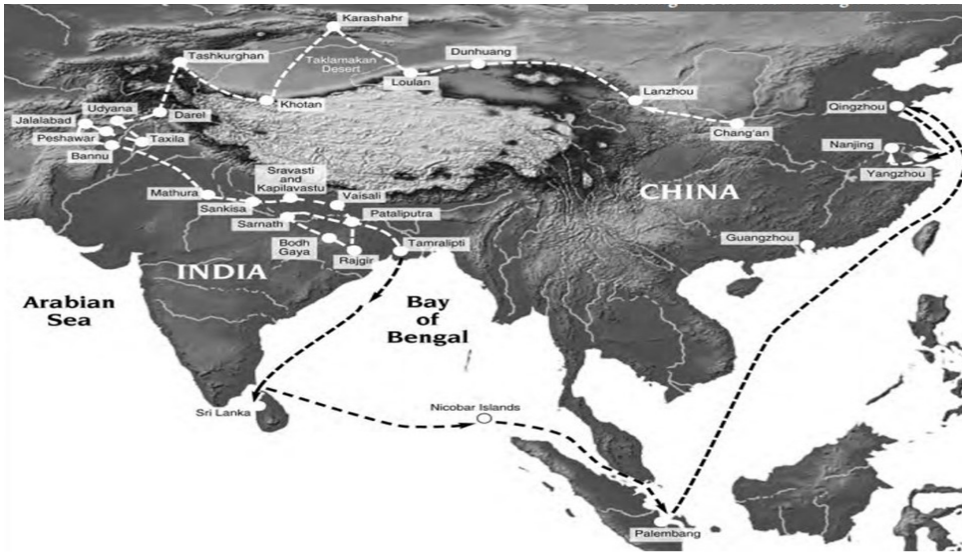


Fig. 1 - Faxian's journey (Map by Willa Davis).

In 403 AD, Faxian and other monks entered Middle-India by way of Luo Yi kingdom (present Laki, Pakistan), BaNa kingdom (present Bannu, Pakistan), and Pitu (Bhera) (historic city of Uch or Uuch Sarif, the southern part of Punjab, Pakistan²). Faxian stayed in Middle-India for four years, admiring Buddhist relics, visiting Buddhist monuments, and learning Sanskrit. He copied the *Mahasangha-vinaya*, the series of laws of Sarvastivada and a large number of scriptures, which made a significant contribution to the preservation and circulation of Buddhist classics.

Faxian learned from monks and scholars with an open mind, sorted out oral classics of Buddhism and compiled oral classics of Buddhism. In 411 AD, Faxian departed for home and landed on the Shandong peninsula in 412 AD. He brought back to China a great number of Sanskrit Buddhist texts and then translated them into Chinese. That is the beginning of translating Sanskrit Buddhist texts directly into Chinese.

In 414 AD, Faxian compiled *A Record of Buddhist Kingdoms* (Foguoji) and revised it two years later. The book is a masterpiece of biography and important historical documents and travelogue. It is an important material for the study of mediaeval history of Western Regions

² According to SiHe (2011), the country is mainly in north-western Pakistan, partly in the north of the Republic of India.

and East Asian countries, as well as the history of East Asia's transportation and Buddhism. The book serves as a valuable documentary record of the Gupta Empire which left no other literature in history.

Influenced by Faxian, Fa Yong and 25 fellow monks went west on a pilgrimage for Buddhist scriptures in 420-422 AD. He translated a volume of Avalokitesvara sutra after returning home by sea. Since then, from Northern and Southern Dynasties to the Tang and Song Dynasties, monks from ancient China and ancient Pakistan took sea routes instead of land.

In the second wave of China-Pakistan Buddhism exchanges, Chinese monks went westward in search of Buddhist doctrines, while the ancient Pakistani monks reached China to impart their theories. The Chinese pilgrims wrote down Buddhist scriptures orally imparted by Pakistani masters, enriching the culture of ancient Pakistan. Therefore, one-way Buddhism transmission gradually evolved into two-way communication. During the Southern and Northern Dynasties (420-589 AD), Buddhism was recognized by the Chinese ruling class and the public. Chinese monks established schools based on different doctrines they had learned. Buddhism developed to a new high and yielded rich fruits.

4. The Third Wave of China-Pakistan Buddhism Exchanges

The third climax of Sino-Pakistan Buddhist exchange occurred in the 6th-7th century A.D. From 581 to 907, as the Northern Maritime Silk Road and the Southern Maritime Silk Road were connected, Buddhist culture reached the Shandong Peninsula and the Yellow Sea coast directly through the sea route. Chinese Buddhism ushered in its heyday, while ancient Pakistani Buddhism was in decline. Chinese Buddhism began to spread backward to ancient Pakistan, and Sino-Pakistani Buddhist exchanges reached another climax.

During this period, the ancient Pakistani monks came to China, not only for preaching the Dharma, but translating scriptures. According to the *Memoirs of Eminent Monks (Continued) Volume II* and the *Kaiyuan Era Catalogue of Buddhist Canons* (Kai Yuan Shi Jiao Lu 开元释教录), during the period of 559-560 ADs in the northern Zhou Dynasty, Gandhara monk Jnanagupta came to Chang'an with Yashas, Postalou and Yaogupta and translated 39 volumes and 2 fascicles including Saddharma Pundarika Sutra (妙法莲华经). Later in Sui Dynasty, he translated 37

volumes, 167 fascicles, and more than 200 fascicles of Sanskrit scriptures, including Sutra of Great Renunciation (佛本行集经).

In 541 AD, Vimoksaprajnars (毗目智仙) from Udyana (now Swat, Khyber Pakhtunkhwa) came to China and translated five sutras in five fascicles. In 556-568 AD, Nalen Tirieshe from Udyana translated seven sutras in fifty-one fascicles into Chinese, including the Great Compassion Sutra.

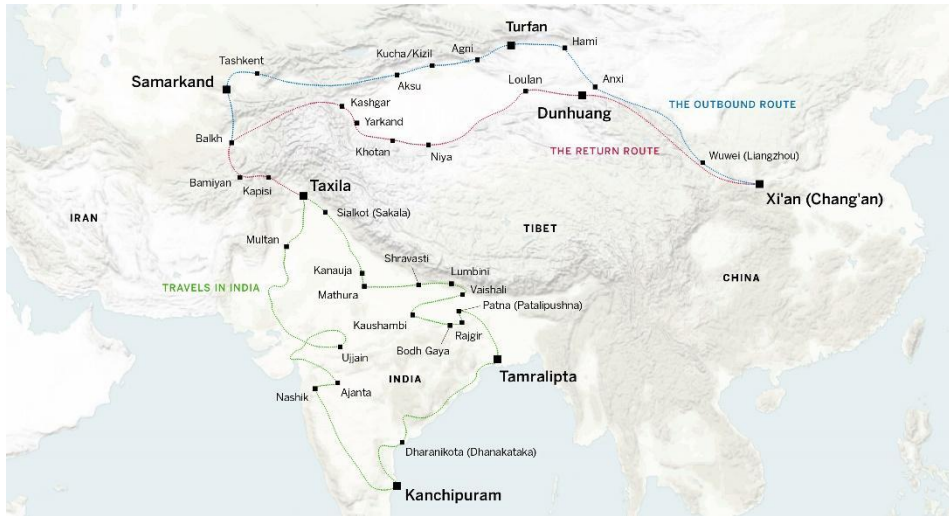


Fig. 2 - Xuanzang's itinerary

(Image source: <https://sogdians.si.edu/sidebar/xuanzang/>)

In the 6th-7th centuries AD, there was an increasing number of Chinese monks seeking Dharma in ancient Pakistan. During the Northern Wei Dynasty, Huisheng and Song Yun went west to acquire scriptures in 516 AD and 518 AD respectively. Song Yun went south through Shemi (present KPK Province) to Uddiyana and Gandhara. Huisheng took a different route to Uddiyana and Gandhara. Song Yun and others brought back more than 100 Mahayana classics, which were later widely spread in China. A Travel Record (*Xingji*) written by Hui Sheng and *Jiaji* written by Song Yun are considered as reference materials to Buddhist scriptures by later generations.

In the third wave of Buddhist exchanges, the most influential pilgrim was Xuan Zang of the Tang Dynasty. After finding a lot of discrepancies in Buddhist scriptures because of multiple interpretations, he

decided to learn the teachings of Buddhist and carry back Buddhist manuscripts from ancient Pakistan and India. In India, Harsha Vardhana (589-647 AD) was in power. He promoted Buddhism and his reign witnessed the last heyday of Buddhism in India.

Xuan Zang travelled through about 14 kingdoms in Ancient Pakistan region: Gandhara, Parvata (Bo-fa-duo) Takka (Che-jia), Takshasila (Da-cha-shi-luo), Simhapura (Seng-he-bu-luo) Udyana (Wu-zhang-na), Sindh (Xindu), Pitasila (Biduoshiluo), Avanda (A-fan-cha), Atyanabakela (A-dian-puo-chi-luo), Langala (Lang-jie-luo) Varana (Fa-la-na), Bolor (Bo-lu-luo) and Mulasthanapura (Mao-luo-san-bu-luo). He investigated the current situation, inquired about history, read books from various countries, and recorded everything he heard.

He visited Buddhist relics and learnt from scholarly monks, broadening his vision, and integrating new ingredients into his knowledge. In Gandhara, Xuan Zang paid homage to the old building in which Yasubandhu Bodhisattva prepared the Abhidharmakosa-sastra (Jushelun 阿毗达摩俱舍论 or 俱舍论). Adjacent to Yasubandhu's house was a pavilion where Manorhita composed the Vibhasha Sastra (Piposhalun 毗婆沙论). In Pushkalavati, he worshipped the place where Vasumitra (世友) composed the Abhidharma-prakarana-pada (阿毗达摩品类足论) and the place where Isvara (自在论师) composed the A-pi-da-mo-ming-deng-lun (阿毗达摩明灯论). He visited the city of Da-suo-luo-du-luo, the birthplace of Rishi Panini who composed the Ching-ming-lun. According to Dani (2008), Da-suo-luo-du-luo is located near Lahor in Swabi Tehsil, called Salature in ancient times. It is present in Little Lahore in Swabi District of KPK. In the old town of Sakala (She-jie-luo; Sakala, Sagala or Sangala, the ancient Greek name for the modern city of Sialkot in present day Pakistan), Takka kingdom, he paid visit to the sangharama in which Vasubandhu (Shiqin) Bodhisattva composed the treatise entitled Paramarthasatya Sastra (Sheng-yi-di-lun 胜义谛论).

In Parvata (Bo-fa-duo) he paid homage to the ruin of the sangharama where Jinaputra (Zuishengzi, 最胜子) wrote the Yogacharyabhumi Sastrakarika (瑜伽师地论). It was in this sangharama that Bhadraruchi (贤爱论师) and Gunaprabha (Deguang, 德光), masters of sastras, started their Buddhist life. In the north to capital city of Takshasila (Da-cha-shi-luo, present Taxila), Xuan Zang visited the

sangharama in which Kumaralabdha (Tongshou 童受) composed his treatises.

In Takka kingdom (Che-jia, present Punjab), Xuan Zang stayed for a month to learn from a senior Brahmin, the follower of Bodhisattva Nagajuri (龙树菩萨), who was proficient in Madhyamaka-shastra (Treatise on the Middle, 中论) and Shatika-shastra (Treatise in One Hundred Verses 百论).

Xuan Zang visited kingdoms practising Mahayana (Great Vehicle). Takshasila (Da-cha-shi-luo, present Taxila), Parvata (Bo-fa-duo) and Simhapura (Seng-he-bu-luo, present Jhelam of Punjab province) pursued the teaching of Mahayana. Udyana (Wu-zhang-na, Khyber- Pakhtunkhwa province) was a kingdom of Mahayana believers. Monks practised the rules of morality. The schools of the Vinaya traditionally known amongst them were Sarvastivadins (说一切有部), the Dharmaguptas (法藏部), the Mahisasakas (化地部), the Kasyapiyas (饮光部), and the Mahasanghikas (大众部).

Xuan Zang went through kingdoms practising Hinayana. In the Sindh kingdom (present day Sindh province), people had faith in the law of Buddha. There were about 10,000 priests studying the Hinayana according to the Sammatiya school (正量部法门). Its dependent kingdoms, Pitasila (Patiala) (Biduoshiluo, present the south of Sindh province), Avanda (A-fan-cha, present the north of Sindh province) and Atyanabakela (A-dian-puo-chi-luo, present mouth of Indus River in Southern Pakistan), deeply revered the three precious objects of worship and believed in the Hinayana according to the Sammatiya school.

Xuan Zang experienced a mixture of Mahayana, Hinayana, and heavenly faith in the following kingdoms. Langala (Lang-jie-luo, present Baluchistan Province) was a kingdom of Buddhist believers and heretics. There were perhaps 6000 priests, who studied the teaching of both the Hinayana and Mahayana. In Varana (Fa-la-na, present KPK province of Pakistan), people had faith in Buddhism and Devas. In Bolor (Bo-lu-luo, present Baltistan), monks showed no great zeal for Buddhist learning and had multiple doctrines. In Takka kingdom (Che-jia, present Punjab) and its dependency Mulasthanapura (Mao-luo-san-bu-luo, Present Multan, Punjab), more people believed in heavenly spirits than Buddhism.

Xuan Zang digested the theories of each school and integrated them into his learning. Meanwhile, he communicated Chinese Buddhist insights. During his itinerary, Xuan Zang composed *Huizonglun* (会宗论)

and Poejianlun (破恶见论, Treatise For Breaking Evil Views) in Sanskrit, recording the hybrid of Buddhism from two cultures.

Xuan Zang returned to China in 645 AD, bringing back 657 volumes of scriptures. He translated 74 Buddhist scriptures that ran into 1335 fascicles. *Buddhist Records of Western Region*, dictated by Xuan Zang and compiled by his disciple Bianji, recorded the geography, customs, religious beliefs, and products of the countries along the way. The book, as a common cultural heritage of China and Pakistan, enriches Chinese culture and serves as an important historical record of ancient history, geography, and archaeology of Pakistan.

According to *Memoirs of Eminent Monks (continued)*, Xuan Zang translated the Chinese version of Mahayana sraddhotpada sastra back into Sanskrit, which marks the first backflow from China to ancient Pakistan and India. According to *Memoirs of Song Eminent Monks*, Zhi zhe in the Sui and Tang Dynasties interpreted the Saddharma Pundarika Sutra (Fahuajing) better than Bodhisattva Nagajuri, therefore Indian monks insisted his perspectives translated into Sanskrit for many times. In the Tang Dynasty, Dao Xuan's doctrines were widely spread in ancient Pakistan and India. In the Tang Dynasty, the Zen master Yongjia Xuanjue's *Verse of Right Approaches (Zheng-dao-ge)* was introduced to India. Zen is typical indigenous Chinese Buddhism. Since then, China began to export Buddhist culture to ancient Pakistan and India and the Buddhist exchanges between China and Pakistan ushered in a historic turning point.

Since the Song Dynasty, the spread of Buddhism gradually declined and Buddhist exchanges between the two countries decreased but never deceased. During this period, a small number of monks did exchange visits. Padmasambhava (Lotus-born), who was born in ancient Pakistan's Udyana (now Khyber Pakhtunkhwa Province), came to Tibet in the middle of the 8th century to spread esoteric Buddhism (Mizong) teachings. He established Tibetan Buddhism and became the founder of Tantric Buddhism in Tibet. In the Song Dynasty, Ji Ye passed through Gansu and Xinjiang to Peshawar in Pakistan to acquire scriptures.

5. Conclusions

The ancient Pakistan region had in-depth and close exchanges with China in Buddhist scriptures and teachings. A large scale of eastward spread of Buddhism from ancient Pakistan and westward pilgrimage from China

occurred from the 1st to 7th century AD. Chinese Buddhism once travelled backward to ancient Pakistan to enrich Buddhist doctrines.

Buddhist exchanges between China and Pakistan contributed to multiple dialogues between the two cultures in history and have narrowed the gap between the two peoples in contemporary times. Buddhist exchanges promoted communication between the two different cultures by influencing the belief and behaviour of adherents. Introduced to China, Buddhism had a profound influence on Chinese philosophy, culture, art, literature, music and many other aspects of life. Chinese monks spread Chinese culture and integrated different Buddhist thoughts during their visits in ancient Pakistan. Buddhist exchanges bring the two countries closer. Currently China and Pakistan enjoy close friendship with centuries-old history as the basis for their mutual trust and common understanding.

Buddhist exchanges along the Silk Road have profound legacies among which “One Belt and One Road Initiative” is the most prominent. The religious interaction can be regarded as epitome of the spirit of “Belt and Road Initiative”, that is, “exchange will replace estrangement, mutual learning will replace clashes, and coexistence will replace a sense of superiority”.

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The Indo-European Origin of the Burushaski Language and the Dene-Caucasian Hypothesis

Ilija Čašule

Abstract

*The paper is a detailed response to John Bengtson's and Václav Blažek's critique of the theory of the Indo-European origin of Burushaski. The scholars (2011) (BB) published in *The Journal of Language Relationship* an extensive piece in which they take issue with the hypothesis on the Indo-European origin of the language isolate Burushaski and provide examples of their Dene-Caucasian interpretation. This article addresses and discusses the validity of their claims and presents the relevant evidence. All the material presented in this paper at the phonological, morphological and lexical level demonstrates clearly and unequivocally that the language isolate Burushaski is at its core an Indo-European language, perhaps creolised in contact with another non- Indo-European language. The grammatical correspondences in the case system and in the category of number, in the adjectival suffixes, in all of the demonstrative pronouns and adverbs, the personal pronouns, partially in the numerals, in the entire non-finite verbal system, verbal suffixes and prefixes outline the IE make up of Burushaski. A language comparison that has a large number of grammatical correspondences is significantly much stronger. At the lexical level, the evidence is even more powerful and surpasses the tentative Dene-Caucasian hypothesis.*

Keywords: Burushaski, Indo-European Origin, Hunza, Nager, Yasin.

1. Introduction

The scholars J.D. Bengtson and V. Blažek (2011) (BB) published in *The Journal of Language Relationship* an extensive piece in which they take issue with our hypothesis on the Indo-European origin of the language isolate Burushaski at the phonological, morphological, and lexical level and provide examples of their Dene-Caucasian interpretation.

The aim of this article is to address and discuss the validity of their claims about our work and present the relevant evidence. It is not meant to be a critique of the DC hypothesis.

One of the major flawed aspects is the fact that BB looked only at our early work (Čašule 1998 and Čašule 2003a) “over the last two decades, Ilija Čašule has published a monograph and an article”. In what is a major oversight, they failed to consult and take into account Čašule (2003b), which covers some 70 correspondences between Indo-European and Burushaski in the names of body parts, or Čašule (2004), which outlines the correlation in unique isoglosses between Burushaski and Phrygian. They were also not aware of Čašule (2009) which analyses the correspondences in shepherd vocabulary (30 of them, ten of which correlate with the Balkan languages) and of Čašule (2010) which is a phonological and lexical study of the Burushaski velars. These were all published in eminent journals and one is a book. This is a serious and disabling deficiency, if your aim is, as the authors say to “demolish” a hypothesis (p. 26).

BB firstly looks at the phonological evidence. As throughout the discussion, the authors are selective and choose a very limited number of aberrant or rare examples to identify possible loanwords from Indo-Aryan for which in some cases we have also expressed reservations.

The assessment (p. 26) that some comparisons are semantically tortuous provides incorrect information. Bur *hargín*¹ ‘dragon, ogre, which

¹ For easier reference, we reproduce Berger’s table of the phonological system of Hz Ng Burushaski, which is essentially valid for the Ys dialect as well. Yasin Burushaski does not have the phoneme *çh* – for Ys Burushaski, see Tiffou-Pesot (1989: 7-9):

	<i>a</i>					<i>ʂ</i>	<i>ś</i>
<i>s</i>							
<i>e</i>	<i>o</i>		<i>qh</i>	<i>kh</i>	<i>th</i>	<i>th</i>	<i>çh</i> <i>ćh</i>
<i>čh</i>	<i>ph</i>						
<i>i</i>		<i>u</i>	<i>q</i>	<i>k</i>	<i>t̥</i>	<i>t</i>	<i>ç</i> <i>ć</i>
<i>ć</i>	<i>p</i>						
			<i>ḡ</i>	<i>g</i>	<i>d̥</i>	<i>d</i>	<i>j</i> <i>j</i>
<i>z</i>	<i>b</i>						
				<i>ñ</i>		<i>n</i>	
	<i>m</i>						
<i>y</i> <i>h</i> <i>l</i> <i>r</i>							

Table 1. Phonological system of Burushaski (Berger 1998 I: 13).

comes into being from an ordinary snake, when it becomes big and old', in neighbouring Shina 'female snake' (L 196) is not compared simply to 'silver', as BB states. In Čašule (2004: 74), also in (2017a, Chapter 2 and 152-154) we argued for a strong and direct correspondence of the Burushaski *hargín* 'dragon' with the Phrygian gloss in the ancient lexicographer Hesychius *argwitas* (ἀργυῖτας. τὴν λάμιαν. Φρύγες 'dragon, Lamia' (Neroznak 1978: 136, who notes that in antiquity a Lamia was a mythological woman-snake.) The same goes for Bur *diú* 'lynx' which is not compared to 'to die' but to Phrg *dawos*, *daos* 'wolf' or alternatively to Gothic *dīus* 'wild animal' (Čašule 2017: 120-121). BB confuses etymologies from attested words.

The direct and precise semantics in our comparisons has been praised by many linguists.²

2. Phonological correspondences

The assessment that our proposed phonological correspondences are not consistent is supported by incorrect examples (e.g. the *-k-* in *bérkat* 'summit, peak, crest; height' derives from *-g-*, as explained by Berger (2008: 4.17) who states that "after *r* media are as a rule voiceless". BB rejects any examples where there is complexity and additional phonematic rules or consonantal alternation.

Notes: 1. All five vowels can be phonetically long, but for phonological and prosodical reasons Berger marks them as double (two component) vowels, in order to mark the position of the stress. This notation system was developed by Buddruss and Berger to indicate the pitch contours, which they consider as a result of first- or second-mora stress (Bashir p.c.). 2. Retroflex consonants are marked with an underdot. 3. *w* and *y* are allophones of *u* and *i*. 4. *č* = *ts* in Lorimer and *c* in Tiffou-Pesot (1989). 5. *ġ* = *ɣ* in Lorimer and Tiffou-Pesot (1989). It is a voiced fricative velar /*ɣ*/. 6. *ñ* = [ŋ] or [ŋk] [nk]. 7. The posterior *q* is similar to the Arabic *qāf*. (Berger I: 2.26). 8. The aspirated posterior *qh* is found only in Hz Ng. In Yasin to the latter corresponds a voiceless velar fricative *x*, similar to the German *ch*, as in *Bach*. 9. *ɣ* is a retroflex, articulated somewhere between a "r grasséyé and a *ɣ* or rather a fricative *r* with the tongue in a retroflex position" (Morgenstierne 1945: 68-9). 10. A hyphen before a word indicates that it is used only with the nominal prefixes.

² The prominent Phrygian and Ancient Balkan specialist Vladimir P. Neroznak (1998: ix-xiii), noted that the phonematic correspondences in Čašule (1998) are remarkable and that there is semantic compactness and no semantic latitude, as well as that "...the lexical parallels [and material and structural correspondences] proposed by the author between Burushaski and Phrygian...are highly convincing".

One general point that needs to be made is that the Burushaski-Indo-European³ correspondences involve very few words with retroflexes and the uvulars or with the phoneme y , or with ς and \acute{s} or j .

2.1 The retroflex consonants.

In Burushaski there is alternation between d and \acute{d} or t and \acute{t} . For a discussion of the development of the retroflex stops, see Čašule (2003b: 26-28). Of course, this does not mean that they are in “free variation”, but in the phonematic reconstruction this means that some of the retroflexes go back to dentals which needs to be factored in any analysis.

Note: $t : \acute{t} =$ Ys *-yátis* : *-yátes*, Hz Ng *-yátis* ‘head’ (T-P 152) (B 476) (v.), where the retroflex would have to be secondary; Ys *tis* : Hz Ng *ṭis* (B 446); Ys *toq* : Hz Ng *ṭoq* (B 447); Ys *tak* : Hz Ng *ṭak* (B 444); Bur *abáato* : *abáato* (also *abádo*) (B 11); Bur *phirpít* : *birpít* (B 55); Bur *huntí* (B 206) : *hunṭí* ‘nine’ (Will 175-176) (v.); Bur *éot* (U *čūt*) : *čut* (B 91); Bur *tām* : *ṭam* (L 343); Hz Ng *čaqóoti* : Ys *čaqóti* (B 85); Ng *damkhootá*, Hz *damguṭá* : Ys *damkutáh* (B 113); Bur *tambuk* : Khw *ṭambuk* (L 343); Bur

³ We reproduce the summary of phonological correspondences between Indo-European and Burushaski (Čašule 2010: 11-12):

IE $a >$ Bur a ; IE $e >$ Bur e : Hz, Ng i ; IE e (unstr.) $>$ Bur a ; IE $\bar{e} >$ Bur i , $\acute{e}e$; IE $o >$ Bur $ó$
IE o (unstr.) $>$ Bur a , u ; IE $\bar{o} >$ Bur $oó$, $óo$; IE $i >$ Bur $i:u$; IE $u >$ Bur $u:i$
IE ai , ei , oi ; $eu >$ Bur a ; IE au , $ou >$ Bur u

PIE h_1- $>$ Bur $h-$; PIE h_1e- $>$ Bur $he-$; PIE $h_1\mu e r-$ $>$ Bur $har-$: $-war-$: $her-$
PIE h_2- $>$ Bur $h-$; PIE h_2e- $>$ Bur $ha-$; PIE $h_2\mu e-$ $>$ Bur $-we-$: $-wa-$
PIE h_a- $>$ Bur $h-$; PIE h_ae- $>$ h_aa- $>$ Bur $ha-$; PIE h_f- $>$ Bur $h-$; PIE h_4e- $>$ h_4a- $>$ Bur $ha-$
PIE h_3- $>$ Bur $h-$; PIE h_3e- $>$ h_3o- $>$ Bur $ho-$; PIE h_x- $>$ Bur $h-$; PIE $h_1/2i$ $>$ Bur $i-$

IE l , m , n , $r >$ Bur l , m , n , r ; IE $\mu >$ Bur $-w/-u$; IE $\nu >$ Bur $b-$, also $m-$; IE $\tilde{i} >$ Bur y/i
IE $\mu >$ Bur $-um$, $-am$; IE $\eta >$ Bur $-un$, $-an$; IE $r >$ Bur $-ur$, $-ar$; IE $l >$ Bur $-ul$, $-al$

IE $p >$ Bur p , ph , also $b-$; IE $b >$ Bur b , also m (rare); IE $bh >$ Bur b , also m (rare)
IE $t >$ Bur t : th (rare) : \acute{t} , and $d-$; IE $d >$ Bur d ; IE $dh-$ $>$ Bur $d-$; IE $VdhV >$ Bur $-t-$, $-t-$
IE $k >$ Bur k : kh , $k : q$; IE $k^w >$ Bur k ; IE $\acute{k} >$ Bur k : kh , $k : q$
IE $g >$ Bur \acute{g} ; IE $gh >$ Bur g ; IE $g^w >$ Bur \acute{g} ; IE $g^wh >$ Bur \acute{g} ; IE $\acute{g} >$ Bur g , \acute{g} ; IE $\acute{gh}- >$ Bur g , \acute{g}
IE $s >$ Bur s or $s : \acute{c}$, $\acute{c}h$; IE $ks >$ Bur \acute{s}

wat : Sh *wat* (B 466); Bur *ćútikiş* : Sh *ćútēkiş* (B 94); Bur *kátara-bátara* : Sh *kátara- bátara* (B 243); Hz Ng *ćatóoro* : *tóoro* (Berger 2008: 19.30), Bur *gaját -i-* : Bur *gaját -i-* (B 142), *giṭ* : *git* (B 177), Bur Ng pl. *gutulišo* (L 188, without a retroflex) : Hz Ng sg. *guṭúl* (B 183), Ys *mutús* : *muṭhús* (Tiff 221), *taptáp -i-* (B 420) : *ṭaptap* (L 345), Ys *hutén-* : Hz Ng *uṭín-* (B 459-460). Perhaps indicative of such an alternation are the Burushaski nominal suffixes *-to* vs *-áaṭo* (B I: 19.24). Zarubin (1927: 284) indicates that even though the retroflexes can be distinguished clearly in Yasin Burushaski, they sometimes alternate with the corresponding “non-retroflex” ones, e.g. he gives *ṭap*, whereas in B (437) it is *thap*, also the expressive Bur Ys *thothór-* / *thóthor-* : Ys DC *ṭoṭóra* (Berger 2008: 3.2).

d : *ḍ* = *dumóoyo* NH : *ḍumóoyo* (B 135); *dumá*: *ḍumá* (B 135); *dukúii* correlated by B with Ys *ḍukúri* (BYs 142); Bur *udóori -i-* : Ng *uḍóor- -i-* (B 453); Ng Sh *dir* : Hz *ḍir* (B 133) (Varma 151); Ys *daṭ* : Ys *daṭ* (BYs 143); *daṇa*, *daṅga* (LYs 85) : *ḍaṅgá* (BYs 143); Hz Ng *daq* : *ḍak* vs Ys *ḍak* (LYs 75); Ng *ḍuím* : *ḍuín* (B 136); Sh *dar* : Bur *ḍar* (B 131); LYs *gádar* : BYs *ḡadar* (BYs 144); Bur *dip* : Sh *ḍip* (B 119); Bur *ḍumá* < U *dunbah* (B 135); Ys *mundál* and *mundál* (Tiff 218); Ys *dóṣṭo* : *ḍóṣṭo* (Tiff 96); Ys *ḍuq* : *duq* (Tiff 97); Ys *doş* : *dos* (Tiff 96). Consider also Berger's tentative derivation of *-dúmus* from a Skt word with a retroflex, i.e. from *ḍhōṅga-* (B 125).

BB (p. 27) provide only five examples of a possible change *rt > ṭ* or *rd > ḍ*, which they believe is responsible for the retroflexes in Bur, but the semantics is very loose.

Let us compare the DC and IE etymologies of Bur *gik*, (in L 166, only ‘anus’) also *giṭ* (secondary according to B 155) (in L 168, only ‘anus’ and only with a dental) *git* ‘anus; vulva [which is the primary meaning], intestines with inner fat behind the anus’ (in Sh *gik* ‘loin’ and *giṭ* ‘intestinal fat’ – the broader meanings in Shina confirm a loanword from Bur) (B 152, 155)

BB explains the Bur word from **girt* or **gilt* ~ Caucasian: PEC **kwilṭV* (Dargwa *kuḷṭa* ‘belly, stomach’, Agul *gutul* ‘kidney’, etc.) ~ PY **giṭd* ‘fat’: Ket, Yug *kiṭt*, Kott *kīr*; Arin *ki*. In DC the basic Bur meaning of ‘anus; vulva’ is not found, and the correspondence is with the Bur meaning ‘inner fat behind the anus’ which is secondary (here the core meaning is ‘intestines’ and ‘behind the anus’) and specific. The meaning of ‘kidney’ does not correlate well. The lack of a retroflex in Lorimer is

possibly not an error, but an example of a *t* : *ʈ* alternation which would make the DC etymology unviable.

Our Indo-European etymology of *giʈ* : *git* correlates it with IE **g^wet-us* ‘stomach, intestine; womb’ (IEW 481: **g₂et-*, according to Pokorny possibly an enlargement from **gēu-* ‘bend, curve’): ON *kviðr* ‘belly, womb’, OHG *quiti* ‘vulva’, TochA *katso* ‘belly, womb’, Lat *botulus* ‘intestine, sausage’ (M-A 2 186) (not found in Indic and Iranian), from IE **g^wēt-*, or rather **gēu-* > **giu* > **gi-* + **-t* > *git* : *giʈ*.

Importantly, the IE explanation also accounts for the form *gik* < **gi-k*, as Bur has a nominal suffix *-k* (see Berger 2008: 124). Berger points to Bur *gašk* ‘thick rope for tying loads, for swings’ (B 149) < *gaśóo* ‘rope’ (B 149) < Ys *gas* ‘yarn for spinning’ < Bur *gisá-* ‘to weave’ (all grouped together in Berger 2008: 140); also Bur *humák* ‘quiver (of arrow)’ < *hunč* ‘arrow’ (B 205), etc. Further examples we have identified are: *tark*, *therk* also *šisk* ‘lead’ (according to Berger with “unclear *-k-*” or Ys *hesk* : Hz Ng *hisk* ‘comb’, etc. (for an extensive analysis, see Čašule 2017a: 220-221). This *-k* suffix is to be considered related to the Bur suffixes *-ko* and esp. *-kus* which are nominal and adjectival suffixes and can be traced to the Indo-European suffix *-kos*, **-keh₂* which creates deadjectival and desubstantival adjectives denoting ‘the characteristic of, typical of, pertaining to’ (e.g. Slavic *-ькѣ*).

There are problems in the examples with the semantics. In the discussion of Bur *-phaʈ* ‘gizzard, stomach of fowl’, the dubious semantic correlation is with Dene-Caucasian meanings of ‘lung, bladder’, ‘large intestine’, ‘buttocks, rump’. Such semantic latitude produces problematic and unreliable results.

Consider further the etymologies for Bur *gaʈú* ‘clothes, Ys cotton trousers’. The BB explanation is from **gart-* ~ Caucasian: PEC **g^wirdwV* ‘a kind of clothing’ (Avar *gordé* ‘shirt’, Dargwa Akushi *gurdi* ‘dress’, etc.) ~ Arin *got*, *kot* ‘trousers’, etc. While the semantics appears in order, there is an inconsistency in that the correspondence is with a Caucasian *-rd-* and seems irregular in that it gives *-ʈ-* in Bur and not the *-d* postulated by BB (as in Bur *čhaʈúm*), and the vowels do not match. Yet the Indo-European explanation is much more viable because it provides the internal etymology of the word and its derivatives. One of the deficiencies of the BB comparisons is that the analysed words are regularly isolated.

In the IE etymology of Bur *gaʈú* ‘cloth, clothing, woman's shirt; pl. (ordinary word for) clothes’, in Ys ‘cotton trousers’ (B 151) it can be correlated internally with *gaʈál* ‘go on foot, walk’, also *kaʈál* (B 150), and

possibly here also Ng, Ys *go*, Hz Ng *gon* ‘go!, get along!, go ahead!, come on!’ (Will 57) (L 170, also *gun*) (B 157). It parallels directly PSI **gatji* ‘clothes, trousers’, e.g. OSI *gaštę* ‘trousers’, RussChSl *gaščī* ‘clothes’, *gačī* ‘trousers’, OPI *gace* (orig. meaning ‘long cloth pants’, Mcd *gak'i* ‘underpants, (rare) pants’. The Slavic words are derived from IE **g^wa-* ‘go’ with an enlargement *-t-* (ESSJ VI: 106-108) (G 224).⁴ The example is not isolated, considering the large number of unique isoglosses between Burushaski and Slavic (26+6=32) (see Čašule 2017b).

2.2. The phoneme *ɣ*.

The Burushaski phoneme *ɣ* is found very rarely in our comparisons (only in 7 examples) i.e. it is foreign to the Indo-European core layer. In the IE material it appears as a reflex of a reduplicated *ǵ* (*ɣɣ*), as in *huyóo* ‘wool-bearing animal, sheep’ (B 209) (the latter < **huyyoo* with a suffix *-yo-*) from *huyés* (sg and pl) ‘small cattle (i.e. sheep and goats)’ (B 209), in Ys also: *huís* (T-P 140) which is a direct and remarkable correspondence with IE **h₂óuis* (gen. **h₂óuios*) ‘sheep (*Ovis aries*)’.

In a very small number of verbs, it appears as an optional suffix (or enlargement), which is not found in Yasin, e.g. Hz Ng *d-stay-* ‘1. to prop up, support, stay; 2. to protect from; to hold up (an enemy), withstand; 3. to assist a person; to support, reinforce (troops)’ (B 469), Ys *d-sta-* ‘to put up and prop up by means of stones, pegs’ (BYs 176). Compare with IE⁵

⁴ Correlatable with IE **g^wa-*, **g^wem-* ‘to go, come, step’ (< **g^wə-to-lo*), OInd *jí-ga-ti* ‘he goes’, Alb *ngā* ‘I run’ (< **ga-nǵō*), Lith dial. *góti* ‘to go’, Arm *kam* ‘I stand’, OEng *cuman* ‘to come’, Gk *banein* ‘to go, walk, step’ (< **g^wə-ti-*, suffixed zero-grade form of **g^wā-*), -*batos* (< **g^wə-to-*) ‘going’, *bádos* ‘way’ (IEW 463) (Wat 33).

Another possibility, esp. for Ys *go* and Hz Ng *gon* is PIE **g^hē-* / **g^hō-* ‘to go, to leave, to depart; to abandon, forsake’ (Bomhard II: 328) (in M-A 349) **g^heh₁-* ‘to leave’: Skt *já-hā-ti* ‘to leave, to abandon, to desert, to quit’, Av *za-zā-mi* ‘to release’, Dan *gaa* ‘to go’, Grm *gehen* ‘to go’ (also found in Gk, Lat and widely in Grmc).

⁵ *Abbreviations of languages and dialects*

Alb - Albanian, *Arm* - Armenian, *Av* - Avestan, *Balt* - Baltic, *Blg* - Bulgarian, *Blt-Sl* - Balto-Slavic, *Bur* - Burushaski, *Byruss* - Byelorussian, *Celt* - Celtic, *Croat* - Croatian, *Cymr* - Cymric, *Cz* - Czech, *Dan* - Danish, *DC* - Dene-Caucasian, *Eng* - English, *Gaul* - Gaulic, *Gk* - Greek, *Goth* - Gothic, *Grg* - Georgian, *Grm* - German, *Grmc* - Germanic, *H* - Hindi, *Hitt* - Hittite, *Hz* - Hunza dialect of Burushaski, *IA* - Indo-Aryan, *IE* - Indo-European, *Ind* - Indian, *Ir* - Irish, *Irn* - Iranian, *Itl* - Italic, *JB* - Javeed Burushin, native speaker of Bur, *Khw* - Khowar, *Ksh* - Kashmiri, *Lat* - Latin, *Lett* - Lettish, *Lith* - Lithuanian, *LSorb* - Lower Sorbian, *Mcd* - Macedonian, *MCymr* - Middle Cymric, *MEng* - Middle English, *MGk* - Modern Greek, *MHG* - Middle High German, *Mlr* - Middle

**stā-* > **sta-jā* or **sta-ē* ‘to stand’, and here *y* could go back to *j* (*i*). The phoneme *y* sometimes alternating with *y* may derive from a group *-ry* or *-ny-*, as in *guyān* pl. ‘hair of one’s head’ (B 183) (< **gour-yo-* or **gun-yo-*); (N) *thóguy* ‘fine hair of small children’. Can be correlated with IE **góyur-* (gen. **gunós*) (IEW 397 **geuro-s*) ‘body hair, lock of hair’ : ON *kārr* ‘curl of hair’, Lith *gaūras* ‘down, tuft of hair’, Lett *gaūri* (pl.) ‘pubic hair’, Av *gaona* ‘body hair, colour’, OInd *guná* ‘thread, string’ (M-A 252).⁶

The Burushaski words with the alternation *y* : *y* show that *y* can also derive from a previous *y*.

Consider further the BB (p. 29) comparison of Bur with Caucasian: Chechen *ēxang* ‘woollen thread, yarn’, Rutul *arχ* ‘spring wool’, Tsakhur *arχ* ‘autumn wool’, etc. < PEC **ʔālyV* ‘wool’ (NCED 242) ~ Basque **ulhe* ‘hair, wool’ where it appears that the initial *g-* is not explained, and that the correlation of the root vowel is not consistent: DC *ē* (Chechen) : *a* (Rutul) : *u* (Basque). The semantics is once again strained, as the Burushaski meaning is very specific: ‘hair of one’s head’, whereas in the DC parallels the meaning is ‘wool’.

Irish, *MLG* - Middle Low German, *MWels* - Middle Welsh, *Ng* - Nager dialect of Burushaski, *NH* - Nasiruddin Hunzai, Berger’s Burushaski informant, *NPers* - New Persian, *NWIE* - North-Western Indo-European, *OChSl* - Old Church Slavonic, *OEng* - Old English, *OHG* - Old High German, *OIcl* - Old Icelandic, *OInd* - Old Indian, *OIr* - Old Irish, *ON* - Old Norse, *OPers* - Old Persian, *OPl* - Old Polish, *OPruss* - Old Prussian, *OSax* - Old Saxon, *OSl* - Old Slavic, *Osset* - Ossetian, *OWels* - Old Welsh, *Panj* - Panjābī, *Pers* - Persian, *PGrmc* - Proto-Germanic, *Phrg* - Phrygian, *PIE* - Proto-Indo-European, *Pk* - Prakrit, *Pl* - Polish, *PSl* - Proto-Slavic, *Rom* - Romanian, *Russ* - Russian, *RussChSl* - Russian Church Slavonic, *Sh* - Shina, *Si* - Sinhalese, *Skt* - Sanskrit, *Sl* - Slavic, *Slk* - Slovak, *Sln* - Slovenian, *Srb* - Serbian, *SrbChSl* - Serbian Church Slavonic, *SSL* - South Slavic, *Thrac* - Thracian, *Tib* - Tibetan, *TochA* - Tocharian A, *TochB* - Tocharian B, *U* - Urdu, *Ukr* - Ukrainian, *USorb* - Upper Sorbian, *VLat* - Vulgar Latin, *Wels* - Welsh, *Ys* - Yasin dialect of Burushaski.

⁶ Most probably here also Bur *phulgúuy*, in Ng *phurgúuy*, Ys *pholgó* ‘feather’ (L 293) (B 335). Berger suggests that it may be a compound word, i.e. *phul* + *gúuy* and relates the second component to *guyān*. The first component can be compared with Lith *plunksna* (old *pluksna*, *plusna*) ‘feather’, explained by Buck (246-247) as either related to *plaukas* ‘hair’, Lett *plūkt* ‘pluck’ (< IE **pleuk-* ‘flake, feather, hair’ (IEW 837) or with *k* from this group, from an old *plusna*, and thus correlated with Lat *plūma* (< **plus-mā*) ‘a feather’, OEng *flēōs* ‘fleece’ < IE **pleus-* ‘to pluck; a feather, fleece’ (Wat 68) (IEW 838). In Burushaski, either from the zero-grade **pluk-* or **plus-* (neither stem found in Indo-Iranian).

Furthermore, examples like Bur Ng *-pháguγ* ‘stick, walking stick’ : Hz *-phágo* are an indication of the facultative nature of *γ*. (and all the Caucasian and Basque examples provided by BB are with initial *m*-).

Some of the BB examples on p. 29 look interesting, but the Dene-Caucasian parallels need to be investigated further.

2.3 The uvular and velar consonants.⁷

BB states that we consider the uvular consonants “erratically occurring variants of /k/, /kh/ and /g/.” (p. 30) and give a long list of some value of possible correspondences between Bur and DC. Yet, in some of the BB examples there is an alternation of *q* and *g* (on both sides) which the authors have not explained. E.g. Bur **qorqor-* > (H) *qorqór* ‘soft porous stone’, (N) *qoqór* ‘small stones’ ~ Caucasian: Dargwa *q:arq:a* ‘stone’, etc.

< PEC **GörGV* ~ Basque **gogor̄* ‘hard’. In some examples, the vowel correspondences with DC are not consistent, and the semantics is somewhat loose, e.g. Bur *ḡul* ‘grudge, enmity’ is compared with Caucasian: Avar *ḡ^wel* ‘gossip, rumor; abuse’, Khinalug *qol* ‘offence’, etc. < PEC **Gwāltho* ~ PY **q0(?)r-* (*χ*) ‘angry’ ~ Basque **bVrhao* / **bVraho* ‘curse, blasphemy’ (a correspondence Bur *u* : DC *e* or *ā* or *o*?). Compare with the Indo-European etymology which is more robust and direct.: Bur *ḡul* ‘grudge, enmity’ (B 177) (in E-K 98: malice’). Can be correlated with IE **ḡhul-*, **ḡhuel-* : OSl *zъlv* ‘evil, malicious’, Gk *phalós* ‘bad, evil’.

In the Indo-European correspondences there are very few words with *q* or *qh* and these can be explained as a result of alternations in the Bur velar and uvular series as listed below, which are very important when reconstructing older forms. We give an overview of these alternations.

[1] Extensive variation of *g* and *ḡ*. Examples in reflexes of the Indo-European gutturals: Bur *gabí* : Ng *ḡabi* (B 164) (v.); Bur *d-óo-guḡ-* (NH) : *d-óo-ḡuḡin* (B 182-183) (v.); Bur *garra* (L 171) : *ḡareéy* (B 171); Bur ; Bur Ng *giin* (L) (B in one example: *giinišo*) : Hz *ḡiin*, Ng *ḡain* (L 184) (B 175) (v.); Bur L Ng *gašil* (B *gašil* in ex.) : Hz *ḡašil* (L 182) (B 173) (v.); Bur Ng *gono* (L) : Ys *ḡonó*, Hz Ng *ḡunó* (L 186) (B 180); Bur Ng *guyañ* (L): Hz Ng *ḡuyañ*, Ys *ḡóyañ* (L 188) (B 183) and Bur *pfulgo* : *fulyu* (L 293) : Bur *phulḡúuy* (B 335); Bur Ng *gurtsas* (L) : Hz Ng *ḡurç-*

⁷ This section is a version of Čašule 2017: 7-14.

(L 174) (B 180-181) (v.); Bur Hz Ng *giltiras* : *γiltiras* (L 166, 184) : Bur *giltír-* (B 176) (v.).

Other examples: Bur *gupáltiñ* : Ys *ğupáltiñ* (B 161); Bur *gupás* : Ys *ğupás* (B 161); Bur *gindáwar* : Ng *ğindáwar* (B 176); Bur *sagám* : Ng *sagám* (B 371); Bur *del-dugúuyoxo* – derived by B (118) < *del* + *sugúuyoxo*; Bur ²*gareéy* : ²*ğareéy* (L 180) : ²*ğareéy* (B 171); Bur Ng pl. *gutents*, *gutimuts* (L 188) : *ğutí* (sg) (B 182); Bur Ng *gutum* (L) : Hz Ng *ğutúm* (L 188) (B 183); Bur *ga* : *γa* (L 155, 177) : Bur *ğa* (B 164); etc.

Morgenstierne (1945: 66) indicates that Nager tends to have *g* in place of Hunza *ğ*, and even conjectures whether *g* and *ğ* might have coalesced in Nager. He gives as examples (from Lorimer) of such alternation: *gakali* (in B 169, only with *ğ-* and *-q-* for *-k-*), *galis* (in B 167 only with *ğ*), *gamu* (in B 168 only with *ğ*) e.g. *gīn* (in B 175, only with *ğ*).

Also consider the comments by Lorimer (L 176): “Initial *γ-* [B *ğ*] was in some cases pronounced by Nazar [the informant] as *g-* and is sometimes similarly represented in Emily O. Lorimer's Nager records.” and “Initial *γ-* is by some in many cases pronounced *g-* (...) Medial *-γ-* is also sometimes similarly replaced” (L 155). Lorimer notes also an initial pronunciation of *γ-* as ^s*γ-* (L I XXVII and XXX). Often, L gives under one entry forms with *g-* and *γ* : e.g. under *γatenč* (L 177), but often differentiates clearly the dialects: Hz *yanđir* : Ng *gandar*, Hz *γar* : Ng *gar* (L 179) and the examples above.

The extensive variation and alternation between *g* and *ğ* (and their coalescence?) in Nager Burushaski, but also more generally, needs to be taken into account when carrying out the internal reconstruction and is particularly important in the analysis of the Burushaski correspondences with the Indo-European voiced gutturals.

[2] On the dialectal alternation *q* : *ğ* in intervocalic position (with examples), see Varma (1941: 141) and Morgenstierne (1945). Note in the anlaut: Bur *ğutó*, NH also *qutó* (B 174) (v.); Bur *ğirít -i-* ‘to swallow up, to devour’ (in Sh with *g-*): Ys *qerit* (LYs 200), *qirít* (BYs 172), *dağá-* ‘to hide, conceal oneself, take refuge’, part. *nutağá(n)*, and *-staqa-* Ng and *-stağa-* (B 109, of Indo-European origin, from IE **(s)teg-* ‘cover, hide’), also Berger correlates *-qhát* ‘mouth’ with *ğatán-* ‘to read’ (Berger 2008: 22).

[3] Alternations of *k*: *q* = *askúr* : *asqúr* (B 22); *gákali* : *gáqali* (B 169); *tóokur* : *tonqur* (B 447), *śukór* : *işqór* (B 398); *górkun* : *gúrquun* (B 181); Ys *muśák* : Hz Ng *muşéq* (B 296); *purká* : *phurqá* : *burká* : *burqá* (B 337); *đuaqđuaq ét-* : *đuaq -i-* (B 134); *gókuras* : Ys *góqares* (B 177); *káţar* : Ys also *qáţar* (T 3241) (B 243) (T-P 142); Ys (B) *muşkali* : (T-P 144) Ys *muşqali*; Ys *gólkos* : *gólqos* (Berger 2008: 3.27); Hz Ng *kíçatım* : Ys *qíçí* (< OInd *kṛṣi* (T 3448) (Berger 2008: 3.6); Ys *tuék* : Hz Ng *tubáq* and *tumáq* (B 431). Note also Berger (2008: 18.6) where he correlates the suffixes *-qiş* and *-kiş*, i.e. considers them as morphonological variants.

k > *q* = (in loanwords) Bur *qarúuyo*, which Berger derives from Skt lex. *karatu* (B 343); Bur *qanjaqá* : Sh *kanjaká* < Turk *kanjiga* (B 34); Bur *qap* < Turk *kap* (B 341); Bur *qapgá* : Sh *kapgá* < Turk *kapkan* (B 341); Bur *uçáq* < Turk *oçak* (B 453); Bur *qumá* : Khw *kumā* < Turk *koma*, *kuma* (B 346); Bur *quşqún* < Turk *kuşkun* (B 347); Bur *qurúm* < Wakhi *karum*, *kurum* (B 347); Bur *quáalo*, *qáalo* : Sh *kuǎǎlo* (T 2744); Bur *qulá* < Turk *kulan* (B 345).

In one loanword from Urdu, we have a change *q* > *k* : U *qāt* > Bur *kat* (B 243). In a number of cases, Sh has *k* for Bur *q*.

k : *kh* = Lorimer (225) indicates that he was unable himself to distinguish *k* and *kh* “with any certainty” and in many words gives the entry with *kh-* but has *k-* in all of the examples. Willson (79-81) in his vocabulary gives the entries with *kh* and *k* under one heading, the same with *q* and *qh* (Ibid: 96-98).

Examples: *d-şkir-* : *d-şkhir-* (B 255); *kíro* : *khirgá* (B 255); Bur Alt *kakát* : *khakhát* (B 142); Bur *d-kuţ-* : Ng *d-khuţ-*; (B 248-249); Bur *d-kaţ-* : *d-khaţ-* (B 243); Bur *n-karan* : *n-kharan* (B 252); *-kaçí-* : *-kháçí-* (B 239); *bakór* : *bakhór* (B 31); *d-şkaray-* : *d-şkharay-* (B 473); *-ikin-* : Ng *-khin-* (B 186); Ys *kha* : Ys *d-ka-* (B 253); *du-úkikin-* : *du-khikin-* (B 254); *gukór* : Ng *khukhór* (B 257); Ys *damkuţáh* : Ng *damkhootá*, Hz *damguţá* (B 113); Hz Ng *şikáar* : Ys *şikár* and *şikhár* from U *şikār* (B 394) (T-P 148).

k < *kh* = Bur *kayáas* < Sh *khayáas* (T 2877) (B 244); Bur *kaçáar* < Sh *khaçáar* (B 239); Bur *sukdúk -mán* < U *sukh-duk*, Sh *sukdúk* (B 384).

k > *kh* = (in some loanwords from Shina or Urdu) Bur *khaní* < Sh *kaná*, OInd *kaṇikā* (T 2665) (B 251); Ys *khamarbánd* (DC) < U *kamar band* (Berger 2008: 24); Bur *khanđálas* ~ U *kundal* (BB 24); Bur *koośís* also *khoosís* < U *kōšiš* (B 256); Ys *khul* < U *kull* (Berger Ibid.); Bur *khun* < OInd *kōṇa* (T 3504) (Berger Ibid.); yet the more usual substitution in such loanwords is *k* > *k* : Bur *kamzoor* < U *kam-zōr* (B 241); Bur *kamará*

< U *kamrah* (B 241); Bur *kafšá* < U *kafš* (B 239); Bur *kaltíus* < U *kārtūs* (B 240).

kh > : *qh* = Ys *khaṭ* : Hz Ng *qha* and *qhaṭ* (B 348) (v.) Ys *kham* : Hz Ng *qham* (B 351); Ys *khátmuš* : Hz Ng *qhátimuš*, Ng also *qhátmuš* (B 355); Ys *kheré* : Hz Ng *qhirii* (B 356); Bur *qhaám* : Sh *khaám*, U *khaddar* (B 348); Bur *qhaáp man'*, *qhap* : Sh *khaáp* (B 349); Bur *qhalqhál -i* : Sh *khalkhál th-* (B 350).

k, kh > : *qh* = *k* > *qh*, note Ys *kerék* 'a type of stone' : Hz/Ng *qhiréq* (B 356) (v.), *kurūn* (L), Ng *kōrōn* also *qhurónç* 'mist, cloud' (B 359) (v.) or e.g. in Bur *qhimišdóon*, *qhamišdóon*, *qhumušdáan* 'a vessel for baking bread' where the first part is a loanword from Pers *kumāj* 'Aschebrot' (B 356) or in Bur *qhap* 'tinder' a loanword from Turkic *kabū* according to B (351).

q : *qh* = Bur *áqal* : *áqhal* (from U 'aql) (B 19); *-qarát* : *-qharát* (B 342); *qáo* : *qháo* (B 341); Hz *qihíqhiñ* : Ng *qíqin* (B 356); Hz *-qu-* : Ng *-qhu-* (B 360); Hz *pháqar* : *pháqhar* (Berger 2008: 3.5); Bur *qis-* : *-qhís-* (Ibid, 3.9); *-qat* : *-qhat* (B 355); *qistá* : *qhistá*, Ng *gístá* (B 357).

Even though there are examples that justify a phonemic status for *k, kh, q* and *qh*, the great amount of variation and alternation and inconsistent phonological substitution and integration in loanwords, suggest an unstable system, in which *q, qh* and even *kh* (and aspirates in general) would have developed through language contact with Indo-Aryan and Persian (or a local substratum ?) and influenced the original Burushaski lexical stock. Berger (2008: 19) however, believes that the velar series: *kh, k, g* vs *qh, q, ġ* are of an older date, as none of Burushaski's close and more distant neighbours have the full series. These alternations should be taken into account in the reconstruction of the Burushaski lexemes.

Nevertheless, they could also be secondary internal historical developments, not necessarily of great antiquity, especially considering their low frequency. According to Berger's (B I: 2.54) statistics of 36 of his texts (and 8855 consonant tokens) (and such statistics need to be interpreted with caution), *q, qh, kh* and *ġ* are each found at a frequency of 1%, for a total of 4% of tokens, whereas *k* ranks at 5% and *g* at 2%. Moreover, very few of the lexemes with these phonemes, esp. with *q* and *qh* belong to the core, basic vocabulary. For example, in the relatively limited number of words with *qh-* and *q-* in Berger (1998), some 100 are loanwords and a few of the other words have an expressive component. Bearing in mind that the great majority of the Burushaski core,

non-periphrastic verbs (no longer productive) belong clearly to the autochthonous vocabulary, it is indicative that under *q-* we find only 2 such verbs and a small number of periphrastic constructions; under *qh-* there are only 7 core verbs.

2.4. The tripartite sibilant (and sibilant affricate contrast).

Our Indo-European material has almost no examples with the retroflex *ʃ*, and very limited correspondences with the palatal *ś* and none with *čh* or *j* or *z*, and only 2 with *j*. The Bur words with these consonants are foreign to the Indo-European comparisons and most certainly belong to the language(s) the Burushaski was in contact. The absence of these consonantal phonemes in our correspondences, considering the phonology of Indo-European, is to be expected, so we will not venture into an analysis of BB's examples.

In regard to the laminal *s* which is well represented in our comparisons, there is an alternation in Burushaski between *s* and *ç* and *čh* which is then reflected in the analysis. Consider for example: *-čhāmanum* : *-sāmanum* (B 73) (of IE origin); *čhil* : pl. *siliming* (of IE origin); Ng *samāriš* : Ys *çamāreš* (B 373); *d-čhulġu-* : *du-sulġu-* (B 79) (of IE origin); *čhurmāriš* : *surmāyiš* (B 80); *čhu* : in Ys *çu* and *sú* (B 79); *-sárk-2* : *čharkín-* / *-čhárkin-* (of IE origin) (B 375); *bicárs* : *bisárs* (B 50); *čakoó* : *sakoó* (B 68); *d-časal-* : *d-sasal-* (B 68); *karúsal* : Ng *gurúçal* (B 243); Hz Ng *haġúc* : Ys *haġós(t)* (B 185) (of IE origin); Ng *balác* : Hz *balás* (B 33) (of IE origin); Hz *burúc* : Hz Ng Ys *burús* (B 64), *-dúmus* : *-dúmuç* (B 125).

One consistent characteristic of the BB comparisons here is the big semantic latitude: e.g. Bur *-ś* (prohibitively short for any viable etymology) 'heart, mind' is compared with developments in DC of 'soul, spirit', but also 'sky, cloud, fog', 'wind, sky', 'God, sky' (and with apparent unclear vowel correlations). And further there is Bur *-šo* 'kidney', questionably enlarged with *-m* for Proto-Burushaski by BB (from the plural form *-šomuç*). While not entirely impossible, the etymological equation is based on a very tentative possibility. The semantics is very loose again: the Bur word only means 'kidney', yet on the DC side (p. 32) we find developments like: 'sausage (made from a large intestine)', 'sinew, muscle', 'vein, nerve, root', none of which have anything to do with the concept of 'kidney'. An explanation with an *-m*

enlargement is also applied to Bur *śe* ‘wool’, where BB reconstruct questionably **śe[m]*.

There are other examples of semantic latitude: the Bur word for ‘elbow’ is correlated with DC words that mean ‘foreleg, paw’, ‘leg, calf, foot, paw’ (notably without a reconstructed form) even if one language (Udi) a similar word does denote ‘elbow’. Other problematic semantic comparisons: ‘mud’ with ‘mould’; ‘sorcery’ with ‘appearance, habit’; ‘blind’ with ‘darkness; black’, ‘wide’ with ‘high’; ‘a child’s penis’ with ‘clitoris’; ‘sun’ with ‘sky’; ‘flesh, meat’ with ‘liver’, ‘kidney’, ‘belly’ and ‘spleen’; ‘limbs’ with ‘shin-bone’ and ‘shoulder, upper back’ etc.

The extensive list of BB’s etymologies with the sibilants (pp. 33-35) involves for the most part cultural vocabulary. For example, in the long list of 39 examples (and not all of them will pass muster) there are only 4 verbs and very few entries from Swadesh’s 110 list. It may well be that a number of their examples with the sibilants suggest a Dene-Caucasian correlation, but these would be most likely borrowings into Burushaski and in that case it would be necessary to determine their actual source. It is very important that there is little to no overlap in this cultural vocabulary between the Indo-European and Dene Caucasian words.

2.5. The laryngeals

There is no mention by BB of the Burushaski laryngeals which are an important trait in spite of the fact that the only Čašule (2003) article they have consulted is mainly dedicated to them. I will just point out that there are over 80 words (see Čašule 2017a: 144-165) where there is a direct and precise correspondence between Bur and IE., including the colouring of the adjacent vowels.

PIE h_1-	>	Bur $h-$
PIE h_1e-	>	Bur $he-$
PIE $h_1\check{u}er-$	>	Bur $har- : -war- : her-$
PIE h_2-	>	Bur $h-$
PIE h_2e-	>	Bur $ha-$
PIE $h_2\check{u}e-$	>	Bur $-we- : -wa-$
PIE h_a-	>	Bur $h-$
PIE $h_ae- > h_aa-$	>	Bur $ha-$
PIE h_4-	>	Bur $h-$
PIE $h_4e- > h_4a-$	>	Bur $ha-$

PIE h_3-	>	Bur $h-$
PIE h_3e- > h_3o-	>	Bur $ho-$
PIE h_x-	>	Bur $h-$
PIE $h_{1/2}i-$	>	Bur $i-$

3. Morphology

3.1 Nouns

BB proceeds to the critique of the issues in noun morphology. They emphasise the class system of Burushaski and the parallels with Caucasian and Yeniseian which are significant.

Nevertheless the foundations of the system can be explained with a correlation with Indo-European.

Burushaski nouns are traditionally grouped in four classes: *h*-class ‘human beings’, subdivided in *m* (masc.) and *f* (fem.) (for case marking and verb agreement distinct in the singular but neutralised in the plural); *x*-class ‘non-human animate beings and individually conceived objects’; *y*-class ‘amorphous substances and abstract ideas’, and a *z*-form only used for counting.

At first sight it appears that there is a disparity between the four-gender system of Burushaski and the three-gender (< two-gender) system of Indo-European.

Nevertheless, in a recent seminal study which looks at the Romance languages, Albanian and Burushaski, Loporcaro and Paciaroni (2011) show convincingly that there are four-gender systems in a substantial part of the Romance language family: “...there indeed exist some IE languages which do possess four distinct genders, and hence display a system that, despite the many differences, has some points in common with that of Burushaski.” (Loporcaro and Paciaroni 2011: 391).

Most importantly, they include Albanian among these four-gender languages. Albanian, in addition to masculine and feminine, has two neuters, with a gender system as Loporcaro and Paciaroni (2011: 413 n. 22) argue comparable *inter alia* to that of the Romance languages and Burushaski. In Romance just as in Burushaski a distinction is made between inanimate countables and (singular) mass nouns, with similar idiosyncrasies. Bearing in mind the other correspondences between Burushaski and Albanian and the ancient and modern Balkan languages, this becomes highly significant.

As they (Loporcaro and Paciaroni 2011: 415) stress: “The existence of a semantic distinction between the two neuters makes our Romance four-gender systems more similar to the one of Burushaski (...)” They argue that the development was from an inherited three gender system, where the neuter split in two (Loporcaro and Paciaroni 2011: 421). Becoming four genders “can be a transitory step along the way towards becoming two.” (Loporcaro and Paciaroni 2011: 425).

They do not discuss the case endings which however correspond directly with Indo-European.

3.2. Case endings.

Berger (B I: 63) distinguishes in Burushaski general case endings (casus absolutus, genitive, ergative, dative-allative and general ablative) and a number of ‘specific’, composite and ‘petrified’ case endings.

In the Burushaski case system we find correspondences with the IE nom., gen., dat., and loc. endings, whereas the IE instrumental was the source for the Bur ablative, and the IE ablative was the source for Bur instrumental (which is not an uncommon development):

—IE Nom. sg. ending *zero* or *-is, -us* : Bur casus absolutus, and remnants of an ending *zero* or *-is/-es, -us, -as* : Bur *meénis* ‘female sheep over one year old which has not had young’; Bur *huyés* ‘small cattle (sheep and goats)’ (Ys also: *huís*); Ys *-hútes*, Hz Ng *-úť* and *-úťis* ‘foot, lower leg’ (this example shows both outcomes); *bélis*, Ys *béles* ‘ewe (which has had young)’; Bur *-yáťis*, (L) *-yéťis*, Ys *-yáťes* ‘head’; Ys *turmúkuťes* ‘long insect’; Ys *-yúnus* ‘tongue’; Bur *-móqış* (Hz), *-móquş* (Ng) ‘cheek’, *-móqış* (Ys) ‘face’ (< **-irs* or **-urs*); *barıs* ‘artery’; *-khúkhurus* ‘short lower rib’ (< IE **(s)ker-* ‘twist, bend’ : Lith *kr(i)áuklas* ‘rib’); Bur Ys *-núnus*, Hz Ng *-dúmus* ‘knee, hock’; *hagúc* (Ys *hagós*) ‘pass, mountain-pass’; *-úlus*, Ys *-húles*, *-húlus* ‘brother’; *dağánus* ‘pig’; *karkós* ‘young sapling’; *khándas* ‘a tick’; *-wáldas* ‘the back (anat.)’ (B 465) (< IE **plet-* ‘back, shoulders’); Ys *dúlas* ‘boy, young lad’; Ys *mátas* ‘beam’; Bur *dúrgas* ‘ghost of the deceased’; *úrunas* ‘morning star, Venus’; *túranas* ‘a kind of large black beetle’; Bur *hurúginas* ‘wave, stream, whirlpool’, Bur *phanıs* ‘chopping block’ (from IE **sph_aen-* ‘flat-shaped piece of wood’): etc (all of IE origin).

—IE gen. sg. *-es* > Bur gen. and erg. (except for *hf* sg.) *-e* (B I: 63).

—IE dat. sg. *-ei* > Bur Ys dat *-a* (T-P 23), in Hz *-a-r*, Ng *-a-r(e)* (B I: 63), with the *-r-* possibly from the Bur verb *-r-* ‘send, dispatch away

from the speaker' (B 361) (Will 50), used also in periphrastic verbal constructions.

—IE instr. *-mi* (as in Sl *каменьтъ* 'stone' (inst. sg.) and the Arm inst. sg. ending *-amb* (Beekes 1995: 114-115) > Bur abl. *-um, -m / -mo* (the latter used to form possessive adjectives) (B I: 63).

—IE abl. *-ed/-od* > Bur instr. adess. *-ate* 'on, with' (composite ending: *-a-te* (B I:63) (T-P 23). Compare with Hittite where the ablative in *-ti* took over the functions of the instrumental (Fortson 2004: 163) < IE abl. *-ed* or *-et / -od*. In Watkins (1998: 66) the ablative thematic nominal ending is given as *-ōt* < *-o-h₂at* (e.g. OLat *gnaivōd*).

—IE loc. sg. *-i* > Bur loc. (specific ending) *-i* (B I: 63).

The Bur abl. postp. *-čum* also *-čimo* 'from' (B 70) can be compared with PSI **sūnū* 'with; of, from', OPruss *sen* 'with', Arm *ham-* 'with' (IEW 904), i.e. ultimately from IE **sem-s* ~ **sem* ~ **sm-ih_a-* 'united as one, one together', from which we have Bur *-čhámanum* (L 47 *isamanum*) (B 73) Hz Ng 'first-born'. The Bur form is from a zero-grade form **sṃ-* and in Bur *ṃ-* > *-um, -am*. The Burushaski case ending *-če, -či* 'on, after' (Sh *isí, ichí* 'after it') (B 70) could well be an apocopated form of the same stem.

We have also analysed and correlated with the case system of IE the more than 30 Bur plural endings (Čašule 2017: 51-53) which contain petrified IE plural case forms.⁸

⁸ The numerous Burushaski plural suffixes (Berger I: 57) reveal a very complex system (from Čašule 2017a: 51-53).

h-plural : *-tiñ; -aro, -taro, -daro, -čaro*

hx-plural: *-o, -iśo, -ko, -iko, Ng. -yáko; -juko; -óño; -ú, -úu; -č, -uč; -nč, -anč, -inč, -ianč, -muč, -umuč, -éñč, -ónč.*

y-plural: *ñ : -ñ, -añ, -iñ, -iañ; -miñ; -éñ, -oñ, -ón-o; -čiñ, Ng -čan, -ičiñ, Ng -ičañ; -mičiñ, Ng -mičan*

We will attempt to give a coherent explanation of this array of endings.

h and *x* plurals. The pl. forms: *-nč, -anč, -inč, -ianč* and also *-éñč* and *-ónč*, may derive from the IE accus. pl. (non-neuter) *-ns*. The vowels preceding *-nč* would be a remnant of the IE stems, e.g. IE **eh₂ns* (old *ā* stems) > Bur *-anč*, IE *-ns* (pure consonantal stems) > Bur *-nč*, IE *i*-stems **-ins* > Bur *-inč*, IE *o*-stems **-ons* > Bur *-ónč*, IE **-ih₂* (accus. neuter of *i*-stems) + **-ns* > Bur *-ianč* and Bur *-éñč* possibly retaining a trace of the *h₁*-stems (Beekes 1995: 170-193) (Baldi 1999: 310). The Bur plural ending *-č, -uč* could be a remnant of the nom. pl. case forms. The plurals *-aro, -taro, -daro, -čaro* have transferred the IE patronymic suffix **-ter* to the plural.

The Bur pl. endings *-muč, -umuč* could contain the IE ablative/dative pl. suffix **-b^hos, *-mos*, or the instr. pl. *-mi*. The *-u-* in *-umuč* parallels directly the pl. forms of the *-u* stems, i.e. IE *-umos*.

3.3. Personal pronouns

BB state that the Bur pronouns “show most clearly the deep incompatibility of Bur and IE” (p. 44).

This is not a correct statement but an oversimplification, as the phonemic correspondences are not “violated”. Let us look at our analyses.

1.p. sg.

Bur Hz Ng *je*, Ys *ja*⁹ ‘I’. Berger (2008: 48, 68) states that Hz Ng *je* is secondary, as a result of palatalisation, and that *ja* is the oldest form (found in the oblique cases).

It can be correlated with IE **h₁eǵ-* (emphatic: **h₁eǵóm*) ‘I’ (M-A 454).

Zarubin (1927: 314) considered the Burushaski pronoun imported from Wakhi *žo* (*žu*), also Ishkashmi *azi*, *az*. However, as first person pronouns are seldom borrowed, it is most likely an independent development.

Note that in Burushaski there is an alternation *g-:y-* in the anlaut, which Morgenstierne (1945: 79-81), also Berger (e.g. B 150: Hz Ng *gaş* ‘price’ : Ys *garç* also *yarç* < **i-garş* (*i-* is the pronominal prefix) trace to

The Bur plural suffixes ending in *-o* : *-o*, *-iśo*, *-ko* and *-iko* could be a remnant of the *o*-stems. Berger (I 49) indicates that nouns ending in *-s*, *-ĉ* or *-n* + *-o* > *-ś*, *-ĉ* and *-y*, which may point to a former suffix **io*, where *-i-* would be a remnant of the old sg. cases, e.g. the IE gen. sg. ending *-ī* of the *o*-stems.

In the Bur pl. ending *-iśo* could be a remnant of the loc. pl. of the *i*-stems (IE **isu*), with *u* : *o* and under the influence of the other related suffixes or with the *-is-* from the singular form.

In the cases of *-ko* and *-iko* we suggest that the suffix *-ko* was reinterpreted as a plural suffix, i.e. the original singular derivational suffix was understood as a plural formation (similar to the process in the suffix *-taro* < *-tar* from the sg. form + the pl. marker *-o*).

The Bur ending *-ú*, *-úu* may be a remnant of the IE *u*-stems, e.g. the IE nom. neuter **-uh₂-*.

For the *y*-plural, see Čašule (2017a: 51-53).

The underlying supposition is that the IE system was reanalysed and applied to a different subcategorisation of nouns and through language shift, i.e. one of the languages in contact being agglutinative, the case value of the plural endings was obliterated and the IE singular case endings were generalized and added to the plural ones.

⁹ The Burushaski simplified form brings to mind similar processes in IE: Itl *io*, Spn *yo* (dial. also *žo*, *gio*), Frn *je*, Port *eu*, Srb, Croat and Mcd dial. Cz, Slk, USorb, LSorb, Pl, Ukr, Byruss, Russ *ja* [“The loss of final *-zъ* is explained by sandhi or high frequency of the pronoun” (Orel IV: 286, who notes that the details of the Indo-European reconstruction of the Slavic pronoun (the velar and the auslaut) are dubious).

an earlier **i-g-* > **y-g-* > *y-*. And further: Bur Ys *-yánji* < **gán-éi* (B 472), *-yámi* < **gámi-* (B 471) (see Berger 2008: 3.16).

The Burushaski pronoun under this proposal could be explained from IE **(h₁)eǵoh₂-* : [*(h₁)e-* > *i-* : *e-*; *-ǵ-* > *g*; *oh₂* > *a*] > **ig-a* > **yga* > **ya* > *ja-*, perhaps influenced by the languages mentioned above. Refer further to the alternation *j* : *y* in Ys *jaǵá*, Hz Ng *-yaǵá* (B 470), Hz Ng *jóǵis* : Ys *yóǵes* (B 228), *ǵajámišo* : *ǵayámišo* (B 166), *jú-* : *d-y(a)-* ‘to come’ (of IE origin), or Bur *yaǵhú* < Turk *jakki* (B 472), which illustrates a probable change *y* > *j*. Berger (2008: 4.15) gives also Ys *ten-jó* < **ten-yo*, *dan-jó* < **dan-yó* etc.

The pronominal prefix for 1 p. sg. is *a- / á- / áa-* (Berger I:6.40) (B 9), which Berger (2008: 9.1) believes to derive from *ja-* with a loss of *j-*. We suggest that the *a-* is the result of the loss of the posited intermediate *y-*, i.e. before the change *y-* > *j-*.¹⁰¹¹

Second person singular.

We agree that our analysis of the 2. p. sg. pron. can be seen as objectionable (yet see the revised etymology in Čašule 2017: 35-36). Consider however further the Bur forms *thi* ‘other; -else; other than’ and esp. the derivative *thum* ‘other, another’ (basically a 3rd p. sg. context and meaning) which correspond directly with Sihler’s (1995) reconstruction for the IE 2nd p. sg., i.e. with IE **ti/ī* (*tu/ū*). We correlate them with Bur *un*, *uñ*, *um* ‘you (sg.)’, positing loss of the initial *t(h)-* through disambiguation (‘other-you’ : ‘other-3rd person’) and possibly because of the high frequency of the pronoun or sandhi. Note that *t-* is a marker of 3rd p. as in Ys *te*, *ot* ‘that one, it’. The Bur pronoun corresponds with IE **tuh_xom* (emphatic form of **tuh_x* ‘you sg.’ (M-A 455) (Schmidt 1978: **tu-H-om*).

Plural pronoun forms.

First person plural.

The pronoun: *mi* ‘we’ (gen.-erg *míi*; dat. (reduplicated) *mímar*, abl. *míicum*) and the pronominal prefix *mi-* / *mí-* / *mé-* / *mée-* (B 286) can be correlated directly within Indo-European with Arm *mek’*, Blt-Sl **mes* e.g. OPrus *mes*, Lith *mės* and PSI **my* ‘we’ < IE **me-* (G 407) (Fortson 2004:

¹⁰ It is not at all clear how BB derive **a-* from **ya-*.

¹¹ Note in this respect the exact parallel with Slavic, i.e. OChSl *azъ* : PSlav **ja(z)ъ* ‘I’.

127) (possibly in both cases from an older Nostratic **mä* < **mi* ‘I’ (Gluhak 407-408) (see also Čašule 2017: 195 and Chapter 1. (2.3). The Burushaski pronominal prefix *mi-* / *mí-* / *mé-* / *mée-* signals that the forms with *-e-* are older (and from *mée-* > *mi*) and could go back to **mes*.¹²

Bur *mi* ‘we’ and the pronominal prefix *mi-* / *mí-* / *mé-* / *mée-* can be correlated directly within Indo-European with Arm *mek'*, Blt-Sl **mes* e.g. OPrus *mes*, Lith *mēs* and PSI **my* (Fortson 2004: 127) for which there is a variety of explanations. (For the IE 1 p. pl. reconstruction, note Szemerényi 1996: 8.4.3: **uei-* and **ns-me-s*; GI 254: IE **mes-* alongside with **uei-* – also in Schmidt (1978), with **uei-* considered younger. In Katz (1998), 1. p. pl. **uény(e)s*, **mes*.)

The correspondence with Indo-European is direct.

Second person plural.

Bur *ma*, Ys also *wa* (Tiffou 2014: 323), which is most probably the older form and the pronominal prefix *ma-* / *má-* / *máa-* can be correlated with IE **uos*, the enclitic and oblique form of **iuh_s* ‘ye’, (Schmidt 1978: nom. **yu-H-s*, obl. stem **wos-*) (Meier-Brügger 2002: accus. **us-mé*, **wos*) (GI 254 give for the 2. p. nom. pl. only **wōs*) (e.g. Lat *vōs* ‘ye, you’, PSI **vy* ‘ye, you’, OPruss *wans* ‘you’) (M-A 455).

Bur *m-* would be under the influence of 1. p. pl. or of the accusative. In Bur *wo* > *wa*, and no Burushaski word has *wo-* in the anlaut. Note also Bur *mawé* ‘you pl.’ (B 284), which could be a reduplicated form, containing the “nucleus **we-*” (Szemerényi 1996: 217).

3.4. Interrogative pronouns

While it appears at first sight that the “**mV-* interrogative is much more richly attested in DC than in IE” (p. 47), the fact that in IE it is found in Anatolian, Tocharian and Celtic indicates it is archaic and not peripheral. Furthermore in the correspondence with Burushaski, the vowels also match, whereas for DC the generic *V* is used.

Berger states that all Burushaski interrogative/relative pronouns are derived from the stems *me-*, *be-* or *ami-* and indicates that these are

¹² In regard to the loss of the final *-s*, consider Edel’man’s (1997: 207) careful analysis of the phonological make up of the case and other grammatical endings – she notes the severe restrictions in the consonantism of the clitics and the affixes.

most probably of identical origin, noting the *m* : *b* alternation in Burushaski (B I: 82, f30). For example: Bur *men* sg. and *h* pl., also *ménik* pl. ‘who?, what?; someone, anyone’. *men ke* is used as an indefinite relative pronoun, also in the meaning of ‘many’ (B 286) or Hz Ng *be* ‘what?, how?; some, any’, Ys *bo* (B 46) (note the dialectal *e* : *o* variation). Also *ámin* hmf, *ámis* x, *ámit* ‘which, who’, interrogative, relative and indefinite pronoun (Ys with *-e-* in the inlaut: e.g. *ámen*, *ámes* etc. – note the dialectal variation *-e-* : *-i-*). From all the forms and the dialectal variation it follows that the Bur forms go back to **me-* or **mi-* as in Indo-European, which is not the case with DC. Note also the correlation with a suffix *-n* in Burushaski and Hittite.

The Indo-European interrogative/relative pronoun is **me-*, **mo-* or actually within Nostratic **mi-*, **me-* (Bomhard, Kerns 1994: 524) : e.g. TochA *mäkte* ‘how’, *mänt* ‘how’, *mäksu* ‘who’ (interrogative, relative), Hitt *mān* ‘whether, when’, *masi* ‘how much, how many’, OIr *mā* ‘when’, which M-A (457) consider “a very likely candidate for PIE status”. Importantly, according to Bomhard and Kerns’s IE and Nostratic reconstruction (1994: 524) the correspondence with Burushaski is exact.

3.5. Demonstratives

We outline first the basic distal demonstratives together with their direct and full derivation from Indo-European. In Table 1. we summarise the remarkable correspondences between the Indo-European and Burushaski demonstrative pronouns.

DEMONSTRATIVE PRONOUNS	
<u>Indo-European</u>	<u>Burushaski</u>
	<i>Distal Singular</i>
<i>*i-</i> / <i>*e-</i> dem. and pers. pron.	<i>i- / í- / é- / ée-</i> pron. prefix, 3 p. sg. <i>hmxy</i> .
<i>*i-</i> + <i>*eno-</i> or <i>*i-</i> + <i>*ne-</i>	<i>iné</i> , <i>in</i> , Ys <i>in</i> , <i>ne</i> ‘that one; he, she, it’ (<i>h</i>)
<i>*is-(e)</i> ‘it’	<i>isé</i> , <i>es</i> , Ys <i>se</i> , <i>os</i> ‘that one, it’
(x) <i>*id-</i> or <i>*it-(e)</i> ‘it’	<i>ité</i> , <i>et</i> , Ys <i>te</i> , <i>ot</i> y sg
‘that one, it’ (<i>y</i>)	

	<i>Plural</i>
* <i>ay-</i> , * <i>u-</i> , * <i>ye-</i> ‘that, other’	<i>ué, u</i> ‘they, those, those people, the’ (<i>h</i>)
* <i>is-(e)</i> ‘it’ or * <i>it-se</i>	<i>icé, ec, Ys cé, oc</i> ‘those’ (<i>x</i>)
* <i>(i)-ge</i> assev. emph. part.	<i>iké, ek, Ys ke, ok (y)</i> ‘those’
	<i>Proximate</i>
* <i>kó-</i> , * <i>kí-</i> ‘this one’	<i>kho-</i> or <i>kh(i)-</i> ‘this one’ added to all distal pron.

Table 1. The correlation of the Indo-European and Burushaski demonstrative pronouns. And further, the correspondences in the demonstrative adverbs:

<u>Indo-European</u>	<u>Burushaski</u>
	<i>Distal</i>
* <i>tó(r)-</i> , * <i>tē(r)</i> ‘there’ + * <i>-le</i> dist. part.	<i>teéle, toóle, Ys to, tóle</i> ‘there’ <i>-le</i> also in <i>khóle</i> ‘here’, <i>éle</i> ‘there’, <i>itéle</i> ‘there’ <i>tóorum</i> (Ys <i>taúrum</i>) ‘that much, so much’
* <i>t-ali</i> ‘such, of that sort’	<i>taíl</i> ‘as it is, such, so’ and <i>-tali</i> adv. ending
* <i>tam-</i> ‘so much’ < * <i>to-</i>	<i>tané</i> ‘equal to, as big as, as much as’ <i>ṭam-</i> , <i>tan-</i> intensifier <i>éle</i> or <i>eléi</i> or <i>aléi</i> ‘there’ <i>itéle</i> ‘there’
* <i>e-</i> + * <i>-le</i>	<i>íti, it</i> ‘that side of; relating to this, of this kind’
* <i>it-</i> + <i>éle</i>	
* <i>h₁ith_a-</i> ‘thus’	
	<i>Proximate</i>
* <i>kó-</i> + * <i>-le</i>	<i>khóle</i> ‘here’
* <i>kí-</i> + * <i>h₁ith_a-</i>	<i>khi+iti</i> = <i>khíti</i> ‘on this side, here’, <i>khít ne</i> ‘here’.
* <i>ei-</i> ‘this’	<i>akhíl</i> ‘like this’ [<i>< a + khi + l(e)</i>] <i>akhóle</i>
* <i>do-</i> + * <i>ei-</i>	<i>dakhíl</i> ‘like this’
* <i>dā</i>	<i>da, dáa</i> ‘again, also, and’ and d-verbal prefix

Table 2. Summary of the correlation of the Burushaski demonstrative adverbs with Indo-European. For a detailed analysis of the correspondences of the complete systems, see Čašule (2012) or (2017: 39-46).

3.6. Postpositions

Note the significant correspondence in the Burushaski postpositions with Indo-European.

—1. Bur Ys *khaṭ* Hz Ng *qhaṭ* (in L 239, also *kat*) ‘down’ (B 348) and 2. the postposition *-káat*, and adverb *káat*, (in LYs 155, also *-kāt* and *-khāṭ*) ‘with, along with’ (B 238) from PIE **kat-h₂e* ‘down, with’ (Hitt *katta* ‘down, with, by, under’) (M-A 169).

—IE **ko(m)* ‘with, side by side’ (M-A 646), in IEW (515, 612-613) **kom*, **kā*, **kǎ*, eg. OIr *com*, Lat *cum* ‘with’, OEng *ge-* verbal prefix, PSI **k_b* ‘toward’, Gk *koinós* ‘together, in common’, OInd *kam* ‘toward’. Old in IE. Compare with *káa* ‘with’, “postposition preceded by the genitive or general oblique case of the noun. It may be used with the prefixal forms of the pronouns.” (B 237) (L 225-226).

—Bur abl. postp. *-ćum* also *-ćimo* ‘from’ (B 70) can be compared with PSI **sūnū* ‘with; of, from’ (IEW 904), i.e. ultimately from IE **sem-s* ~ **sem* ~ **sm-ih_a* ‘united as one, one together’.

3.7. Verb

BB touch on the verb very briefly and they essentially discuss only the verb template, so we will not dwell on this aspect very much. See the elaboration in Čašule (2017: 56-58).

I would like to however present the close agreement of all the Burushaski non-finite verbal forms with Indo-European, as well as in the verbal affixation.

3.7.1 Verbal prefixes

—IE *-s-* mobile in verbs (considered by some to be of causative origin) : Bur *-s-* verbal (causative or semantically empty) prefix: Bur *d-karan-*, *d-skaran-* ‘surround’ (B 242) < IE **(s)ker-* ‘turn, bend’ (‘ring, curve, circle, surround, encircle’).

—IE **do-* (demonstrative stem) (e.g. Sl *da* ‘and; in order to, yes’, and verbal prefix *do-* ‘up to, towards the speaker’) : Bur verbal prefix *d-* used to form secondary intransitives (B 108) or action directed towards the speaker (e.g. in verbs like ‘come’, ‘bring’ etc.) (analogous to the semantics of the Slavic prefix), which is linked with Bur *dáa* ‘again, and,

also, moreover; another, other' (Will 33) (B 108), and the *d-* in *dakhil* 'like this, thus', an alternative form of *akhil* 'same' (B 110).

—IE **an⁴*, **ana*, **anu*, **ano*, **no* preposition 'on' (OEng *an*, *on*, *a* 'on' and prefixed **on-*), OChSl *na* 'on, at', [in Slavic also a productive verbal prefix] also the Lith verbal prefix *nu-* (IEW 39-40) : Bur *n-*, *nu-*, *ni-* verbal prefix to form absolutive verbal forms (which also indicate the completion of an action) from verbs that do not have the *d-* prefix (B 298).

3.7.2. Verbal suffixes

—IE *-iō-* formations, the most important productive present suffix of late Indo-European.

—Bur present stem involves yodation or palatalisation of the consonants of the past tense stem (with a formative **-y-*, see Morgenstierne (L: I.XX).

—IE **-n-* and **-nu-*, a verbal suffix marking present tense, usually transitive, as in **mi-nu-* 'to reduce' (Wat 59). Szemerényi (271) indicates that originally only *-n-* or *-ne-* was the formative element and developed into *-nā-* and *-neu-*.

—Bur suffix *-n-* / *-an-* / *-in-* does not have a particular function and we find verbal forms with and without it – e.g. *-múruṭ-* : *-múruṭin-* 'cut' (B I:212).

—IE verbal *-sk-* formations are productive in some IE languages, whereas in others there are only traces of them. Szemerényi (273) considers *-sk-* to consist of two elements *s* + *k*. It had an inchoative function in Latin, whereas in Hittite it had an iterative, durative or distributive meaning, and in TocharianB it developed a causative sense : apparently all from a basic iterative-durative sense (iterative-intensive – Ramat; causative-intensive – Couvreur, apud Szemerényi 273-4.).

—Bur *-eés* [with a change *-sk-* > *-ks-* > *ś* in Burushaski is a widespread suffix for deriving abstract nouns, mainly used in periphrastic verbal forms: *śuray-eés* 'happiness, enjoyment' also used as an adjective, without a basic form (L 335) (B I:211); *balan-eés man-* 'to writhe, wallow' used along with *balán man-* (L 67). The forms with this suffix are most productive in compound verbal constructions, where the abstract noun is not used independently: *darés-* *-i-* 'to endure, hold out' (BYs 141).

—Bur verbal (causative) suffix *-ia-* continues the IE causative *-eīo-* see e.g. *balúuyas* (B 35), *bišaiyas* (L 83), *bisháyas* (Will 24) or *duróoyas* (B 126).

3.7.3. Non-finite verbal forms

All the Burushaski non-finite verbal forms correlate with Indo-European.

3.7.3.1. Infinitive

The Bur infinitive ends in *-as* (B I: 12.16) and can be compared to Lat *-re* < **-se* or **si*, also found in Vedic abstract nouns in *-(a)s* (Szemerényi 325).

3.7.3.2. Participles and gerunds

—IE deverbative-adjectival ending **-no* (> participle in Sl) : Bur past (absolute) participle in *-in/-n/-nin* (B I: 12.13-12.14).

—IE desiderative in *-s-* which formed the base of the present tense in *-se/o* and developed into the bases of the present tense in **sġe/o* or **si* (e.g. Lat *laccio*) : Bur gerund II in *-ś*, *-V-ś* (E-K 1970:70) used with a desiderative meaning (*sġ* > *ś*).

—IE adjectival compound suffix **-enko-*, **-ŋko-* > *-um* (the main adj. suffix in Bur), derived historically by Berger from *-uñ* > e.g. *burúm* ‘white’ etc. (B I: 5.1), which is also used in the *m*-participle (B I: 143) (‘static participle’): *étum* ‘done’, *mánum* ‘become’ (L 108) (a development analogous to the Germanic one in Indo-European).

Especially important is an indicative shared development from IE **mŋ-*, **men-* ‘remain, stay’ (> ‘be, become’) (IEW 729) : Bur *man-* ‘be, become, turn into; become (absolute) > come into existence, occur, take place; belong to; proceed to, be about to; be necessary to do s-thing or for s-thing to be done’ (B 278). For the relevance of the Indo-European middle passive for the understanding of the development of the Burushaski verbal system note further the very productive use of Bur verb *man-*, also used in forming periphrastic verbal constructions (B 278) in compound verbs, in the sense ‘become’, ‘be’ (or sometimes semantically empty) + another stem, e.g. *hop -mán-* ‘be puffed up, (of body parts) swell up suddenly’, *lam, lálam man-* ‘shine, burn, light up; to beam’ (B 261), *háak man-* ‘help s-one in their work’ (B 184). While this is a widespread pattern and structure in the languages surrounding Burushaski (Bashir p.c.), it seems to point also *materially* to the functions of the IE suffix *-meno-* or *-mno-* in the passive middle, e.g. Gk *epómenos* ‘following’, Phrg *gegrimenos* ‘written’ (Diakonoff-Neroznak 1985: 111), which has

also been derived from the same IE **men-* ‘remain’ (Szemerényi 1996: 320-321) and is a shared innovation in Greek and Phrygian.

Note also the verbal augment, found in the Bur verb *ét-* (B I: 19.36), in IE **e-* also in Phrygian, Greek, Sanskrit (the augment is *a-*) and Classical Armenian.

3.8. Numerals

BB label my comparisons of the Bur numerals as “ingenious” (p. 48). The numeral system of Bur is very complex and we can only discuss here the IE etymologies of ‘one’, ‘two’, ‘six’ and ‘nine’. For the other numerals, refer to Čašule (2009b).

[Number 1] Bur Ys *hen*, Hz Ng *hin h*, *han xy*, Ys *hek*, Hz Ng *hik z* ‘one’ (B 199) (the form *hun* in Hayward (18) is erroneous, and not accepted by Berger). Berger (B 198) correlates *hik*, *hek* with IA (T 2462), i.e. with *hekh* ‘one’ Kohistānī dialect of Shina (with an ‘emphatic’ *h-*) (Berger 1992: 245), from OInd *éka* ‘one’, but considers the forms in *-n* autochthonous.

There is a straightforward correlation with IE **h₁oi-no-s* [IEW 281-6 (**oi-nos*); Wat 59 (**oi-no-*)] < **e-/*o-* deictic pronoun [IEW 281-6 (**e-*, **ei-*, **i-*)] + particle *-no-* (Celtic, Italic, Germanic, Baltic, Slavic, Albanian) (M-A 398-9). Thus we would have: **h₁e-no-* > Bur *hen* : *hin* < **h₁i-no-* and **h₁oi-no* > Bur *han*. Also the Bur postp. indef. article *-an*, Ys *-en h*, *-an xy* (B 18).

All the Burushaski forms are accounted for and the phonematic correspondences are direct and consistent.

[Number 2]

Bur *altó yz* Ys (Zarubin) *haltó*, *altán h*, *altá*, *altác x* (Berger 2008: 10.4) can be derived from IE **h₂elio-* ‘second’, e.g. Gaulish *allos* ‘second’ (Beekes 1995: 216), Lat *alter* ‘other of two’ from IE **h₂élios* ‘other’ < **h₂ol-* ‘beyond; from that side’ (Wat 2-3). From this root Bur has *hóle*, *hólo* ‘out, out of’ and *hólum* ‘outside, other, foreign, strange’ (B 201-202).

-t- would be from the IE suffix **-to*, used in the forms of the ordinal numbers (in Burushaski also an adjectival suffix as in IE), also found in Bur *huntí* ‘nine’, *wálti* ‘four’, Ys *biśindu*, Hz Ng *miśindo* ‘six’ (*-nd-* < *-nt-*) and *čhundó*, *čhundí* ‘five’ (for the rather complex and tentative correlation of this last numeral with IE, see Čašule (2009b: 171-173). In Slavic many of the numerals derive from ordinal forms, ‘5’ = **pęť* < **penk^w-to-s* (also 6 and 9) which addresses the concern of BB that

we are dealing with a cardinal number. Berger (2008: 77), apart from IE, also suggests that in the Burushaski numerals we have a suffix *-to*.

BB again using their erroneous treatment of *-lt-* come to unsubstantiated conclusions.

[Number 6]

—IE **sueks-*, **seks*, **kseks* and directly relevant for Burushaski: **ueks-* (: **uks-*) ‘six’ (the latter forms, without *s-*, are considered to be the original ones, with the *s-* of ‘seven’ taken over (Beekes 1995: 213) : Bur Ys *biśindu*, Hz Ng *miśindo hxy*, Ys *biśinde*, Hz Ng *miśindi z* ‘six’ (B 289) (*-Vndo* is a suffix: *balándo* ‘strong’ (B 33), or *bargúndo* ‘yeast, leavened dough or bread’ (B 30) or *jiindo* ‘living’ (B 226). In Bur *ks* > *s* and *u-* > *b-* : *m-* and *e* > *e*.

[Number 9]

Bur *huntí*, Ys *hutí z*, *hunćó*, Ys *hućó hxy* ‘nine’ (B 205) derives from IE **h₁nun̥-to* as e.g. in the Greek form *énatos* ‘ninth’ from **h₁néun̥* ‘nine’ (dissimilation of *n*) found throughout IE (Beekes 1995: 216).

As with number [2] we have in *-t-* the outcome of IE **-to*, same as in OSl *devět̃* ‘nine’ (with *d* dissimilated from *n*). Berger (2008: 79) and BB suggest that Bur *huntí* should be interpreted as ‘one from ten’. This is problematic as the Bur word for ‘one’ is not *hun* (Berger does not accept the erroneous Hayward form, and posits a change *hin* > **hun*) and it is impossible to trace *-ti* to *toórum* ‘ten’.

3.9. Adjectives

There is no mention of the adjectives in BB’s criticism. Almost all of the adjectival suffixes correspond with IE: —IE relational adj. suffix *-iō-*, *-iō-* ‘of or belonging to’ (Wat 103) :

Bur suffix *-yo* and *-yo* e.g. *huyóo* ‘wool-bearing animal, sheep’ < *huyés* ‘small cattle (sheep and goats)’ and further *mámayo* ‘endearing term for ‘mother’ < *máma*, *mámo* ‘mother’, *karóoyo* ‘with curved horns’.

—IE suffix *-ko(s)*, secondary suffix, forming adjectives : Gk *Libu-kós* ‘Libyan’ :

Bur suffix *-ko*, also *-kus*, e.g. *datú* ‘autumn’, *datú-ko* adj. ‘autumn-’, *datú-kus* ‘autumn season’, *bái* ‘winter’ (noun) > *bái-kus* ‘winter-’ (adj.) (< IE **-ko-s*: Lat *-icus*) (B I: 207); Bur *phúko* adj. ‘small, tiny’ (B 334) < IE **pau-kos* ‘little, few; small’. Also the nominal suffix *-k*. —IE *-isko* composite suffix related to the previous example, ‘to indicate affiliation or place of origin’ or rather IE **-i-sk* ‘formant of adjectives and

noun diminutives' (Illič-Svityč 1976 I : 204, who indicates that the *-i-* is probably from the *i-* stems, a continuant from many old root stems), in Watkins (36) IE **-isko*, compound adj. suffix, forming relative adjectives, denoting origin in Slavic, and Baltic, found also in Germanic and Thracian : OHG *diut-isc* 'pertaining to the (common people)', OChSl *ръм-ьскѣ* 'Roman' (Fortson 121):

Bur suffixes *-iski*, Ng *-áaski*, also *-ki* (B I 249) with the same function: *Burúšín* 'Burusho' : *Burúšaski* (B 491), *hir* 'man', Ys *huríski* 'of men, men's' and with a diminutive meaning Bur *-ísk*, NH Bur *-sko*, Ys *-ís* 'young (of animals), young one', e.g. *buś isk* 'kitten' < *buś* 'cat' with the force of a diminutive.

—IE **-en-* suffix forming nouns and adjectives (with many variants) (Wat 23):

Bur *-(e)n*: Bur *meén* 'old' (B 285) < IE **meh₁(i)-* 'grow', Bur *gén* 'thief' < *gě-* Ys 'steal' (B 175).

—IE adjectival compound suffix **-enko-*, **-ŋko-* :

Bur *-um* (main adj. suffix), derived historically by Berger < *-uñ* > e.g. *burúm* 'white', *dağánum* 'thick' (B I: 5.1), also used as a participial ending.

—IE **(o)lo-*, secondary suffix forming diminutives (in Latin in various adj. suffixes) :

Bur nom. and adj. suffix *-lo* : Bur *čhar-eélo* 'climber' from *čhar* 'stone', *đakaálo* 'blacksmith' from *đak -i-* 'to hammer', *nams-iilo* 'greedy' (B 210, 19.24), *karéelo* 'wether, ram' : *káru* 'male ibex' (suffix found also in Shina).

—IE **-to* also **-eto-*, **-oto-*, adjective forming suffix (marking accomplishment of the notion of the base) :

Bur (also Shina) adj. suffixes *-to*, *-to*, e.g. *bambú* 'ball' > *bambúto* 'thick', *dúrgas* 'ghost' > *dúrgas-úuto* 'lean' (B I: 210, 19.24).

4. Lexicon

BB state that "one would expect [Bur] to have something in common with the inherited IE lexicon" (p. 54) and proceed to argue that this is not the case with our comparisons. We will demonstrate that this is outright incorrect.

4.1. Kinship terms

BB state that there is no resemblance whatsoever in kinship terms between Bur and IE and that Burushaski lacks the IE structure in kinship terms ending in *-ter*.

This is incorrect. Burushaski has the *h(x)* pl. suffix *-taro* with the variant form *-čaro* or *-daro* is added almost exclusively to words denoting relations (B I: 48), e.g. *--skir*, pl. *--skindaro*, Ng pl. *--skirišo* ‘father-in-law, wife's father or wife's father's brother or husband's father’ (B 381), Ng pl. *-skirīnc*, Ys pl. *--skirstaru* and *--skirišu* (BYs 175) from IE **s₁uékuros* ‘father-in-law’; *máma* ‘mother’, pl. *mámačaro* (B 277), *’mi* pl. *-mičaro* ‘mother, aunt on mother's side’ (B 286) (< IE **méh_atēr* ‘mother’), *-yás* ‘sister-in-law’, pl. *--yáčaro* and *-yástaro* (B 474) < **suésōr* ‘sister’ (in Bur we suggest a dissimilation from the zero-grade form **s₁uēstr* > **yestr* > **yes-taro* > **yas-taro*; Bur *-úy*¹³ and *-ú* pl. *-úyčaro* and *-účaro* ‘father; father's brother; in pl. forefathers’ (B 460) < IE **h₂éuh₂-*, **h₂éuh₂iios* ‘father's father, ancestor on father's side’; *’ncō* pl. *-ncōčaro* ‘father's sister; mother's brother's wife’, which can be compared with IE **(s)nusós* ‘daughter-in-law’, see Bomhard (888-889) who provides an Afro-Asian parallel for the Indo-European stem and reconstructs a Proto-Nostratic stem **nus^y-*, **nos^y-* with the meaning ‘woman, female; any female connected by marriage’; also Bur *-úyar* pl. *-úyarišo* Hz Ng; Ys *-yúhar* ‘husband, married man’ from IE **uih_xrós* ‘man, husband’; Ys *dúlas* ‘boy, young lad’ : Lat *filius* ‘son’, Lett *dēls* ‘son’ etc.

In Burushaski, through morphological re-analysis the suffix *-taro* was understood as part of a plural formation (*-tar-o* > *-taro* : *-čaro*) *-tar-* + *-o* (the *-o* is an *x pl* ending on its own right) or was simply lost in the singular. For an extensive discussion of the Burushaski plural noun forms and the retention in the plural of phonemes and morphemes which have been lost in the singular, see Čašule (2012b).

Consider in more detail e.g. the etymology of the Bur word for ‘mother’:

Bur *máma* pl. *mámačaro* ‘mother, aunt (on mother's side)’ (L 253: also *māma*) (B 277)

Note further Bur *’mi* (pl. *’mičaro*) ‘mother; mother's sister, aunt, on mother's side’ (B 286-287).

¹³ As BB admit themselves, their Dene-Caucasian etymology of this term is “highly speculative” (footnote 99, p. 54).

There is a direct correspondence with IE **méh_atēr-* (M-A2 213) (in W-I-S 457: **máh₂ter-* / **máh₂tr-*) ‘mother’. “Based ultimately on the baby-talk form *mā-* with the kinship term suffix **-ter-*” (Wat 51) (IEW 700: **mātér-*):

Burushaski *-mi* ‘mother’ may indicate a derivation from a lengthened grade **mē-* (after the loss of the laryngeal in a stressed syllable), perhaps by application of Eichner’s Law which is formulated as “Preservation of the timbre of lengthened grade *ē* in the vicinity of *H₂*.” (Eichner 1972: 78).

On the other hand it could be continuing IE **amī̃* ‘mother’ (IEW 36), with aphaeresis of the initial *a-*.

It is also very significant that (as in Latin and Greek) we have the correlation ‘mother’ : ‘breast’ from the same stem in Burushaski: *-mámut*, Ng *-maámo*, Ys *-mámu* ‘a woman’s breast; nipple (male or female)’ and by further semantic extension Bur *mamúto* ‘sucking, immature; suckling’ and Bur *mamú* ‘milk’ (B 276-7). The Burushaski words *-mámut* and *mamúto* can be compared with the Latin derivatives *mammātus* ‘furnished with protuberances or spouts’ and *mammeātus* ‘full-breasted’ (pf. participles in *-ātus*).

According to both Lorimer and Berger, none of Burushaski’s neighbours share this development. Moreover, in Burushaski it is the *basic* word for mother.

In their counterexamples, BB cite a proto-Bur form **-s* which is incorrectly reconstructed (once again with a monoconsonantal etymon) of a word which means ‘young (of animals)’ and only jokingly ‘of children’ (p. 55). This word must, however, be reconstructed to **(i)sk-o*: *-sk*, NH Bur *-sko*, Ys *-ís* ‘young (of animals), young one; also jokingly for children’. It has the force of a diminutive.

There is a direct connection with IE **-i-sk* ‘formant of adjectives and noun diminutives’ (Illič-Svityč 1976 I: 20) in Wat (36) IE **-isko*, compound adj. suffix, forming relative adjectives, denoting origin in Sl, found also in Grmc and Thracian. It is the same as the Bur adj. suffix *-ki*, *-ski* (e.g. *Burúšaski* < *Burúšín* (B 491) and the related *-ko-*, *-kus*, *-kuš* with identical functions in Čašule 2003b: 71-2, also Bur *-um* adj. and participial suffix < IE *-enko*, *-ŋko-* (composite suffix with *-ko* as the second component).

There are ~30 Burushaski terms that correspond with Indo-European (we have devoted a whole article on this issue, see Čašule 2014) and we cannot cover all of them here for reasons of space.¹⁴

4.2. Anatomical parts

BB failed to access our article devoted exclusively to the correspondences between IE and Bur in the semantic field of names of body parts (Čašule 2003) and this has made them claim incorrectly that this is not the case.

They suggest some examples of their own, but not without problems. The etymologising of Bur *-s* ‘heart, mind’, a monoconsonantal monophonemic stem, apart from the semantic latitude (comparison with ‘sky, cloud, god, wind, breath, god’ even ‘spirit’) is futile.

Rather than discuss the BB examples of what IE continuants are *not* in our comparisons we will provide a highly abbreviated sample of the ~70 names of body parts shared between Burushaski and Indo-European analysed in a separate article (Čašule 2003) and updated (Čašule 2016: 72-97).

Such a large number of correspondences in names of anatomical parts indicate a very close relationship.

1. ‘tongue’ Bur *-yúnus* Ys, in Hz Ng *-úmus* ‘tongue’ (**u-úngus*). The Ys form is older. Derives from IE **(d)ṅghū-* ‘tongue’ (E. Hamp’s reconstruction) with initial *d-* absent as in Slavic and Baltic.

2. ‘urinate’ Bur *hará-*, neg. Hz *oóara-* ‘urinate’, *-wara* ‘pissen lassen’. Berger includes also *harált* ‘rain’. Also *héras* ‘weep’ with a neg. form *oówaras* identical to the neg. of *hará-* ‘urinate’. The Bur forms derive from PIE **h₁u_{er}-*, **h₁u_{er}-* ‘rain’ (>‘urinate’): Gk *ouréō* ‘urinate’, Lat *ūrīna* ‘urine’.

3. ‘sperm, semen’ *gonó* (Ys), *gunó* ‘seed (not of cereals); sperm, semen’, Ng *gono*. There is a direct correspondence with Gk *gónos* ‘sperm, semen’ < IE **ḡonh₁-* in words for ‘beget; bear; produce.’

¹⁴ One of the BB examples is wrong and is a loanword from Tibetan, e.g. Bur *-čo* ‘a man’s brother, a woman’s sister’ is a loanword from Tibetan (Purik *a-co*, Kinnauri *acho*, Sherpa *ajo*, Tibetan *jo*, all ‘elder brother’), as noted by Parkin (1987: 327).

4. 'cheek, face' *-móqiş* (Hz), *-móquş* (Ng) 'cheek' (L 268); *-móqiş* (Ys) 'face', *-móqoṭ* (Ys) 'cheek' (B 291). From an older stem **moqur-ş* (note e.g. Bur *gaş* 'price' derived internally by Berger from **gar-ş* (in Ys *garç*, *garş*) or *baş* 'bridge' < *barç*, *başç*. From IE **smókur-* 'chin, beard'.
5. 'nasal mucus; nose' *-mús* 'snot, nasal mucus', Ys also 'nose'. From IE **meug-* 'slimy, slippery', Gk *muxa* 'mucus', Lat *mūcus* 'mucus'. (*gs* > *ks* > *ś*).
6. 'bone' *-ltín*, *tin*, Ys *ten* 'bone; blood-relation'. Compare with IE **h₂ostn-* (with heteroclitic characteristics) 'bone'. In Bur: **h₂ostn-* > **ostin* > **lt-ostin* > **lt-stin*.
7. 'ear' *-ltúmal* 'ear' (B 269) (L 252). Compare with Hitt *istaman* 'ear', Luw *tūm(m)an(t)* 'ear' (from a meaning of 'orifice') derived from the IE stem **stómŋ-* 'mouth (orifice)'.
 8. 'eyebrow' *bur* 'a single hair (of man or animal)' (L 88) (B 63) also and *-lpur* 'eyelash', *-lpurkiş* 'with thick eyebrows' (B 268), explained by Lorimer as (**l+būr*) (L 250). Compare with IE **bhrúh_s-* 'eyebrow'.
9. 'face' *-skil* 'face', Ng *-śkil*, Ys also *-skul*. Compare with Russ *skula* 'cheekbone'.
10. 'vertex, centre line of head' *-thán* and *thanes* 'top, tip, centre line of head, vertex 'top of mountain' : PSlavic **těmę* 'vertex'.
11. 'joint', 'part of limb' *khirc* '(big) joint; part of a limb between two joints' (L 234) (B 255) (*u:i/_r*) also *-khúkurus* 'short rib' (B 257). Can be compared with IE **krūs-* 'shank, leg, part of leg'.
12. 'hand' *-rén*, pl. *-réiñ*, *-réiñciñ* Ys : Hz Ng *-riiñ* 'hand' (L 304) (B 364), Bur has the underlying verb *du-úr-* 'to turn, (of mill) to work, to grind', also *-wáre* 'around' (B 465). This is a very specific correspondence with Baltic and Slavic.

Compare with IE **uer-k-* and nasalised IE **urenk-* 'to turn, wind, bend' > **uronkā-* < IE **uer-₃* 'turn', esp. PSI **rōka* 'hand' (in all of Sl) 'hand', Lith *rankà*, OPruss *rancko*, all: 'hand'.

13. 'breast' *-dil, -ndil* 'breast, chest'. There is a direct correspondence with IE **dhh₁ileh_a-* 'teat, breast', calf', from **dheh₁(i)-* 'suckle', perhaps a northwestern (Celtic, Germanic, Baltic) and late IE word for 'teat, breast'. There is also Bur *dúlas* (Ys) 'boy, young lad' which parallels Lett *dēls*, which is considered a Balto-Albanian isogloss, e.g. Alb *djalë* 'boy, young man; son' < **delās*, (also Lat *filius*). OAlb form 'a boy'.

14. 'belly, abdomen' *-úil* 'belly, abdomen; in pl. bellies, innards, adv. *úlo* 'inside'. Also *halkís* 'womb'. Compare with IE **au-lo-s* 'pipe, elongated hollow', e.g. Lat *aluus* 'belly, womb; hold of a ship'.

15. 'kidney' *irínć* '(polite for) testicle', in Ys also *-rić* 'kidney'. We can relate the Bur words to the oldest reconstructible form for 'kidney' in IE: **h₂eh₂(e)r-* 'kidney', from which we have Wel *aren* 'kidney, testicle' (Celt < **ār-en-*), Lat *rēnēs* (pl.) 'kidneys' (M-A 329). *irínć* is the older form. : **ee* > **ē* > *i*, and with the same extension as Celt, Toch and Lat: **-en-* > *-in* (*e>i* in this case maybe due to assimilation with the initial *i-*).

16. 'artery' *barés, barís* 'artery, vein, pulse; long ridge of a mountain; vein of rock'. Compare with IE **uer-* 'to tie, to put in a row, hang', in particular the Gk *aorté* 'leather bag; aorta', and *artēria* 'wind-pipe; vein, artery'. In Bur: **uor-es-* or **uer-es-* > *bar-és*, i.e. **uor-is-* > *bar-ís*. With the suffix *-Vs* from Indo-European nom. sg. *-is* see in point .

17. 'bowels' *-ġumór*, Ys *-ġomór* and *-ġumúr* 'hole (small)', linked by Berger with Bur *-ġúmar*, Ys also *-ġomár* 'bowels, (the "inside" body); entrails' and further *ġamór* Ng 'ear-hole'.

There is a direct correlation with IE **ġhh_auos* 'gaping hole' and **ġhéh_a(u)-m₃-* 'interior (of mouth)' or from **ġ^wen-mer* as in Alb *zemër* 'heart,' fig. meaning 'stomach'.¹⁵

¹⁵ Perhaps here from the same root, with a suffix *-to*, is Bur *-qhát* 'mouth, opening' or otherwise from IE **ġhed-* 'opening', e.g. Dutch, ON, OSax *gat* 'hole, opening'.

Bur also has the compound word *ġaňġáato* 'opening of a big hole, a big mouth' (B 169), which we analyse as *ġaň-* + *ġáato*, from IE **ġhan-* 'to open mouth' and the second component would be the word for 'mouth' above, which may indicate that the original Bur word for mouth was **ġáat*.

18. 'defecate' Ys *gorá-*, Hz *gurá-*, Ng and Ys *guriá-* 'to defecate', *guráš* 'excrement (human), cowdung' from IE **g^wō(u)-ro-* 'dung' or from IE **g^wor-g^w(or)o-* 'dirt, dung'.

19. 'waist' Bur *-óšcum*, Ys *-óštum* 'waistcloth, waistbelt'. We can relate it to IE **yōs-* 'to gird, to belt', e.g. PSI **pojasō* 'belt, waist' and more precisely to IE derivations from **yōs-to-s*, e.g. Lith *júostas* 'belted'.

20. 'thumb' Bur *phulúte -miš* 'thumb' (*-miš* 'finger') From IE **polo-*, **polō-* 'swollen, thick, big' (> 'thumb', e.g. Lat *pollex* 'thumb, big toe', OChSl *palъcb* 'thumb').

4.3. Shepherd vocabulary

This lexical layer is not addressed by BB since they did not access Čašule (2009a) which analyses 30 shepherd terms shared by Burushaski and Indo-European (10 of which are of Balkan origin) in this compact semantic field. We will provide a few salient examples. The correspondences are very specific and remarkably coherent and compact.

1. *huyés* (sg and pl) 'small cattle (i.e. sheep and goats)' in Ys also: *huís*. Corresponds directly and remarkably with IE **h₂óuis* (gen. **h₂óuios*) 'sheep (*Ovis aries*)'.

2. *buqhéni* 'goat with distinctive features on the head'. Compare with IE **bhuǵos* 'buck, he-goat': OIr *boc*, Wels *bwch*, OEng *bucca* (Grmc < **bhuǵnó-*).

3. *hálkit* Ys, *élgit* 'she-goat over one year old, which has not yet borne young'.

It can be derived from IE **h₁elu-* 'red, brown (in names of trees and animals)' (in IE also: 'yellow; white; reddish, golden', with the *k̂*-formant (**ol-ki*) (in Gottlieb 14: 'deer-like, (horned) animal'), as in OHG *ēlho* 'elk', Eng *elk*, Pam *rus* 'wild mountain sheep'.

4. *buṭár* 'male kid (the animal) (under one year old)'. Derives from IE **u̯et-ru-* (**u̯etero*) (< **u̯et-* 'year') similar to OEng *wether* 'wether', Goth *wiprus* 'one year old lamb', < Grmc **wethruz* perhaps 'yearling', with other suffixes: Lat *vitulus* 'calf, yearling'. Semantically very specific.

5. *meénis* ‘female sheep over one year old which has not had young’. Semantically, the Bur word is closest and almost identical to Rom *mînzare* ‘female sheep (for milking)’, *mînzar* ‘one year old lamb’, Brâncuş (97-100) considers it a certain substratal (autochthonous) word in the Balkans. And further: Grm (Bavarian) *manz*, *menz* ‘sterilis uacca’, usually derived from the IE stem **mend-*, **mond-* ‘to suck, to feed young animals’. In : **mendis* > *meénis*, with loss of *-d-* and compensatory lengthening of *-e-*. For the loss of *-d-* in the group *-nd-*, consider e.g. Bur *hánik* < OInd *hándika* or Ys *géndes* : Hz Ng *génis* ‘gold’ (B 175). Both the specific semantics of ‘young animal’ and ‘not having young’ are present in Bur and it matches the IE developments and esp. Rom directly.

Possibly related are Bur *mundáq* Hz Ng ‘grown big, developed (of a child or young animal)’ and Hz Ng *múndas*, Ys *búndas* ‘tick (insect)’ which could belong here, esp. considering the core semantics of a tick as a ‘blood-sucking insect’.

6. *run* ‘alpine pasture, open grazing ground on hills, grassland’ (L 305: Hz *rūn*). (B 366).

Can be compared with IE **reuə-* ‘to open, space’, suffixed zero-grade form **rū-mo-* : OProv *run* ‘ship’s hold; space’ suffixed form IE **réuh_xes* < **reuh_x-* ‘be open’ : Lat *rūs* ‘open land, the country’. There are 10 significant correspondences with the Balkans, with the shepherd vocabulary of Albanian, Aromanian and Romanian. For example, apart from [5.] above, note:

7. Bur *tark* ‘byre, hut for animals’. Directly related to a Balkano-Carpathian word believed to originate from one of the ancient Balkan languages: Alb *thark*, *cark* ‘byre for animals’, Rom *țarc*, Arom *țarku* ‘winter byre for sheep; fence around stack’. It is also found in Pl Slk Ukr Hung Mold. Rasmussen (1999: 648-9) correlates the Alb word internally with Alb *thur* ‘embrace; fence in’ and further with Lith *tvarkà* ‘Haltung, Fassung, Ordnung’, *tvorà* ‘fence, hedge, borderwall’ < Lith *tvėrti* ‘embrace, enclose, fence in’, ultimately from IE **t_uer⁻²*, **tur-* **t_uerə-* ‘to grab, enclose’.

8. Ys *bešké*, also Hz Ng *bišké* ‘hair (of animals), fur’ from *beskáreť* Ys, Hz Ng *baskárat*, Cunn, Leit “bashkar” ‘wether, ram (over 2 years old, castrated)’ and perhaps *bišqár* adj. ‘raw, rough wool’. *šk* > *śk*. This is an

important direct and precise correspondence with Alb *bashkë* ‘sheep’s wool’, Rom *bască* ‘same’, considered of substratal Paleobalkan origin, from a Thrac **baska*, **vaska* ‘wool’, derived with the suffix *-ka* < IE **ues-* ‘to clothe’, from which Burushaski also has the verb *-wási-* ‘put s-thing in or on’.

9. Ys *bać* ‘goat house, sheep house’ : e.g. Mcd, Srb, Croat *bač* ‘shepherd’, *bačija* ‘pen for sheep’.

10. *puréelo* ‘a type of flute’ : Srb, Croat *frula* ‘flute’, Hung *furulya* ‘flute’, Alb *floér* ‘flute’, etc.

4.4. Basic verbal roots

BB don’t comment on this question but only give 3 IE verbs that are *not* in our materials and give a wrong representation, which is totally off the mark.

The numerous – 101 correspondences of Burushaski with Indo-European in basic verbs (considered autochthonous) + 67 periphrastic verbal constructions are also highly significant. They constitute one third of our corpus. They provide the definitive evidence of the Indo-European origin of Burushaski.

The Burushaski independent verbs denote: *to appear, to be, to be able to, to be rendered impure, to beat, to beat (wings), [to bite], to become, to become damp, to break, to burn₁, to burn₂, to burst (break), to buy, can, to come, to come out (to move), to curve, to cut, to cut a tree (to pollard), to cut up, to dam up, to decrease, to deny, to dig, to do (make), to drain, to draw (pull), to drink, to drive oxen, to enter into, to exchange, to feed, to grind (rub), to fall, to fall down, to feel lucky, to fly, to give, to hide, to gather, to go away, to hit, (become wounded) > kill, to know, to lean on, to learn, to leave, to let in, to light up, to look₁, to look at (watch), to look for, to love, to make peace, to mature, to measure, to pain, to pay, to placate, to plough, to praise, to pull down, to pull out hair, to put down (set), to put on, to rain, to read, to reap, to remain over, to revile, to run₁, to say₁, to say₂, to see, to seize, to send, to shiver (to become dizzy), to show off, to sink, to sit down, to spin, to stay, to steal, (to be) stopped, to strike (one thing on another), to surround, to sweep away, to swell, to swell up, to take away, to talk, to thresh, to throw, to tie, to tire, to transport, to tread, to urinate, to wash, to wear, to weep, to write.*

There are 67 correspondences in Bur basic periphrastic verbal expressions: *to beat lightly, to blow, to break, to break into pieces, to breathe heavily, to carve, chat, to conquer, to crush, to curve (to bend), to be deprived of, to devour, to die, to do magic, to embrace, to endure, to fall in a hole, to fall over, to fill, to flow over, to frown, to go to war, to groan, to haul, to hold out, to hurry, to jump, to let go, to lift, to look₂, to moan, to move aside, to nourish, to open mouth, to put or set down, to be ready, to ripen, to roast, to roll up, to run₂, to run away, to scold₁, to scold₂, to shake, to shine, to skip, to slurp, to speak, to spread around, to spring up, to stay immobile, to strike (violently), to stroke, to submerge, to suck, to swell₁, to swell₂, to swim (bathe), to talk slander, to take up, to take up (a child), to throw, to throw upon, to tie up, to trample, to watch, (to do) work.*

It is impossible in this paper to do justice to this body of evidence. We will look at some verbs in the next section. We provide some representative ones.

Bur *bá-* / *b-* ‘to be, to exist = verb copula’ : IE **bheu(h_x)-* ‘come into being, be’

Bur *doók man-’* ‘to put or set down’, *doók -i-* ‘build, make (provisionally); place, lift, raise (a stone)’. Corresponds directly with IE **dhō-k-* ‘to do, to make, to set, put’.

Bur *dél-* ‘beat, strike, smite, hit, shoot; cut or chop down’ : IE **del-* ‘split, carve, cut’.

Bur *hákin-* ‘to learn’: E **h₁euk-* ‘become accustomed’, Arm *usanim* ‘learn, be used to’.

Bur *d-hemia-* Ys, *d--mi-* Hz Ng ‘gather, collect, obtain, acquire, get; harvest (fruit); reap and store’: IE **h₁em-* ‘take, gather; distribute’: OIr *ar-foīm* ‘take’, Lat *emō* ‘take, buy’.

Bur also has *d-mar-* ‘take s-thing from s-one’s hands, take away; to take load’ : IE **mar-*: Gk *márē* ‘hand, wrist’, Alb *marr* ‘take, grasp’.

Bur *girmín-* ‘to write’: IE **g^(w)hrēi-*: **g^(w)hrī-* ‘smear, scratch’, e.g. Phrg *gegrimenos* ‘written, inscribed’, or with IE **gerbh-* ‘to scratch’.

Bur *gáarc-* (part. *nukáarc(in)*) ‘run’: IE **k^hers-* ‘to run’.

Bur *--man-* ‘be able to, can, be capable of’: Alb *mund* ‘be able to’ from **men-* ‘think, remember’.

Bur *man-’* ‘be, become, turn into > come into existence, occur, take place; belong to; be necessary to do s-thing or for s-thing to be done’, also in forming verbal constructions: IE **men-* ‘remain, stay’: TochAB *māsk-* (< **m_ṅ-skē/o-*) ‘be, become’. This and the previous root are considered together in IE by some scholars.

Bur *dērginas* ‘to spin’: IE **dhereǵh-* ‘to wind, to spin’ (IE **dh̥rǵh-nā-*).

Bur *gí-*, *gíy-* ‘throw or cast down, fling; throw in; attack’: IE **ǵhi-* ‘throw’.

Bur *halés -i-* ‘to raise, rear, feed, nourish’: IE **h_ael-* ‘grow’: OIr *ailid* ‘nourishes’, Lat *alō* ‘nourish’, *alēscō* ‘grow’, ON *ala* ‘nourish’.

Bur *óos-* ‘put down, place, set, lay; keep; impose tax, also an auxiliary verb’: IE **h₁ēs-* ‘to sit’ from PIE **ǵēs-* / **ǵōs-* ‘put, place, set; sit, be seated’, e.g. Hitt *e-eš-zi*, *a-aš-zi* ‘set, sit, to beset, to do’.

Bur *du-khár-* ‘deny, repudiate, reject, refuse compliance’ from IE **kar-* ‘reprove, scold, revile; praise’.

Bur *d--kukin-*, *d--kukun-*, *d--skukin-*, *d--skukun-* ‘light up’ : IE **kēu-*₂ ‘to light, burn’, with a *k*-formant: **kéuk-* ‘to shine, glow, burn’ as in Skt *sócati* ‘gleams, shines’).

Bur *prik(in) dél-* ‘leap, jump, buck’ (Ng also *prig*). : IE **preu-g-* ‘to jump’ : Russ *prygat’* ‘to jump’, Lith *sprūkti*, *sprukstu* ‘to jump, slip’.

5. Basic vocabulary and the Swadesh 110-list¹⁶

The Swadesh list is used strictly in a general way and we should stress that as the comparisons stand, they are not suitable for a lexicostatistical or glottochronological calculation, not least because on one side we have a protolanguage. What we propose are simply the correspondences and etymological connection of Burushaski with Indo-European in this basic set of words¹⁷, i.e. in the core vocabulary. This is why in a few cases we may be dealing with less frequent forms or multiple correspondences. In the great majority of cases Burushaski corresponds with reconstructed Proto-Indo-European roots that are widespread in IE. In a few cases the correspondences are specifically with various IE subgroupings and languages (notably Latin, Slavic and Greek). In [17], [38] and [54] we have specific Bur developments from PIE roots. In one case [7], (which strictly speaking should not be on the list) the correlation is with a stem found throughout Nostratic, yet not in IE, although such instances are to be expected. [32] and [78] could be loanwords from Indo-Aryan. The number of correspondences – 85 (eighty-five) (in a more stringent

¹⁶ This section is adapted and abridged from Čašule (2017a: 261-275)

¹⁷ These are abbreviated examples and the reader is instructed to always refer to the fully analysed etymological entries in Čašule (2007a).

assessment 78) between Burushaski and Indo-European in this core vocabulary is remarkable. Although we don't provide a lexicostatistical or glottochronological analysis, it can be safely said that at its foundation, in its essence, Burushaski is Indo-European, and the split did not occur in deep antiquity. This confirms the position that Burushaski is at its core Indo-European and that it was transformed grammatically in contact with a language of an ergative and agglutinative structure.

[1] *all* ----- not found.

[2] *ashes*: Bur *háas* 'glowing embers' from PIE **h₂eh_x-s-* 'burn, glow' (> 'star, ember, ash').

[3] *bark*: Bur *waṭ* 'bark', from *baṭ* 'skin': IE **baiteh₂-* 'goatskin, cloak', e.g. Gk *baítē* 'coat of skins; tent of skins'. See also [75].

[4] *belly*

Bur *-úl* 'belly': IE **au-lo-s* 'pipe, elongated hollow', e.g. Lat *aluus* 'belly, womb'.

[5] *big* ----- not found.

[6] *bird*

Bur *balás* 'bird' from *du-wál-* 'fly, fly away', *d--wal-* 'winnow', cp. with OChSl *vľajati se* 'to be cast up, fluctibus agitari', maybe also Lat *volō* 'fly, fleet, speed' from IE **uel-₇* 'turn, wind; round'. [See also 30.]

[7] *bite*

~Bur *gaṭ'* 'bite'. With Nostratic parallels in Afrasian, Dravidian, Proto-Kartvelian, Uralic and Proto-Eskimo (yet not in Indo-European) with a Proto-Nostratic stem **Gat^y-* 'to bite'.

[8] *black*

Bur *matúm* 'black', from IE **meu-t-*: e.g. Arm *mut'* 'dark, blackness, haze', *mt'ar* 'dark'.

Bur *qarčís* 'to have a certain colour (black, darker type)'. Corresponds with IE **kers-* or **k^wrsnós* 'black'.

[9] *blood*

~ Bur *multán* ‘blood’. Tentatively, Gk *miltos* ‘red dye; red-brown of plants’ also used to designate ‘blood’ as an euphemism or linguistic taboo, also *militáron* ‘blood’. A derivation is possible from **mel-*, **melə-* ‘dark colour’ e.g. Lat *mulleus* ‘reddish’.

[10] *bone*

Bur *-ltín*, Ys: *ten* ‘bone; blood-relation’. Compare with IE **h₂ostn-* ‘bone’.

[11] *breast*

Bur *-díl* (Ys), *-ndíl* ‘breast, chest’. A direct correspondence with IE **dhh₁ileh_a-* ‘teat, breast’.

[12] *burn*

Bur *ğulú-*, Ys *ğól-*, *ğul’* ‘burn, be burnt up’. From IE **ğuelh_x-* (or **g(e)u-lo-*) ‘burn, glow, charcoal’, a stem of considerable antiquity.

[13] *claw*

Bur *-úri* and *-úriş* ‘crest, ridge, mountain peak; prong; fingernail’, in Ys also ‘claw’ and further From IE **uer-* ‘high raised spot or other bodily infirmity’, zero-grade form **ur-*.

[14] *cloud*

Bur *kurūn* (L), Ng *kōrōn* also *qhurónç*, Ys ‘mist, cloud, rain-cloud, fog’: IE **kūh₁-(e)ro-* > **kū-ro-* ‘north wind, shower’ as in OEng *scūr* ‘shower, storm’, MEng *scouren* ‘to range over’.

[15] *cold* ----- not found.

[16] *come*

Bur *d-y(a)-* / *d’y(a)-* / *d’y(a)-* ‘come, come along, come up, approach; come back’. Compare with IE **h₂ei-* ‘go’, ext. **iā-*.

[17] *die*

Bur Hz Ng *-ír*, Ys *-yúr-* ‘to die’, which can be correlated with IE **h₂orh_x-* ‘destroy, fall apart; lose’ with the semantics of ‘fall apart’ > ‘die’ (*u:i/_r*). Also Bur *do-hór-* ‘to fall down, to ruin’.

Bur *-wáalas* ‘to disappear; to get lost; to be finished; to die’ derivable from IE **uel-* ‘to die’.

[18] *dog*

(?) Bur *gaálgo*, Ng also *gaáljo*, L also *kaaljo*, Leit. *gal* sg ‘a species of wild black dog’. Note IE **(s)koli-* ‘young dog’.

[19] *drink*

Bur *min’*, *mií-* Ys *men’* ‘to drink; to smoke’. From IE **peh₃(i)-* ~ **pih₃₋* ‘drink’ : esp. with Gk (Attic) *pínō* ‘drink’. (*p>b>m*).

[20] *dry* ----- not found.

[21] *ear*

Bur *-ltúmal* ‘ear’. Compare with Hitt *istaman* ‘ear’, Luw *tūm(m)an(t)* ‘ear’ (from a meaning of ‘orifice’) from the IE stem **stómŋ* ‘mouth (orifice)’.

[22] *earth*

Bur *tik* ‘earth, ground; rust’. A tentative correlation is possible with IE **dhǵhem-* ‘earth’: Hitt *tēkan* ‘earth’, TochA *tkam* ‘earth’.

[23] *eat*

Bur *śí-* (*hx* sg) and *śú-* (*hx* pl) Hz Ng *śe-*, inf. *śéyas y* sg and pl, ‘to eat, eat up, devour; to drink; to bite’. Can be compared with a common change *gy > ś* with IE **ǵjēu-* ‘to chew’, most directly with TochAB *śuwā* ‘to eat’.

[24] *egg* ----- not found.

[25] *eye*

Bur *-l’cin* (Hz Ng), *-l’ci* (Ys) ‘eye’. Can be correlated with IE **ok^w-* ‘eye’ or **h₃ok^w-*. For Bur *-l’cin*: **ok^wje-(n)* > **lt-okje-n* > **lt-kje-n* > **lt-će/in* or **lt-śe/in* > *-l’cin*.

[26] *fat (grease)*

Bur *bij* NH ‘butter’, and *bis* Hz Ng, *bes* Ys ‘fat’ (n.), from IE **pǵ-* in words for ‘fat, sap, pitch’, as e.g. Gk *pīōn*, *pīssa* ‘fat’, Lat *pix* ‘pitch’.

[27] *feather*

Bur *phulgúuy*, Ys *pholǵó* ‘feather’. Berger relates the second component to *ǵuyán* ‘hair’, also from IE (< **gour-yo-* or **gun-yo-*) which can be correlated with IE **ǵóur-*, (gen. **ǵunós*) ‘body hair, lock of hair’. The first component can be compared with Lith *plunksna* (old *pluksna*, *plusna*),

‘feather’ explained as either : *plaukas* ‘hair’, or with *k* from this group, from an old *plusna*, this: Lat *pluma* (< **plus-mā*).

[28] *fire*

Bur *phu* ‘fire’, *phú ét-* ‘make a fire’. Also Ys *phurés -i-* ‘to cook, to slander’. Can be related to IE **peuōr*; **pūr* ‘fire’ from an older **peHw-*, **peh₂ur-*.

[29] *fish* ----- not found.

[30] *to fly*

Bur *du-wál-* ‘to fly, fly away’, *d--wal-* ‘to winnow’, cp. with Lat *volō* ‘fly, fleet, speed’, from IE **uel-₇* ‘to turn, wind; round’ (see [6]).

[31] *foot*

Bur *-hútes* (Ys), Hz Ng *-úť* and *-úťis* ‘foot, lower leg’ (also Bur *hóťi* ‘artificial penis’). Compare with PSI **udb-* ‘limb, penis’ (throughout SI e.g. Blg *ud* ‘extremity; leg; membrum virile’) from IE **h₁óuh_xdh₂-* (< **h₁eu_xdh-* ‘swell (with fluid)’).

Bur *badá* ‘sole of foot; step, pace’ (B considers it an original word). From IE **ped-*, **pod-* (nom. root) ‘foot’ and from IE **ped-*, **pod-* (verbal root) ‘fall, stumble’ : Ys *badán -wál-* ‘fall down on one's back, fall over, faint’. Bur also has *padáay -i-* ‘kick a stone with the foot’.

[32] *full*

Ys *hek*, Hz *hik* ‘full’, possibly the same as *one* [63].

~Bur *bil* and *bir* ‘full, brim full’, *bil (bir) --t-* ‘to fill’ (B 53), Compare with IE **pelh₁-* ‘fill’ Possibly a loanword from IA.

[33] *give*

~ [tentative] Bur *-ú-* ‘to give’ may derive from IE **dō-*, **dō-u-*, **du-* with possible loss of *d-* because of conflicting meaning with the *d-* prefix.

[34] *good*

Bur *daltás* ‘good, fine; superior; beautiful; thriving’, *daltáskus* ‘excellence, good health, beauty’, with identical semantic development as in Gk *thállō* ‘abound, be luxuriant or exuberant’ or Hitt *talles* ‘be favourable’, which derive from IE **dhal-* ‘to sprout, to flower’, e.g. Alb

dal ‘rise, grow’. In Bur *^ldal* ‘up; above, over’, *^ldal -i-* ‘to take up, raise, remove’.

Bur *márin* DC also Ys *marín* ‘good, very fine, excellent; nice; strong; fit; superior, best’ also ‘distinguished, noble’ < IE **meh₁ros* ~ **moh₁ros* ‘large’ (**ma-* / **mə-*) : ON *mærr* ‘known, famous, great’.

[35] *green*

Bur *ṣiqám* Ys *iṣqám* ‘green, blue; gray (of horse)’ which B derives from *ṣiqá* ‘grass, foliage, small plant’. Compare with IE **k^héh₁kom* ‘edible greens’ which is related to IE **k^h/ā/k(h)ā*, **k^hək(h)ā* ‘branch; plough’, i.e. **k^hóh₁kōh₂* and **k^hsoh₁kōh₂*. In Bur < **k^hséh₁kom*.

[36] *hair*

Bur *būr*, *bur* ‘a single hair (of man or animal)’ and *-l^hpur* ‘eyelash’, *-l^hpurkiṣ* ‘with thick eyebrows’. Compare with IE **bhrúh_x-s-* ‘eyebrow’.

Bur *ḡuyán pl* ‘hair of one’s head’ (< **gun-yo-*). Correlates with IE **góur-* (gen. **gunós*) ‘body hair, lock of hair’.

[37] *hand*

Bur Ys *-rén* : Hz Ng *-ríin* ‘hand’. Bur has the underlying verb *du-úr-* ‘to turn, (of mill) to work, to grind’, also *-wáre* ‘around’. Compare with IE **uer-k-* and nasalised IE **urenk-* ‘to turn, wind, bend’ > **uronkā-* < IE **uer-* esp. PSI **rōka* ‘hand’, Lith *rankà* ‘hand’. A very specific correspondence with Baltic and Slavic.¹⁸

Note Bur *d^h-mar-* ‘take s-thing from s-one’s hands, take away; receive, pick up, take load’, *d^h-mar-* ‘make s-one ask; take’; Ng ‘offer hand to be kissed’, which can be compared with the IE forms derived with an **-r* extension from IE **h₁em-*, **meh₁-* ‘take, lay one’s hands on, grasp’, also represented in Bur *de-hémia-* ‘collect, obtain, get’, i.e. IE **mar-* : Gk *márrē* ‘hand, wrist’, Alb *marr* ‘take, grasp’ (< **marnō* denom. from **mar-* ‘receive in hand’). The Bur words *marmúk* ‘handful’ and *marmúk -i-* Ng ‘take in hand; embrace’ most probably contain the same stem.

[38] *head*

Bur *-yátis* (Hz Ng) (L also *-yétiis*), *-yátes* (Ys) ‘head; mountain peak; leader; a big thing’. Berger derives it from *yáte* (in L also *yéte*), short form

¹⁸ This is not an isolated specific correspondence. There are over 30 unique isoglosses shared between Slavic and Burushaski, see Čašule 2017b.

yaṭ ‘up, above, on the top; (adj) upper, further, later’. Compare with IE **h₁eti-* ‘and, in addition moreover’. In Bur < **i-etis*.

[39] *hear* ----- not found.

[40] *heart* ----- not found.

[41] *horn*

[‘horn, ram, sheep, cow, stag’ in IE, in Bur ‘ram, small cattle, male ibex, sheep’]

Bur *karéelo* ‘ram’ From IE **kérh₂(s)* ‘horn’ e.g. Gk *kéras* ‘horn’, TochB *karse* ‘stag’, **kóru* ‘horn’, e.g. Lat *cervus* ‘stag’, Lith *kárvė* ‘cow’, and further ON *hrūtr* ‘ram’, Gk *kárnos* ‘sheep’, *kríos* ‘ram’, Hitt *kar(a)war* ‘horns’. And further: Bur *káru* ‘male ibex’ and *krizí* and *krózo* ‘sheep and goats’.

[42] *I*

Bur Hz Ng *je*, Ys *ja* ‘I’ can be correlated with IE **h₁eǵ-* ‘I’. [See 3.3.].

[43] *kill*

Bur *¹-sqan-* ‘kill, slay’, *d--sqan-* ‘use up, get worn out’ from *¹-ǵán-* ‘become wounded’, *du-ǵán-*, *d-ǵán-* ‘be worn out, exhausted; be finished’. Corresponds with IE **g^when-* (**g^wh₂n-* ?) ‘strike, smite, kill’, e.g. OInd *hánati* ‘hits, kills’, OIr *gonaid* ‘wounds, strikes’ etc.

[44] *knee*

Ys *-núñus* ‘knee, hock’, Hz Ng *-dúmus*. B considers *-núñus* to be older. Compare with IE **ǵonu* (gen. **ǵénus*) ‘knee’ similar to the protoforms proposed for Alb *gju* (< **gluno-* < **ǵnu-no*) ‘knee’ or OIr *glūn* (< **ǵluh_xni-* < **ǵnu-h_x-ni-*) ‘knee’ i.e. in Bur from **gnuñ-us*. Also Bur *gúni* ‘quarter (of room), corner, angle; group, society of people’ (B 161) which provides the form with *g-* – compare with Gk *gōnía* ‘corner, angle’ from the IE word for ‘knee’.

[45] *know*

Bur *ǵan-* ‘appear, seem, be visible’, Ys also *-ǵán-*, *ǵên-* ‘see, view’, neg. *akhén-* ‘not to know’, also adj. *akhénas* ‘ungrateful’. From IE **ǵen-*, **ǵenh₃-*, **ǵneh₃-* ‘know, be(come) acquainted with, perceive’ e.g. Bret *neus* ‘appearance’, OHG *kunnan* ‘know, be able to’, Arm *caneay* ‘knew’,

an-can ‘unknown’, OInd *jānāti* ‘knows, recognises, perceives, understands’, Gk *gignōscō* ‘learn, know, perceive, discern, observe’ and esp. TochB *nānā* ‘appear’.

[46] *leaf*

Bur *tap* ‘leaflet, petal; leaf, page’ from IE **steip-*: OInd *stībhi-* ‘panicle, tuft’, PSlav **stǫbľ* ‘stalk, stem’: Russ *stebelb* ‘stem, stalk’, Lat *stipula* ‘stalk, straw’ (‘stalk’ and ‘leaf’ are synonyms), traced to IE **stāi-* ‘to stand’, represented in Bur *d-stay-*, Ys *d-šta-* ‘prop up, stay’.

[47] *lie down* ----- not found.

[48] *liver*

Bur *-kin* ‘liver’. Morgenstierne noted a parallel with Skt *yakn* ‘liver’. Possibly from IE **yék^wr(t)-* ‘liver’, e.g. OPruss *iagno*, Lith *(j)ėknos* pl, Lett *aknas*, Skt *yákṛt* all: ‘liver’.

[49] *long*

Bur *burinum* ‘long (time)’ : Thracian stem *buri* ‘a great deal of, full, complete, rich’ and Skt *bhūri*, Lith *būris* ‘heap, herd’, all from IE **bheu-*, **bhū-* ‘come up, spring up, swell’.

[50] *louse*

Bur *khándas* ‘a tick’. From IE **k̑(o)nid-* ‘nit, louse egg’: ON *gnit* ‘nit, louse eggs’, Lith *glinda* ‘nit’, Mcd *gnida* ‘nit’, Gk *konís* (gen. *konídos*) ‘nit’, Arm *anic* ‘louse’.

Bur *kharúu* ‘louse’ < IE **kōris* ‘biting insect’, Gk *kóris* ‘bedbug’, OSi *korǔ* ‘moth’.

[51] *man*

Bur *-úyar* pl. *-úyarišo* Hz Ng; Ys *-yúhar* ‘husband, married man’. From IE **uīh_xrós* ‘man, husband’ : OEng *wer* ‘man, husband’, Lat *vir* ‘man, husband’, Lith *výras* ‘man, husband’, Av *vīra-* ‘man, person’, Skt *vīrá* ‘hero; [eminent] man, husband’.

[52] *many*

Bur *buṭ* ‘much; very; greatly’, possibly from *ba-* ‘to be’, cp. as in Vedic Skt *bhúmān* ‘abundance, numerous’ < IE **b^huh₂-mon-*, or Lett *būris* ‘heap, quantity’ < IE **b^huh₂-r-ijō-*. In Bur from **b^hu-to* or *b^hu-tro* < **b^heuh₂-tro*.

Bur *pháalis* ‘a lot of, in abundance’, from IE **pelh₁us-* ‘much’ or **pelu* ‘a lot, a multitude’: OInd *purú*, Grm *viel* ‘a lot’, esp. with Gk *polýs* ‘many’, and Lat *plūs* ‘more’, esp. from **pleh₁ios-*. The Bur stem could derive from **p_llu-s*, or from IE **p(e)lēs-* or **plūs*.

Bur *men ke* in the meaning ‘many’ has been derived and explained from Bur *men* ‘who, what’, yet it may be that two meanings converged, the pronominal interrogative and relative and quantitative and there could possibly be a correlation with IE **men(e)gh-* ‘abundant’ (e.g. OEng *manig* ‘many’).

[53] *meat (flesh)* ----- not found.

[54] *moon*

Bur *halánc* ‘moon’ (with the pl. suffix *-ánc*), from *hal-*. Correlatable with Bur *halç* ‘torchwood’ and both with PIE **h_ael-* ‘to burn’. Another possibility is Gk *hálos*, Lat *halos* ‘disc of the sun or moon; ring of light around the sun or moon’, of unknown origin.

[55] *mountain*

Bur *bérkat* Ys ‘summit, peak, crest; height’. From IE **bherǵh-* ‘high’ and **bherǵh-o-s* ‘hill, mountain’: Hitt *parkuš* ‘high’, PSI **berg_o* ‘hill, mountain, coast’, OHG *berg* ‘mountain’.

Bur *bun* ‘mountain-, mountain wilderness; rocky; NH: heavy; mountain pasture; boulder’. From IE **b(h)ō(u)n-* ‘to swell, rise’: Gk *bounós* ‘hill, mound, mountain’.

[56] *mouth*

Bur *-qhát* ‘mouth, opening’. With a suffix *-to-* from IE **ǵhēu-* or **ǵh_h_au_os* ‘gaping hole’: TochA *ko* ‘mouth’. Or from IE **ǵhed-* ‘opening’, e.g. OEng *geat* ‘gate’, Dutch, ON, OSax *gat* ‘hole, opening’.

[57] *name*

Bur *-ík* Hz Ng, in Ys: *-yék*, ‘name; good name, good reputation’, *ík dilá* Ng ‘one says, it is said’, *-é ... -ík ét-, óos-* ‘to name, to call, give a name’. From PIE **h₁eǵ-* or **h₁eh₁ǵ-* ‘say’: Lat *axāre* ‘+/- call by name, give a name to’, Arm *asem* ‘say’, TochAB *āks-* ‘announce, proclaim, instruct’ (widespread and old in IE). The Latin semantic development is identical.

[58] *neck*

Bur *-š(i)-* ‘neck, nape of neck, external throat; collar; neck of hill’. A precise match with PSI **šija* ‘neck’, found throughout Slavic, also Alb *shî* ‘nape of neck’.

[59] *new* ----- not found.

[60] *night*

~Bur *thap* ‘night’ (Sh *thap* ‘dark’). Tentative, perhaps from **tab* < IE **tem(ə)-* ‘dark’.

[61] *nose*

Ys *-mús* ‘nose’, Hz Ng Ys ‘snot, nasal mucus’. From IE **meug-* ‘slimy, slippery’, Gk *muxa* ‘mucus’, Lat *mūcus* ‘mucus’, Lat *mungō* ‘blow nose’, Gk *apomussō* ‘wipe nose’.

[62] *not*

Bur *be*, often also *bée* adv ‘1.no; 2. not; if not; but no; on the other hand’ and 3. interj. ‘right?; no?; see?; isn’t it?; don’t they?; didn’t I?’. Considering the alternation *b:m* in Bur from IE **mē-* ‘not’ : Alb *mos* ‘not’, Gk *mé* ‘not’, Arm *mi* ‘not’, Av, OInd *mā* ‘not’, widespread and old in IE. Bur *ne...ne* ‘neither...nor’ (L 276) (B 298, 303), and further *nii* (occurring as a particle after a verb ‘...or not?’ (it may be used with a rude effect) from IE **nē-* ‘not’ from which we have OInd *ná*, Lat *nē*, Goth *nē* ‘not’.

[63] *one*

Bur *hen* Ys, *hin* Hz Ng *h*, *han* xy, Ys *hek*, Hz Ng *hik* z ‘one’. *hik*, *hek* from IA. The *-n* forms correspond to IE **h₁oi-no-s* < **e-/*o-* deictic pronoun (**e-*, **ei-*, **i-*) + particle *-no-* : OIr *oīn* ‘only one, single’, Wels *un* ‘one, a, an’, Lat *ūnus* ‘one, alone’, ON *einn* ‘one’, OEng *ān* ‘one’, OPrus *ains* ‘one’, OSl *ino-* ‘one’, (*j*)*ed-ɸn-* ‘one’.

[64] *person*

Bur Ys *ses*, Hz Ng *sis* sg. and pl. ‘people, folk; person, man’, from IE **s_ué-* (also **se-*) ‘own’ in Bur from IE **s_ué-s*. Consider Alb *gjysh* ‘grandfather’, derived from IE **s_{au}is_{ja}* related to Lith *sāvas* ‘own’. Other scholars have derived the Alb word together with Skt *sūṣā* ‘progenitor’ or ‘paternal grandmother’ from IE **seuh_x-* ‘bear, beget’. From this last stem we have in Bur *súas*, *súyas*, *dusúas*, *dusúyas* ‘to bring; take, fetch; procure; to buy’.

[65] *rain*

Bur *harált* ‘rain’ related by Berger to *hará-*, Ys: *hariá-*, neg. Hz *oóara-* ‘urinate’, *-wara* ‘pissen lassen’. Also Bur *war man-* ‘(of rain) to fall heavily’ and *hér-* ‘weep, cry, lament’. The Bur forms are from PIE **h₁uērs-*, **h₁uēr-* ‘rain’ (> ‘urinate’) : Gk *ouréō* ‘urinate’, Lat *ūrīna* ‘urine’.

Ys *daú* ‘rain’. From IE **dheu-* ‘to run, to flow’, it corresponds with the semantic specialisation in Germanic: ON *døgg* ‘dew’, OEng *dēaw* ‘dew’, Eng *dew*.

[66] *red*

Hz *báardum*, Ys *bárdum* ‘red’ can be compared with Arm *vard* ‘rose’ (< Irn), Av *varəða* ‘rose’, AncGk *rhódo-n*, Aeolic Gk *bródo-n* ‘rose’, OEng *word* ‘thorn shrub’ which Walde-Pokorny derive from an IE **uordh-*, **uord-* ‘sweetbrier, thorn’. It belongs to a group of words considered of wider Mediterranean distribution and presumed to be common loans from an unattested language, also Aramaic *vardā* ‘rose’.

[67] *road (path)*

Bur *gan*, Leit, Cunn *gand* ‘road, path, track, way, journey’. Compare with IE **ken-* ‘set o-self in motion, arise, make an effort’, esp. its variant form **skand-* also **skend-* ‘to leap, climb’ (‘climbing path’).

[68] *root* ----- not found.

[69] *round*

Bur *-wáre* or *-wára* ‘around’, *du-úr-* ‘to turn’. From IE **uer-* ‘to turn, bend’: Lat *vertō* ‘turn’, Lith *verčiù* ‘turn’, OInd *vártate* ‘turns’.

[70] *sand*

Ys *sáu*, in Hz Ng *sáo* ‘sand’, double pl. *sáomin* ‘sand’. From IE **(bh)sa-* ‘rub’ in words for ‘sand’, like **bhs-amadho-* (Gk *psámathos* ‘sand’), **(bh)sa-dhlo-* (Lat *sabulum* ‘coarse sand’), OHG *sant* ‘sand’ < **bhes-* ‘rub’. Also here Bur *bastáo* ‘a type of flour’ and perhaps *baspúr* ‘fodder for horses’.

[71] *say*

Bur *sén-* ‘say, mention; speak; call sth or smb by a name’. From IE **suenh_x-* ‘(re)sound’: Lat *sonō* ‘resound, make a noise’, Lett *sanēt* ‘sound,

make noise', Av *apa-h^vana-* 'turn back sound', OInd *svánati* 'roars, makes sound'.

(See also *name* [57].)

[72] *see*

Bur *barén-*, *baré-* '1. look at sth; watch, notice, see. 2. look for; seek; search for. 3. pay attention; heed; listen; keep in mind; regard; consider; be aware of. 4. evaluate; judge; see how well smb does sth; find out; to test. 5. look after; take care of; watch (children); protect; keep one's eye on'. Related to: IE **uer-₈* 'perceive, watch out for', IE : Lith *vėrt* 'see, notice, look into', OHG *wara* 'care, attention', *wær* 'watchful', Eng Gk *oráō* 'see', and Gk Hesychius *bōroi* 'eyes' with an *-n* extension also IE **uorn-*. It is "extremely widespread and certainly old in Indo-European". Note esp. Mcd *bara* 'to look for, require' dial. 'to look'.

Bur *phuṭ* 'seeing, looking', *phuṭ étas* 'open one's eyes, look', *phuūt étas* 'glance at, look at, peek'. Compare with IE **bheudh-* 'pay attention, be observant' e.g. Av *baodaiti* 'notices, observes', Skt *bódhati* 'is awake, wakes up; observes, understands'.

Bur *wal -mán-* Ys 'keep guard over, stand guard, watch' (plus dat. of object), *wal -i-* 'to be under guard'. From IE **uel-* 'see' e.g. OIr *fili* 'seer', Wels *gweled* 'see' [included here because of the IE meaning].

[73] *seed*

Ys *gonó*, Hz Ng *gunó* 'seed (not of cereals); sperm, semen'. Related directly to Gk *gónos* 'sperm, semen' from IE **gēnh₁₋*, (also **gēn-*, **gñē-*, **gñō-*, **gōnh₁₋*, **gñh₁₋*) in words for 'beget; bear; produce; be born' : OLat *genō* 'beget', Lat *gignō* 'produce', Skt *jánati* 'begets', As for the verbal stem, note Bur *du-gún-* 'ripen, mature' and *d-šqun-*, (Ys **d-šqon-**) 'cause to mature; have an idea, give a stimulus, make a suggestion', which B also links with Bur *gunó*.

[74] *sit*

~Bur *hurút-* 'sit down, sit; settle down, be settled, dwell, abide, stay, live; remain; wait; keep watch; have sexual intercourse; become pregnant', *-iurūt-* (Ys *-hurūt-*) 'cause to sit, seat', *d-iurūt-* (Ys *d-hurūt-*) 'settle; remain still; to like'. From IE **h_aer(h_x)-* 'prepare, put together', sem. closest to Av *arānte* 'they set themselves, remain' and esp. Hitt *ḫar-ap-* (*ḫarp-*) 'put down, set down'. In Bur from IE **h₂r-t-* (? > **h₂r-h₃t-*) > **hurt-* > *hurút-*.

[75] *skin*

Bur *bat* ‘skin’ : IE **baiteh₂-* ‘goatskin, cloak’, e.g. Gk *baítē* ‘shepherd’s or peasant’s coat of skins; tent of skins’. See [3].

[76] *sleep*

Bur *dur* ‘1. sleep; 2. (euphemism for) death’. From IE **der-* with zero-grade **d_ɹ-* ‘to sleep’, e.g. Lat *dormiō* ‘sleep’, OChSl *dremljō* ‘doze, slumber’, Gk *édrasthōn* ‘slept’.

[77] *small*

Bur *phúko* adj. ‘small, tiny’ (B 334) < IE **pau-ko-s* ‘little, few; small’, Lat *paucus* ‘little’, OHG *fōh* ‘few’ < **pau-* ‘little, few’.

[78] *smoke* ----- not found. (various loanwords from IA)

[79] *stand*

Bur *d-stay-* ‘prop up, support, stay; protect from; hold up (an enemy), withstand; assist a person; support, reinforce; fix (a stone)’, Ys *d-sta-* ‘put up and prop up.’ Compare with IE **stā-* > **sta-jā* or **st-ē*, e.g. the Phrg *astat* < **at-stāt* and *sta-* ‘stand’, PSI **stojati* ‘stand’, also **stati*; OInd *tiṣṭhati* ‘stands’, Pers *istādan* ‘stand’, OHG *stān* ‘to stand’. See also *tree*

[90] and *leaf* [46].

[80] *star*

H_z Ng *asií, hasí*, in Ys *asúmun, asúmen, hasúman* ‘star’ related to *háas* ‘glowing embers’ [2]. The second part of the Ys is either a form of the Bur verb *man-* ‘be, become’ from IE **men-* ‘remain, stay’ or related to suffixes derived from it, as in Bur *hínuman, hánuman* ‘by itself, alone’ or as in *-chámanum* (L *-isamanum*) ‘first-born’. It could be a remnant of the IE suffix *-m_ṇ-* or *-men-* / *-mon-*. From PIE **h₂eh_x-s-* ‘burn, glow’ (> ‘star, ember’): as in the derivatives Hitt *hasterza, hastera* ‘star’, Gk *astēr* ‘do.’ (< **Has-tēr*).

[81] *stone*

Bur *dan* ‘stone’. From IE **(s)toi-no-* < **(s)tāi-* ‘stone’ : OIcl *teinn*, OEng *stan*, OHG *stein*, all: ‘stone’, PSI **stēna* ‘rock’.

Ys *goró*, Hz Ng *guró* ‘stone’. From IE **g^wer-*, **g^wor-* e.g. OInd *giri-h* ‘mountain’, OChSl *gora* ‘mountain’, and esp. Alb *gur* ‘stone, rock’ also Rom *gruiu* ‘hill top; hill slope’.

Bur *handó* ‘stone’ NH. From PIE **h_xond-* / **h_xnd-* ‘stone, rock’, e.g. Mlr *ond* ‘stone, rock’, OInd *ádri-* ‘stone’.

[82] *sun*

Bur *sa* x, pl. *sámuç* ‘sun; day; daylight’. Compare with IE **seh_aul-*, and esp. the gen. **sh_au-én-s* ‘sun’. E.g. OEng *sunne*, OChSl *слънце*, Av *hvar*, Skt *svàr* ~ *súr(y)a* all: ‘sun’ and further Toch *swāñco* ‘light beam, sunlight’. The basic Bur form is contained in *sañ* ‘1. adj. ‘light, bright; shining; 2. noun *y* ‘light; brightness; a specific light’ from **san-(n)-ko* which can be derived from an IE **suen-* + the suffix(es) *-(n)-ko*.

[83] *swim*

Bur *tam dél-* ‘bathe, swim; wash o-self’, *chílulo tāām ét-* ‘to soak, immerse’. From IE **teng-* ‘to moisten, soak’: Lat *tingō* ‘moisten’, OHG *thunkōn* ‘dunk’, Gk *téngō* ‘moisten’. The change *n* [*ng*] [*nk*] > *m* is well represented in Bur.

[84] *tail* ----- not found.

[85] *that*

Bur *y*-class, sg. Bur *ité, et*, Ys *te, ot y sg* ‘that one, it’. *ité, et* ‘it’, derives very precisely semantically from IE **it* ‘it’ or **h_iid-*, e.g. Lat *id* ‘it’, OEng *it* ‘it’, Goth *is/ita* ‘he, it’, OInd *idám* ‘it, this’. [Refer to 4.1.]

[86] *this*

The Bur proximate demonstrative pronouns are formed by prefixing *kho-*, or *kh(i)-* to the distal demonstrative pronouns: e.g. Ng *kho-té*, Hz Ys *guté*, Bur *kho-t y sg* ‘this one’ to Bur *ité, et y sg* ‘that one, it’. The proximate demonstrative correlates directly with the IE dem. pronoun **ko-* ‘this one’ with variant form **ki-*: OIr *cē* ‘here, on this side’, Eng *he*, OHG *hiu-tagu* ‘on this day, today’, Lith *šìs* ‘this’, Lat *cis* ‘on this side of’, Hitt *ki* ‘this’, *kinun* ‘now’. [Refer to 4.1.]

[87] *thou*

~Bur *un, un, um* ‘you (sg.)’ also *ungo* ‘you here’. Can be correlated with IE **tuh_xom* i.e. **tum-* + *-g* by analogy with the 1 p. sg. (prior to the change

g > y > j,) (as in Hitt **teg*, Acc. **tug-*). Sihler reconstructs **ti/ī* (*tu/ū*). Bur has the adj. *thum* ‘other, another’ (which derives from *thi* ‘other; -else; other than, apart from’) which could be related to the 2. p. sg. pronoun. The loss of *t-* could have been caused by the need to differentiate from the 3. p. pronouns. [Refer to 3.3]

[88] *tongue*

Ys *-yúnus*, in Hz Ng *-úmus* ‘tongue’. The Ys form is older. From IE **(d)ṅǵhū-* ‘tongue’ with initial *d-* absent as in Slavic and Baltic e.g. OChSl *językъ* ‘language, people’, OPrus *insuwis*, OLat *dingua* (Lat *lingua*), TochA *käntu*, OInd *juhū*, *jihvā*, all: ‘tongue’.

~[89] *tooth* [There are some related developments as to ‘molar’ and ‘bit’.]

[90] *tree*

Bur *tom* ‘tree’. From IE **stéh₂mōn* ‘what stands’, esp. TochA *štām* ‘tree’, TochB *stām* ‘tree’, OEng *stemn* ‘stem’, OHG *stam* ‘stem’, Goth *stómin* ‘stem’. In Bur perhaps from the gen. form given by M-A, i.e. **sth₂mnós* > **tumnos* > **tomos* > *tom*. For the underlying verb, see [79] *stand*, and [46] ‘leaf’.

[91] *two*

Bur *altó yz*, *altác*, *altá x*, *altán h* ‘two; a pair of’. The Ys form *haltó* is older. From IE **h₂al-* ‘other’: esp. **h₂elteros* in Lat *alter* ‘other, other of two’ or from **h₂elio-* ‘second’ in Gaul *allos* ‘second’. Bur also has *hóle*, Ng also *hólo* ‘1. out, outside; 2. (postposition) out of’ and the adv. *hólum* ‘from outside’ and as adj. ‘outside, other, foreign, strange’.

~[92] *walk*

Various possibilities with verbs denoting ‘go’.

[93] *warm (hot)*

Ng, Ys *garúm*, Hz *garúrum* ‘hot, warm; friendly’, also *garú* and *garúki* ‘spring’. Not found in the surrounding IA or Irn languages and Berger rightfully considers them part of the Burushaski autochthonous vocabulary. From IE **ǵ^wher-* ‘to heat, warm’, zero-grade **ǵ^wh₂-* esp. like PSI **gorēti* ‘to burn’, **garъ(jъ)* ‘burn’. but not from **ǵ^whermós* ‘warm’.

[94] *water*

HZ Ng *čhil* Lei. gives Ng *tsil* pl. *siliming and silmitshang*. Ys: *čel* ‘water; juice, sap’, also *d-sil-, d-sili-*, (NH also *d-čhil-*) ‘make wet, water intensively’, and further *du-súlġu-* ‘become fluid, watery’. From PIE **suel, *sul-* ‘to wet, moisten; flow; liquid, moisture’ e.g. Lith *sulà* ‘sap’, OHG *sol* ‘mud, puddle’, OIcl *sulla* ‘to swill’, OE *swillan, swilian* ‘flood with water so as to wash or rinse, drink in large quantities’.

Bur *budóo* ‘rinsing water’, HZ also ‘water which becomes warm in the sun’. Compare with IE **uodō-* or **uódy-* or **uod-ōr*, suffixed *o*-grade from **ued-* ‘water; wet’, e.g. Goth *watō*, PSI **vodà*, Gk *húdōr*, Hitt *wātar*, OInd *udnāh* (gen.) ‘water’, also the Phrygian gloss *bédu* ‘water’ < **vedū* < IE **uedō*.

[95] *we*

Bur *mi* ‘we’ and the pronominal prefix *mi- /mí- / mé- / mée-* can be correlated directly within IE with Arm *mek’*, Blt-Sl **mes* e.g. OPrus *mes*, Lith *mēs* and PSI **my* ‘we’.

~[96] *what*

[Berger states that all Burushaski interrogative/relative pronouns are derived from the stems *me-*, *be-* or *ami-* and indicates that these are most probably of identical origin, noting the *m : b* alternation in Burushaski.] HZ Ng *be* ‘what?, how?; some, any’, Ys *bo*. Corresponds with the IE interrogative/relative pronoun **me-*, **mo-* : e.g. TochA *mäkte* ‘how’, *mānt* ‘how’, *mäksu* ‘who’ (interrogative, relative), Hitt *mān* ‘whether, when’, *masi* ‘how much, how many’, OIr *mā* ‘when’ (also **mi*, **me-*). [See 3.3.]

[97] *white*

Bur *burúm* ‘white’. From IE **bher-* ‘bright, shining; brown’, e.g. the suffixed variant form **bhrū-no-*, OFr *brun* ‘shining’, which Pokorny correlates with **bherəġ-* ‘to shine; bright, white’. Under one interpretation OSl *bronŭ* ‘white, variegated’, Russ *bronyj* ‘white, variegated’ and TochA *parno*, TochB *perne* ‘shining’ are included in this set.

[98] *who*

Bur *men* sg. and h pl., also *ménik* pl. ‘who?, what?; someone, anyone’. *men ke* is used as an indefinite relative pronoun, also in the meaning of ‘many’. See the discussion in *what* [96], and 3.3.

[99] *woman*

~ Bur *gus* ‘woman (married); female (of animals)’. It is tempting to seek a (banal?) correlation with Bur *-gus* ‘woman's privy parts, vulva’ (which Tikkanen p.c., suggests could be related to Ys *-khús* ‘anus’), and thus from IE **kutsós* ‘anus, vulva’, e.g. Gk (Hesychius) *kūsós* ‘anus, vulva’.

Bur *génis* ‘queen, Mir's wife, rani’ also ‘gold’, Ys *géndes*. From IE **g^wénh_a-* e.g. OEng *cwene* ‘woman, prostitute, wife’, OPruss *genna* ‘wife’, OChSl *žena* ‘wife, woman’, Gk *gunḗ* ‘woman, wife’, Av *ganā* ‘woman, wife’, Skt *gnā-* ‘goddess, divine female’ and esp. OEng *cwēn* ‘woman, wife, queen’, Eng *queen*, with a suffix *-d* or *-di*, if the Ys form is primary. (Cp. with forms like Lat *fordus* ‘load’ < **bhor-d-*, or in Bur *gurdiñ* ‘fat man’ < IE **g^wr-du-s* ‘fat’.)

[Included here because it corresponds with the IE generic term for ‘woman’.]

[100] *yellow*

Bur *hále iwát* ‘yellowish, yellowy, reddish’ and *hal* ‘fox’. From PIE **h₁elu-* ‘dull red, yellowish’ : OHG *elo* ‘yellow’, Av *auruša* ‘white’, OInd *aruša-* ‘reddish, golden’.

~ Ys *iškárk*, in Hz Ng *şikárk* ‘1. brass, copper; 2. yellow, pale’. Comparable with IE **(s)ker-g-* < **(s)ker-* echoic root ~ ‘sound’ (incl. ‘to clink, tinkle’), esp. Thrac *skarkē* ‘coin’, correlated with Lett *skards* ‘iron, tin (plate), sheet metal’. The colour term would derive from the colour of the metal, and the metal from an echoic root.

These direct and precise correspondences in core vocabulary are remarkable and show a very close correlation between Burushaski and Indo-European. They also demonstrate that Burushaski is definitely an Indo-European language.

6. Conclusions

All the evidence presented in this paper at the phonological, morphological and lexical level demonstrates clearly and unequivocally that the language isolate Burushaski is at its core an Indo-European¹⁹

¹⁹ Within the Indo-European-Burushaski correspondences, Burushaski continues in many cases old and widespread IE stems, but also displays a marked affinity with the so-called North-Western IE languages: Slavic, Baltic, Thracian, Albanian, Germanic, Tocharian, Phrygian, Italic and Celtic (grouping by Hamp 1990, q. in Mallory-Adams 2006: 74). Burushaski has the largest number of isoglosses with North-Western IE, e.g. this is

language, perhaps creolised in contact with another non-Indo-European language. The grammatical correspondences in the case system and in the category of number, in the adjectival suffixes, in all of the demonstrative pronouns and adverbs, the personal pronouns, partially in the numerals, in the entire non-finite verbal system, verbal suffixes and prefixes outline the IE make up of Burushaski. A language comparison that has a large number of grammatical correspondences is significantly much stronger.

At the lexical level, the evidence is even more powerful. There are 530 Burushaski etymologies of Indo-European origin, that are not of Indian or Iranian provenance. The phonological correspondences are systematic and consistent, and they take into account the synchronic variation in Burushaski. The phonological system and borrowed lexemes indicate

that there is a non-core linguistic layer in the language that needs to be investigated further. The semantics in the comparisons is precise, direct and specific, with little to no semantic latitude which is an important prerequisite for valid results.

The correlations are in core, essential vocabulary. It is remarkable that in 80 words of the Swadesh 100 list Burushaski corresponds well with Indo-European. The coherence of the vocabulary of anatomical parts (67), kinship terms (28) as well as the shepherd vocabulary (32) provides solid evidence of a relationship. We cannot emphasise enough the importance of the fact that there are 101 (independent) verbs and 67 periphrastic verbal constructions shared by the two entities. It is also of great value that in the Burushaski material the words are not in isolation but have many derivatives, which strengthens the accuracy of the forms.

While we have vacillated at times between two positions (sister relationship with Indo-Hittite vs. North-West Indo-European) we choose

evident in the close to 70 anatomical terms where there are many important correspondences with Slavic (in particular), Baltic, Germanic, Italic (Latin) and Celtic yet also with Greek (for a full discussion of the stratification of these terms see Čašule 2003a: 56-59). In the vocabulary (141 stems) involving reflexes of Indo-European gutturals, there are 30 stems where Burushaski aligns itself with NWIE (Čašule 2010). This pattern dominates throughout the correspondences. Burushaski has over 30 isoglosses with the Phrygian language (Chapter 2 of Čašule 2017) in words denoting ritual and burial but also in common vocabulary (and in many (30) personal names). The scarce attestation of Phrygian makes these numerous correspondences all the more important. An important layer are the correlations with the Balkan substratum esp. in the shepherd vocabulary but also wider, as manifested in Albanian and Macedonian and Bulgarian.

in the final analysis the position whereby Burushaski should be seen as an Indo-European Ancient Balkan language, very likely Phrygian or a language related to it, which has preserved very well the core IE vocabulary and a large section of its grammar and which developed through creolization²⁰ (mostly reflected in non-core lexis and some grammatical structures) with a language yet to be uncovered. The remarkable Burushaski isoglosses with unique Slavic words (32 of them) (Čašule 2017b) appear to indicate that they were borrowed from Burushaski into Slavic, and that both entities in the remote past were in close contact.

Bengtson and Blažek in their lengthy discourse mostly present their Dene-Caucasian material. Unfortunately, in regard to Burushaski it does not measure up well. There are problems in the consistency of the phonological correspondences – especially in the vocalism, and we believe that the vowels are equally important in etymological analysis, at any depth. In our comparisons they are even more consistent than the consonantal correspondences. Semantic latitude is another problematic aspect – once we start extending by distant association the semantics, we are sure to get invalid results. The words are given in isolation, without derivatives. The scanty grammatical evidence is also worrying.

We have addressed most if not all aspects of BB's criticism of our hypothesis.²¹ In a number of cases their synchronic analysis of Burushaski is flawed. The criticism is also disablingly incomplete as it addresses only a very small part of our work in the time frame of their article. Some phonological and morphological explanations are typologically strange.

We are not in a position to assess and evaluate the Dene-Caucasian hypothesis in itself. In regard to Burushaski, DC is most certainly *not* at

²⁰ Eric Hamp (2013: 8) who is a strong supporter of our work, marks Burushaski within the correlation with Indo-Hittite as “creolistic”.

²¹ Our work has been received very favourably by the eminent linguists, the Caucasologist Georgij Klimov and the Iranist Džoi Edel'man (2004), also Burushaski specialists; Vladimir P. Neroznak (1998); the Urdu, Dardic and Burushaski specialist Elena Bashir (1999); the eminent Indo-Europeanist Paul Friedrich (2011, letter to E. Bashir); José Andrés Alonso de la Fuente (2006); the eminent Danish Indo-Europeanist Jens Elmegaard Rasmussen (p.c.) (1997); and esp. the doyen of Indo-European studies Eric P. Hamp (2012) (2013).

Most recently in Lyle Campbell's (2017) capital volume *Language isolates*, Alexander Smith (2017: 17) considers that the exact nature of the Indo-European correlation should be clarified and concludes that “the proposals [for the origin of Burushaski] involving Indo-European (IE) merit serious consideration”.

the core or even at the foundation of the language. There is a possibility that Burushaski might have been in contact with, say, with a Caucasian or a Yeniseian language (the actual source of any borrowings should be narrowed down) and perhaps some of BB's examples could be a testament to this.

In any case, the proponents of the Dene-Caucasian historical grouping of languages (without Burushaski) should be commended for their effort to delve deeper in our language histories.

Abbreviations of sources cited

- B = Berger, Hermann. 1998.
BB = Bengtson, J. and Blažek. 2011.
BER = Georgiev, Vladimir et al. 1971-
BYs = Berger, Hermann. 1974.
E-K = Edel'man, Džoi. I. and Klimov, Georgij. A. 1970.
ESSJ = Trubačev, Oleg. 1974-
G = Gluhak, Alemko. 1993.
IEW = Pokorny, Julius. 1959.
L = Lorimer, David L.R. 1938.
L I= Lorimer, David L.R. 1935.
LYs = Lorimer, David L.R. 1962.
M-A = Mallory, James P. and Adams, Douglas Q. (eds.). 1997.
M-A2 = Mallory, James P. and Adams, Douglas Q. 2006.
T = Turner, Ralph L. 1966.
T-P = Tiffou, Étienne and Pesot, Jurgen. 1989.
Tiff = Tiffou, Étienne (2014)
Wat = Watkins, Calvert. 2000.
Will = Willson, Stephen R. 1999.

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The Bahraano Sahib Ritual Performance of Jhule Lal in Sindh, Pakistan

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Abstract

This paper addresses the performance and perspective of Bahraano Sahib Ritual at Jhule Lal. Bahraano Sahib is a vernacular and main central ritual of the Sindhi Hindus at the Jhule Lal complex in Sindh, Hyderabad which is almost performed on every new Sindhi month of the moon sighting Nao Chand, Cheti Chand and Jat Jo Melo (annual fair), which has also an essential role for the remembrance as well as the celebration of the Jhule Lal by the Hindus in Sindh at the Jhule Lal complex. The twelve Bahraanas are celebrated annually at the Juhle Lal complex. This ritual shows the aesthetic relationship of the disciples with Jhule Lal. The Bahraano Sahib ritual was started as an Indus Cult (Darya Panth). Therefore, offering the Bahraano Sahib is a way to feed the species that live in the Indus water. Nowadays, Jhule Lal's devotees bring the Bahraano Sahib from different parts of Sindh on the Cheti Chand to offer Jhule Lal and immerse into the Balanbo Sahib (well). The Bahraano Sahib is the central and prominent Ritual practice of the Sindhi religious culture because it makes the necessary memories and attachment of the Jhule Lal between India and Pakistan (Boivin and Rajpal 2018).

Keywords: Jhule Lal, Bahraano Ritual, Balanbo Sahib, Indus River, Sindh, Reflection.

1. Introduction

Jhule Lal Complex is located in a small village of Udero Lal in the district Matiari and is located 45 km north of Hyderabad City in the province of Sindh. The site of Jhule Lal complex is regarded as a symbol of interfaith harmony, unity, tolerance and peaceful coexistence among the Sindhi Hindus and Sindhi Muslims in Sindh. Jhule Lal has multiple identities; He is a god for Hindus and a saint for Muslims. Jhule Lal is called with different names such as Udero Lal, Khwaja Khizar, Zinda Pir, Shaikh Tahir, Amar Lal and Lal Sain. He is also known as Sufi saint but popular

Sufi saints are known as Shah Abdul Latif Bhittai , Lal Shahbaz Qalandar, Shah Inayat, and Sachal Sarmast in Sindh. Jhule Lal was also born on Cheti Chand 1007 Vikram Samvat, (AD 950) in Nasarpur, Sindh. Mata Devki gave birth to a boy, wife of Ratan Chand Lohano. The complex of the Jhule Lal was constructed in the 17th century (Boivin, 2018).



Fig. 1- Aerial view of the Jhule Lal complex (Source: Sarfraz, 2019)

The most famous oral tradition is known when Muslim ruler Mirkh Shah was ruling over the Thatta. He was a tyrant ruler who issued the “*Shaahi Farman*” order for the Sindhi Hindus “Either embrace the Islam, leave the Sindh land or be ready to die”. Sindhi Hindus got some time from Mirkh Shah to think regarding the acceptance of Islam religion. All Sindhi Hindus went under the rituals of *Chaleho* for forty days on the bank of the Indus River (*Sindhu*) to get rid of the cruel despotic ruler who was forcibly imposing Islam religion on them. They worshipped at the bank of the Indus River for 40 days to get help. A young man appeared from the Sindhu River (Indus) on a lotus flower with the beard who was sitting on the Palla fish, asked all Hindus “Do not worry, I have come to save you, would be born in the home of Rattan Rai from the womb of Mata Devki at Nasarpur and would defeat the despotic ruler Mirkh Shah”. Jhule Lal

showed many miracles and saved all Sindhi Hindus from the genocide and conversation into Islam religion from the Mirkh Shah. Finally, Mrikh Shah was defeated and became a follower of Jhule Lal.

Ritual is a religious ceremony that influences the strong belief about the spiritual perception of the truth that religious directions are rigorous and then become more effective due to human mood and motivations that help the communities to survive logically and sensibly (Geertz, 1972). Moreover, ritual performance is an essential part of any religion. Religious rituals are mainly performed in situations and unique places such as sacred spaces, temples, and social and cultural places. Rituals have cultural practices and are complex. Ritual practices have non-verbal meanings and communication that are important for human culture. Rituals push the functions of societies, cultures, and individuals. Ritual gives the primary interpretation and explanation of the culture (Pountney and Maric, 2015). *Bahraano Sahib* Ritual is performed at the complex of Jhule Lal like an annual fair in which all the followers of Jhule Lal sing Panjras, songs and *Jumar* (dance). Turner (1969) further argued that ritual performance is like a drama in which the participants perform their actions as actors in each situation. Due to the intrinsic accomplishment the rituals are transformed and change society. *Bahraano Sahib* Ritual is the main ritual that takes place every month on the 1st day after the sighting of the moon.

2. Research Methodology

Case study research was conducted on Jhule Lal which was based on ethnographic fieldwork. Participant observation, informal discussions, and in-depth interviews were used to collect data. During our fieldwork, Vernacular terms were learned by the researchers which were used by the Sindhi Hindus such as *Joyat* (light), *Jal* (water) *Bahraano*, *Bhandaro* (sacred food) *Sukha* (sweet dish) and *Saisa* (salty grains), which are served at the Jhule Lal complex.

3. Bahraano Sahib Ritual

Jhule Lal had instructed all devotees to perform this ritual with punctuality and full fervor because he becomes happy when his disciples offer the *Bahraano Sahib* into the Indus water. He loves and wants to save all the *Jeewo* (species), who live in the water. When *Bahraano Sahib* Ritual is

served to them then, all the species pray for the universe's well-being. This ritual used to be offered in the Indus River before the partition. Nowadays, it is offered in the *khuh* (well) at the complex of Jhule Lal shrine. Moreover, Prehstom, a Sindhi Hindu devotee of Jhule Lal, stated:

There was a heavy flood into the Indus River in Southern Sindh in 2011. Many people died and became homeless. When the Indus is flooded, it overflows its banks and vast lands are inundated. A large population is displaced and there were huge losses of property and livestock. Therefore, we all performed the *Bahraano Sahib* ritual in the Indus River and the water of the Indus River receded and started flowing in a normal manner after a few days. Sindhi Hindus perform the ritual together with the *Bahraano Sahib* to calm down the Indus River and make her happy. Makhdoom Amin Faheem, the head of the Sarwari Jammāt and Dargah in Hala Sindh, also offered his gold ring to the Indus River during the flood in 2011 to hold the Indus River at bay. He also accompanied Hindus who offered the *Bahraano Sahib* to the Indus River which gradually withdrew its fright. (Personal Interview, 15 November 2019).

An infertile married couple came to Jhule Lal's shrine for the baby's blessings. When their wish was fulfilled then they offered the *Banraano Sahib*. This Ritual is also offered to the Indus River to fulfill many wishes such as a healthy job, successful marriage, good health, a wealthy business, a prosperous family, and a good agricultural crop. Moreover, when there are crises at home, and the family faces hard times, the *Bahraana Sahib* is also offered to the Indus River. Shankar Hindu a follower of the Jhule Lal stated that:

The Indus River is our lifeline. It's not possible to breathe and survive without it. Our survival and happiness depend only on Indus water. Our avatar is also a River god who has also come from the Indus; when we offer *Bahraano Sahib* into the Indus water, all species (*Jeewa*), get the food. In return, we get prosperity and prayers from the Indus water's river god and species. He further added that this Ritual is an integral part of the *Jal* (water) and *Jot* (lamp) (Personal Interview, 12 July 2019).

4. History of the Bahraano Sahib Ritual

According to the oral tradition when Jhule Lal was incarnated at the home of Ratan Rai and *Mata* (mother) Devakee; he was a newborn baby; his

mother Devakee breastfed him, but he refused and closed his mouth, all family members saw the baby's refusal and they could hardly believe this strange and unusual scene. His father Ratan Rai called the priests but even they did not have an answer to the child's behavior. When the baby opened his mouth, his mother, *Mata Devakee* was taken aback to see the Indus River flowing into the newborn baby's mouth and a large number of species floating. She further saw that *Maha Pursh* (Priest) was gulping down the water of River Indus. After having seen this entire weird thing, his mother observed that the newborn baby wanted first to offer the food to River's species. The mother offered the sweet meals and kneaded flour to the Indus River and poured three drops of River water into the baby's mouth. The baby immediately started taking her mother's milk and continued afterward.

There is another oral tradition about the origin of the *Bahraano Sahib* when Jhule Lal was young, his mother Mata Devakee gave him boiled grain *Thaal* (large metal plate) to sell in the market so that he could earn to run home expenses. Instead of selling the grain, he offered the *Thaal* to the Indus River for the species of the Indus River. In return, he used to get full *thaal* of wheat and pearls/jewels from the River. Since the origin of those events, Jhule Lal devotees started to worship the Indus River and offered food such as sweet meals, kneaded flour, and fruits to the River. *Bahraano Sahib* tradition started in this way. When people had any wish (*bass*), they would offer the *Bahraano Sahib* ritual to the Indus River and their wish was fulfilled. Devotees of Jhule Lal believed that their river god becomes happy when the Indus River's species eat the food and, in return, get the saint's blessings for their well-being. *Bahraano Sahib* is offered on different occasions such as on the day of *Jumo/Tharoon* (Friday), *Chand* (moon), and *Chodas* (bath) ritual. *Bahraano Sahib* can be made in the house, and it could be offered to any river, well, and canal of water; there is no fixed day for the *Bahraano Sahib* ritual; it can be performed on any day. Geeta, a female Hindu follower of Jhule Lal mentioned that:

Jhule Lal gave *Bahraano Sahib* I which is important, because he loves all the species, including those who live in the water. Jhule Lal has become a source for all the species. When *Bahraano* is offered to the water, Jhule Lal becomes happy, and all our wishes are filled. My son was not feeling well, and I made the wish, now he has recovered. I offered the *Bahraano* at *Balanbo Sahib*, we all are happy today because Jhule Lal prayers are

always with us; therefore, we say “*Ayo Lal Jhule Lal, Sabhaee Chao Jhule Lal, Sabhni Ja Bera Par*” (Jhule Lal has come, all should say Jhule Lal and we all succeed) (Personal interview, 12 July 2019).



Fig. 2 - Shavadar, who prepares the Bahraano Sahib
(Source: Researchers, 2019).

5. Process of the Bahraano Sahib

Assan is an old disciple and main *shivadar*; (worshiper) who performs the *sheva* (worship) at Jhule Lal for 35 years. When he was ten years old, he started the *sheva* at the shrine of the Jhule Lal. He belongs to Sindhi Hindu Lohano caste. He prepares the *Bahraano Sahib* without any charges for the *sheva* of Jhule Lal. He decorated the *Bahraano Sahib* with various beautiful designs and colors.

The other Asthaans (worship place) of Jhule Lal replicates decorated Bahraano sahib. He was also *murid* (disciple) of Maula Ali (A.S) and all others in Sindh. He has also decorated the Taziya the Hazarat Imam Hussain (A.S during the month of Muharram. When the wishes of Jhule Lal’s devotees are fulfilled, they call him and prepare the

Bahraano Sahib for them, but do not charge any money. If they willingly want to give any money, he receives, but does not demand making the Bahraano Sahib. Aama (mother), old Gaadinasheen (custodian) of Jhule Lal Mata Gopi, has given him the responsibility of making the Bahraano Sahib and its sheva . He performed it with his heart and soul. He wants to transform this sheva of making Bahraano Sahib to the new generation so that the tradition of making the Bahraano Sahib is carried forward. He has learned this skill from the old Gaadinaheen of Jhule Lal Ama (mother) Gopi. Aasan old Shevadar, further stated:

Jhule Lal says that if someone wants to make me happy, he must first make the Indus River happy. Jhule Lal said that you should serve every species on the land, whether human, birds or animals; they would not ask you for food. You might have observed that a crow comes home and sits on the open roof or tree and caws for food same as a dog who just barks for food. A beggar begs for a loaf of bread in the name of God and people give them. Jhule Lal said if you have served the *Jeewa* species that live under the water in the Indus River it means you have served him. He further said that first give food to those species who do not demand food because it is not possible for them to do so, this is a saying of Jhule Lal to all Indus River worshippers.

6. Steps for the making of the Bahraano Sahib

There is a specific process for making *Bahraano Sahib*. It takes two to three hours for preparation. The first two *daigs* (small cooking pots) are made, the name of the first *daig* is *bojee daig* (*baked rice pitcher*), and the other is *Kheerani wari daig* or *Tahiree wari daig* (sweetened rice pitcher). The composition of the *Kheerani wari daig* is *Mesri* (crystallized sugar lumps), *Kheer* (milk), *Elaichi/ chai wara phota*, *Peshta*, *Badam* (coconut) *Akhrot*, (almond) *Keshmesh*, *Gur* (a form of sugar) *Ghee* (oil) is not used. The milk is added instead of water in this *daig*. It is called *Tahiri* or *Kheerani daig*. This *daig* was not cooked in the past but now a day's people cook this *daig*. They do not cook this *daig* here; it remains uncooked because *Mata* (mother) has explained *shevadar* not to cook the *Taaheree daig*. When *daig* is prepared, then the symbol of Hindu Ganesh and Om is made with vermilion on the cover of the *daig*, made of kneaded wheat flour.



Fig. 3 - The right side is the Boji wari daig, and the left side is Kheerani/ Tahairee wari daig. (Source: Researchers, 2019)

Bojiwari Daig: this is a small pot which is made by the potter and offered with the *Bahraano Sahib*, the composition of the *daig* is *chawar* (rice), *tel* (oil), *loor* (salt) *basar* (onion) *Garhyoon marchoo* (red chilies), *chara* (grain). Afterward, this *daig* is cooked on the fire; this *daig* is also offered with the *Baraano sahib*. Both *Kheerani* and *Bojiwaree daig* are also part of the *Bahraano sahib*. The *Jot sahib* is the core of the *Bahraano sahib*. Jag Jeet Hindu follower of the Jhule Lal, argued that:

Jhule Lal has advised the *Jal* (water) worship and *Jot* (lamp). Both are eternal parts of the *Bahraano Sahib*. When this ritual is offered to the Indus River, *Jal* is also floated along with it which symbolises Jhule Lal's boat. If there is no *Jal* and *Jot*, then humankind is incomplete. Everybody can offer the *Bahraano Sahib* ritual wherever he lives. If anyone's wish is fulfilled, then they offer the *Bahraano Sahib*. One can perform everywhere; whether it is in Tando Adam, Thano Bula Khan, Karachi, and even in the *Samand* (ocean). Where there is a river, well, and canal, one can offer this ritual. *Jal* and *Jot* both are offered with the *Bahraano Sahib*. He is a worshipper of the Indus cult (*Darya panth*) and will first

offer fruits to the Indus River before taking it home. This is an old tradition of venerating the Indus (Darya Panth) and the followers are called Darya Panthis. When people bring any vegetables, sweets, and fruits, first they offer to the Indus River (*Sindhu*); if there is no river, or canal water then it can be given to *Nayani masoom* (little girl)

First, in a large *thaal* (big flat metal dish) *Ganesh* symbol is made, and five *Modak* (kneaded wheat flour-like cones) are placed on the green leaves around the metal dish. The *modak* consisted of the *kark jo ato* (wheat flour), which is garnished with the *Misri* (crystalized sugar lump) cardamom and cloves. White uncooked rice is poured into the *thal*, till the *modaks* are fully covered. Fruits are placed around the *thal*. Seven or five fruits are placed into *thal* of the *Bahranno Sahib*, such as mango, (*anb*) orange, (*naarangi*) banana, (*kela*) apple (*soof*) and grapes (*angoor*). Fruits or *modak* must be in odd numbers. Flowers of the rose's leaves are placed around the *thal* to make a *Bahraano Sahib* decorative and beautiful. The other decorated small *Thal* of *Jot sahib* is placed in the *Bahraano Sahib* *thaal's* main centre.

The *Jot Sahib* is also made from wheat's kneaded flour, which is also decorated with rose garlands. The *Jal Jee Jahree* (water pot) is also placed beside *Jot sahib* in the *thaal*, for making *Bahraano Bahib* steps. The *Jal* and *Jot* are an eternal part of this ritual. Now *Bahraano Sahib* has been prepared, ready for the other steps to proceed for *Jhule Lal's Bahraano Sahib's* ritual performance. Old Shavadar Aasan, who made the *Bahraano Sahib*, mentioned that:

Bahraano Sahib Ritual is increasing daily and globally because the Sindhi Hindus diaspora who are the *Jhule Lal's* devotees, celebrate this ritual on every *Cheti chand* (annual fair) of the *Lal Sain*. This is the age of the internet and all Sindhi Hindu diasporas are closely related to *Jhule Lal* and the *Bahraano Sahib's* ritual. All the devotees of the *Jhule Lal*, home and abroad, celebrate the *Bahraano Sahib's* ritual with *Satsang* (sacred gathering) to have all their wishes fulfilled. *Ali Qazi* is head of the Sindhi national Channel *KTN TV* and Sindhi newspaper *Kawish* in Sindh. He offered the *Jot* of blood to the Indus River and the Indus River got angry at the Sindhi people. As a result heavy flooding was caused due to the overflowing of the Indus River in 2011. *Jhule Lal* was annoyed by the offering of the blood ritual with the *Jot* to the Indus water because *Jhule Lal* did not like the blood ritual; he was a peace lover and tolerant person. He is against any bloodshed; therefore, heavy floods were

witnessed due to the Indus River. Jhule Lal has said that food should be offered to the water species, but instead of food, Ali Qazi offered the blood to the Indus River as that was his serious blunder. Ali Qazi was educated, he must have studied the importance of this ritual that how it could be performed. *Jot's* blood ritual symbolizes the hatred and war of blood in which innocent people are killed.



Fig. 4 - Preparation of the Bahraano Sahib in the Thaal (metal plate) with fruits and other items (Source: Researchers, 2019).

7. Performing the Ritual Steps of the Bahraano Sahib

The performing ritual of the *Bahraano Sahib* consists of five steps at the Jhule Lal complex in Sindh.. First step is to light the *Jot*. After the preparation of the *Bahraano Sahib* in a sacred room which is decorated with pictures of *Gaadinashen's* family members. *Bahraano Sahib* is brought in an equestrian room (*Lal sain jo Ghory waro kamro*). Jhule Lal is shown seated on riding a horse and holding the sword in the right hand. After a while, an announcement is made for the preparation of *Bahraano Sahib* in the sacred room. All the devotees of Jhule Lal are requested to

gather in the sacred room without their shoes, and heads covered with a piece of cloth. The women too are asked to cover their heads with the *Rao* (a piece of cloth) to show respect to honor *Bahraano Sahib*.



Fig. 5 - Decorated Bahraano Sahib with Jot
(Source: Researchers, 2019).

Men and women gathered in the sacred Hall where the equestrian statue is placed. The main *Shevadar* Ramesh appears who is authorised by the *Mata sahib* Hindu *Gaadinasheen* of the *Jhule Lal* to light the *Jot*. All the men and women stood in front of the *Bahraano Sahib*, which was placed before the equestrian statue at the centre of the Hall. Men were sitting on the left and women on the right side of *Bahraano Sahib*. The assembly raised the slogans “*Aayo Lal Jhule Lal, Sabhaee Chao Jhule Lal Jeko Chawando Jhule Lal Tahnja Thenda Bera Par, Wari Sabhee Chao Ayo Lal Jhule Lal, Jae Jae, Jae, Jae.....Jae.... Jhule Lal*” (Jhule Lal has come. He is present among us, again all should say Jhule Lal, he who will say Jhule Lal, he will succeed, and again all should say Jhule Lal, live long, live long Jhule Lal). *Shevadar* Ramseh lit the *Jot sahib*, amid the slogans “*Aayo Lal Jhule Lal, Sabhaee Chao Jhule Lal*” (Jhule Lal has come, all must say Jhule Lal).

Second step is to perform the *Aarti* (moving the lamp clockwise in front of the *Bahraano Sahib*. All the men and women wait for their turn to perform the *Arati* of the *Bahraano Sahib*. First male devotees perform the *Aarti* ritual one by one to the *Bahrrano sahib*. They are followed by women who perform the *Aarti* to the *Bahraano Sahib* one by one. After performing the *Aarti*, men sit on the left side and women on the right side of the *Bahraano Sahib*. The *Bahraano Sahib* is placed in the center of the Hall in front of the equestrian statue of the Jhule Lal. Female Nandni follower of Jhule Lal stated that:

When we sing the *Panjrahs* of Lal Sane, we are involved in trance and ecstasy. I feel that Lal, Sane is sitting in front of us and listening to us. Lal Sane is always among us, he watches and hears us. Lal Sane said that you will find me in your inner soul when you remember me. (Personal interview, 17 October 2019).

Third step is Jhule Lal's remembrance through the *Panjraas* (Rhymes of two to three lines in praise of Jhule Lal). Ram Dass, an old *Shevadar* (worshiper), started to play the keyboards, Ramesh Lal, the main *Shevadar* started to beat the drums, and Devan began singing *Panjraas* in his beautiful voice. Men and women sang the *Panjars* in admiration of Jhule Lal, and it appeared that all the devotees of Jhule Lal were mesmerized in ecstasy and spirituality and started singing in a beautiful voice such as:

1. *Dolha Darya Shah, Ahe Lalan Jo Lal,*
Dokhyan bokhyan paapeyan ja, bhla karen tho bhall,
Kaee meryan mal, jay achan daar Juhlelan jay,

Jhule Lal, you are the king of all,
Sad people, hunger, you solve their problems,
Many people come; you bestow their wealth and health

2. *Dolha tunhjy dar tey, Karyan thee ardas,*
Naam panjho dae chet mein, Maan mein dae wesh vas,
Bekhran dar panjhe tan, Kajaen keen naras,
Pori kajahs ahs, Panjho jary nader khe,

O! Jhule Lal, I humbly request at your shrine,
Make my heart pure; give me your love in my heart,

Please, do not despair me from your door
Fulfill my wish, as if I am yours,

3. *Palae paen dar te, Aaj ayo pojari,
Bankhy bahro ja, Sabh ahn bekhari,
Jotan waro jag jo, Ahe datar datary,
Bhar por Bhandari, Dendo daan dadan khe,*

Devotees have come to your door for the prayer,
All Indus venerating followers request to you humbly,
You are the powerful and king of the light's worshiper,
You always fulfill the wishes of the hopeless and destitute,

4. *Julan dar sawaly, Achy bodho aney bar,
Dar tan hin datar jy, Wajy na ko khaly
Waseelo aney waly ahe saro sansar jo.*

O! Juhle Lal,
Young and old come to your door for a solution to problems,
No one returns empty-handed from your door; you are the king
and head of the whole universe.

Fourth step is the *Chhando* (sprinkling the holy water), the water is kept beside the *Bahraano Sahib* in *Jahree* (small pot) which is sprinkled on the devotees one by one, who receives the *Chhando*, and becomes the blessing for the devotees. Ramesh also performed this *Chhando* ritual. The *Chhando* water is thought to be the sacred water of the Indus River and a remedy for all sorrows and difficulties.

Fifth step *Palao* (holding the lap for praying). After the *Chhando*, all the men and women perform the *Pallao* ritual; they catch the front part of the shirt and (*Johlee*) hold up clasped hands to pray for their wishes to be fulfilled. Devotees continuously hold the *Pallao* for fifteen minutes and call Jhule Lal to help them overcome their sorrows. After performing this ritual, devotees come and perform the *dandey* dance before the *Balanbo Sahib*. They enjoy a lot while performing the folk and traditional *Dandeya/Chhej* (crescendo, and inundation) dance in front of the *Balanbo Sahib*. *Chhej* dance performers hold the sticks and clap with sticks in the circle with rhythmic drums and music. The dancers make such movements during the *Chhej* dance which looks like Sindhu waves (Indus River).



Fig. 6. Dandiya (folk dance) was performed at the time of the Bahraano Sahib ritual (Source: Researchers, 2019).

In the sixth step of the main procession *Bahranno Sahib* is placed into a mirror box. It was taken to Jhule Lal's shrine in the main complex beside the mosque. The *Bahraano Sahib* is also passed in front of the mosque in the Jhule Lal shrine's complex. The *Bahraano Sahib's* procession continues with the slogans “*Ayo Lal, Jhule Lal, Sabhae Chao Jhule Lal*” (Udero Lal has come, all may say Jhule Lal). The *Bahraano Sahib* passed from the complex's seven gates to reach the main graveyard (*qabar*)/*Qubo sahib* of the Jhule Lal

Muslims Mujawars Sarfraz, Imtiaz, Ghulam Ali, Afaq, Abdul Jabbar, and Sikandar Shaikh remain in Jhule Lal's shrine before the arrival of the *Bahraano Sahib* in the shrine; they all collect the *bhetta* (money) which is placed on the *mazar* (graveyard) of Jhule Lal. Hindu devotees of the Jhule Lal give the *bhetta* to the Muslim *Mujawars* during the *Bahraano Sahib's* procession at the complex of Jhule Lal. Before the arrival of the procession of the *Bahraano Sahib* ritual, other Muslims, old *Mujawar* Aleem Muhammad, and Ghulam Muhammad Shaikh remain present at the door of the old graveyard shrine of the Muslims *Mujawar*. Hindu devotees also give them the *bhetta* during the *Bahraano Sahib* ritual at the Jhule Lal complex.

People place the *thaal* (metal plate) on their heads and circumambulate *Bahraano Sahib* seven or eleven times in the shrine of the Jhule Lal with the slogans “*Ayo Lal Jhule Lal, Ayo Lal Jhule Lal, Sabhaee Chao Jhule Lal* (Jhule Lal has come, all should say Jhule Lal). This is the importance of the ritual and the natural feelings that go with the ritual, accompanied by dance, songs, singing, loud clapping, and rhyming of bells. *Bahraano Sahib* is placed in front of the *Jot* room and brought to the old four Muslims Mujawar’s graveyard rooms, then taken to the *Kachhari* (discourse) room where *Chhakhri* (wooden sandals) of the Jhule Lal Sahib is placed in front of the *Manik Taro* (miracle tree). After that, *Bahraano Sahib* is placed ahead of the mausoleum of the Jhule Lal, which is the last place of the procession of the *Bahraano Sahib* ritual at the complex of Jhule Lal. The Sufi fakirs also perform the Muslims Sufi *raag* during the *Bahraano Sahib*’s ritual with the *Yaktaro* and *Chapri* (local music instruments) and keyboard instruments. The Sufi singer sings in front of the *Bahraano Sahib*:



Fig. 7. The local folk singer sings the Sufi kalam at the complex of the Jhule Lal (Source: Researchers, 2019).

1. *Mazbhan mulk mein mahroon munjhaya,
Shekhi peeri buzrgree behad bhlaya,
Kay namazoon navree parhan, kan mander wasaya,,
Oda keen aya Sachal aqul wara, Ishq je,
Religions confused the people,
Priest, and elders also misguide the people,
Someone prays in the mosque, someone worships in the
temple,
The wiser man did not come close to love, Sachal says*

2. *Aesa koe Jahan mely, Jahan hoton pey muskan mely,
Oh! Kash mely madir mein Allah aur Masjid mein Bhagwan
mely.*

There may be such a world where there must be love and
tolerance,
Would that! Allah may be found in the temple,
Moreover, Bhagwan (god) may be found in the mosque.

3. *Ko ah Rehman ji pasy , ko ah Bhagwan ji pasy,
Munjho sajdo un hee khe aha jeko insan jey pasy,*

Someone takes the Muslim side, and someone takes the
Hindu side,
I kneel to those who take humanity's side,

4. *Khateeban khe budae chhad ta mokhy khufkone ko,
Munjhee halat na hooran san, nakee ghlman ji pasy,*

Tell the priest, and I am not afraid of you,
I do not need the princes and heaven,

5. *Awhan joon aadtoon dasjee asan jo rooh roe tho,
Ehyo je thunjho je mazhab aha, Ma ahyan shetan ji pasy,*

Our soul is unhappy to see your evil deeds,
If you belong to such a religion, then I will take the side of
Satan,

6. *Asan je deen aeny eeman jo dastor panhjo aha,*

Na hondo jekadhen hafiz, bory beman je pasy,
Our faith and religion are different from others,
Hafiz will not take the side of evil deeds,

Bahraano Sahib was taken from the Jhule Lal complex to the *Balanbo Sahib*, which takes three minutes to reach at the *Balanbo Sahib*.

The Seventh and last step is about the offering of the *Bahranno Sahib*: It is brought to the last destination of the *Balanbo Sahib*. It is placed on the wall of *Balanbo Sahib* which is the last step of the *Bahraano Sahib* ritual procession in which all the items of the *Bahraano Sahib* are immersed one by one in the deep water of *Balanbo Sahib*. Once again, male and female devotees come close to the *Bahraano Sahib* to perform the *arati*. All the devotees performed the *aarti* ritual of *Bahraano Sahib* one by one. The *Chhando* (sprinkling water) ritual is performed. *Palao* is also performed. The first two *daigs* (round steel containers filled with rice) were immersed in the *Balanbo Sahib*; before immersion of the two *daigs*, every devotee kissed the two *daigs* to show respect, both *daigs* are immersed into the depth of the *Balanbo Sahib*. All the items of *Bahraano Sahib* were immersed one by one into the *Balanbo Sahib*. Finally, *Jot sahib* was immersed in the *Balanbo Sahib*. Immersion of *Jot sahib* is worth watching into the deep water of the *Balanbo Sahib*. Once again, all Jhule Lal followers said, *Sabhaee Chao Ayo Lal, Jhule Lal, Jheko Chawando Jhule Lal Tanhja Thenda Bera Paar* (All should say Jhule Lal, Jhule Lal has come, all may succeed).

8. Conclusions

Sindhi Hindus and Sindhi Muslims performed the rituals at the complex of Jhule Lal. Sindhi Hindus regularly performed the rituals at the complex of Jhule Lal. The Hindu followers performed these rituals in large numbers with their families from all over Sindh. The core segment of this ritual is *Bahraano Sahib* which is performed every month at the Jhule Lal complex. They sang *Panjas* (rhymes), danced, and distributed sweets and food till late at night. Everyone participates in this ritual process of the *Bahraano Sahib*. This ritual is worth seeing how Jhule Lal's followers exhibit their emotions and show that Jhule Lal also participates with them in this ritual. Every follower of the Jhule Lal is in ecstasy elate while performing this ritual. They perform the *Bahraano* rituals in the Jhule Lal complex in form of a procession and chanted slogans “*Jai Jhule Lal, Ayo*

Lal Jhule Lal Sabhaee Chao Jhule Lal” (Jhule Lal has come, all should say Jhule Lal) continued to be raised till this ritual ends. Cultural dances and folk songs are performed as part of this ritual. Mostly Sindhi Hindus personified Jhule Lal with waters of the Indus River because they believe that their Avatar (Jhule Lal) appeared from the Indus River therefore, Indus River water is sacred to them. They worshiped the water and performed the *Bahraano Sahib* Ritual to the Indus River water to pay tribute to the river god. Nowadays *Bahraano Sahib* Ritual is performed at the *Balanbo Sahib*, instead of at the Indus River.

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Notes and Items for Discussion

Some notes on the role of women in Early Buddhism

Claudia Torlino

Abstract

This note analyses, with selected examples, the role of women in ancient Buddhist literature and epigraphy, with a brief focus on the comparison of their role in two macro-regions of the ancient Buddhist ecumene: Gandhāra and Central India. Furthermore, the note briefly discusses the link between desire and gender, finally considering the emphasis on gender as an obstacle towards enlightenment rather than a help.

Keywords: Early Buddhism, *saṃgha*, *bhikkhunī*, laywomen, Gandhāra

1. Introduction

The role of women in the History of Buddhism could be described as ambiguous. On one hand they enjoy certain freedoms, such as the choice for laywomen to remain maidens, freeing them of their often-imposed role of wives and mothers, as dictated by most traditional societies and religions. On the other hand, the establishment of the *bhikkhunī* order itself was accepted with reluctance by the Buddha and the nuns' ability of reaching enlightenment has long been questioned, their potential of becoming *bodhisattva* or *arhat* being object of discussion.

In this paper, I wish to analyse the issue of women and their ability – or lack thereof – of reaching enlightenment through the analysis of a few selected examples of female characters who appear in Buddhist literature and in Buddhist epigraphy¹. Furthermore, I aim to consider the gender binary not as a determining factor towards enlightenment, but, on the contrary, as an irrelevant distraction from it and, in the end, as an obstacle that should be overcome.

2. Examples of women in Buddhist literature

2.1 Women in the Buddhacarita

The *Buddhacarita* (Acts of the Buddha) is a Sanskrit epic poem written by Aśvaghōṣa in the 2nd century CE. The views expressed in this work can be considered representative of the traditionalism of Buddhism in Northwest India,

¹ These notes were written as an output of my thesis presented at the course on the History and Material Culture of Buddhism, held at Ca' Foscari University of Venice during the academic year 2021-2022 by prof. Luca M. Olivieri, with co-teaching contributions of prof. Justin McDaniel (University of Pennsylvania) and prof. Nicolas Revire (Thammasat University).

particularly in the Gandhāra region. It should be remembered, incidentally, that in the Buddhist visual art of Gandhāra, so rich in iconographic themes and subjects, depictions of nuns are very rare, with the exception of specific events in the Buddha's life (Uṭpalavarṇā and the descent from the paradise of the Thirty-three Gods for example). After all, donatory inscriptions in the name or work of nuns are completely absent in Gandhāra, while donations by laywomen belonging to the ruling elites (e.g. the princesses and queens of the Avaca and Oḍi dynasties recur).

Being one of the central texts of pre-Mahāyāna Gandhāran Buddhism, its representation of women is explicitly based on a somewhat male-centered vision. Two main categories of women can be found inside this text: the first one is formed by supporting characters whose only role is to uphold the protagonist's tale, their only distinctive features are stereotypically derogatory feminine behaviors such as crying, wailing, motherly concern and inaction in front of unforeseen circumstances. The second category is formed by evil characters who actively try to mislead the male protagonist.

The following examples belong to the first category: queen Mahāmāyā, biological mother of the Buddha, her sister Mahāprajāpatī, aunt and adoptive mother of the Buddha, and Yaśodharā, the Buddha's wife. Queen Mahāmāyā, the first female character to appear in the text, is represented while giving birth to Siddhārtha; her role is minor and entirely subordinated to the prince, so much that she is never mentioned again outside of *Canto I: The Birth of the Holy One*². Mahāprajāpatī is represented as broken-hearted and powerless towards her son's departure, she throws herself on the ground, weak and resigned³. Yaśodharā reacts by cursing the prince and his companions, who let him abandon the palace⁴. Not only she suffers a loss, but she also feels betrayed by her husband who chose to ascend by himself; couple ascension was in fact allowed at the time, given that husband and wife lived in chastity. Yaśodharā is then left wondering why her husband decided to follow that path without her, she even surrenders to jealousy for one brief moment, thinking that he left her for one of the *Apsaras*. During her monologue, she mentions the word *Sahadarmacāriṇī* which can be translated as 'lawful wife' but also as 'coadjutant in the fulfillment of *dharma*' (Passi 1979: 205). The second translation encompasses a certain degree of complementarity of husband and wife in the path to enlightenment. This concept of complementarity can be found in a much more ancient Vedic text: the *Śatapatha Brāhmaṇa* (Brāhmaṇa of one hundred paths). In this Sanskrit text, written around 300 BCE as a commentary to Vedic rituals we have several examples of ascetic couples. I quote here just one of these examples of couple asceticism. During a *Śrauta*, a public ritual, husband and wife ascend together,

²*Buddhacarita*, I, 2 (Johnston 1936).

³*Buddhacarita*, VIII, 24 (Johnston 1936).

⁴*Buddhacarita*, VIII, 61 (Johnston 1936).

becoming “Prajāpati’s children”⁵, Prajāpati being the creator deity of Hinduism⁶, reaching *moksa*, a form of liberation from suffering and from the cycle of rebirth, similar to Buddhist *nirvana* in some respects. The importance of the woman’s role in the ritual is highlighted right before its performance: “she, the wife, in sooth is one half of his own self; hence, as long as he does not obtain her, so long he is not regenerated, for so long he is incomplete”⁷. At first glance, this statement may be perceived as if the woman was described as the man’s subordinate, but it actually shows the complementarity of the spouses: the wife needs her husband just as much the husband needs his wife, without one there cannot be the other, both of them are necessary for procreation, for the performance of the sacrifice and thus for their own ascension. The exclusion of a woman from a *Śrauta* ritual is a lack of respect, just like Siddhārtha’s choice of practicing ascension by himself is an insult towards Yaśodharā, whose reaction is predominated by rage and despair.

Compared to the women’s, the king’s reaction to Siddhārtha’s escape is very different: “Thus the king grieved over the separation from his son and lost his steadfastness, though it was innate like the solidity of the earth”⁸ and after having commanded his subordinates to start the search for his son, “... considering the matter to have been disposed of, performed the remaining rites in company with his wives and daughters-in-law”⁹. The king, although affected by a brief moment of confusion, quickly regains control and returns to his daily life, taking immediate action. On the contrary, the aforementioned women assume behaviors which show their weakness and their inability to promptly confront adversities.

The second category of women can be found in *Canto IV: The Women Rejected*. A group of courtesans with the order of entertaining the prince tries to corrupt him by offering him sensual pleasures in a futile effort to mislead him from his path. In this passage their bodies are the object of desire and a direct cause of suffering; even though they are young and beautiful, they are in truth subjected to old age, illness and death; they are therefore impure and a source of impermanence and illusion¹⁰. In the *Buddhacarita* women do not occupy a central role, they are background elements with the purpose of enhancing the men’s virtuous behaviors by contrast, with a focus on the Buddha’s glorious deeds. Portrayed as either weak and suffering or impure and corrupt, there are no examples of great women in this text.

⁵ *Śatapatha Brāhmaṇa*, 5:2:1:11 [Eggeling 1894].

⁶ “Prajapati.”, *Encyclopedia Britannica*.

⁷ *Śatapatha Brāhmaṇa*, 5:2:1:10 [Eggeling 1894].

⁸ *Buddhacarita*, VIII, 81 (Johnston 1936).

⁹ *Buddhacarita*, VIII, 87 (Johnston 1936).

¹⁰ *Buddhacarita*, IV, 88 (Johnston 1936).

2.2 Women in the Vinaya-Pitaka

The *Vinaya-Pitaka* is one of the three baskets of the Pāli Canon, the foundational text of Theravāda Buddhism in Southeast Asia and Ceylon. The canon, already introduced in Sri Lanka in the III century BCE, was recorded in written form only in the I century BCE during a council of monks. A subsection of the *Vinaya-Pitaka*, the *Cullavagga*, tells the story of the institution of the monastic order of nuns, in-existent prior to that time. This canonical account narrates that Mahāpajāpatī for three times asked the Buddha to allow women to practice Buddhism and that for three times he refused her. Only with Ānanda's assistance, his favorite disciple, the monastic order of *bhikkhuni* became reality, but not without any conditions: nuns were forced to follow eighty four more rules compared to monks and, moreover, their admission in the *saṅgha* was bound to cause a shortening in the duration of the Buddhist Law, which was not going to last forever anymore, but it was instead going to last only five hundred years. Following, the dialogue during which Ānanda convinces the Buddha of the legitimation of the female monastic order:

‘Are women, Lord, capable— when they have gone forth from the household life and entered the homeless state, under the doctrine and discipline proclaimed by the Blessed One — are they capable of realising the fruit of conversion, or of the second Path, or of the third Path, or of Arahatsip?’

‘They are capable, Ānanda.’¹¹

From this conversation it is understood that the possession of female genitalia does not encompass any obstacle towards the path to enlightenment. The only substantial difference between monks and nuns is the number of rules to follow, but from a theoretical standpoint, men and women are equally able to ascend. Unlike the *Buddhacarita*, in this text Mahāpajāpatī is a pivotal character who, although with Ānanda's help, makes real something that appeared impossible up until then: the institution of a female monastic order of *bhikkhunīs*, proof that women can in fact attain enlightenment.

Mahāprajāpatī's role as first nun and founder of the female monastic order was doubted on the basis of the account given in the *Dakkhiṇāvibhaṅga-sutta*, where she is portrayed as offering a robe to the Buddha while only observing five precepts, instead of the ten precepts members of the *saṅgha* must adhere to, thus presuming she must have been a laywoman at the time (Anālayo 2014a: 108). Not only would this claim conflict with the canonical accounts which indicate Mahāprajāpatī as the first nun and founder of the *bhikkhunīs* order, but also with the listing of eminent disciples in the *Ekottarika-āgama* and in the *Aṅguttara-nikāya*. These texts respectively describe her as being “the foremost of those *bhikkhunīs* who have gone forth to train for a

¹¹ *Cullavagga, Khandaka 10, Chapter 1* [Rhys Davids 1881].

long time” (Anālayo 2014a: 99) and “foremost for being long-standing” implying her role in the foundation of the order of *bhikkhunīs* (Anālayo 2014a: 101), which only the nun of longer standing, and therefore the first ordained nun, could have achieved. Therefore, I believe that Bhikkhu Anālayo’s explanation of this anachronism with a merger of two originally different texts (Anālayo 2014a: 110) is the most accurate one, and that there were actually no nuns before Mahāprajāpatī.

2.3 Women in the Sukhāvāṭīvyūha Sūtra

Pure Land Buddhism is a branch of Mahāyāna Buddhism popular in Eastern Asia, featuring the devotion to Amithaba Buddha, reason why this current is also known as Amidism. The core concept of this doctrine is the ascension to the *Sukhāvātī* (Land of Bliss), of which an extensive description is found in the *Long Sukhāvāṭīvyūha Sūtra*. Access to this Land of Bliss is only granted to ‘great men’, which would apparently make it inaccessible to women. It is important to understand that the meaning of a ‘great man’ is not a 君子 (*jūnzǐ*) in the Confucian sense of a ‘gentleman’ (Csikszentmihalyi 2020), but it is a being able to transcend desire and, therefore, able to transcend its own gender identity. The bodies of the men and women who want to access the Land of Bliss must undergo a transformation in order to become ‘great men’ in the sense that they must be liberated by the structure of desire (Lu, 2022: 12). Once their genitalia have no impact on their desire, that means they are truly liberated. A person who describes oneself as a man or a woman or anything at all is not liberated and is therefore not ready to enter the Land of Bliss (Lu, 2022: 11) because as long as one perceives oneself as a man or a woman, one will be subjected to desire towards one of the two genders, just like one will be somebody else’s object of desire. Like Jiefeng Lu explains in his paper, the inhabitants of the Land of Bliss are neither men nor women, they are ‘great men’, ‘perfect beings’ who have liberated themselves from desire. The apparent paradox of women not being able to access the Land of Bliss is thus solved, allowing them to reach enlightenment.

3. Examples of women in Buddhist epigraphy

3.1 Records of women in the Edicts of Aśoka

The *Edicts of Aśoka* is a list of edicts carved in stone, famous for being the most ancient Indian corpus of decipherable written documents (Milligan 2016: 44), as well as being the first tangible proof of the expansion of Buddhism. This corpus indistinctly mentions monks and nuns, evidence of the presence of an already well-established monastic community during King Aśoka’s empire which lasted from around 257 BCE, presumably the year of his Buddhist conversion, and 223

BCE, presumed year of his death (Cunningham 1969: vii). The Minor Rock Edict of Bairat, for example, recites the following:

... I desire, Sirs, that many groups of monks and (many) nuns may repeatedly listen to these expositions of the *Dharma*, and may reflect (on them). In the same way both laymen and laywomen (should act).
(Hultsch 1925: 160 – 161)

It is clear that the king is indiscriminately referring to both men and women, he mentions monks and nuns as well as laymen and laywomen, indicating the existence of a monastic order. The Edict on the schism of Sanchi is another confirmation of this claim:

The *Saṅgha* both of monks and of nuns is made united as long as (my) sons and great-grandsons (shall reign, and) as long as the moon and the sun (shall shine). The monk or nun who shall break up the *Saṅgha* must be caused to put on white robes and to reside in a non-residence.
(Hultsch 1925: 174)

There can be no discussion over the fact that a monastic order composed by both monks and nuns existed at this time. However, it is difficult to determine whether this community was extant prior to Aśoka's empire due to the lack of epigraphic records.

3.2 Records of women in the donative inscriptions of Sanchi

The site of Sanchi, situated in central India, is a source of many kinds of inscriptions. Not only the Edict on the schism was found there, but also a different category of epigraphy: donative inscriptions. These inscriptions record donations made to the Buddhist community at Sanchi, meaning the funds which made the construction of the great Sanchi *stūpa* possible. Most of these inscriptions are short and concise, usually including the name and sometimes the profession and place of origin of the donor. To give a concrete example, I will report Matthew D. Milligan's translations of two inscriptions:

“A gift of Dhamarakhitā, [a woman] from Madhuvana.” (Milligan 2016: 130)
“A gift of the nun [Aca]lā [or Isilā].” (Milligan 2016: 142)

Milligan's research has brought up an unexpected conclusion: most of the donations were gifted by women, a big percentage of them being non-local women who resided outside of Sanchi and went on a pilgrimage there (Milligan 2019: 71). The amount of donative inscriptions is so generous that the Sanchi *stūpa* as it appears today probably would not have existed without their patronage. As Milligan himself writes: “Simply put, at the heart of early South Asian Buddhist material culture is the pocketbook of the early South Asian Buddhist woman, who may have been a nun, a mother, daughter, wife or all the above.” (Milligan 2019: 74). It is then apparent that women had a certain degree

of freedom and economic power; they could become nuns, go on a pilgrimage and donate funds by themselves.

4. A comparison of trends in two macro-regions

While analyzing the sources presented until now, two different trends emerged: a tendency to marginalize women in the Northern-Western Indian and Gandhāran tradition, unlike the one in Central-Southern India and Southeast Asia, which seems to allow women more freedom. One of the causes of this could be the presence of the *Sarvāstivāda* and its subsect *Mūlasarvāstivāda* in the Northern-Western regions of the Indian subcontinent, specifically: Kashmir, Mathurā and Gandhāra¹². As already mentioned, Aśvaghōṣa's *Buddhacarita* is an example of Gandhāran Buddhism, the author belonged to the brahman caste, proved by his partial knowledge of *Veda* rituals, and he was considered a patriarch by the *Sarvāstivādins* (Passi 1979: 223-224), followers of the homonymous conservative predominantly misogynist pre-Mahāyānic school. The *Mūlasarvāstivāda-vinaya*, canonical text of the aforementioned school, refers to women in terms of the man they are closest to, e.g. the merchant's wife, the brahman's daughter (Finnegan 2009: 145), it describes female bodies as a temptation for monks (Finnegan 2009: 240) and, moreover, compares women to venomous snakes (Finnegan 2009: 302). The representation of female figures in the text is less than flattering. The Story of Sudinna, which led to the promulgation of the rule of celibacy for Buddhist monks (Martini 2012: 439), depicts Sudinna's mother as the one who conceives a plan to make him stray from his ascetic life so to make him return home. Sudinna is then tricked by his own mother to lay with the woman who used to be his wife before he ordained as a monk. His mind and his body "scorched by desire" he "took off his monastic robes, and two times, three times, they joined together in sexual union, the impure act" (Martini 2012: 449 – 450). These few examples from the text give an immediate impression of how women were perceived at the time.

It is also known that in the Sanskrit society of the I century CE, the most common form of marriage (although not the only one) was patrilocal marriage in which young maidens were 'gifted' to their grooms (Finnegan 2009: 145); it is in fact certain that Gandhāran aristocrats used to take a wife in India and Southeast Asia, which indeed indicates a patrilocal society, but once they became part of the family, the wives were allowed to act as laywomen and become active donors (Olivieri 2019: 254). An important archaeological piece of evidence of this, all the more important because it is rare (in a context where inhumation is scarcely practiced), comes from the multiple burial monument of Butkara IV (Swat, Gandhāra: c. 200 BCE-100 CE). Here lies the collective burial of an extended

¹² "Sarvastivada and Mulasarvastivada", *Encyclopedia of Buddhism*.

stem family, presumably an aristocratic family, where exogamy was practiced (Olivieri 2019: 247). Two individuals sharing a son-mother relatedness were discovered in this site, mother and son having no direct relationship with the female from the other chambers (Olivieri 2019: 243). As explained by Luca M. Olivieri:

The failure to detect genetic relatedness between the 3-family group of the chamber [51] and the other two individuals (female), may reflect an agnatic lineage and society (a possibility that might also be reinforced by the available sex ratio in the burial). It is therefore possible to propose also at Butkara IV, as in the SPG sites, a male-biased ancestry pattern. (Olivieri 2019: 252)

The individuals buried at Butkara IV manifested the South Asian component in their ancestry, a component which was transmitted by maternal side and that is most likely proof of “a gradual and slow process of ‘Indianization’ that proceeded side by side with the diffusion of Buddhism.” (Olivieri 2019: 252). Central India and Southeast Asian women seemed to be able to be less subordinate to men; the donative inscriptions at Sanchi demonstrate that a number of nuns had the financial means to afford a pilgrimage and to donate, stepping out of the role of being somebody’s wife, unlike Gandhāran families, where women are recorder to be only active as lay members. It is possible that this is Aśoka’s legacy; the remains of a king who used to preach tolerance and respect among his citizens, as opposed to a conservative school of thought such as the Gandhāran patrilocal society.

5. The gender binary as an obstacle towards enlightenment

I selected two tales which I will shortly illustrate to exemplify the link that I believe exists between desire and gender. The first one is a parable from the second volume of the 舊雜譬喻經 (*Jiù zá pìyù jīng*). This parable tells the story of a young man who upon seeing Aniruddha, a handsome *arhat*, mistakes him for a woman and, desiring her, tries to seduce her. When he realizes that Aniruddha is actually a male, the young man is transformed into a woman. The tale evidently compares a woman’s body to the object of desire, its role subordinated to the man who desires it (Lu 2022: 6). In this text, it is clear that desire is the direct cause of gender: women make themselves the object of desire to men, therefore they identify as women, so when the young man desires another man, he is transformed into a woman. Since desire causes gender, and there cannot be any desire in the Land of Bliss, one must free oneself of desire to ascend, spontaneously freeing oneself of gender as well. A parallel can be drawn between the story from the 舊雜譬喻經 (*Jiù zá pìyù jīng*) and a tale from the *Dhammapada* commentary, which narrates of the protagonist Soreyya who, seeing the beautiful skin colour of the bhikkhu Mahākaccāyana, desires to have

him as his wife and this thought causes him to transform into a woman (Anālayo 2014b: 111). The story develops in the same way, involving a man transforming into a woman as a consequence of desiring another man. The commentary identifies this change of sex, from man to woman, as a result of bad karma, however it is important to notice that no such claim is made in any of the canonical texts (Anālayo 2014b: 113). I wish to focus instead on the fact that the cause of this aforementioned transformation is, once again, desire. Soreyya becomes a slave to his own desire which causes him to transform into a different gender. Once again, desire causes gender, not vice versa.

As written by Jiefeng Lu: "... gender is just a consequence of being produced, and the further question is how we identify ourselves with others we encounter." (Lu 2022: 5) I wish to corroborate this claim. Gender emerges when we start relating ourselves to others; were a person to grow up in total solitude, there would not be any need to define gender, for it would not make any sense to the person themselves. We can therefore talk about *social* gender, necessary to define interpersonal relations inside our society. Gender answers the question: 'How do I identify myself (in relation to others)?' and 'How do others perceive me?'. Being a 'man' or a 'woman' emerges from the perception of a difference compared to the people who surround the individual. A 3-year-old girl may not have a clear perception of her own gender until she realizes she is expected to wear a two piece swimsuit at the beach or to wear a dress instead of trousers at a birthday party. When one of these occurrences happen, she will most likely notice a separation, an 'us' versus 'them': the ones in a dress and the ones who are not. This is certainly an oversimplification of the matter, but it implies that gender is a learned behavior, not a natural one. There are undeniable biological differences, such as genitalia and secondary sex characteristics, but these have nothing to do with the way we are taught to behave, with our social gender. Regarding the two tales mentioned earlier from the 舊雜譬喻經 (*Jiù zá pìyù jīng*) and the *Dhammapada* commentary featuring a change of sex, it could be possible that the protagonists do not *physically transform* into women, but they are immediately *perceived* as women by the people surrounding them once they experience desire towards a man, as a manifestation of their social gender. Regardless, it would make no substantial difference in the retelling of their stories since it did not matter how the protagonists perceived themselves – certainly they thought themselves to be men – but how the people surrounding them perceived them to be, and they considered them as women, riddled with desire. In the Buddhist Pure Land the gender binary is irrelevant, because the people who have ascended there are neither men nor women, but 'perfect beings' who have defeated desire; neither their biological sex nor their social gender are relevant. Therefore, one needs to transcend gender, which is caused by desire, and turn into a 'perfect being' in order to reach enlightenment, which makes gender itself an obstacle towards enlightenment. The emphasis should not be on

the person's gender, but on the person's self-cultivation; first and foremost they should have gotten rid of desire.

6. A few conclusive notes

A great deal of evidence has been analysed to prove the existence of a female monastic order, as well as the ability of women to reach enlightenment. The *Edicts of Aśoka* and the donative inscriptions at Sanchi are both proof of the presence of women in the *saṃgha*. Even the *Buddhacarita*, although being a conservative text, mentions the possibility of couple ascension for husband and wife, and the *Vinaya-Pitaka* makes it clear that nuns can effectively ascend. Pure Land Buddhism, which might appear contrary to women's enlightenment, allows women to ascend once they transform their bodies into the ones of 'great men' or 'perfect beings'. It is evident at this point that monks and nuns were equally able to ascend, but I believe that the emphasis on the gender binary is in itself the first obstacle towards enlightenment, not an aid. Gender is caused by desire; not vice versa, therefore its transcendence is necessary in order to reach liberation, since one must rid themselves of desire in order to reach enlightenment.

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