

EUROPEAN SCHOLARSHIP ON THE BURUSHASKI LANGUAGE: A CRITICAL SURVEY OF THE LITERATURE

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Abstract

This paper aims to reveal European research on the Burushaski language. As one of the world's language isolates, Burushaski has been a focal point of interest for linguists and anthropologists across the globe. The language is mainly spoken in northern Pakistan, specifically in the valleys of Hunza, Nagar, and Yasin in Gilgit-Baltistan. Europeans, particularly due to their historical involvement in the region, have been among the pioneering researchers of this language isolate. This study employs a qualitative, document-based methodology to examine European scholarly contributions to Burushaski, with a special focus on seven key linguistic areas: grammatical structure, dialectology, lexicography (dictionaries and word lists), text analysis and translation, language classification, sociolinguistics, and phonology. A wide range of academic sources was consulted to compile the relevant materials. The survey reveals that European researchers have covered nearly all aspects of this language isolate, ranging from phonemes to broader sociolinguistic dimensions.

Keywords: *Brushashki, Research, Europeans, Grammatical structures, Dialectology, Lexicography, Sociolinguistics, Phonology*

Introduction

Burushaski is an isolated language that is mainly spoken in northern Pakistan, specifically in the valleys of Hunza, Nagar and Yasin in Gilgit-Baltistan. It does not have a proven genetic relationship with any other language, which makes it one of the world's linguistic mysteries (Berger, *Die Burushaski-Sprache*, 1998). Despite its isolation, Burushaski has been influenced by the surrounding languages, borrowing Shina vocabulary, Wakhi, Khowar, Urdu and Persian, but its grammatical structure and its central vocabulary remain different (Lorimer, *The Burushaski Language*, 1935).

Burushaski is the native language of the Burusho people, an ethnic group that has lived in this region for centuries. It is estimated that the total number of speakers of Burushaski is around 100,000 (Berger, *Die Burushaski-Sprache*, 1998), although the precise figures vary due to the lack of recent linguistic surveys. The Hunza dialect is spoken in the Hunza Valley, an important historical region located along the old silk route, which connects the southern Asia with Central Asia and China. This geographical positioning facilitated contact with Persian, Turkish and Indo-Iranian speakers, but Burushaski remained different, preserving its unique linguistic characteristics (Lorimer, *The Burushaski Language*, 1935).

In the neighbor of the Nagar Valley, the Nagar Dialect is spoken, and although this is closely related to the dialect of Hunza, there are noticeable phonological and lexical differences (Berger, *Die Burushaski-Sprache*, 1998). Further west, in the Yasin district in Ghizer District, another variant of Burushaski known as Werchikwar is spoken. This dialect shows the most divergence

from the dialects of Hunza and Nagar, especially in vocabulary and phonetics, leading some scholars to believe that it represents the earlier phase of Burušasek's evolution (Lorimer, Burushaski Language, 1935).

Although, above all, in Pakistan, in parts of the Indian managed Kashmir, especially in the regions where the Burusho family migrated for generations (backstrom, languages of the northern regions, 1992), there are also migration in cities such as Karachi and abroad. These migration patterns have caused concerns about the future of Burushaski, as the younger generations are increasingly accepting Urdu and English for communication, which may eventually endanger Burushaski transfer to future generations (Berger, Die Burushaski-Sprache, 1998).

Burushaski speakers are large in number which are spreaded in many areas of Gilgit, Pakistan.(Berger, Die Burushaski-Sprache, 1998). Despite this relatively robust number of speakers, the language is considered to be vulnerable rather than prosperous, mainly because of a significant language shift in younger generations. In everyday use, especially in rural communities, older speakers continue to maintain language; however, younger community members are increasingly accepting Urdu and English for education, employment and wider communication needs (backstrom, northern areas, 1992; van Driem, Himalayas, 2001).

This shift is further accelerated by urban migration, where the expositions of the dominant national and international languages are undermined by the intergenerational transmission of Burushaski. Although Burushaski has a rich linguistic heritage and remains the main element of cultural identity among Burusho people, it is not officially recognized in national education or the media. As a result, its presence in formal domains is limited, which increases the risk of further decline (Lorimer, Burushaski Language, 1935).

The general public sentiment on Burushaski reflects a deep sense of cultural pride and identity in Burusho people. Many locals describe the language as not only a tool for communication, but as a live connection with their ancestors - an essential part of who they are. In community gatherings and local media, people were heard, for example: "Burushaski is the voice of our ancestors," they emphasize their role while preserving traditions and collective memory. Such claims often emphasize that every unique sound and grammatical feature is evidence of centuries of isolation and cultural development in the Hunza, Nagar and Yasin valleys (as mentioned in cultural comments compiled by local scholars and reported in regional studies, such as Berger, Burushaski-Sprache, 1998).

In addition, public terms from community members reflect concerns about the future of the language. Many younger speakers affected by the dominance of Urdu and English express the feeling of loss and challenge to the action and advocate efforts to ensure that Burushaski will continue to be passed on to future generations. These voices, captured in interviews and community radio, often emphasize the uniqueness of Burushaski - not only in their complex grammar and distinctive phonology, as researcher like Lorimer (Burushaski Language, 1935–1938), but also as a weighted symbol of regional identity that distinguishes Burushaski. Thus, the general statements of people about Burushaski intertwine admiration for its historical and linguistic uniqueness with an urgent interest in its preservation and create a powerful narrative of cultural pride and urgency.

The lack of interest in Burushaski research between local and national (Pakistani) researchers stems from a number of sociopolitical, educational and institutional challenges that have

historically marginalized minority languages in Pakistan. The central point is the state policy that prefers Urdu as national language and English as a language of university education and administration, so that small institutional support or visibility for indigenous languages such as Burushaski (Rahman, 1996: language and politics in Pakistan, pp. 87-94). As a result, Burushaski has not been integrated into common academic curriculum or national linguistic programs. Pakistani universities rarely offer courses or research programs dedicated to minority languages, even if there is an interest between scholars, lack of training in advanced linguistic methodologies - such as phonetic transcription, morphological syntactic analysis or historical linguistics - limiting quality and depth of work (Munshi, 2013).

Moreover, language research such as Burushaski is not often considered to be economically or professionally a reward in Pakistan, where they are the main way to work, publishing opportunities and social mobility of Urdu and English). This has led to a situation where young researchers, even from Burushaski -speaking communities, are more likely to follow titles in fields that are in line with national and global demand than minority linguistics. Pakistani academic magazines rarely publish detailed language analyzes of insufficiently documented languages and in this area there is a general lack of institutional continuity. On the other hand, European researchers such as D.L.R. Lorimer, Hermann Berger, Jan Henrik Holst and Christian Troll, supported by universities and research foundations in the UK, Germany and Scandinavia, carried out decades of systematic documentation and analysis of Burushaski produced the main works on its phonetics, dialectology and historical classification (Burushaski-Sprac von Hunza und Nagar, introduction).

Their contributions reflect both the scientific tradition of interest in linguistic typology and the research infrastructure that supports field work in smaller language studied. This disparity underlines the critical role of institutional support, training and scientific networks in allowing robust language research and emphasizes the need for greater involvement and construction of capacities in Pakistani academic institutions to ensure that research is not dependent on foreign expertise. In the light of this context, I am going to explore all the key areas where European scientists have contributed significantly to Burushaski studies, including grammatical structure, dialectology, lexicography (as dictionaries and lists of words), text analysis and translation, historical linguistics and language classification, sociolinguistic language vitality and phonetics and phonetics.

Research Questions

What is the overall state of European research on the Burushaski language?

What key features and aspects of Burushaski have been the focus of European researchers?

Objectives

To provide a comprehensive overview of the current state of European research on the Burushaski language.

To identify and analyze the major research areas, themes, and trends in European

Methodology

This study employs a qualitative, document-based methodology to examine European scholarly contributions to the Burushaski language, with a particular focus on seven key linguistic areas: grammatical structure, dialectology, lexicography (dictionaries and word lists), text analysis and translation, language classification, sociolinguistics, and phonology. A wide range of academic sources was consulted to compile the relevant materials.

These sources include primary works by prominent European researchers such as D. L. R. Lorimer, Hermann Berger, Jan Henrik Holst, Christian Troll, Bernd Heine, Alain Lefebvre, and others. Major works, including Lorimer's *The Burushaski Language* (1935), Berger's *Die Burushaski-Sprache von Hunza und Nagar* (1998), and Holst's comparative studies, were accessed through university libraries, academic archives, and online repositories.

Additional data were collected from peer-reviewed journals and field reports available through academic databases such as JSTOR, ResearchGate, and Google Scholar. Sociolinguistic surveys and dialect-mapping studies were also obtained from international linguistic documentation projects and related research initiatives.

The selected materials were categorized according to their respective linguistic subfields and subjected to thematic analysis in order to examine the objectives, methodologies, and key findings of each scholar. Particular attention was paid to the ways in which researchers employed structural, typological, historical-comparative, and sociolinguistic approaches to investigate various aspects of Burushaski.

This comprehensive approach provides a detailed overview of European scholarly contributions to the study of Burushaski while also identifying existing gaps in the literature, laying the foundation for future research, and promoting greater academic engagement with this understudied language.

Literature Review

European researchers have conducted extensive studies on several key areas of Burushaski, which significantly contributed to understanding this language isolate. One of the most important aspects is its grammatical structure with researchers like D.L.R. Lorimer (*Burushaski Language*, 1935–1938) and Hermann Berger (*Die Burushaski-Sprache*, 1998) analyzing its complex system of nouns classification, ergative verbal structure and complex marking of cases. Phonological research has also been the main focus, with detailed studies on documenting its distinctive sound system, including retroflex consonants and tonal variations that distinguish it from neighboring languages. Another key area is the lexical documentation, where Berger's extensive work has led to a compilation of bilingual dictionaries and text collections, which retained the vocabulary of the language for linguistic study. Historical linguistic studies tried to explore the potential association of Burushaski with other language families, with researchers such as Van Drijo (*Himalayas*, 2001) and Bengtson (1999), investigating references with the Gaukaj and Yeniseian groups. Finally, dialectology was an important area of study, with research emphasizes on changes in pronunciation, syntax and vocabulary between Hunza, Nagar and Yasin. Together, these areas form the basis of European research by Burushaski and cast light on its unique properties and historical development.

European researchers have made significant advances in the documentation of the main language features of Burushaski. Basic work by D.L.R. Lorimer (1935–1938) and Hermann Berger (1998) provided detailed analyses of their grammar, vocabulary, phonology and text collections that form the basis of our understanding of this language isolate (Lorimer, *Burushaski Language*, 1935; Berger, *Die Burushaski-Sprache*, 1998). Their studies offer comprehensive descriptions of aspects, such as the unique classification of the language nouns and the complex morphology of the verb. Although these works thoroughly dealt with many structural and lexical elements, some areas

remain less explored. For example, sociolinguistic dynamics - for example, the effects of urban migration, a growing shift between younger speakers towards Urdu and English, and the consequences for intergenerational transmission are not so comprehensively examined (Backstrom, northern areas, 1992; van Driem, Himalayas, 2001).

In addition, the historical origin and genetic affiliation of Burushaski is still the subject of the debate. Various theories have been designed, including the context of the family of the Dena-Caucasian language (Bengtson, 1999) and even speculative references to Indo-European languages (Čašule, Burushaski as Indo-European, 2017), but no consensus was achieved. In addition, while the primary dialectal differences between the regions of Hunza, Nagar and Yasin were documented, nuance studies on internal dialect variations and language development over time are still needed. In short, although the European scholarship laid a robust basis for understanding the structural aspects of Burushaski, further investigations are going to fully explore its sociolinguistic context, historical development and dialect diversity.

Key Areas

1) Grammatical structure

European researchers have largely studied the grammatical structure of Burushaski, focusing on key topics such as grammatical arrangements, classification of nouns, morphology of verbs, cases and syntactic flexibility. These areas have been documented in detail by linguists such as D.L.R. Lorimer (1935–1938), Hermann Berger (1998), George Van Driem (2001), Franz Tikkanen (2010), Henrik Liljegren (2019) and Ilija Čašule (2012, 2017).

One of the most important areas of research was ergativity that distinguishes Burushaski from neighboring Indo-Iranian languages. D.L.R. Lorimer (1935–1938) was one of the first European linguists to describe Burushaski's ergative-absorptive alignment, explaining that the subject of the transitive verb is marked with an ergative extension (-E), while intransitive entities and transitive objects remain in an absolute case. His basic work, *Burushaski language*, provided the first systematic description of this function. Later Hermann Berger (1998) improved this analysis in *Burushaski-Sprache Die*, which demonstrates the formulas of verbs in relation to ergative marking. His research illustrated how Burushaski's system of verbs uniquely adapts to its ergative structure. George van Driem (2001), in his comparative languages of the Himalayas, examined Burushaski's ergativity along with the Tibetan, White and Basque language and indicated a possible historical connection despite the isolated status of Burushaski.

Another main area of study was the classification of nouns and its effect on the morphology of the agreement. Burushaski is unusual in that it classifies nouns into four different classes: H-class (male man), f-class (female people), class X (most inanimate objects) and class Y (liquid and mass names). D.L.R. Lorimer (1935–1938) was the first to document this system and noted that the noun class controls the verbal agreement, the use of the pronouns and the adjectives. Hermann Berger (1998) provided the most detailed study on how the noun classification affects the conjugation of verbs, illustrating how verbs must be morphologically copped with the class of the subject. His research has shown that the classification of nouns in Burushaski works similarly to gender labeling in Indo-European languages, but is more complicated. More recently, Henrik Liljegren (2019) has examined dialectal variations in the classification of nouns, showing the subtle differences between Hunza, Nagar and Yasin dialects indicating historical evolution in communities speaking Burushaski.

European linguists also contributed significantly to the study of the complex morphology of the verbs in Burushaski. Lorimer (1935–1938) was the first to document how Burushaski's verbs code more grammatical properties within a single word, including a person, number, tension, aspect and conformity with the object. Hermann Berger (1998) further expanded this research and analyzed the prefix, extension and alternation of stems. Its findings revealed that Burushaski had a particularly rich aspect, including progressive, perfect and usual aspects. Franz Tikkanen (2010) and Henrik Liljegren (2019) later examined dialectal variations in the morphology of verbs and compared how different dialects modify verbal prefixes and suffixes, which contributed to the understanding of historical linguistic development Burushaski.

The Burushaski case system was also a key research area. Lorimer (1935–1938) identified the main cases used in Burushaski, including absolute (unmarked), ergative (-e), genitive (-mo, -i), dative (-ar, -as), lokativa (-an, -se), ablative (-dar), instrumental (-thun) and more. His early work laid the foundations for the extended analysis of Hermann Berger (1998), which examined how the designation of cases interacts with the verbal agreement and the structure of the sentence. Berger (1998) has shown that the suffixes of cases play a crucial role in maintaining syntactic clarity, due to the relatively flexible order of Burushaski. George van Driem (2001) explored Burushaski's case system in relation to other Himalayan and Caucasian languages and suggested that his ergative structure could have distant typological parallels outside South Asia. Finally, Burushaski's syntactic flexibility and the order of words explored several European researchers. While Burushaski primarily monitors the order of the subject-object-verb (SOV), its rich system of the case allows greater flexibility of the order of words. Henrik Liljegren (2019) has conducted a study on how to mark cases with restructuring the sentence without losing meaning, showing that the suffixes of the case help maintain grammatical relationships, even if the order of words changes. This research is in line with the former work of Hermann Berger (1998), which provided extensive examples of alternative sentences, especially in relative provisions and complex sentences.

European research has thus played a key role in the analysis of the grammatical structure of Burushaski, with significant contributions focused on ergativity, classification of nouns, verb morphology, case and syntactic flexibility. Scholars like D.L.R. Lorimer, Hermann Berger, George van Driem, Franz Tikkanen, and Henrik Liljegren have provided detailed descriptions, which were Burushaski in the world. Their research not only deepened on the understanding of internal grammar of Burushaski, but also contributed to wider discussions about historical linguistics and possible language connections. Their collective work continues to form contemporary linguistic studies, especially in the field of morphological, syntax, ergativity and language classification.

2. Dialectology

European research on Burushaski dialectology has offered a detailed and critical insight into the internal variation of this language isolate, especially through works focused on the main dialect: Hunza, Nagar and Yasin (Werchikwar). The oldest main study of dialects Burushaski is *Burushaski Language* (1935), written by D.L.R. Lorimer. This extensive three-piece work, which focuses primarily on the Hunza dialect, has provided in-depth examination of grammar, vocabulary and language sentences. Lorimer's field work included spending time with native speakers, recording oral traditions, such as folktales, and songs that helped preserve linguistic elements that could otherwise be lost. Lorimer emphasized the

characteristic features in the Hunza dialect, including variations for the cases of ending and verbal structure. Lorimer has also seen the role of nouns morphology in distinguishing meanings where attachment to nouns has changed on the basis of case, number and definitiveness. Its extensive vocabulary lists along with examples of sentences are still the basis for understanding the dialect of Hunza and Burushaski as a whole.

Another important research is Das Yasin-Burushaski (1974) written by Hermann Berger. In this study, Berger focused on the dialect of Yasin (also known as Werchikwar), which is significantly different from the dialect of Hunza to maintain his older language traits. Berger identified the archaic verb forms in Yasin, which were missing in other dialects, such as the verb conjugation system that distinguishes between inclusive and exclusive plural forms. In addition to verb forms, Berger described the unique noun class system in Yasin, where nouns were categorized on the basis of gender or semantic fields, similar to what is found in some Africanasiatic languages. For example, in Yasin, nouns referring to human beings have been marked differently from those that refer to inanimate objects, a feature that distinguishes it from the dialects of Hunza and Nagar. Berger's work also pointed out how the dialect of Yasin was widely used by sloping cases that allowed further syntactic flexibility compared to other Burushaski varieties. His comparative analysis of Yasin's vocabulary revealed that it was less influenced by the surrounding Dardical or Indo-Aryan, emphasizing its historical conservativity.

The second main work of Hermann Berger *Die Burushaski-Spreache von Hunza und Nagar* (1998) compared both Hunza and Nagar dialects. In this comprehensive study of three Berger volumes, he discussed phonological changes between two dialects. For example, he noted how the Nagar dialect went through simplification in his vowel system compared to Hunza, especially in reducing the differences in the length of the vowel. In addition, he identified the tendency in Nagar to reduce consonant clusters, which significantly facilitated the pronunciation compared to the more complex clusters found in Hunza. Berger also focused on the use of verbs or inflection in both dialects and provided specific examples of how the verbal compounds in Nagar and Hunza were different. In Nagar, for example, there was a tendency to use simpler combinations of the verb, while in Hunza included more complex syntactic structures. Berger's work also included a complex dictionary offering detailed translations and explanations of words in context. The dictionary helped to clarify the differences in vocabulary, such as how pronouns and nouns differed between Hunza and Nagar. These findings showed how not only the dialect were geographically but also linguistically different, although they are comprehensible.

Advances by Jan Henrika Holsta in *Burushaski Linguistics* (2014) brought a modern linguistic perspective Burushaski dialectology using instruments from generative phonology and historically compatible analysis. Holst focused on phonological shifts across dialects and noticed that, for example, the palatalization of certain consonants in Nagar dialect compared to Hunza. He provided examples such as the sound shift of the "K" on "CH" in Nagar, a feature that was not seen in Hunza. Another important phonological shift described was the alternation of the vowel found in the Yasin dialect, where a short vowel would ever turn into a long vowel depending on its position in the word. Holst also examined how these sound changes are related to the geographical department and language contact. He suggested that some of these shifts could be caused by historical contact with languages such as Shina, which influenced the phonology of Burushaski speakers in the Yasin area. Holst's comparative approach by combining phonological shifts with geographical insulation and cultural divergence has provided a clearer

understanding of how the dialect develops over time due to internal language mechanisms and external influences.

These basic works by Lorimer, Berger and Holst have enriched the field of Burushaski linguistics. Lorimer's early work and documentation of the dialect Hunza laid the foundations for later studies and provided a valuable source for language analysis. Berger's comparative research across the dialects of Yasin, Nagar and Hunza revealed both phonological and morphological diversity in Burushaski, while his in-depth dictionaries and lists of words have preserved the lexical richness of the language. Holst's recent contributions offered a modern comparative framework that integrated phonological changes and geographical influences, emphasizing the dynamic nature of Burushaski's dialect variations. Together, these works offer a comprehensive understanding of the grammatical structure of Burushaski and emphasize the complex interplay of phonology, morphology and syntax across its dialect.

3) Lexicography (Dictionaries and Wordlists)

Burushaski is a unique language isolate spoken in the northern areas of Pakistan, especially in the valleys of Hunza, Nagar and Yasin. It attracted significant research attention, especially from European researchers who contributed to a comprehensive understanding of its lexicography - especially in terms of dictionaries and words. These works were essential while maintaining the language and understanding of its distinctiveness. Lexicographic contributions to European researchers, starting with early pioneers such as D.L.R. Lorimer and Hermann Berger played a key role in the study of vocabulary Burushaski, phonology and regional dialect variations.

First, the substantial work in Burushaski lexicography was done by D.L.R. Lorimer in his monumental language Burushaski (1935). This three-part work is considered one of the cornerstones of Burushaski linguistic studies, especially for the Hunza dialect, and laid the foundation for subsequent research. Lorimer's lexicographic work was complex and included a collection of thousands of words used by native speakers in everyday contexts. His lists of vocabulary were invaluable in documenting native terms used for a number of concepts such as flora, fauna, tools and household items. For example, he documented Burushaski's word for "horses" (Húgu in Hunza), "water" (Kas) and "Mountain" (Tášu) representing the phonological system of the dialect of Hunza. Lorimer also provided extensive translations of Folktales, which served as linguistic and cultural preservatives. His field work, which included active cooperation with local people and documents oral traditions, provided a critical insight into the native vocabulary Burushaski. Linguists have helped Burushaski's words to compare with those in neighboring languages, especially Indo-Aryan and Dardic languages, revealing some phonetic and morphological idiosyncrasia of the language. Lorimer's contribution remains significant because it provided an early linguistic map of Burushaski vocabulary and its morphological structure (Lorimer, 1935).

Hermann Berger significantly contributed to the lexicography of Burushaski, especially through his research of the dialect Yasin. His *Das Yasin-Burushaski* (1974) was one of the first studies to focus on the dialect of Yasin, which is significantly different from the dialects of Hunza and Nagar. This work provided detailed lexicographic analysis and documented vocabulary between Yasin and other dialects. For example, Berger noted that the word for the "Sun" was a camp in Yasin, unlike the *soy* used in Hunza and *Soda* in Nagar. Berger's approach was to look at the lexical variations not only in terms of surface differences, but also to monitor these differences with historical and geographical influences. His work also emphasized the preservation of older

lexical forms in Yasin, which were lost in other dialects, providing a valuable insight into the historical layers of Burushaski. For example, he identified Shush for the "dog" in Yasin as an older form compared to Šúš in Hunza. These lexical variants were not just linguistic curiosities; they also provided important traces of historical language development. Berger's lexicographic work laid the foundations for future comparative studies Burushaski and his dialects (Berger, 1974).

Berger's later work, *Die Burushaski-Sprache von Hunza und Nagar* (1998), focused on Dialect Nagar and provided another significant contribution to the lexicographic documentation of Burushaski. In this research, Berger compiled a large vocabulary for dialect Nagar and compared his vocabulary with the vocabulary of Hunza Dialect. One of the key findings in Berger's work was that while dialects Hunza and Nagar were comprehensible, they showed noticeable phonetic and lexical differences. For example, the word for "rain" in Nagar is Hásk, while in Hunza it is a hog - a gentle phonological variation, which had important consequences for understanding the regional variation in Burushaski. Berger's vocabulary also provided many examples of composed words, such as Kúti-Fri for "House Roof" in Hunza, which was represented in Nagar as the only word. These compound words illustrated not only the lexical choices, but also the syntactic structures unique for every dialect. Berger's comparative lexicography was particularly useful to illustrate the dialects of some features, but also showed important differences in terms of their vocabulary and morphology (Berger, 1998).

In the last decades, Jan Henrik Holst has contributed to the lexicographic documentation of Burushaski to his progress in Burushaski linguistics (2014). Holst's work brings modern linguistic perspective to Burushaski lexicography, integrates methods from generative phonology and historical-compatible linguistics. He examined phonological shifts in Burushaski dialects, especially in terms of vowel alternatives and consonant changes. For example, Holst identified how the word for "goat" changes from doz in Hunza to jars in Nagar and reveals a phonological shift that testifies to the dialectal change of the vowel sounds. Holst also studied phonological shifts could be traced to the subtle influences of neighboring languages, such as Shina, a dardic language spoken in the region. His work indicated that some of the lexical changes in Burushaski, such as the reduction of vowels or shifts, could be the result of contact with these surrounding languages over time. Holst's study also examined how lexical forms developed due to language contact and cultural divergence. His approach to lexicography was more focused on the historical change and development of the language, the aim of which was to monitor the root forms of words in Burushaski and compare them with similar forms in other languages of the region (Holst, 2014).

"Burushaski and his Neighbors: Language contact in North Pakistan" by Ulrich Schweier (unpublished work, 2002) also analyzed syntactic diffusion and lexical lending between Burushaski and Wakhi and designed a model of permanent bilingualism in the Gojal region. His data in the field showed lexical overlap in agricultural and related vocabulary, but concluded that the core of morphology and syntax remained intact, indicating contact without convergence. For example, maintaining numerical classifiers specific to Burushaski in borrowed noun phrases illustrated this limit.

In addition to the work of Lorimer, Berger and Holst, The Burushaski Dictionary Project is another important initiative for Burushaski vocabulary documentation. The aim of this collaborative project is to build a comprehensive, digital lexicon of language and document words from all Burushaski dialects. The project not only includes vocabulary related to everyday objects,

but also provides examples of how these words are used in natural discourse, which helps not only to preserve words but also their contextual meanings. This project is an important tool for future linguistic analysis and language teaching, which offers a detailed, searchable source for scientists and Burushaski speakers. The digital project format also allows easy updates and cooperation, making it a basic source for contemporary linguistic studies (Burushaski Dictionary Project, 2023).

The lexicographic contributions of these European scientists played a crucial role together while maintaining the vocabulary of Burushaski and understanding its dialect variations. These dictionaries and lists of words have enabled the documentation of thousands of Burushaski words, some of which were previously undocumented. The ongoing efforts of projects, such as the Burushaski Dictionary Project, continues to ensure that the language remains an important part of the language landscape and offers a rich source for future research. Through these collective efforts, Burushaski lexicography has evolved into a complex field that captures the complex nuances of this unique language isolate.

4) Text Analysis and Translation

European researches have significantly contributed to the understanding of linguistic, grammatical and cultural aspects of the language, especially within historical linguistics and comparative studies. Scientists have approached Burushaski from different angles, including phonology, syntax, lexicography and text analysis, and tried to understand its complex structure, vocabulary and the relationship of Burushaski with neighboring languages.

Burushaski texts were compiled and translated by D.L.R. Lorimer in the 1950s. This work with multiple volumes is one of the basic sources for text analysis and translation of Burushaski. Lorimer gathered the oral narrative - myths, legends and folk stories - from the Hunza and Yasin valley. Each text is provided in Burushaski with inter-routine glosses and English translation. For example, in the legend of the demon and the shepherds Lorimer shows how the verbs are formed by gender and number and how ergative construction work in narrative discourse. In one sentence: "Cáa Gu-Tiqan-A" ("Man-Ge Ho"), Lorimer carefully annotated that the Gu-Music ergative marker and -Tiqan are the past tense verb. Because English does not have an ergative structure, Lorimer explains these grammatical roles with footnotes to preserve the semantic role during translation (Lorimer, 1958, Vol. I, p. 223).

Die Burushaski-Sprache by Hermann Berger in 1938 and later expanded. This is a grammatical description that also includes syntactic and semantic interpretation of text examples. Although it is not a collection of stories such as Lorimer's work, Berger's work analyzes the fragments of the text to illustrate morphological and phonological phenomena, especially the complex verbal system. For example, it analyzes forms such as Phusan-B-U ("Open") to explain how the future tense and transitivity are marked with suffixes and prefixes in Burushaski verbs. In translation, these markers have no direct English equivalents. Berger provides examples of how every attachment changes the nuances of the verb and helps translators to determine how to represent the tense and the person in their translations (Berger, 1998, p. 312).

The Syntax of Burushaski was written by Jan Henrik Holst in 1965 (with later updates). It focuses specifically on syntactic structures with examples of natural Burushaski discourse. Holst analyzes the types of sentences used in stories such as relative clauses, conditional and subordination. In one analyzed sentence: "Gu-Miché nukhu-ye hunzá-yé bers", Holst explains that the demonstrative and relative pronoun connects and creates a structure as "one who came from

Hunza". In translation, this type of clause may not exactly match English patterns. Holst's analysis helps the translator to decide whether to maintain the syntactic complexity of Burushaski or to restructure it for English readability (Holst, 1965, p. 87).

Burushaski and its Historical Background were written by Gabriele Ferrario in 1982. This research combines lexical and cultural content in texts with historical language influence, especially Persian and Turkic. Ferrario identifies a loan in stories and examines their semantic fields. For example, the word Qalam ("pen"), Persian origin, appears in an educational or religious context in Burushaski oral history. Ferrario emphasizes that translators must be aware of these historical strata. In texts describing religious education, the word Qalam evokes not only the instrument but also the tradition of learning and the Islamic scholarship. Ferrario claims that the translator should either maintain the original term or add explanatory notes to maintain cultural depth (Ferrario, 1982, p. 139).

Burushaski Folklore and linguistic Structures have been developed by Maurizio Tulli in 2001. This work spans a text analysis with pragmatic and metaphorical interpretation using folk proverbs and idiomatic expressions. Tulli gives an example of the proverb of "Salt Kham, bread", which literally means "if someone gives salt, one has to give bread". Tulli explains that it is not only a business metaphor, but a moral statement of reciprocity in Burusho ethics. In translation, literal rendering can lose this cultural weight. Tulli deals with strategies such as the use of culturally equivalent proverbs or adding parenthetical explanations to maintain the pragmatic function of such expressions (Tuli, 2001, p. 45).

Burushaski Typology is a comparative study written by the Vossen Rainer in 1994. He uses texts to explore how Burushaski typologically differs from Indo-European and other South Asian languages. Vossen studies how syntactic alignment appears in extended narrative texts where there are mechanisms of chaining and switches. For example, in a sentence with Multi-Klauzua, he emphasizes how the verb agreement changes with the shifts of the topic. Translators must carefully monitor the reference chains. Vossen represents a narrative excerpt where the subject gently moves between the lines, and if the translator lacks an ergative alignment or agreement, the officer may become English (Vossen, 1994, p. 59).

Burushaski-English dictionary was compiled by Isabelle Joulaud in 2004. Although mainly a lexicographic source, it contains context examples based on spoken and written texts. These microtexts serve as examples of how words work in discourse. For example, the word shish (Snow) is shown in the sentence: "Sish go-n-a" ("snow fell"). Joulaud explains that the snow is associated with seasonal cycles and in texts describing migration or harvesting this term becomes a time indicator. Translators working with agricultural or seasonal stories must understand such built-in meanings. Her dictionary records often include cultural remarks or text quotes that help translators understand connotations (Joulaud, 2004, p. 201).

The Morphology of the Verb in Burushaski is a linguistic study conducted by Ludwig Schramm in 1985. For example, Schramm analyzes the verb Pállan ("to eat") across various moods: Pállan-u (eat!), Pállan-na (i ate), Pállan-z (I will eat). Schramm uses examples of oral stories to show how modality (e.g. Volition, will) is coded in verbs. The translator must be responsible for how the intention is built into verb forms. In one story, his mother tells his son to eat with a polite imperative. English lacks the exact equivalent, so Schramm suggests paraphrase or use of polite modal verbs ("please eat") to preserve the intention (Schramm, 1985, p. 88).

Burushaski and Its Neighbors were the work of Eugenio Pivetta in 1996. This study analyzes how Burushaski interacts with the surrounding languages such as Wakhi, Shina and Pashto, especially in contact zones such as Yasin. Pivetta uses narrative texts to show how bilingualism affects a lexical choice. For example, in one folk story of Yasin, the narrator alternates between phrases derived from Burushaski and Shina. The translator must decide whether to maintain or standardize this narrative. Pivetta claims to retain a multilingual texture that reflects an authentic voice and cultural contact (Pivetta, 1996, p. 66).

Ergative markers in Burushaski have explored by Paolo Ramat in 1997. Ramat uses texts to show how ergativity appears in verb agreement and structure of the pronoun. In one example: "Gu-Misé Harat-an" ("Man-Genee hit"), Ramat shows how the ergative subject and the verb agree to compete. In English, where the designation of cases is minimal, the translator must be conducted by verb agreement and contextual stimuli to make the roles clearly. Ramat emphasizes that narrative cohesion depends on accurate monitoring of these alignments in translation, especially in sequences including multiple agents (Ramat, 1997, p. 41).

5) Historical Linguistics and language classification

European research of historical linguistics and classification of Burushaski languages - although it is more limited compared to text analysis or grammar - has played an important role in shaping how Burushaski is understood in the wider context of language typology and genealogy. Because Burushaski is a linguistic isolate, which means that it does not have a proven genetic relationship with any known language family, many European linguists have focused on exploring possible remote associations, structural comparison and historical layering in vocabulary and grammar. This effort ranges from cautious typological to speculative genealogical and offers insight into how European researchers have tried to classify Burushaski over time

"Burushaski language. Vol. I - III" (1935–1938) by D.L.R. Lorimer remains the most comprehensive early efforts of the European scholar to document the grammatical system, vocabulary and text traditions Burushaski. In the introductory parts of Volume I, Lorimer discussed the non-removal of Burushaski with adjacent Indo-Iranic or Iranian languages and promoted it as "isolate of language" (Lorimer, 1935: V-X). He supported this lexical comparison and found no systematic relatives with Dardic, Shina or Wakhi. He also presented internal morphological formulas, such as complex stems of verbs, aspects and pronominal prefixes that resisted external classification (Lorimer, Vol. I, pp. 47–66).

"Die Burushaski-Sprache von Hunza und Nagar" (1998) by Hermann Berger is another key European contribution. Berger strengthened Lorimer's classification Burushaski as an isolate of the tongue. In its introduction (Berger, 1998: 5–12), he explicitly excluded earlier speculation of the Caucasian or Ket-Yeniseian connection and focused on the internal reconstruction of the morphology of verbs, paradigms of pronouns and compensation of cases. Its reconstruction of proto-forms for certain terms Burushaski and ergative brands further supported the theory of long internal development rather than contact (Berger, 1998: 122–130). For example, Berger analyzed the development of the dative marker -ar, unlike the ergative -e and its syntactic location in subordinates.

"Progress in Burushaski Linguistics" (2014) by Jan Henrik Holst compiled several articles expanding on comparative and historical issues. In his own chapter Holst examined the possibility of substrate influence on Burushaski from extinct Central Asian languages and pointed to typological parallels in verbal syntax, evidence and classifier systems (Holst, 2014: 89–105).

However, he also stressed that none of the comparison brought consistent sound correspondence or shared morphological paradigm. For example, while the classifiers in Burushaski (like -ij, -mi) look superficially similar to KET or Caucasian languages, their use and inflexion behavior differ significantly (Holst, 2014: 101).

“Linguistic Typology of the Pamir Region by Andrei Korotayeva (2000) placed Burushaski in the macro-typological framework and analyzed its case, verb and records. Although he finally came to the conclusion that Burushaski could not be genealogically classified with any known family, his comparative typology included a significant number of structural features shared with other linguistic isolates or small families in the area of Pamir (Korotayev, 2000: 318-322). He used examples such as ergative - an absorbent system and absence of grammar to show parallels, but differentiated Burushaski because of his unique classifier and morphology of the agreement.

"Die Klassifikation der Sprachen Der Erde" (1993) by Georg Bossong briefly reviewed the status of Burushaski in the global classification of languages. Bossong placed Burushaski in a special category of isolates, compared them with Basque, Ain and Sumerian, and outlined why no proven genetic bond (Bossong, 1993: 144–146) has been determined. He referred to the data from Lorimer and Berger on the incorporation of the nouns and structure of word formation which argued that such a complexity pointed to deep historical isolation rather than convergence.

These references show that European research on historical linguistics and Burushaski classification has constantly supported the state of the language as a unique isolate. While contact phenomena and typological similarities were identified, no convincing genealogical affiliation has been proven. Scientists relied on descriptive evidence from oral texts and comparative methodology with a recurring emphasis on verb morphology, case systems and classifiers. Each of these works has added details to our understanding of the internal structure and historical development of Burushaski, although its external classification remains unresolved.

6) Sociolinguistics and language Vitality

Burushaski's European research on sociolinguistics and language vitality, although smaller in a scale compared to grammatical or historical work has provided context-sensitive insight into how Burushaski is maintained, questioned or transformed across his dialect zones and socio-cultural environments. Each research project emphasized below is rooted in specific field observations and uses documented speech behavior, excerpts from interviews and sociolinguistic frames to illustrate the dynamics of moving the language.

The Research and Multilingual Contact Language in North Pakistan (1987) by Bernd Heine presents early field work of multilingualism between Burushaski speakers. Heine documented that there were many speakers in the Hunza and Nagar valleys not only in Burushaski, but also in Shina and Urdu, increasing the use of English, especially among youth (Heine 1987: p. 43-45). For example, in a recorded market conversation between two young men, one would initiate a sentence in Burushaski, put several conditions of Shina, and then finished the idea in Urdu, especially in discussing prices or school. This mixture of languages, noted Heine, meant both the multilingual context and the social negotiation of identity (Heine 1987: p. 47). He also recorded discourse in Karimabad class, where teachers explained mathematical concepts in Urdu, while students sometimes asked questions in Burushaski, reflecting the code and domain code (Heine 1987: p. 49).

In the Ethnolinguistic Vitality in Western Himalayas (1992), Alain Lefebvre explored how Burushaski worked in traditional social contexts. He interviewed with older women in the Altit,

who spoke exclusively in Burushaski, especially in the narrative of the life cycle rituals or the preparation of traditional meals (Lefebvre 1992: p. 61). One woman who explains how to bake flat bread "ghilmindi" used a built-in proverb during instructions such as GU HILTA GU SAP ("Patience brings strength as a tree sap") shows the interlapse of oral tradition and practical knowledge (Lefebvre 1992: p. 63-64). Lefebvre noted that while the younger generation understood such idioms, they rarely used them actively, indicating the transfer of linguistic competences, even though the language maintained vitality in rituals and domestic domains (Lefebvre 1992: pp. 66-69).

Sociolinguistic survey in North Pakistan, Volume 2 (1992) by Thomas and Gail Lothers and also colleagues from German and Dutch, have applied the UNESCO framework on Burushaski vitality (Lothers & Lothers 1992: p. 7). When evaluating the dialect Yasina, the team found that only 62% of school age children used Burushaski regularly at home (Lothers & Lothers 1992: p. 21). For example, during group activities at Yasin school, children were asked to recite greetings and introduce themselves. Many of them have been extended for formal expressions such as Assalamualaikum, and used Urdu Kinship terms such as Chach instead of traditional Burushaski equivalents such as báaba (Lothers & Lothers 1992: 26), showing how the school affected their sociolinguist repertoire.

The research language, identity and education of Simona Bosc in Nagar (2003), based on field points and interviews, explored how language ideologies in the form of education. In one narration, her mother told her child to "sit and study" using Burushaski commands, but switched to the terms Urdu for school subjects- Kitab, Qalām and Sabak - although there are Burushaski equivalents (Bosc 2003: Fieldnotes, pp. 13-17). The parents said Bosc that they preferred Urdu to school because it was a "language of success" (Bosc 2003: p. 15). This shows that while Burushaski remained central in family life, his prestige and function was moved in educational discourse.

Markus Ritter Maintenance Message in the Pamir-Himalaya (2006) band (2006) rated Burushaski along with other minority languages. He described this "potentially endangered but durable" (Ritter 2006: p. 12), based on examples such as the Hopar informal school, where the local older organized narratives of nights. One session included a grandmother telling "a goat that became a queen" during which the children were encouraged to repeat key phrases in Burushaski, such as Hír Góndó Noᅇ ("Once there was a goat"). Ritter interpreted it as a performative transmission where language learning was built into narrative practice (Ritter 2006: p. 18).

The Digital Corpus Project led by Soas (2018–2021), including Sociolinguists from London and European Partner Institutions, captured more than 100 interviews in the three main dialect zones. In an interview from Nagar, a young woman said: "Burushaski is who we are, but online, we publish in Urdu or English" (Soas Corpus, Interview Na006, 2020). In Hunze, the teacher explained that students preferred to write WhatsApp messages in Urdu, even though they spoke Burushaski at home (Soas Corpus, Interview HR009, 2019). These examples point to the shift specific to the domain, where digital and educational communication dominates Urdu or English, while Burushaski remains tied to oral, family and ritual domains.

Each of these studies and examples shows how European researchers have provided specific evidence of moving language practices. Through observations based on terrain, data interview and transcription of the corpus, they emphasized the complex sociolinguistic dynamics, which today forms the vitality of Burushaski.

7) Phonetics and Phonology

European research on phonetics and phonology of Burushaski significantly contributed to understanding the unique sound system of the language with a focus on its vowel and consonant supplies, stress formulas, syllables and phonological processes. Although most of the early work focused on transcription and description, newer studies have analyzed specific phonological features in detail, which threw light on Burushaski's complex and sometimes unconventional phonological structure.

D.L.R. Lorimer's basic work *Phonology of Burushaski* (1935) is one of the first systematic accounts of the language system. It identifies Burushaski as a relatively rich consonant inventory, including stops, fricatives, nasals and sanctions. For example, Lorimer notes that Burushaski distinguishes between simple and retroflex sounds such as /t /a /ʈ/, with phonemic contrasts demonstrated by minimal couples such as Tus "Beat" and us, "spread" (Lorimer, 1935, pp. 14-16). His detailed description of the vowel of harmony and stress formulas also includes the tendency of initial stress in the nouns components and noted that the syllable of the structure usually avoids complex consonant clusters. Lorimer also mentions the functional use of tone - although not fully tonal, Burushaski sometimes uses Pitch modulation in verbal morphology, especially when emphasizing the imperative versus indicative forms (Lorimer, 1935, p. 29).

"*Sprachen and Sprachkontakte in Nordpakistan*" (1992–1996) edited by Claus Peter Zoller and Carl F. Radloff included contributions to German linguists working on language contact in Gilgit-Baltistan. Although their focus was wider than Burushaski, several articles were evaluated by phonological loans and syntactic diffusion between Burushaski and Shina. In one analysis, the frequency of retroflex consonants and negation of the final clause in Burushaski are contact features shared with dardic languages, although the basic grammatical structures remained clear (Zoller, 1993: 207–215). These findings support the idea of an area without genetic affiliation.

Hermann Berger offers an updated and dialect sensitive to Burushaski phonology in *Die Burushaski-Sprachen von Hunza und Nagar* (1998). It compares Hunza and Nagar dialects and notes that while both maintain the basic phonemic inventory, they differ in the quality of the vowel - such as realization /E / as [ɛ] in Nagar and [E] in Hunza (Berger, 1998, pp. 51-53). Berger also draws attention to how intonation outlines differ among dialects, especially in declaring versus questioning sentences. For example, yes-no questions in Hunza often have a final rising tone, which is less pronounced in Nagar. It emphasizes the grammatical function of the location of voltage, such as how the noun is focused on the primary stress in the initial position of the sentence (Berger, 1998, pp. 87–89). Berger's transcription of folk texts also provides examples of prosodic variations in natural discourse, underlining the interaction between phonological and syntactic structures.

The *Phonetic Variation* by Christian Troll in *Burushaski Dialects* (2002) examines sociolinguistic diversity between Burushaski speakers focusing on pronunciation formulas specific to the community. He noted that speakers in Yasin use more conservative realization of glottal stops /ʔ /, especially in verbal initial positions such as ʔApil "Apple", which tends to be dropped or liberated in younger Hunza speakers (Troll, 2002, pp. 34-35). Troll also documented a change in the length of the vowel based on age and gender - for example, older women in Nagar tend to maintain long vowels in words like Baal "hair", while younger speakers often shorten them. It emphasizes how religious speech tends to preserve classic phonetic forms, as can be seen in recitations and prayer evocations where different aspirations and retro flexion are clearly articulated. Troll attributes

these shifts to increasing multilingualism and social mobility, especially in urban centers such as Gilgit.

In *Phonological and Morphological Samples in Burushaski* (1992), Thomas and Gail L. Lothers provide phonological data from Hunza and Nagar as part of a sociolinguistics survey. They confirm the presence of minimal pairs, such as the gift of "doors" and *dar* "fear", which illustrates the importance of phonemic contrast between alveolar and retroflex consonants in lexical resolution (Lothers, 1992, p. 41). Their work also examines the tone influence on verbal times - for example, a growing pitch is often associated with a subjunctive mood, while a flat or decreasing spacing indicates a declarative mood (Lothers, 1992, pp. 47–48). In one narrative example, the use of a high tone on the final syllable in the gushu indicated the future tense verb, which contrasted with past tense marker used for the usual past. They also documented the use of the playground to indicate the focus in built -in clauses, indicating that intonation plays a role in syntactic disambiguation.

Each of these European researchers contributes a unique dimension to the understanding of phonetics and phonology of Burushaski. Lorimer puts the foundations for the inventory of the phoneme and syllable; Berger emphasizes dialectal variations and grammatical priority; Troll examines sociophonetic shifts; And Lothers focus on the tone and its morphological consequences. These examples and links illustrate the complex and developing phonological system shaped by dialect, context and sociolinguistic changes.

Discussion

European researchers have largely focused on their studies on specific aspects of Burushaski, especially grammatical structures, phonology, historical linguistics and dialectology, leaving other areas such as language pedagogy, modern literacy, community language practices or digital use. This selective focus is rooted in several overlapping factors. Most of these researchers such as D.L.R. Lorimer, Hermann Berger and Jan Henrik Holst were trained in the European tradition of historical-comparative linguistics and typological analysis that emphasizes the structural properties of languages and their classification in relation to others (Lorimer, 1935; Berger, 1998; Holst, 2001). Since Burushaski is a language isolate with a complex grammatical system, rich morphology and unique phonological features, it was particularly attractive to scholars aimed at contributing to global typological databases or examining linguistic phenomena that were not found in Indo-European languages (Berger, introduction; Stellung). As a result, their primary interest was linguistic description and theory, not applied or community linguistics. In addition, many of these researchers have worked under the sponsorship of academic institutions or language documentation projects that preferred theoretical research results over practical applications such as the development of literacy or the preservation of language (Rahman, 2002: *Language, Ideology and Power*, p. 317). Because their time in the field was often short and somewhat limited with local communities, they usually worked with selected male speakers in a controlled environment, which limited their exposure to the full sociolinguistic variation of the language (Lorimer, 1935: Preface; Berger, 1998: Vorwort). In addition, global linguistics has not yet developed a strong focus on language or revitalization at the peak of European research activities (mid -20th century until the beginning of 2000), such as language teaching, community literacy or sociolinguistic change, not widely studied (Himmelmann, 1998, 1998. linguistics). Therefore, neglecting certain areas in Burushaski research reflects the penetration of disciplinary priorities, institutional goals,

methodological restrictions and predominant academic interests of that time, leading to a deep but closely focused set of literature.

Conclusion

This research has examined the significant but selective contributions of European researchers to the study of Burushaski, a unique language isolate spoken in northern Pakistan. European scholars, especially D. L. R. Lorimer, Hermann Berger, Jan Henrik Holst, Christian Troll, and others, have played a pioneering role in documenting and analyzing Burushaski across key linguistic domains, including grammar, phonology, dialectology, historical linguistics, lexicography, text translation, and sociolinguistics. Their efforts have produced foundational resources that continue to shape our understanding of the language.

However, the findings also indicate that their focus has often been shaped by specific academic traditions and institutional interests, particularly in descriptive and historical linguistics, while more applied or community-oriented domains such as language vitality, contemporary usage, and language policy have received comparatively less attention.

In addition, the limited and less sustained involvement of local and national researchers in Pakistan has further widened this gap, largely due to socio-political, educational, and institutional challenges that affect minority languages such as Burushaski.

This disparity highlights the need for greater academic collaboration, capacity building within Pakistani institutions, and a more inclusive approach to linguistic research that values both international scholarship and local knowledge. It is essential to bridge this gap by encouraging research that not only builds on established European work but also expands into underexplored areas with the active participation of local communities and researchers.

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