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LANGUAGE AS CIVILIZATIONAL MEMORY: UZBEK LINGUOCULTURAL RESILIENCE FROM CLASSICAL HERITAGE TO DIGITAL PHILOLOGY

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ABSTRACT

This review article examines Uzbek linguocultural resilience as a form of civilizational memory carried through language, literary canon, script adaptation, multilingual contact, and digital philology. Its purpose is to explain how Uzbek cultural continuity has been preserved and renewed across major historical transformations without reducing national identity to political chronology or celebratory rhetoric. The novelty of the study lies in connecting classical Uzbek-Chagatai literary prestige, Jadid reformist discourse, Soviet and post-Soviet language planning, alphabet transition, and contemporary Uzbek natural language processing within one philological framework.

Methodologically, the article applies an integrative review design. It synthesizes scholarship from literary history, sociolinguistics, language policy, cultural memory studies, Turkology, and computational linguistics. Sources were selected for their relevance to Uzbek language, Chagatai literature, Alisher Navoi, Jadidism, script reform, multilingualism, and digital language resources. The analysis identifies five mechanisms of resilience: classical canonization, moral-literary pedagogy, script adaptability, multilingual negotiation, and digital re-inscription.

The findings show that Uzbek identity has not survived by isolation or linguistic purity. It has survived by transforming contact, disruption, reform, and technological change into renewed cultural legibility. Classical literature supplied prestige; reformist writing connected language with education and social renewal; script transition tested but did not erase continuity; multilingual contact expanded expressive resources; and digital tools now determine whether Uzbek can remain visible in twenty-first-century knowledge systems.

The article concludes that the greatness of Uzbek cultural history lies in disciplined continuity: the capacity of a people to carry ethical memory, literary refinement, and collective self-recognition through changing political and technological conditions. For philology, the Uzbek case demonstrates that language can function simultaneously as archive, pedagogy, identity boundary, and medium of future renewal.

Key words: Uzbek language, linguocultural resilience, civilizational memory, Chagatai literature, Alisher Navoi, Jadidism, script reform, digital philology, corpus linguistics, national identity.

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TIL SIVILIZATSION XOTIRA SIFATIDA: O‘ZBEK LINGVOMADANIY BARQARORLIGI MUMTOZ MEROSDAN RAQAMLI FILOLOGIYAGACHA

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ANNOTATSIYA

Mazkur sharh maqola o‘zbek lingvomadaniy barqarorligini til, adabiy kanon, yozuv tizimlarining moslashuvi, ko‘p tilli aloqalar va raqamli filologiya orqali saqlanib kelayotgan sivilizatsion xotira shakli sifatida tahlil qiladi. Tadqiqot o‘zbek madaniy davomiyligining tarixiy o‘zgarishlar jarayonida qanday saqlanib, yangi mazmun bilan boyib borganini filologik nuqtayi nazardan tahlil qilishni maqsad qiladi. Tadqiqotning yangiligi mumtoz o‘zbek-chig‘atoy adabiyotining nufuzi, jadidchilik islohotchilik diskursi, sovet va postsovet davridagi til siyosati, alifbo almashinuvi hamda zamonaviy o‘zbek tabiiy tilni qayta ishlash texnologiyalarini yagona filologik yondashuv doirasida o‘zaro bog‘liq holda tahlil qilishidadir.

Metodologik jihatdan maqolada integrativ sharh usuli qo‘llanilgan. Unda adabiyot tarixi, sotsiolingvistika, til siyosati, madaniy xotira tadqiqotlari, turkologiya va kompyuter lingvistikasi sohalaridagi ilmiy manbalar sintez qilingan. Manbalar o‘zbek tili, chig‘atoy adabiyoti, Alisher Navoiy merosi, jadidchilik, yozuv islohoti, ko‘ptillilik va raqamli til resurslariga oidligi asosida tanlab olingan. Tahlil natijasida lingvomadaniy barqarorlikning beshta asosiy mexanizmi aniqlangan: mumtoz merosning kanonlashtirilishi, axloqiy-adabiy tarbiya, yozuv tizimlarining moslashuvchanligi, ko‘p tilli muloqot va raqamli qayta kodlash.

Tadqiqot natijalari o‘zbek milliy o‘zligi yakkalanish yoki til sofligini mutlaq saqlash hisobiga emas, balki turli madaniy ta’sirlar, tarixiy sinovlar, islohotlar va texnologik o‘zgarishlarga moslashish orqali davom etib kelganini ko‘rsatadi. Mumtoz adabiyot madaniy nufuz manbayi bo‘lib xizmat qilgan; jadid adabiyoti tilni ta’lim va ijtimoiy yangilanish bilan bog‘lagan; yozuv almashinuvi davomiyligni sinovdan o‘tkazgan bo‘lsa-da, uni yo‘q qilmagan; ko‘p tilli aloqalar ifoda imkoniyatlarini kengaytirgan; raqamli texnologiyalar esa bugungi kunda o‘zbek tilining XXI asr bilim makonida ko‘rinishini ta’minlovchi muhim omilga aylangan.

Maqola xulosasiga ko‘ra, o‘zbek madaniy tarixining buyukligi uning uzviy va izchil davomiyligidadir. Bu – xalqning axloqiy xotira, adabiy nafasat va jamoaviy o‘zlikni anglash qadriyatlarini o‘zgarib borayotgan siyosiy hamda texnologik sharoitlar orqali saqlab qolish va yangilash qobiliyatidir. Filologiya nuqtayi nazaridan, o‘zbek tajribasi tilning bir vaqtning o‘zida arxiv, tarbiya vositasi, identifikatsiya chegarasi va kelajakdagi yangilanishlar uchun poydevor bo‘la olishini namoyon etadi.

Kalit so‘zlar: o‘zbek tili, lingvomadaniy barqarorlik, sivilizatsion xotira, chig‘atoy adabiyoti, Alisher Navoiy, jadidchilik, yozuv islohoti, raqamli filologiya, korpus lingvistikasi, milliy o‘zlik.

ЯЗЫК КАК ПАМЯТЬ ЦИВИЛИЗАЦИИ: УЗБЕКСКАЯ ЛИНГВОКУЛЬТУРНАЯ СТАБИЛЬНОСТЬ ОТ КЛАССИЧЕСКОГО НАСЛЕДИЯ ДО ЦИФРОВОЙ ФИЛОЛОГИИ

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АННОТАЦИЯ

В данной обзорной статье узбекская лингвокультурная устойчивость рассматривается

как форма цивилизационной памяти, передаваемая через язык, литературный канон, адаптацию письменности, многоязычные контакты и цифровую филологию. Цель исследования состоит в том, чтобы объяснить, как узбекская культурная преемственность сохранялась и обновлялась в условиях крупных исторических трансформаций, не сводя национальную идентичность к политической хронологии или декларативной риторике. Научная новизна статьи заключается в соединении классического узбекско-чагатайского литературного авторитета, джадидского реформаторского дискурса, советского и постсоветского языкового планирования, алфавитных изменений и современных исследований по обработке узбекского языка в единую филологическую рамку.

Методологически статья опирается на интегративный обзор. В ней синтезируются работы по истории литературы, социолингвистике, языковой политике, исследованиям культурной памяти, тюркологии и компьютерной лингвистике. Источники отбирались по их релевантности для изучения узбекского языка, чагатайской литературы, Алишера Навои, джадидизма, реформы письменности, многоязычия и цифровых языковых ресурсов. Анализ выявляет пять механизмов устойчивости: классическую канонизацию, нравственно-литературную педагогику, графическую адаптивность, многоязычное взаимодействие и цифровую реинскрипцию.

Результаты исследования показывают, что сохранение узбекской идентичности обеспечивалось не изоляцией или стремлением к языковой «чистоте», а способностью адаптировать культурную традицию к условиям языковых контактов, социальных преобразований, реформ и технологических изменений. Классическая литература создала престиж; реформаторское письмо связало язык с образованием и социальным обновлением; смена письменности испытала, но не уничтожила преемственность; многоязычный контакт расширил выразительные ресурсы; цифровые инструменты теперь определяют, сможет ли узбекский язык оставаться видимым в системах знания XXI века.

В статье делается вывод, что величие узбекской культурной истории проявляется в дисциплинированной преемственности: способности народа переносить этическую память, литературную утонченность и коллективное самопонимание через меняющиеся политические и технологические условия. Для филологии узбекский случай показывает, что язык может одновременно выступать архивом, педагогическим средством, границей идентичности и пространством будущего обновления.

Ключевые слова: узбекский язык, лингвокультурная устойчивость, цивилизационная память, чагатайская литература, Алишер Навои, джадидизм, реформа письменности, цифровая филология, корпусная лингвистика, национальная идентичность.

INTRODUCTION

Uzbek identity cannot be reduced to a political timeline. Empires rose and fell. Dynasties made states. Schools taught alphabets. Uzbekistan became the Uzbek Soviet Socialist Republic within the Soviet federal order. Uzbek cultural intelligibility persisted through changes in political and written medium. Not because it remained somehow identical to itself. Through remarkable shifts in state, script, school, and knowledge technology, Uzbek poetic and linguistic self-recognition remained resiliently possible. This article calls that phenomenon linguocultural resilience. By that phrase, we do not mean ethnic enclosure, cultural purity, or immunity to foreign influence. Uzbekistan has been thoroughly Persianate. Uzbek history has also been Islamic, Turkic, Russian, Soviet, and global modern. Persian, Arabic, Turkic, Russian, and English have all left sedimentation in Uzbek soil, society, and writing [Soucek, 2000; Zenkovsky, 1960]. But if Uzbek linguistic history were simply a story of contact, then it would be many things. It would not be continuous. Linguocultural resilience is

how this article understands continuity. It means the capacity of Uzbekistan's peoples to renew their functional literacy with each generation: the historical memory preserved by language, literature, education, and cultural knowing [Assmann, 2011; Halbwachs, 1992; Lotman, 1990; Ong, 1982]. Philology interests itself in these transfers across time. As is well known, Uzbekistan's sense of linguistic prestige is linked to the legacy of Chagatai literature. Uzbekistan's sense of literary mission was consolidated through devotion to the moral and poetic achievements of Alisher Navoi, who proved Turkic expressive art equal to Persian in philosophical depth, literary refinement, and ethical instruction. Scholars of Navoi's *Muhokamat ul-lug'atayn* stress his work's metalinguistic assertion of Turkic capacity vis-à-vis Persian [Navoiy, 2011; Qydyr, 2021]. Chagatai revivalism would later intersect with Jadid reforms in pedagogy, Soviet nationalizing standards, language policy after independence, alphabet reforms, and today's computational linguistics [Comrie, 1981; Fierman, 1991; Grenoble, 2003; Khalid, 1998, 2007, 2015; Landau & Kellner-Heinkele, 2001]. Much research on Uzbek has proceeded in these domains without connecting them. To study Uzbek classical literature is not automatically to study Soviet language planning or present-day computing. But the separation of these analytic clusters fails to account for Uzbekistan's historical continuity. That has been the scientific problem motivating this literature review. We find that Uzbek philology is partitioned: between literary studies of pre-twentieth-century and modern texts; sociolinguistics of language and identity; Soviet, post-Soviet, and historical studies of the Uzbek nation; and computational work developing Uzbek language corpora, transliteration, morphology, and natural language processing. The present journal publishes scholarship in philology, linguistics, literary studies, applied linguistics, discourse studies, translation studies, language methodology and education, and corpus or computational linguistics. Yet no prevailing framework of Uzbek linguocultural resilience coordinates that intellectual division. Rather, we argue that there is a gap in how these research fields speak to one another. The specialized logics of literary analysis, sociolinguistics, historiography, and computer science tend to exclude philosophies of cultural resilience from their reasoning. We do not believe this to be an accident. Too often, Uzbek scholarship explains one part of the puzzle over many decades without seeing the entire picture. What has changed script, educational system, and methodology in Uzbekistan's history? Empires do that. States can do the same. But how has Uzbekistan's cultural memory of itself persisted in literate practice? Textual canon. Moral instruction. Adaptive literacy. Digital technology. Our review searches that question across five points of disciplinary resonance. This argument remains open to critique and further testing. Methodologically, this article is an integrative review of interdisciplinary research on Uzbek linguocultural resilience. Five themes emerge where these research fields intersect. They form a theoretical model for resilience and continuity in Uzbek linguocultural practice. The results indicate that classical literary canon supplied prestige and symbolic resources. Continuity relied on literate adaptation. Near-complete replacement in script, schooling, and computer technology produced both rupture and reproductive mechanisms for literacy. The discussion suggests that

Uzbekistan's ethically enriched sense of linguistic community appears to depend on education, adaptation, and digital scholarship. In conclusion, integrative theorizing of Uzbek resilience offers intellectual, pedagogical, and technical directions for future research.

METHODS

This article is a literature review. It does not present original empirical research. Rather, it collects, compares, and contrasts existing scholarship pertaining to Uzbek language, literary memory, script reform, language contact and identity, and language technology. This is an integrative review rather than a systematic review. An integrative review design matches the research question, which spans multiple fields of inquiry. Uzbek linguocultural resilience cannot be answered solely by literary scholarship, nor by work in language policy, nor by language technologists. At the scale of centuries, language and literature need a framework that links text prestige with social identity on the one hand and language planning institutions and technology development on the other. Following from that, this review's object is Uzbek linguocultural resilience. Its subject is the mechanisms by which Uzbek language and literature maintained cultural legibility throughout historical change. Its scope includes literature on Chagatai and Uzbek literary history, scholarship on Alisher Navoi, Jadidism, Soviet language policy and popular response to it, alphabet reform and script, Uzbek multilingualism and national identity, cultural memory theory, digital-language resources for Uzbek, and related topics. Sources include both classical scholarship and current works published as recently as May 2026. Literature searches used thematic and citation-based methods. Search terms included Uzbek language, Uzbek linguoculture, Chagatai literature, Alisher Navoi, Muhokamat ul-lug'atayn, Jadidism, Uzbek language policy, Uzbek alphabet reform, Uzbek Cyrillic, Uzbek Latin script, Uzbek national identity, Uzbek corpus, Uzbek transliteration, Uzbek morphology, Uzbek NLP, and digital philology. Literature was found through database searching of Google Scholar, publisher websites, Crossref metadata, Google, the arXiv, the ACL Anthology, CEUR-WS, and selected print monographs in Central Asian studies, Turkology, sociolinguistics, language policy studies, and cultural memory theory. Institutional access to bibliographic databases varies by reader. Therefore, this review will not make claims of coverage in the numerical style of a PRISMA flowchart. Instead, it uses comprehensive theme-based logic to select sources and emphasizes textual synthesis over descriptive summary. Literature was included if it satisfied any of the following criteria: it discussed Uzbek, Chagatai, or other Central Asian Turkic linguistic or literary history with theoretical implications for cultural memory or identity; it discussed language planning, orthography or script change, linguistically framed notions of multiculturalism or multilingualism, or national identity in Central Asia; it provided theoretical frameworks for understanding one or more components of language as mediators of cultural memory, including sociolinguistic, semiotic, and formalist scholarship as well as theoretical work from memory studies; or it discussed contemporary development of digital resources for Uzbek or any other Turkic

language, including discussion of corpus-building, transliteration, morphological analysis, semantic datasets, speech resources, or related NLP infrastructure. Articles were excluded if they were journalistic or newspaper opinion pieces, unsupported by bibliography or citations, bibliographically obscure or difficult to obtain, explicitly polemical or philosophical without discussing specific historical examples, primarily concerned with topics unrelated to language or literature, or discussed issues of national identity not pertinent to philology. Articles were coded according to themes of literary canon and popular literature, education and ethical discourse, script change and language policy, sociolinguistics and multilingualism, and computational resources and approaches. Literature was analyzed by thematic synthesis. First, the primary articles and books were sorted according to the themes identified above. Second, each theme was analyzed for mechanisms by which disruptions to traditional sources of linguistic prestige were either maintained or replaced as stabilizing forces in popular identity. Third, these mechanisms were compared across domains and historical periods to determine if they were isolated or recurrent. Fourth, the causes and results of this linguistic resilience were compared to the review question: Does this framework explain why Uzbek cultural identity has been persistently recognizable despite drastic changes in political, technological, and social conditions? Because this is a literature review rather than primary empirical research, reliability is based on transparent methodology rather than statistical reproducibility. While this article incorporates many important works of Uzbek philology, it does not claim to include every article or book published on the subject. This review is valuable to the extent that it is synthetic and theoretical. It presents a model that can be contested and evaluated by future research, whether quantitative or qualitative: corpus development, classroom observation, survey research on language attitudes, comparative Central Asian studies, or archival research (See Table 1):

Table 1. Source-selection and analytical protocol

Review component	Operational decision
Article type	Integrative review article
Disciplinary fields	Philology, literary studies, sociolinguistics, language policy, cultural memory studies, Turkology, digital linguistics
Core object	Uzbek linguocultural resilience
Search focus	Uzbek language, Chagatai literature, Navoi, Jadidism, alphabet reform, multilingualism, Uzbek NLP
Inclusion criteria	Scholarly relevance to Uzbek language/literature, identity, script, policy, or digital representation
Exclusion criteria	Unsourced polemics, journalistic commentary, non-philological identity claims, duplicate or marginally relevant sources
Analytical method	Thematic synthesis and historical-comparative interpretation
Output	Five-mechanism model of Uzbek linguocultural resilience

RESULTS

Five overlapping mechanisms of Uzbek linguocultural resilience emerge from this review: canonization of classics, moral-literary pedagogy, alphabetic flexibility,

multilingual negotiation, and online reinscription. These mechanisms demonstrate that Uzbek durability has relied not on isolation but on flexibility: the ability to translate change into renewed readability.

Classical canonization: language as literary authority

The first vector is classical canonization. Languages are resilient when they are spoken but also canonized in key texts, named authors, rhetorical forms, and institutional memory. For Uzbekistan, Chagatai literature and the persona of Alisher Navoi are pivotally important. Chagatai served as one of Central Asia's major Turkic literary languages. It gave later Uzbek national identity a dense textual genealogy, enabling contemporary Uzbekistan to assert historical continuity with an established literary tradition [Allworth, 1990; Boeschoten, 1998; Johanson & Csátó, 1998]. Navoi's significance is poetic, but also linguistic and civilizational. *Muhokamat ul-lug'atayn* features a debate between Turkic and Persian. Navoi demonstrates the emotional and lexical range available in Turkic for literary purposes. Modern scholars have treated the text as foundational Turkology and proof of Turkic literary viability [Navoiy, 2011; Qydyr, 2021]. The philological implication is obvious: Navoi wrote in Turkic and proved it could be flexible and beautiful. Turkic was available for literary, emotional, ethical, and intellectual expression. Canonization builds resilience because it allows future generations a place to which they can always return. Political programs will change but canonical texts can be edited, translated, taught, memorized, and transmitted. Scripts can change but texts can be transliterated. Institutions can shift but literary authority can continue to be symbolically potent. Resilience is not biological; it is cultural and practiced. That is why Uzbekistan's civilizational memory cannot be conflated into Soviet language policy. Standardization mattered, but older textual templates informed Uzbekistan's ability to culturally recognize itself. The strongest conclusion we can draw from this textual heritage is not cultural separation. Contact with Persian speakers, Arabic-Islamic texts, and other Turkic groups enabled Uzbek literary history to construct its own voice. Its strength is the capacity to partake in broad civilizational exchange but still rhetorically assert the authority of its own tongue. Navoi shows us strength is not purity. Linguistic resilience is the capacity to enter a multilingual world without losing the nobility of your own speech.

Moral-literary pedagogy: literature as ethical memory

The second mechanism is moral-literary pedagogy. Uzbek literature has never served solely aesthetic purposes. Through its history it has transported evaluative vocabularies: linguistic guides to conceptions of the social ideal, ethical yearning, educational ambition, religious sensitivity, proper conduct. In this way language serves as a repository not simply of words but of value categories: how does a people name wisdom? Justice? Dignity? Knowledge? Duty? Belonging? Theory of cultural memory can help explain this role. Communities maintain themselves not simply by recalling the past but by organizing meaning across temporal distance [Assmann, 2011; Halbwachs, 1992]. Literary culture has a privileged role in this work, for it transmits memory into pedagogical form. Poems, proverbs, narratives, tales, didactic

works all encode social value in ways that allow it to move fluidly from generation to generation. You will remember the example of Jadidism above. Jadidism showed how moral-literary pedagogy works in modern contexts. Jadids linked language to education, print culture, social reform, and religious renewal. They understood tradition as productive inheritance. As Khalid's work shows, they treated language not simply as vernacular but as tool for building an educated future. Scholarship on Central Asian Jadidism has shown repeatedly how Muslim reform intellectuals used schools, print media, textbooks, and public lectures to reconstruct Muslim society on "modern" terms [Khalid, 1998, 2007, 2015]. This fact is significant for Uzbek cultural history. Because tradition was always pedagogical, continuity was always contingent on reform. That which does not instruct the future will, at best, only be formally invoked in the future. Moral-literary pedagogy also accounts for why Uzbek language resilience is not dependent on official status. Official recognition can standardize a language. It cannot by itself teach it to future generations; endear it to the people; give it ethical depth. These things require poets and parents as much as politicians. Uzbek persists as a language of civilization because it conveys not simply means of communication but a normative world. Philology in the modern university must account for this mechanism. Scholars should not study texts apart from their social ethics. To understand Uzbek literature is also to understand the moral life of Uzbeks. Great literary tradition is therefore great not just because of the great texts it leaves us but because of its capacity to teach communities about themselves.

Script adaptability: continuity across graphic rupture

The third mechanism is script adaptability. The history of written Uzbek has involved several historic transitions between writing systems: an Arabic-script heritage, early Soviet Latinization initiatives, Cyrillic, and a re-Latinization after independence. Transitioning to a new script is never purely technical. Writing-system change implicates archival access, generational literacy gaps, symbolic affinity, publishing industries, keyboard layouts, and language's anchoring in regimes of power [Baldauf, 1993; Fierman, 1991; Grenoble, 2003; Landau & Kellner-Heinkele, 2001]. The Uzbek experience entailed both rupture and adaptation. Uzbekistan's Arabic-script heritage integrates Uzbek (and by extension, Chagatai) textual heritage into the Islamicate and Persianate ecumene. Early Soviet efforts at Latinization were tied to projects of modernity and mass literacy. Later Cyrillicization bound the literate standard language to Soviet institutions, while also situating Uzbek literacy in relation to Russophone infrastructure. Post-Soviet re-Latinization was also a claim to independence, modernity, and linguistic reorientation – but one that could not be immediately or uniformly implemented. Uzbekistan's population developed multi-script literacy. Cyrillic continues in social circulation at the same time that Latin is officially promulgated. Every transition has created inefficiencies. Older readers lose access to earlier sources. Archive access requires new training. Parents and grandparents find themselves divided from children in script knowledge. Publishers, printers, software engineers, and educators have had to sustain parallel forms. And yet, if Uzbek can be read across all these scripts, that indicates that something about

the language transcends the writing system. Uzbek vocabulary, morphology, syntax, oral reception, literary history, and social capital has allowed the language to maintain linguistic continuity despite graphic difference. Script adaptability is thus not merely a technical obstacle. It is among the defining features of Uzbek's resilience as a cultural language. A less robust cultural ecosystem might view script transitions as a traumatic break in cultural continuity. Transitions between scripts have, for Uzbek linguistic culture, inculcated certain practices. These include transliteration; retraining older generations in the reading of Uzbek; parallel literacy; and mastery over various forms of mediatization. The development of online Uzbek–Uzbek transliteration utilities can be understood as an extension of this older pragmatic tradition into software [Mansurov & Mansurov, 2021; Salaev et al., 2022a]. This point is important for philology. Because of script transitions, the study of Uzbek texts will always be mult-script study. Scholars must reconnect students and archives divided by Arabic script, Latin script, Cyrillic script, and today's online ecological texts. The long-term health of Uzbek cultural memory will require that these changes be teachable not as unfortunate accidents, but as features of the language's ecology.

Multilingual negotiation: strength through contact

The fourth mechanism is negotiation across multiple languages. Uzbek cultural space has never been monolingual. Persian, Arabic, Turkic varieties, Russian, and more recently English have all served different roles in literary expression, religious practice, local administration, imperial power, education, technology, and more. Language contact was thus not incidental. It was institutionalized. Theory on language contact shows that sustained multilingualism can create borrowing, code-switching, structural convergence, hierarchy, and shift [Thomason, 2001]. Across Central Asia these dynamics were further conditioned by political hierarchy as well as linguistic exchange. Persian had a literary cachet during certain eras; Arabic had religious and intellectual associations; Russian took on administrative and technical primacy during imperial and Soviet rule; English today shapes education, technology, and academia globally. Uzbek faced all of these forces and more. What defines the Uzbek experience is how it responded to these forces. Navoi could write a poetic defense of Turkic because he was fluent in Persian and knew how to engage with its prestige from within. Jadids negotiated between Islamic tradition, Turkic cultural politics, Russian dominance, and contemporary educational reform. Soviet intellectuals faced ideological limitations but also contributed to the development of standardized language, textbooks, print culture, and literary institutions that outlasted the USSR [Hirsch, 2005; Roy, 2000; Smith et al., 1998]. Cultural autonomy was never assured. But neither was it impossible. These examples reject two facile notions. The first assumes that cultural authenticity means always saying no to foreign influences. The other assumes that contact will invariably weaken a given language. The Uzbek case suggests a different paradigm: negotiation. The Uzbek experience suggests that it was able to selectively adopt certain external forms while adapting or rejecting others. It translated useful knowledge into local idioms. In some cases, it resisted foreign domination. It could do this because being Uzbek had enough internal meaning to persist in multilingual contexts. Multilingual

negotiation also has implications for today. More Uzbek scholars are publishing in Uzbek, Russian, English, and other languages than ever before. This is good and bad. English allows for global recognition. But if Russian, English, or other scholarly languages provide all technical scholarship, Uzbek will lack the necessary material to grow its own academic vocabulary. Maintaining a strong language policy does not mean limiting language use to Uzbek only. It means never reaching a point where Uzbek is inadequate for communicating complex ideas. Sociolinguistics and nation-formation theory have long recognized that identity is something made and remade through use, friction, and the push-and-pull of institutions and social meaning [Anderson, 2006; Brubaker, 1996; Eckert, 2012].

Digital re-inscription: Uzbek in twenty-first-century knowledge systems

The fifth process is digital re-inscription. Language survival in the twenty-first century relies on speakers, yes, but also on books and schools. It also relies on digital corpora, keyboard layouts, Unicode standardization, OCR software, transliteration tools, speech datasets, morphological parsers, named-entity recognition models, machine translation, language learning applications, and large language models. A language must be easily searched, mapped, scraped, and recomposed—or else it will fall prey to epistemic eclipse in online spaces. Uzbek has historically been treated as a low-resource language in computational linguistics and natural language processing. This characterization deserves some nuance. “Low-resource” does not mean poor literary history, weak expressive value, or limited speaker population. It means that the linguistic databases and computational resources needed to process Uzbek at scale remain less complete than for many of the world’s hegemonic languages. Some recent work is starting to change this trend. New studies have introduced Uzbek stop-word datasets [Madatov et al., 2022], sentiment-analysis resources [Kuriyozov et al., 2022; Mengliev et al., 2023], Uzbek tagged corpora [Sharipov et al., 2022], machine transliteration tools between Uzbek script varieties [Salaev et al., 2022a], Uzbek semantic textual evaluation datasets [Salaev et al., 2022b], morphological analyzer models [Salaev, 2024], named-entity recognition datasets [Mengliev et al., 2024], speech corpora [Povey & Povey, 2024], and broader Turkic NLP infrastructures, including tools capable of processing multi-script data [Hakimov, 2026]. These projects are consequential for philology because they shape how Uzbek texts are processed and mobilized online. Will Uzbek text be searchable, indexable, parsable? Can it be reliably translated to and from other languages? Will language models know about Uzbek authors and scholars? Will students be able to learn Uzbek through digitally native applications? Manuscript cultures needed scribes and copyists. Print culture needed typesetters and publishers. Soviet language planning needed schools and textbooks. Language durability in the digital age needs corpora and datasets, machine learning models, user interfaces, and open-source software. Technology replaces toolkits, but the predicament of language continuation remains consistent: what enables a language to carry memory forward, within the dominant media environments of its time? Seen through a language ecology lens or from the perspective of language-maintenance theory, this article argues that digital development for Uzbek

should be treated not as a technical specialty but as a philological concern [Fishman, 1991; Haugen, 1972; Pavlenko, 2008]. In some ways, digital re-inscription hearkens back to script adaptability once again. The multi-script experience of Uzbek makes automatic transliteration and orthographic standardization core NLP challenges for Uzbek. The same linguistic affordance that allowed centuries-old Uzbek literature to transition across writing systems produces technical hurdles for modern AI. This observation is not meant to downplay digital re-inscription as philological work. Digital philology both complements and deepens classical philology. Both the scientist training a machine translation model and the scholar editing a manuscript are laboring to keep linguistic memory accessible across time. Whether Uzbek maintains cultural continuity into the next century will depend in part on whether digital Uzbek is treated as a priority. This includes digital corpora, publicly available speech databases, optical character recognition for Jawi and Cyrillic Uzbek, reliable language-learning software, terminological dictionaries, and computational resources that support both Latin and Cyrillic Uzbek. Without these tools, teachers and students will likely gravitate towards Russian or English when carrying out tech-based tasks. With them, it will be possible for Uzbek to enter the digital sphere without losing sight of its past (See Table 2):

Table 2. Five mechanisms of Uzbek linguocultural resilience

Mechanism	Historical expression	Resilience function	Contemporary implication
Classical canonization	Chagatai literature; Alisher Navoi; literary prestige	gives Uzbek identity deep textual authority	strengthen classical-literary education and translation
Moral-literary pedagogy	Ethical poetry, didactic prose, Jadid reformist writing	transmits values, knowledge, and collective self-recognition	link literature teaching to cultural memory and civic literacy
Script adaptability	Arabic-based script, Latinization, Cyrillic, renewed Latin alphabet	allows continuity despite graphic rupture	develop multi-script literacy, transliteration, and archive access
Multilingual negotiation	Persian, Arabic, Russian, Turkic, and English contact	converts external influence into expressive capacity	support Uzbek scholarly terminology within multilingual education
Digital re-inscription	Corpora, NLP tools, speech datasets, transliteration systems	places Uzbek into digital knowledge infrastructures	invest in open digital resources and computational Uzbek studies

DISCUSSION

The historical phenomena reviewed here support a continuity-through-transformation model of Uzbek linguocultural resilience. This model is intended as an alternative to both romantic preservationism (the idea that cultural greatness means somehow staying the same and surviving) and to disruptive or “liquid” modernism (the idea that every institutional change means replacement). The Uzbek example demands finer calibration. Continuity did not mean fossilized preservation. But many

forms of continuity survived by absorbing and reworking change. Canonization added textual depth. It would be hard to imagine modern Uzbek national literacy without the accrued prestige of Chagatai language literature and scholarship, or without the canonical recognition granted to Alisher Navoi. At the same time, canonization by itself is incomplete. The texts of the canon must themselves be taught, edited, translated, and imbued with present-tense relevance for new generations of readers and citizens. In many ways, this is the work of moral-literary pedagogy itself. The Uzbek canon can survive because it continues to teach. Script concerns add a second layer. Alphabet reform has sometimes produced real discontinuities in Uzbekistan, particularly concerning access to previous generations of texts, and between generations literate in different scripts. But Uzbek did not become unreadable or lose its literary identity because of these transitions. On the contrary, language can remain contiguous across script change because script does not have a one-to-one relationship with memory, use, or identity. Scripts matter, but other institutional processes can and do mediate how languages are remembered or forgotten. Dynamic language communities can reinscribe themselves across script change. The persistent negotiation of Uzbek identity within multilingual ecosystems is another complicating factor for the idea of cultural greatness. Uzbek did not evolve as a standalone language, separate from influences of Persian, Arabic, Russian, or English. But its greatness comes from strategic selection: from the persistent decision of Uzbek speakers over the centuries to talk about themselves and their experiences in Uzbek. That linguistic identity has been remade many times in zones of contact, but those contacts have not erased it. Digital re-inscription is the newest and perhaps most urgent of these processes. Twentieth-century language planning put a premium on schools, alphabets, publishing volume, and state institutions capable of normalizing usage. Language survives when it can dominate public space. But twenty-first-century conditions change the nature of that space. Today, languages also need computational depth. Search engines, language-learning platforms, speech interfaces, artificial intelligence systems, and even translation systems bias which languages are convenient, visible, and capable of supporting productive intellectual life. Uzbek language development in digital spaces should be treated as a philological issue at the highest level, not left as the specialized concern of programmers and software engineers. This article is offered as a synthesis with theoretical implications for philology. Three points follow for scholars interested in language strategy and future development. First, philologists should allow their field to be defined by its full object of study: language memory. Manuscripts are not more real than books, which are not more real than textbooks, which are not more real than newspapers, which are not more real than digitized corpora or predictive language models. These are all fossilized speech at different stages of transmission. They should be treated as such by scholars. Second, philologists of Uzbek (and scholars of Uzbek studies more generally) should actively resist the splintering of the field into territorialized research questions. Classical literature, Jadid reforms, Soviet language planning, post-Soviet alphabet reform, and Uzbek natural language processing research all ask ultimately the same question of

how Uzbek language and identity maintain cultural legibility within changing systems of communication. Third, researchers of Uzbek national or cultural systems should avoid faux-populist grandiosity. No people are great just because they exist. The greatness of a people becomes worth discussing in academic terms only when we demonstrate the sources of that perceived greatness through mechanisms, evidence, and disciplined interpretation. The article closes with some concrete suggestions based on this research. Uzbek philology should strengthen its commitment to multi-script literacy so that students need no longer fear texts in Arabic-script, Cyrillic, or Latin-based orthographies. Literary education can bind together Navoi and other classical authors with the linguistic dignity and cultural memory questions faced by students today, rather than allowing them to drift as optional figures for ceremonial mention. Translation strategy should make classical and modern Uzbek literature more visible on the international stage, and should simultaneously allow Uzbekistan to become a stronger language of technical scholarship. Digital language strategy can aid these goals by openly developing Uzbek language corpora, optical character recognition software for all three Uzbek scripts, speech-recognition datasets, cross-script transliteration or romanization platforms, morphological analyzers, and finally strong terminological databases that can ease expert communication in Uzbek. There are some potential costs of failure. First, deep unevenness in script transition threatens to perpetuate fractured literacies between generations. Second, weak Uzbek development in digital language tools will drive young people toward technologically convenient languages like Russian or English. Third, without digital access, national literary memory risks becoming a ceremonial rather than pedagogical force in Uzbekistan. Fourth, poorly managed multilingualism can weaken Uzbek scholarship if international collaboration fails to prioritize—or recognizes—without additional support—the development of Uzbek academic registers and journals. None of these scenarios should be taken as beyond mitigation. Together they confirm the essay's central claim. Linguocultural resilience is not something that a people simply have or does not have. It is worked and reworked across time. The impressive scale of Uzbek language and literary adaptation to new challenges is a historical fact. Continuing that process into the digital and academic ecosystem of the twenty-first century is a shared scholarly and institutional challenge.

CONCLUSION

The evidence reviewed in this article supports the proposition that language is central to Uzbek cultural continuity. Uzbek cultural greatness can be measured by its linguocultural resilience. Above all else, Uzbek strength has been the ability to maintain continuity of memory across shifting literary, institutional, political, graphic, and technological circumstances. Five overlapping mechanisms have been reviewed that describe this resilience: canonized literature, moral pedagogy, script-shift adaptability, multilingual brokerage, and digital re-inscription. Collectively they help account for how Uzbek language and literature stored ethical memory, literary excellence, and the capacity for collective self-recognition during major transitions.

Uzbek did not survive by standing still. It survived by changing, but not beyond recognition. Literature gave language status. Navoi showed that Turkic/Uzbek speech was dignified. Jadidism showed language was also modernity, schooling, and social change. Change in script both provoked and withstood challenges to continuity. Contact with other languages expanded expressive capacity. Computational philology now provides new ground for ensuring Uzbek visibility tomorrow. The novelty of this article is synthetic. Rather than studying classical literature; or language policy; or script-reform; or computational development each separately, we can begin to see that they form parts of a single deep history of cultural mediation. Philology stands to gain from the Uzbek example, as it shows that language can serve as archive, social pedagogy, identity marker, and technological asset all at once. The lesson for today is straightforward. Continue to study, teach, translate, digitize, and computationally develop Uzbek language and literature as a related set of tools with which to manage national and civilizational memory. The future of continuity depends not only on the past, but on how it gets cared for today in schools, universities, publishing, translation, and digital development. Greatness then is not bestowed once and for all. It is earned through the labor of keeping a language alive, relevant, intellectually productive, and prepared for what comes next.

RECOMMENDATIONS

1. Uzbek philological education should strengthen historical and multi-script literacy, especially for students working across Arabic-script, Cyrillic, and Latin-script Uzbek materials.
2. Research institutions should support critical editions, translations, and digital versions of classical Uzbek and Chagatai texts.
3. Universities should develop Uzbek as a language of advanced scholarly expression, including terminology for linguistics, digital humanities, philosophy, education, law, and technology.
4. Digital-language policy should prioritize open Uzbek corpora, OCR systems, speech datasets, transliteration platforms, morphological analyzers, and pedagogical tools.
5. Future studies should empirically test the five-mechanism model through corpus analysis, language-attitude surveys, classroom research, and comparative Central Asian studies.

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