
Silk Roads: Zarafshan-Karakum Corridor

(Tajikistan, Turkmenistan, Uzbekistan)

No 1675

1 Basic information

Official name as proposed by the State Party

Silk Roads: Zarafshan-Karakum Corridor

Location

Sughd Region
Republic of Tajikistan

Lebap Region
Mary Region
Turkmenistan

Bukhara Region
Navoi Region
Samarkand Region
Republic of Uzbekistan

Brief description

The Zarafshan-Karakum Corridor is one of the key sections of the Silk Roads in Central Asia that connects other corridors from all directions. Comprising thirty-four sites located in rugged mountains, fertile river valleys, and uninhabitable desert, the 866-kilometre corridor runs from east to west along the Zarafshan River and further southwest following the ancient caravan roads crossing the Karakum Desert to the Merv Oasis. Channelling much of the east-west exchange along the Silk Roads over the whole period from the 2nd century BCE to the 16th century CE, a large quantity of goods was traded along the corridor and famous local products kept feeding the desires of peoples afar. People travelled, settled, conquered, or were defeated here, making it a melting pot of ethnicities, cultures, religions, sciences, and technologies. The control of these corridors was of vital significance to many of the great Silk Roads empires, such as the Sogdian, the Parthian, the Sassanian, the Timurid and the Seljuk, as they were fundamental to long-distance exchange along the Silk Roads. Over the millennium and a half that it flourished, the nominated Corridor experienced three prosperous periods resulting from the rise of Sogdian merchants between the 5th and 8th centuries CE; trade with the Muslim world and outside flourished between the 10th and 12th centuries CE, and under Mongol rule from the 13th century to the 17th century CE when science, culture, urban planning, and economics significantly developed, and the vast territory of the empire facilitated long-distance trade.

Category of property

In terms of categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a serial transnational nomination of thirty-four *sites*.

Included in the Tentative List

21 January 2021 (Republic of Tajikistan)

20 January 2021 (Turkmenistan)

18 January 2021 (Republic of Uzbekistan)

Background

A previous nomination was submitted in 2013, by the States Parties of the Republic of Tajikistan and Republic of Uzbekistan, under the name of the Silk Roads: Penjikent-Samarkand-Poykent Corridor.

The World Heritage Committee examined the nomination at its 38th Session (Doha, Qatar, 2014):

Decision: 38 COM 8B.30

The World Heritage Committee,

1. Having examined Documents WHC-14/38.COM/8B and WHC-14/38.COM/INF.8B1,

2. Refers the nomination of the Silk Roads: Penjikent-Samarkand-Poykent Corridor, Tajikistan, Uzbekistan, back to the States Parties, in order to allow them, with the advice of ICOMOS and the World Heritage Centre, if requested, to:

- a) Augment the internal comparative analysis to broaden the selection of sites considered in relation to the re-appraised Outstanding Universal Value,*
- b) Provide more detailed information on each of the nominated sites in order to allow a fuller understanding of their structures and the way they have developed over time;*
- c) Also provide more detailed and accurate maps that show the precise location of the boundaries of the sites in relation to the topography;*
- d) Reconsider the boundaries of Penjikent and Poykent to allow the sites to include all the key archaeological areas, and extend the buffer zones in order that they provide adequate protection for the context and setting of the sites;*
- e) Develop conservation plans for the consolidation and/or back filling of the highly damaged and vulnerable excavated areas of Penjikent and Poykent and seek means and resources for the implementation of these plans;*
- f) Provide clarity as to how the already inscribed properties of Samarkand and Bukhara contribute to the value of the series, and whether Bukhara should be included in the title;*
- g) Strengthen the management arrangements to allow coordination between the component parts in the series on a national basis.*

3. Recommends the States Parties, if necessary, to invite an ICOMOS Advisory Mission in the framework of the Upstream Processes to advise on the implementation of the above recommendations;

4. Invites the international community to consider support for projects to conserve and consolidate the excavated areas in Penjikent and Poykent that are currently threatened by severe erosion.

Following the World Heritage Committee recommendations, the States Parties of the Republic of Tajikistan and the Republic of Uzbekistan invited an ICOMOS advisory

mission in June 2016. The main aim of this mission was to offer advice on the revision of the nomination dossier, with emphasis on defining the potential Outstanding Universal Value, on the selection of component parts, and on improving documentation, conservation, and management. The advisory mission recommended that the States Parties should: revise the Statement of Outstanding Universal Value, re-select the component parts, improve the narratives to focus more on the significance, develop management plans for each component part, establish a coordination mechanism for the Corridor as a whole, and develop an interpretation plan for the whole Corridor.

The advisory mission also expressed the concern that given the amount of work to be accomplished within the timeframe for re-submitting the referred nomination dossier (1 February 2017), time was very short to address all these issues. Furthermore, the revision of the nomination implied that a technical evaluation mission was needed to assess the conservation and management of newly added sites to the nomination, as well as to consider how issues that were identified by the ICOMOS technical evaluation mission in 2013 relating to sites of original nomination have been addressed.

In 2021, the States Parties of the Republic of Uzbekistan, the Republic of Tajikistan, and Turkmenistan jointly submitted a new serial transnational nomination, with the total of component parts expanded to thirty-four, including the twelve sites of the previous nomination.

Considering that the current nomination was submitted after the closing date set out for the referred back nominations, according to paragraph 159 of the *Operational Guideline for the Implementation of the World Heritage Convention*, it is a new nomination.

Consultations and technical evaluation mission

Desk reviews have been provided by ICOMOS International Scientific Committees, members, and independent experts.

An ICOMOS technical evaluation mission visited the sections of the nominated property in Tajikistan and Uzbekistan from 26 September to 10 October 2021 and another ICOMOS technical evaluation mission visited the section in Turkmenistan from 1 to 10 October 2021.

Additional information received by ICOMOS

A letter was sent to the States Parties on 12 October 2021 requesting further information about integrity, existing World Heritage properties in Turkmenistan and Uzbekistan, protection, conservation, management, monitoring, presentation and interpretation.

Additional information was received from the States Parties on 15 November 2021.

An Interim Report was provided to the States Parties on 20 December 2021 summarising the issues identified by the ICOMOS World Heritage Panel.

Further information was requested in the Interim Report on: potential Outstanding Universal Value, management plan for each component part, future extension of the water management system, capacity building, interpretation, and possible roadmap.

Additional information was received from the States Parties on 25 February 2022.

All additional information received has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report

9 March 2022

2 Description of the nominated property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history, and its state of conservation. Due to limitations on the length of evaluation reports, this report provides only a short summary of the most relevant aspects.

Description and history

The Silk Roads

The Silk Roads were an interconnected web of routes linking the ancient societies of Asia, the Subcontinent, Central Asia, Western Asia, and the Near East, and contributed to the development of many of the world's great civilisations. They represent one of the world's preeminent long-distance communication networks stretching as the crow flies to around 7,500 kilometres but extending to over 35,000 kilometres along specific routes. While some of these routes had been in use for millennia, by the 2nd century BCE the volume of exchange had increased substantially, as had the long-distance trade between east and west in high-value goods, and the political, social, and cultural impacts of these movements had far-reaching consequences upon all the societies that encountered them.

The routes served principally to transfer raw materials, foodstuffs, and luxury goods. Some areas had a monopoly on certain materials or goods: notably China, who supplied Central Asia, the Subcontinent, West Asia and the Mediterranean world with silk. Many of the high value trade goods were transported over vast distances – by pack animals and river craft – and probably by a string of different merchants.

There were a number of major transformative impacts from this extensive network of interactions:

- The development of cities along these routes, which gained power and wealth from the trade, providing the infrastructure of production and redistribution, and policing its routes. Many became major cultural and artistic centres, where peoples of different ethnic and cultural backgrounds intermingled.

- The development of religious centres, which benefited from the patronage of political systems and wealthy individuals.
- The movement of technologies, artistic styles, languages, social practices and religious beliefs, transmitted by people moving along the Silk Roads.

By 2014, the overall Silks Roads from China to the Mediterranean have been the subject of extensive study over eight years by a group of fifteen countries, mainly from Central and East Asia. The broad synthesis of the results has been published in an ICOMOS Thematic Study on the Silk Roads. This identified fifty-four 'corridors' along the routes that are distinctive from other sections of the Silk Roads, in terms of the quantity and quality of surviving ensembles of sites that reflect long-distance trade and the complex socio-cultural-political systems that supported the trade. Each of these corridors might have the potential to be put forward as a serial nomination. The Silk Roads period as defined in the ICOMOS Thematic Study is between the 2nd century BCE and 16th century CE.

In 2014, Silk Roads: The Routes Network of Chang'an-Tianshan Corridor, the first Silk Roads property jointly nominated by the States Parties of China, Kazakhstan, Kyrgyzstan, was inscribed on the World Heritage List. This nomination covered Corridors No. 8, 9, 17, 18, 19, 22, and 47 as identified by the ICOMOS Thematic Study on the Silk Roads (2014). The current nomination covers Corridors No. 4 and a part of No.5.

The Silk Roads: Zarafshan-Karakum Corridor

Extending over 866 kilometres in Central Asia and spanning from the 4th century BCE to the 19th century CE, the Zarafshan-Karakum Corridor comprises thirty-four component sites, of which nine lie in the Republic of Tajikistan, sixteen in the Republic of Uzbekistan, and nine in Turkmenistan. The Corridor comprises into three main geo-cultural areas: the mountain section in the east, the plain section in the centre, and the desert section in the west.

The dramatic landscape setting of the Corridor covering highlands, piedmonts, plains, artificially irrigated oases, wormwood-steppes and deserts not only defined the orientation and routes of the Corridor, but also nourished the lands as a melting pot of political, economic, cultural, and religious influences.

Starting in the east from Khisorak Settlement, a 7th to 8th century CE strategic fortified city in the upper valley of the Zarafshan River, the Corridor runs westward following the Zarafshan River all the way down to the plain of the river basin in which major Central Asian metropolises such as Samarkand and Bukhara are located. The Corridor bends toward the southwest after passing through the Bukhara oasis, crosses the Amu Darya River and continues into the Karakum Desert following the caravan trail, and eventually reaches Kushmeihan, a 2nd to 13th century CE

market town and strategic centre in the Murghab Delta of the Merv Oasis.

Being an artery of trade in the heart of the Silk Roads network, the Corridor connects the Tianshan Corridor in the north, the Fergana Valley Corridor in the east, the Amudarya Corridor in the south, and via the Southern Aral Sea the Caspian Corridor in the West. It also links to the Khorasan Corridor or the Great Khorasan Road via Merv.

Over its history, the region had been sequentially controlled by several great empires, but has managed to maintain its relative independence. This pivotal location, coupled with a stable political environment and in the centre fertile lands, attracted many people to travel and settle, including Iranians, Turkic peoples, Mongolians, Semites, Greeks, Indians, Slavs, Sino-Tibetans, and Chinese. Brought with them were various religions, such as Zoroastrianism, Islam, Buddhism, Nestorian Christianity, Manichaeism, and Judaism. Many languages from ancient times are still spoken in the region today.

Famous scholars and inventors lived in or travelled through the towns and cities of the Corridor: An Shigao and Kang Senghui who translated Buddhist Canon into Chinese, several generations of the He family of the Sogdians from the region had served as high-ranking officials in the Chinese court, great collector Muhammad al-Bukhari, the first Persian poet Abu Abdallah Rudaki, astronomer and mathematician Mirza Ulugbek, biographer as-Sam'ani, and Abu Ali Ibn Sina (Avicenna), the author of the Canon of Medical Science, were among the great figures associated with the Corridor.

Along with the exchange of religions and ideas were technologies and arts. Glass-making, wine-making, horse-breeding, and schools of toretics (artistic metal-working) were transferred from the region to China; Sogdian musicians and singers were famous in China, and their remaining tunes are still performed in Japan. The Far Eastern lute (Pipa in Chinese, Biwa in Japanese) was also exported from Central Asia through the Corridor to China and Japan. Other technologies went from China to Central Asia and further West, such as paper production and ceramic technology.

Trading goods along the Zarafshan-Karakum Corridor were mainly silk, metalwork, leather, wool, gemstones, metals such as silver and gold, a large variety of spices, fruit and grains, and racehorses. The Corridor not only served to moving imported goods but rich products were also manufactured in its towns and cities, contributing significantly to international trade. Some of the products from this region had gained international fame, such as Sogdian silverware, Zandaniji wool fabric, silk, Samarkand paper, and glazed pottery.

The series as a whole has been selected to reflect how certain towns and settlements were established to control mountain passes of the trade routes, how caravanserais were organised by states to protect travellers and merchants, how the Sogdians became the major

intermediaries of international trade between the East and the West in the 8th and 9th centuries CE, how peoples travelled and settled in towns and cities, such as Penjikent, Samarkand, Bukhara, and Merv, and how cultures, religions, technologies, arts, and literature were exchanged in this section of the Silk Roads.

Based on the categorisation of the nomination dossier, the nominated property consists of archaeological sites, architectural monuments, architectural complexes, archaeological complexes, and of one necropolis. From the point of their historical functions, the Corridor comprises rural settlements, transportation and defence facilities, religious sites, central towns and trading settlements, irrigation systems and water supply sites.

The nomination sets out very clearly the rationale for including each of the sites and how each contributes to the proposed Outstanding Universal Value. Detailed information of each component part is also provided on its features, and the artefacts obtained from archaeological excavations.

Shortage of space has not allowed this report to include full details of each of the sites, nor how each relates to the whole. Groups of sites are considered within the three sections divided according to their geo-cultural areas.

Mountain section

Eight component parts are located in the upper valley of the Zarafshan River in Tajikistan, where steep mountain slopes formed narrow paths along the river. The high altitude, rugged valley and ravines dictated the way that this section served mainly as trade routes, with small-scale settlements at the relevant flat areas to sustain the caravans and travellers. Several mountain trade paths traverse the main valley route. The nominated component parts are mainly located at these junctions for controlling the routes and for protecting and sustaining the caravans in the past.

The component parts in this section reflect how the highland strategic fortified towns and rural settlements acted in the international trades, the rich and diverse cultural, economic, and religious activities once occurred at these settlements, the events that changed the history of the region, the ingeniously designed irrigation system adapting to local geographical conditions which still function today, and how the highland peoples lived, prayed and thrived, particularly how the Sogdians merchants became the main intermediaries in the international silk trade, and how the process of Islamisation progressed in the region, profoundly changing the lives and faiths of the people in the valley.

Following is the list of the component parts, all are located in Tajikistan:

TJ-01 Khisorak Settlement
TJ-02 Castle on Mount Mugh
TJ-03 Kum Settlement

TJ-04 Gardani Khisor Settlement
TJ-05 Tali Khamtuda Fortress
TJ-06 Mausoleum of Khoja Mukhammad Bashoro
TJ-07 Toksankoriz Irrigation System
TJ-08 Sanjarshakh Settlement

Plain section

Seventeen component parts are located in this section from the lower reaches to the wide hydrological basin of the Zarafshan River. The fertile land coupled with plenty of water and sophisticated artificial irrigation systems, as well as rich deposition of minerals, created favourable conditions for agriculture and handicraft. Dry steppe and highland areas provided the nomads with meadows. This region has been regarded as the place of rest and exchange for the merchants after their exhausting journeys through extreme geographic and climatic conditions of high mountains in the east and lifeless desert in the west. The relatively stable political and climatic environment attracted people to settle down or trade there, which made this area one of the richest regions in Central Asia.

The component parts in this section reflect how the many towns, cities, and metropolises grew with international and regional trade, and at the same time shaped the political, economic, cultural, and religious landscapes of the region, how the powerful and relatively independent city-states under the rules of major empires in history maintained, promoted, and secured the trade, and subsequently forged this section as an important crossroad of international communication in the network of the Silk Roads, and what products were offered from the region to the international markets. This section also witnessed the high achievements of science, technology, art, architecture, craftsmanship, and religious evolution in the region. Interaction between the nomads and the settled population added diversity of cultures, religions, and products to the section.

Following is the list of the component parts, of which the TJ-09 Town of Ancient Penjikent component part is located in Tajikistan, while the other sixteen are located in Uzbekistan:

TJ-09 Town of Ancient Penjikent
UZ-01 Jartepa II Temple
UZ-02 Suleimantepa
UZ-03 Kafirkala Settlement
UZ-04 Dabusiya Settlement
UZ-05 Kasim Sheikh Architectural Complex
UZ-06 Mir Sayid Bakhrom Mausoleum
UZ-07a Rabati Malik Caravanserai
UZ-07b Rabati Malik Sardoba
UZ-08 Deggaron Mosque
UZ-09 Chasma-i Ayub Khazira
UZ-10 Vardanze Settlement
UZ-11 Vobkent Minaret
UZ-12 Bahouddin Naqshband Architectural Complex
UZ-13 Chor Bakr Necropolis
UZ-14 Varakhsha Settlement

UZ-15 Paikend Settlement

Desert section

Nine component parts are located along the ancient route across the Karakum Desert. This route was the shortest way to cross the desert, a journey which took five days from the crossing of the Amu Darya River to the edge of the Merv Oasis. Stations and caravanserais, together with wells and *sardobas* (water reservoirs), were established along the routes at relatively regular intervals, often at a one-day trek distance, which provided vital food and water to the travellers, and protected them from extreme weather conditions and other unexpected incidents.

The component parts in this section reflect the efforts of state powers and local people along the route to create and maintain a sophisticated infrastructure system that supported the trade and travel along the Silk Roads over the centuries. The size of the component parts varies from ordinary caravanserais, *kōshks* (stations) and *rabats* (small settlements outside caravanserais), to towns, representing a wide range of desert supply infrastructure which was essential for maintaining the functions of this important trade route in the past. The town planning and architectural design were based on the cosmological perceptions of the time, while the buildings and infrastructure were adapted to the local conditions. This section bears witness to the evolution of caravanserais in Central Asia.

Following is the list of the component parts, all of which are located in Turkmenistan:

- TM-01 Amul Settlement
- TM-02a Mansaf Caravanserai
- TM-02b Mansaf Caravanserai
- TM-03 Konegala Caravanserai
- TM-04 Tahmalaj
- TM-05 Akja Gala Caravanserai
- TM-06a Gyzylja Gala Caravanserai (Rabad al-Hadid)
- TM-06b Gyzylja Gala Caravanserai (Rabad al-Hadid)
- TM-07 Kushmeihan (Dinli Kishman)

History and development

The territory of the Zarafshan-Karakum Corridor has been inhabited since Palaeolithic times. Oxus civilisation and nomads of the Andronovo culture appeared from the late 3rd to the 2nd millennia BCE. In the early Iron Age, Sogdiana and Margiana belonged to the Eastern Iranian lands, where the Zarathustra doctrine originated. From the 6th century BCE onward, Central Asia was occupied by various empires such as Achaemenid, Macedon, and Parthia. Around 125 BCE, the Chinese envoy Zhang Qian visited the states to the west of China and established the first official trade links with the regions in Central Asia.

In the next centuries, the regions belonged first to the Parthian and then the Sasanian Empire. During the 7th century CE, Muslim troops captured the regions, and the population was converted to Islam. The regions flourished during the following centuries until 1220 CE when

Genghis Khan captured Transoxiana and Khorasan and caused extensive destruction which led to a radical decrease in the population. The areas gradually recovered under the Mongol Muslim dynasties, while the vast scale of the Mongol Empire facilitated cultural and commercial ties throughout Eurasia. The rules of Timur and his successors brought prosperity to the regions once more. In 1507 CE, the nomadic Uzbeks of Sheibani Khan from the Volga region captured Transoxiana. The Zarafshan Valley was then controlled by the Uzbek dynasties of Bukhara emirs, and at the same time, the self-governing Turkmen tribes continued to live on the territory of the Merv Oasis.

From the second half of the 19th century CE, Samarkand and Merv were annexed by the Russian Empire, and later as a part of the Soviet Union. In 1991, Uzbekistan, Tajikistan, and Turkmenistan became independent countries.

The nominated Corridor thus had three main prosperous periods from the 2nd century BCE to the end of the 16th century CE, the acknowledged functioning period of the Silk Roads. The first period was from the 5th to the 8th century CE when the region was under Hephthalite, Turkish, Chinese and Arab rule, and the role of Central Asian merchants increased significantly. During this period, the Sogdians merchants rose to become the main intermediaries in the international silk trade. The Sogdians also developed a unique sophisticated culture in and near the Zarafshan Valley and brought this with them to their colonies and settlements along the Silk Roads. Rich evidence of Sogdian culture and religion still survives today in China, Japan, and other countries. The second period was between the 10th and the 12th centuries CE, when the cities and urban culture in Maverannah, Transoxiana thrived, and trade with the Muslim world and beyond flourished. The last period was from the 13th to the 17th centuries CE under Mongol rule, when science, culture, urban planning, and economics significantly developed, and the vast territory of the empire facilitated long-distance trade.

The property area of the thirty-four component parts totals 669.679 ha, with buffer zones totalling 1,750.042 ha.

State of conservation

The conservation activities for archaeological sites were overall very limited, with the most common one being the backfilling after excavations. Since three quarters of the component parts are archaeological sites, this measures effectively prevented the sites from further deterioration. The artefacts extracted from the sites were stored in museums for conservation treatment and display.

Most architectural conservation activities before 2000 were maintenance and regular repairs to keep the buildings functioning. These interventions have caused the loss of some of the original ornaments and materials, but the structures and original designs are kept mostly intact.

During the periods between 1999 and 2004, 2006 and 2007, 2017, and 2019, several major conservation and restoration projects were conducted in Uzbekistan at the UZ-05 Kasim Sheikh Architectural Complex, UZ-06 Mir Sayid Bakhrom Mausoleum, UZ-07a Rabati Malik Caravanserai and UZ-07b Rabati Malik Sardoba, UZ-08 Deggaron Mosque, UZ-09 Chasma-i Ayub Khazira, UZ-11 Vobkent Minaret, UZ-12 Bahouddin Naqshband Architectural Complex, and UZ-13 Chor Bakr Necropolis component parts. The interventions involved structural reinforcement and stabilisation, restoration, environmental improvement, and landscaping. These projects have transformed the once derelict and fragile state of the buildings into one that is safe and functional. Some of the building complexes have become, once again, the religious centres for local communities and international pilgrims.

The current states of conservation of all the component parts are ranked in the nomination dossier as fair to good.

Tajikistan

Of the nine component parts, five are in a good state of conservation due to their remote and uninhabited locations and difficult access. The other four sites are ranked as fair for the following reasons: surface water washing away materials at the base of the walls at the TJ-04 Gardani Khisor Settlement component part, inappropriate past repair of the buildings at the TJ-06 Mausoleum of Khoja Mukhammad Bashoro component part, past partial reconstruction of the ancient irrigation system at the TJ-07 Toksankoriz Irrigation System component part, and recent partial collapse of two arches at the TJ-08 Sanjarshakh Settlement component part. Eight component parts were partially excavated and backfilled, which protected the sites from further deterioration.

Uzbekistan

Of the sixteen component parts, twelve are in a good state of conservation. The other four are ranked as fair due to erosion and weathering of uncovered parts of the archaeological sites at the UZ-01 Jartepa II Temple, UZ-03 Kafirkala Settlement, UZ-04 Dabusiya Settlement, and UZ-14 Varakhsha Settlement component parts. In addition, vegetation growth and rising damp affect the foundations of the structures of these sites.

Turkmenistan

All the nine component parts are ranked in a fair state of conservation because of wind erosion, although most of the sites are buried and stable. Past inappropriate use occurred at the TM-01 Amul Settlement component part, such as brick-making, agricultural activities, garbage dumping, and building encroachment. Since 2012, the legal protection was implemented and the brickworks were closed and cleared, the garbage was removed, and the perimeter of the citadel was demarcated.

In summary, ICOMOS considers that the damages to the component parts occurred mostly in the past. Based on the information provided by the States Parties and the observations of the ICOMOS technical evaluation missions, although many archaeological sites are in the ruined state and suffer from lack of regular maintenance, their current conditions are overall stable. The past conservation interventions have led to some losses of authenticity to the architectural heritage. However, recent works have been conducted more sensitively. Currently, the architectural heritage is well maintained as living heritage with a good state of conservation. ICOMOS considers that the overall state of conservation of the nominated property is good.

Factors affecting the nominated property

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation missions, ICOMOS notes that the component parts are located in distinctive geographic and climatic areas and, therefore, considers that the main factors affecting the nominated property vary considerably.

In Tajikistan, the main factors affecting the component parts are temperature fluctuation, surface water, and rising damp. Located in the harsh mountainous areas exposed to the elements, all the sites are subject to progressive deterioration by high temperature fluctuation and heavy rainfall. Rising damp is the main cause of damage to the lower portion of building structures.

In Uzbekistan, the main factors affecting the component parts are surface water and rising damp. Located in the river valley plain with a relatively mild environment, flooding and moisture from groundwater are the main causes of deterioration of the lower portions of the buildings.

In Turkmenistan, the main factor affecting the component parts is wind erosion. Located in the desert environment all the sites are subject to wind erosion.

In addition to these factors associated with the geographical and climatic conditions, development and uncontrolled visitation are general factors affecting the overall nominated property.

Development includes road constructions, encroachment, and agricultural and grazing activities. Road constructions near the component parts may cause physical damage through vibration and pollution. Encroachment through the illegal constructions of houses, and religious and tourism facilities in the property area or its buffer zones may affect the integrity of the sites. Agricultural and grazing activities may damage the archaeological remains. Uncontrolled visitation at archaeological sites that are lacking of a visitor management system may cause damage to the vulnerable parts, while over-visitation at some religious monuments also causes damage to their fabric and settings.

The States Parties have started to address these factors by enforcing laws on the nominated property and its buffer zones, fencing off the archaeological sites, organising awareness raising workshops for the local communities, and improving planning at the national level.

ICOMOS considers that the state of conservation is overall good, and that factors affecting the nominated property are largely under control. ICOMOS considers, however, law enforcement and a more vigilant monitoring mechanism are critical for addressing the problems of uncontrolled visitation, illegal construction, and inappropriate road constructions.

3 Proposed justification for inscription

Proposed justification

The nominated property is considered by the States Parties to be of Outstanding Universal Value as a cultural property for the following reasons:

- Being one of the central sections connecting other corridors, the Zarafshan-Karakum Corridor plays an important role in the network of the Silk Roads. It links the Tianshan Corridor in the North, the Fergana Valley Corridor in the East, the Amudarya (Amu Darya) Corridor in the South, and via the Southern Aral Sea to the Caspian Corridor in the West. It also connects, via Merv, the Khorasan Corridor, also called the Great Khorasan Road in the early Islamic period.
- The three prosperous periods of the Corridor contributed significantly to the historical development of Central Asia. The first period was the blossom of pre-Islamic Sogdian culture from the 5th to the 8th centuries CE, during which the Sogdians merchants became the main intermediaries in the international silk trade, and developed a unique sophisticated culture in and near the Zarafshan Valley. The second period was between the 10th and the 12th centuries CE when the cities and urban culture in Maverannahr, Transoxiana actively developed, and trade with the Muslim world and beyond flourished. The last period was from the 13th to the 17th centuries CE under the Mongol rule, when science, culture, urban planning, and economics significantly developed.
- The component parts of the series are eloquent testimony to the economy, culture, and art of Central Asia, as demonstrated by the long-lived cities; Sogdian monuments, cities, fortifications, palaces, and artworks; sites during the Muslim conquest and Islamisation; Islamic cities; Pre-Mongol and Post-Mongol architectural monuments; sacred sites; Muslim Sufi necropolises; water-management systems; infrastructure and facilities along the roads; and sites sustaining economic interactions between the East and the West.

Based on the nomination dossier, the key attributes of the nominated property are the orientation and the geographical setting of the Corridor, and the thirty-four

proposed component parts and their immediate and wider settings.

As mentioned in the Interim Report, ICOMOS notes that the justification for the inscription of the nominated property as put forward in the nomination dossier lacks specificities related to this Corridor and how it is distinct from the other sections of the Silk Roads. In the additional information provided in response to this query, the States Parties state that the nominated property was one of the most important and distinctive stretches of the Silk Roads in Asia. It channelled much of the east-west exchange along the Silk Roads over the whole period from the 2nd century BCE to the 16th century CE. Along with the long-distance trades were the growth of urban centres, towns, caravanserais, as demonstrated by the scale of the urban market centres, elite and religious buildings. The control of this vital link between Central Asia and the Murghab Delta provided the administrative and cultural base for many major Silk Roads empires, such as the Sogdian, the Timurid, the Parthian, the Sassanian, and the Seljuk. ICOMOS considers that this response provides the specificity and clarity that is needed to distinguish the nominated property from other Silk Roads sections.

Comparative analysis

The comparative analysis has been developed following three parts: comparisons with cultural routes inscribed on the World Heritage List, comparison with other Silk Roads Corridors, and comparison with other similar sites along the nominated property. The last part is in fact the internal comparison among the nominated sites for justifying the selection of the nominated component parts.

In the first part, eleven World Heritage cultural routes are compared following the parameters: cultural route, pilgrimage route, transnational property, criteria (ii), (iii), (iv), (v), and (vi), under which the nominated property is proposed for inscription, regional and chronological framework, and geographical extent (the total length of the routes).

The comparison concludes that the nominated property is the only one that is both a cultural and a pilgrimage route. It belongs to different geo-cultural and chronological frameworks representing a unique complex interchange of both human values and influences, encompassing trade, social and economic values, architecture and urban planning, culture and arts, science and technology, between the peoples of the East and the West from the 2nd century BCE to the 16th century CE. The nominated property has the greatest variety of trading products as reflected in the characteristics of cities, settlements and complexes, in comparison to other cultural heritage routes, and demonstrates the most diverse type of architecture.

In the second part, three Silk Roads corridors are compared in terms of distance (total length), eco-geographical features, and cultural features. These corridors are the Silk Roads: The Routes Network of Chang'an-Tianshan Corridor (China, Kazakhstan, Kyrgyzstan, 2014, criteria (ii), (iii), (v), and (vi)), the

Fergana-Syrdarya Corridor of the Silk Roads (Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan, nomination in progress), and the South Asian Silk Roads (Nepal, Bhutan, China, India, nomination in progress). No conclusion is provided in the nomination dossier for this part of the comparative analysis because of the lack of information on the two corridors which nominations are not completed yet.

In the third part, the comparison is made among the candidate sites within each State Party. Tajikistan and Uzbekistan adopted a common methodology: each site is assessed in terms of its values associated with the nominated property as a whole, the quality of its authenticity and integrity, and its level of documentation and research in the past. There are many parameters for the assessment, which are categorised into five groups: (1) geographical location; (2) reliability of information sources; (3) functional type; (4) relevant values; and (5) authenticity and integrity. Each group is further divided into a number of sub-groups. These groups and subgroups of parameters form a matrix against which the assessment is made. With this methodology, 77 sites in Tajikistan and 119 sites in Uzbekistan are assessed. Furthermore, additional comparisons are made for both the oasis wall of Bukhara (the remnant of the protective walls once constructed along the perimeters of the Bukhara oasis) and the remains of water management structures. As the result, nine and sixteen component parts are selected in Tajikistan and Uzbekistan respectively. The State Party of Turkmenistan takes a different approach for internal comparison by tabulating 20 archaeological sites against parameters such as urbanisation, trade, wealth, culture, ethnicity, communities, control of empires, power, warfare, transport, travel infrastructure, outcomes/impacts, religious interchange, production, infrastructure development, and other factors. As the result, nine component parts are selected.

ICOMOS considers that the comparative analysis in part one is adequate, although the seventy-two-kilometre circular route of the Mount Wutai (China, 2009, (ii), (iii), (iv), and (vi)) is not for leading pilgrims to the sacred place, rather it is a route for Buddhist believers to circulate around the sacred place in order to accumulate virtues. Part two of the comparative analysis is also considered adequate as each corridor is an integral part of the Silk Roads, and all the corridors are equally important within the Silk Roads network. Finally, ICOMOS considers that in part three, the selection of the component parts is overall justified and the methodology adopted for component selection is sound.

ICOMOS notes that the religious value of the nominated property is not sufficiently elaborated. There have been diverse religious expressions throughout history, particularly in the Sogdian and Samanid periods, illustrating the flow of ideas along the routes. While Sufism is well reflected in the current nomination dossier, and is further reinforced by the three associated World Heritage Sites, Bukhara in particular as the largest centre for

Muslim theology in the Near East, evidence for other religions such as Buddhism, Nestorian Christianity, Zoroastrianism, and Judaism is not explored.

In addition, ICOMOS considers that the water management systems along the nominated property were essential in shaping both the routes and the ways of life of the populations, and are an integral part of the Zarafshan-Karakum Corridor. However, this aspect is under represented in the current nomination dossier. As indicated in the additional information provided in November 2021 by the States Parties, new research and many discoveries happened in recent years. ICOMOS welcomes the commitment of the States Parties, as indicated in the additional information provided in February 2022, on the continuous research on irrigation systems in the region in the view that, when conditions would allow it, more irrigation systems including lakes and canals should be added as extensions to the current nominated property.

In relation to this aspect, ICOMOS notes that the Sheibanikhan Water Divider Bridge is excluded from the nomination as the result of the internal comparison, because only one arch of the three documented in the mid-19th century remains, therefore the integrity of the bridge is low. ICOMOS considers that, however, the incompleteness of the bridge is not a valid reason for excluding it from the nomination since all the component parts of the nominated property are incomplete to some degree. ICOMOS considers that from the point of view of the nominated Corridor as a whole, it testifies the ambition, scale and technology of water management in the region, and demonstrates the active response of the local people to the existing geographic and hydrological conditions. ICOMOS therefore recommends to consider its inclusion in the nomination when conditions would allow it.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List. ICOMOS considers that the selection of the component parts is justified.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (ii), (iii), (iv), (v), and (vi).

Criterion (ii): *exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;*

This criterion is justified by the States Parties on the grounds that the nominated property is an exceptional integral system of interchange of goods, human values, and influences among the people of the East and the West of the Silk Roads between the 2nd century BCE and the 16th century CE. It reflects outstanding developments in architecture and technologies, monumental arts, town planning, and landscape design, which is evidenced by the longevity of cities including Sogdian cities and artworks, Islamic cities, Pre-Mongol and Post-Mongol

architectural monuments, water management, and economic interactions.

ICOMOS considers that the Zarafshan-Karakum Corridor exhibit an important interchange of human values over a span of eighteen centuries in the heart of Central Asia as demonstrated by the architecture, monuments, town planning, landscapes, arts, and technology of its component parts which reflect diversified cultures, ethnic traditions, beliefs, and technologies in both distinct and fused ways. Being one of the key sections at the centre of the Silk Roads network linking multiple ethnic regions, and being alternatively controlled by nearby great empires, the Zarafshan-Karakum Corridor clearly demonstrates the diversity of populations, and the cultures and traditions, ideas and beliefs, as well as knowledge and technologies associated with them. ICOMOS considers that this criterion is justified.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the States Parties on the grounds that the nominated property is an exceptional testimony of cultural traditions, with a comprehensive exchange between the 2nd century BCE and the 16th century CE during the three historic periods: Sogdian, Samanid-Karakhanid, and Timurid-Shaybanid, when the route was flourishing. It witnessed the development of cities, early Sogdian monuments, the effects of Islamisation, and the existence of local versions of Zoroastrianism, Christianity, and Islam over the course of its history.

ICOMOS considers that the territory of the Zarafshan-Karakum Corridor is overlaid by rich layers of cultural depositions throughout history, which is an exceptional testimony to the cultural traditions of the societies that were shaped by the trade and exchange along the Corridor. These are evidenced by the wealth of the Sogdian merchants as displayed by their luxurious residences, Sogdian temples with fire altar and murals, the Achaemenid citadels, early Islamic hypostyle mosques with large minarets, the rich Sufism buildings after the Great Arab Conquest, the advanced irrigation systems, as well as the wide spectrum of the caravan service facilities that had been provided and maintained by the successive empires controlling the Corridor. ICOMOS considers that this criterion is justified.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the States Parties on the grounds that the nominated property is an outstanding example of urban planning, architectural art, and technological processes between the 2nd century BCE and the 16th century CE in Central Asia. It is reflected by pre-Islamic sites and individual buildings, masterpieces of

Islamic Pre-Mongol and Post-Mongol architecture, and infrastructure and facilities along the Corridor.

ICOMOS acknowledges that the caravanserais in the Karakum Desert, the Islamic tumuli and religious buildings in Uzbekistan, and many settlements in the upper Zarafshan River Valley had a lasting impact on the architectural designs in the region and constitute outstanding examples of the types of buildings and technological ensembles of the area. ICOMOS considers that, however, these outstanding qualities are only demonstrated at the level of individual component sites. What the nominated property has not justified is how the Corridor as a whole, is an outstanding example of a type of building, architectural or technological ensemble or landscape that illustrates a significant stage in the history of the Silk Roads network. ICOMOS considers, therefore, that this criterion is not demonstrated.

Criterion (v): be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

This criterion is justified by the States Parties on the grounds that the nominated property reflects the unique example of human interaction with the natural environment of the highlands, piedmonts, dry steppes, oases and fertile valleys, and arid-desert zones. This is illustrated by Sogdian sites located in a hostile mountain environment, water-management constructions, and infrastructure and services along the Corridor facilitating appropriate conditions for the functioning of the trade route.

On the one hand, ICOMOS considers that the diverse geographic and climatic conditions had definitely dictated the selection of trading routes, town planning, architectural designs, agricultural and other production activities. On the other hand, ICOMOS considers that the local populations not only passively accepted what nature had offered to them, but also actively responded to the natural conditions. It was the people's determination, initiatives, and ingenious design that had physically transformed many parts of the land in the region into the places that allowed the populations to thrive. It was these two-way interactions between human and nature that had shaped the landscape into the one that is nominated today, as demonstrated by the construction of the mountain castles and settlements, the growth of the megacities and towns, the development of the sophisticated irrigation systems, and the establishment of the chains of caravanserais across the lifeless desert. Therefore, ICOMOS considers that this criterion is justified.

Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion

should preferably be used in conjunction with other criteria);

This criterion is justified by the States Parties on the grounds that the nominated property played a relevant role in the spread of various faiths and religious beliefs among the peoples inhabiting these territories. Literary plots of Sogdian monumental arts, sites related to different religions, particularly the development of Sufi Islamic mysticism, as well as handicrafts, arts, and scholarship in Islamic cities are outstanding examples. The Corridor provides a space for cultural dialogue and tolerance between the societies, which is still alive in modern Central Asia. The remnants of ancient beliefs and practices, clearly indicate the continuity of the living cultural traditions of the region, and associations can be seen in the customs and traditions of present-day people in music culture, folk festivals, religious and ritual practices.

ICOMOS considers that while all these claims are evident, nevertheless, how significant these ideas or associations are, and how these are conveyed in the nominated property in an outstanding manner, remain unclear. Furthermore, many of these associations such as cultural dialogue and tolerance, folk festivals, and music cultures are irrelevant to this criterion. ICOMOS considers, therefore, that this criterion is not justified.

ICOMOS considers that the nominated property meets criteria (ii), (iii) and (v) whereas criteria (iv) and (vi) are not justified. ICOMOS considers that the series approach is adequate.

Integrity and authenticity

Integrity

The integrity of the nominated property can be assessed at two levels: the corridor level and the site level. At the corridor level, the diversity of forms and functions of the selected component parts, including mausoleums, *sardobas*, caravanserais, minarets, mosques, religious complexes, settlements, and remains of ancient towns and cities, fully demonstrate the important role the nominated Corridor once played in history as a nodal section, which not only connected other corridors of the Silk Roads, but also contributed to the trade with locally produced merchandises. The series as a whole also showcases the exchange of ideas and knowledge along the Silk Roads as the result of the movement of people and goods. All the attributes that are needed for expressing the proposed Outstanding Universal Values are within the nominated property.

At the level of individual sites, the integrity of most of the component parts is adequate. As indicated by the ICOMOS technical evaluation mission, the boundaries of the TJ-07 Toksankoriz Irrigation System component part were incorrect. The States Parties have provided an updated official document in their additional information of November 2021, in which the boundaries have been

verified based on the historic documents and field investigation. These new boundaries have been approved by the government of Tajikistan. ICOMOS considers that the revised boundaries cover only a part of the whole irrigation system. ICOMOS recommends that in the future, more investigation should be undertaken to understand the entire irrigation system and consideration should be given to extend the boundary of this component through minor boundary modification request if relevant.

The ICOMOS technical evaluation mission also noticed that outside the buffer zone of the TJ-06 Mausoleum of Khoja Mukhammad Bashoro component part there are a necropolis, a sacred spring, and a stretch of pilgrim route that are spiritually associated with the mausoleum. ICOMOS considers that further investigations and value assessment should be undertaken to justify whether these elements should be included in the complex of the Mausoleum of Khoja Mukhammad Bashoro in the future through a minor boundary modification request.

ICOMOS noticed that there are three World Heritage sites within the boundaries of the nominated Corridor, which are not included as part of the current nomination dossier. They are the State Historical and Cultural Park "Ancient Merv" (Turkmenistan, 1999, criteria (ii) and (iii)), the Historic Centre of Bukhara (Uzbekistan, 1993, criteria (ii), (iv), and (vi)), and Samarkand-Crossroad of Cultures (Uzbekistan, 2001, criteria (i), (ii), and (iv)). In the past, these ancient metropolises were the most important political, economic, cultural, and religious centres of the Zarafshan-Karakum Corridor. ICOMOS, in its letter to the States Parties in November 2021, requested to clarify why these sites were not included in the current nomination. The States Parties responded that there are four reasons for not having included these sites: (1) the current nomination acknowledges the contribution of these sites to the potential Outstanding Universal Value; (2) the typology of the component parts covers those of the three World Heritage sites, (3) to include the three World Heritage sites would imply the alteration of the existing boundaries due to the different attributes identified based on the new Outstanding Universal Value, which is difficult to achieve in the near future, and (4) the thirty-four component parts outside these big cities provide a much fuller narrative to the history of the region than the one provided by these three World Heritage sites only. Therefore, the States Parties have decided not to include them in the current nomination. ICOMOS considers that these reasons are valid. ICOMOS also considers that while these three World Heritage sites have been listed individually, their Outstanding Universal Value is closely related to the Silk Roads as a whole and to the current Corridor in particular. ICOMOS recommends that although not included in the current nomination, these World Heritage sites should be integrated into the management and interpretation mechanism of the current nomination, in order to preserve and present the Corridor in a holistic manner.

ICOMOS considers that, overall, the nominated Corridor meets the condition of integrity.

Authenticity

The authenticity of the nominated property resides at both the corridor level and individual component part level. At the corridor level, the orientation of the route, the geographical conditions, and the landscape settings that shaped the Corridor remain relatively unchanged over time. At the component part level, the locations, planning, and layout of the sites remain unchanged. Many stretches of roads are still used for transportation as they were in the past, and most of the religious buildings and cemeteries still perform their original functions today. While many archaeological sites have been excavated, the great majority of the portion still remains untouched, providing an opportunity for future research and the recovery of authentic data. Conservation interventions of the architectural heritage conducted in the past have led to some losses of authenticity such as the use of modern materials, over-restoration, and excessive reconstructions. Conservation interventions conducted recently observed internationally accepted principles such as minimal interventions, thus respecting their authenticity. Most reconstruction works were undertaken in such a way that the reconstructed parts are distinguishable from the original structures and materials.

ICOMOS considers that the conditions of authenticity of the whole series and the individual components parts have been met. ICOMOS considers that, however, improvement should be made in the vulnerable aspect such as the use of modern materials, and excessive restoration and reconstructions.

In conclusion, ICOMOS considers that the conditions of integrity of the whole series and of the individual component parts have been met, and that the conditions of authenticity of the whole series and of the individual component parts have been met, although it is vulnerable in places.

Boundaries

The number of permanent inhabitants in the nominated property and its buffer zones is overall low, and varies from site to site.

In Tajikistan, of the nine component sites, three are uninhabited. The TJ-07 Toksankoriz Irrigation System component part is the only site with inhabitants living in the property area, with the total number being 16. The total number of inhabitants living in the buffer zones is 1,164. The TJ-09 Town of Ancient Penjikent component part is the most populated site with 652 inhabitants living in the buffer zone.

In Uzbekistan, four sites are uninhabited. All the property areas are free from habitation. The number of inhabitants in the buffer zones is 3,916. The two most populated buffer zones are those of the UZ-11 Vobkent Minaret component part with 1,152 inhabitants and the UZ-12 Bahouddin Naqshband Architectural Complex component part with 1,096 inhabitants.

In Turkmenistan, the TM-07 Kushmeihan (Dinli Kishman) component part is the only occupied site with 112 inhabitants living in the buffer zone.

The rationale behind the boundaries' delineation is to take into consideration the integrity of the individual component parts, as well as conservation and management needs. The boundaries of the property area and buffer zones have been meticulously surveyed, measured, researched, demarcated, with protection policies associated with them. Official documentations are annexed to the nomination dossier, clearly indicating the boundaries of both the property areas and the buffer zones, with associated legal provisions for each of the sites.

Based on the information provided by the States Parties and the observations of the ICOMOS technical evaluation missions, ICOMOS considers that the boundaries of the nominated property and its buffer zones are overall adequate.

Evaluation of the proposed justification for inscription

In summary, ICOMOS considers that the comparative analysis is adequate to support the proposed Outstanding Universal Value of the nominated property, and that criteria (ii), (iii) and (v) are justified, whereas the conditions for criteria (iv) and (vi) are not met. The conditions of integrity are met, but improvement can be made. The conditions of authenticity are met. The boundary delineation is logical and justified, and the overall property areas and buffer zones provide the nominated property with adequate legal protection.

4 Conservation measures and monitoring

Documentation

Documentation using technologies such as Digital Terrain Model (DTM) generated from unmanned aerial vehicle (UAV) photographs, orthophotographs, 3D modelling, and architectural drawings has been made to establish the baseline information of all the component parts of the nominated property. These activities were performed mainly by the International Institute for Central Asian Studies (IICAS), which is based in Samarkand, Uzbekistan. The IICAS facilitates the sharing of information among the countries during the nomination and management processes. It also acts as the secretariat for the World Heritage nomination of the Zarafshan-Karakum Corridor. Additional documents are kept at the ministries of culture of the nominating States Parties.

ICOMOS considers that the quality of the documentation has been greatly improved as compared with those of the previous nomination. This is the positive reward to the persistent capacity building conducted by the States Parties in collaboration with international partners over the last decade. ICOMOS considers that the baseline

documentation is accurate, well detailed and adequate for the monitoring and management of the component sites.

Conservation measures

The archaeological sites that are under excavation are normally partially backfilled at the areas where the excavation is completed. For the exposed parts that are subject to further excavation, temporary consolidations and drainage systems are installed to protect the parts from heavy rainfall and progressive deterioration. Once the full-scale excavation is finished, backfill of the entire site is conducted for its protection.

For the architectural conservation, interventions were carried out in the past. The current measures are mainly maintenance and monitoring.

The conservation interventions, in general, respected the international established principles such as minimal intervention, using traditional materials and techniques. Rising damp coupled with salt activities has been one of the major causes of deterioration of the lower portion of the buildings and constructions. Unsolved in the past, this problem will cause new damage to the restored parts as the photographs provided in the nomination dossier already evidenced. This is a common problem in the region that needs to be solved in the future.

Monitoring

The monitoring indicators are divided into four categories: conservation, use and interpretation, environmental quality, and management. Each category is further divided into a number of themes such as protection, state of conservation, development pressure, tourism, local community, corridor awareness and interpretation, climate change, component parts management, and risks. The frequency of the monitoring spans from every fifteen years for the long-term planning to daily monitoring for the number of visitors, with the main frequency being every two to six years. At the corridor level, monitoring is undertaken by the Coordination Committee of the three nominating States Parties, while at the component part level, the monitoring activities are performed by the site manager. The annual monitoring reports on the state of conservation of the component parts including their buffer zones are prepared by the regional inspectorates or branches. The IICAS provides technical support to the monitoring activities.

ICOMOS considers that while the monitoring mechanism at the corridor level is adequate, it is the monitoring at each component part that is crucial to the effectiveness of the protection of the site. The component parts of the nominated property demonstrate great diversity in forms of buildings and materials, they are located in different geographical areas, under varied climate conditions, with distinct uses, and are facing different social and economic development pressures. ICOMOS considers that in order for the monitoring to be effective, indicators for each component part should be defined and monitoring arrangements made accordingly. This site-specific

monitoring mechanism should be an integral part of the management plan developed for each component part.

ICOMOS considers that the current baseline documentation is adequate and can serve the purpose of conservation, management, and monitoring. The conservation measures are based on internationally accepted principles, and the monitoring mechanism for the series as a whole is adequate. ICOMOS considers that a monitoring system for each individual component part should be established and integrated into its management plan. Furthermore, ICOMOS considers that it would be advisable that the monitoring system is further developed to encompass all the attributes of the proposed Outstanding Universal Value and is adapted for easy integration of its outcomes into the Periodic Reporting questionnaire.

5 Protection and management

Legal protection

The legal protection of the nominated property operates at three levels: international, national, and component part levels.

At the international level, the Agreement between the Ministry of Culture of the Republic of Tajikistan, the Ministry of Culture of the Republic of Uzbekistan and the Ministry of Culture of Turkmenistan for common promotion, management and protection of the components of the Serial Transnational Nomination "Silk Roads: Zeravshan-Karakum Corridor" for the World Cultural and Natural Heritage List of UNESCO (hereinafter, the Agreement) was signed among the nominating States Parties in 2020 as the legal basis for the protection and management of the nominated property. The full text of the Agreement is annexed to the nomination dossier.

At the national level, all thirty-four component parts are state-owned and are listed under the state-level legal designations.

At the component part level, boundaries of the property and buffer zone of each part have been established following legal provisions on land use, planning regulation, and other conservation requirements.

ICOMOS considers that the current legal protection of the nominated property is adequate. As noted by the ICOMOS technical evaluation missions, with the establishment of these legal protection systems, illegal encroachments at the component parts have been effectively stopped. ICOMOS considers that legal enforcement is essential to protect the component parts from encroachment in the future.

Management system

The nominated property is managed at the transnational, national, and component part levels.

At the corridor level, the management is regulated by the Agreement, which was signed by the nominating States Parties. The Agreement establishes a Coordinating Committee and a Working Group for the overall protection and management of the nominated property. The Coordinating Committee conducts meetings with relevant stakeholders to resolve arising issues on the protection and management of the nominated property. The Coordinating Committee, together with the local authorities, provide the necessary tools and training to the managers and inspectors and encourage research and joint activities for the protection and promotion of the Silk Roads Corridor. The Working Group conducts meetings to discuss issues on the protection and management of the component parts at the request of the Coordinating Committee. The Working Group is also responsible for the monitoring of the state of conservation of the component parts and informs the Coordinating Committee on adopted decisions. IICAS acts as the secretariat for the World Heritage nomination of the Zarafshan-Karakum Corridor.

At the national and component parts levels, each State Party has its own management arrangement, which is considered in the following paragraphs.

Tajikistan

The government department for cultural heritage protection is the Ministry of Culture who registers the monuments, administers and implements the legal norms related to historical and cultural monuments, develops and coordinates projects and programs for research, conservation, and restoration of cultural heritage. It also manages the funds.

The Institute of History, Archaeology, and Ethnography of Tajikistan Academy of Sciences and the Interorganisational Commission provide expertise with regard to cultural heritage sites. Individual component parts in Tajikistan are managed by these two institutions. The inspection of the state of conservation of cultural heritage sites is jointly implemented by the Ministry of Culture, regional inspectors, museum reserves, museums, and local authorities. The funds are from the national budget and are complemented by additional extra-budgetary funds from the regional budget and sponsors on annual basis in accordance with the legislation.

Uzbekistan

The Cabinet of Ministers is the main government institution responsible for cultural heritage conservation. The Ministry of Culture under the Cabinet is in charge of managing cultural heritage sites through its Department of Cultural Heritage. The local branches of the Department are the managers for the component parts in Uzbekistan. They have the authority and responsibility to ensure that all the stakeholders involved in the management, protection, and conservation of the

nominated property act in accordance to the World Heritage requirements. The site managers are also responsible for the required coordination with the World Heritage Centre through the Department. IICAS is a technical institution that supports the management of the component parts.

The national funds are allocated for the administration and implementation of long-term state programmes on preservation of cultural heritage sites, aided by regional and local budgets. Sponsorship and investment of non-governmental funds are allocated to solving separate issues on preservation, conservation, and use of the component parts. Funds from the state budget are allocated to mitigate emergencies.

Turkmenistan

The main governmental institution for cultural heritage is the Ministry of Culture of Turkmenistan. The National Department for the Protection, Study and Restoration of Cultural Heritage Properties under the Ministry has two state historical and cultural reserves: Kerki (established in 1991) and Ancient Merv (established in 1987), which are the site managers of the component parts in the country. The reserves exercise the rights of permanent users of these cultural heritage sites and take the necessary measures to protect, preserve, manage, restore and monitor the state of conservation of the component parts.

The monitoring, conservation, and maintenance of the component parts are funded from a state budgetary and extra-budgetary basis annually.

In all nominating States Parties, the staff expertise includes site management, archaeology, documentation, conservation, monitoring, interpretation, and risk management. The overall staff level is adequate, but at the component part level, the number of staff on-site is generally low. The staff has access to capacity-building opportunities. In the past decade, with international support, capacity building has been intensively carried out on documentation, condition survey, and site management. The governments, in collaboration with universities and institutions in the nominating States Parties, also undertook a number of training courses on conservation and restoration and conducted some research projects.

Currently, individual component parts are lacking a management plan. However, in Annex III of the nomination dossier, four management objectives were developed for the future of the nominated property. These objectives are: (1) Conservation and Maintenance; (2) Protection and Management; (3) Tourism and Interpretation; and (4) Education and Local Community.

There is also a section in the management system's action plan (Project Network) and Implementation Methods, in which it is indicated that Heritage Impact Assessments (HIAs) must be conducted in accordance with paragraph 118bis of the *Operational Guidelines for*

the Implementation of the World Heritage Convention and ICOMOS Guidance on Heritage Impact Assessments before implementing any development activities and major restorations within or around the component parts of the nominated property. The action plan lists twenty-two projects, of which ninety percent are at the component part level.

ICOMOS considers that the current management mechanisms are adequate for the protection of both the series as a whole and the individual component parts. As expressed in its Interim Report, ICOMOS also considers that it would be beneficial for each component part to have a management plan which is tailored to the specific needs of the site as a means of supporting local management and conservation. Within such a plan, a long-term vision of what the site will be in the future can be defined. With this vision, strategies, goals, and action plans can be developed, including aspects such as management, conservation, restoration, monitoring, presentation and interpretation, and also importantly, the financial resources for the implementation of such plans. In progressively implementing these management plans, ICOMOS believes that the condition of the sites should be brought into line with other Silk Roads World Heritage sites. In the additional information of February 2022, the States Parties agreed to develop such plans for each component part, with the timeframe and budget for accomplishing this initiative.

ICOMOS considers that capacity building is essential to the long-term conservation, management, and monitoring of the nominated property. ICOMOS noticed that in the past decade, the capacity has greatly improved, as shown in the quality of the documentation provided in the nomination dossier. ICOMOS stressed that regular funds for training the staff should be secured in order to sustain the capacity building. Regarding the need for expertise, ICOMOS considers that capacity building in the coming years, should be focused on conservation interventions using low-cost techniques. As indicated in the additional information in February 2022, the States Parties have placed capacity building as one of the top priorities with many on-going and planned activities to be initiated.

Visitor management

Most of the component parts are located at a short distance from large cities as Penjikent, Samarkand, Navoi, Bukhara, and Merv which could accommodate visitors and provide necessary services. However, of the nine component parts in Tajikistan seven are only accessible by foot, except the TJ-06 Mausoleum of Khoja Mukhammad Bashoro and TJ-09 Town of Ancient Penjikent component parts which can be accessed via roads. The visitor facilities are absent in seven component parts in Tajikistan, four in Uzbekistan, and all nine in Turkmenistan. There are nine component sites, one in Tajikistan and eight in Uzbekistan, that are living religious sites with adequate services for pilgrims and tourists. Heritage interpretation is not yet provided the component parts.

Based on the information provided by the States Parties and the observations of the ICOMOS technical evaluation missions, interpretation is currently missing in all the component parts. ICOMOS notes that, in order to address this issue, the States Parties have started to undertake several initiatives. However, there appears to be no coordination between these initiatives. As mentioned in its Interim Report, ICOMOS considers that there should be an interpretation strategy developed for the overall nominated property, in order to present the individual component sites in a coordinated way. This strategy could determine what information should be presented at each component part to illustrate its contribution to the overall proposed Outstanding Universal Value of the Corridor and its relationship to the Silk Roads as a whole. It could also define what common elements might be shared by each component part, such as the logo of the Corridor, standardised interpretation boards, signs, a Corridor map showing the location of the component parts in the Corridor, etc. Under this strategy, each component site could design its own interpretation facilities and programs. In their response to the ICOMOS Interim Report, the States Parties acknowledged the importance of the interpretation strategy and committed to developing one accordingly. In addition, the States Parties have started to develop a corridor website in five languages (Tajik, Uzbek, Turkmen, English, Russian) containing all information from the nomination dossier. ICOMOS welcomes these commitment and initiatives, and considers that a three-tier approach should be adopted, namely the overall concept of the Silk Roads, the proposed Outstanding Universal Value of the Corridor, and the contribution of each component part to the Outstanding Universal Value.

In summary, ICOMOS considers that the overall tourism management of the nominated property is inadequate. ICOMOS considers that a significant amount of work is needed, and an interpretation strategy should be developed first in order to guide the forthcoming initiatives in a coordinated way.

Community involvement

The nomination dossier refers to the communities as the stakeholders such as "regional and city municipalities", but there is no mention of any specific local communities such as ethnic or religious groups, or local people. However, it mentioned that tourism has brought benefits to the local people.

ICOMOS considers that local communities should be more engaged in site management, archaeological excavation, conservation and restoration, and tourist services for them to better benefit from the World Heritage status.

Effectiveness of the protection and management of the nominated property

In summary, ICOMOS considers that the existing legal system at the international, national, and site levels provides adequate protection for the nomination property. By coping with the limited available funds and human resources both from within the States Parties and outside, the current management mechanism is pragmatic and

effective. A Heritage Impact Assessment mechanism has been incorporated into the management system. Capacity building in the past decade has already shown positive results. Continuous staff training should be sustained, with an emphasis in the near future on low-cost conservation, monitoring, and protective techniques. ICOMOS considers that a management plan for each component part should be developed and implemented with monitoring mechanisms as an integral part. The visitor management and interpretation systems should be developed along with an interpretation strategy in place to coordinate all the activities. In summary, ICOMOS considers that the requirement for protection and management is overall met.

6 Conclusion

ICOMOS welcomes the detailed work that has gone into preparing this much-augmented nomination dossier, such as the extensive surveys and documentation that has been provided to a very high standard. The revised nomination has carefully addressed the weaknesses of the first nomination. It has allowed for twenty-two extra component parts to be added, and now provides a much clearer understanding of the specificities of this Corridor.

What is now well set out is how this corridor reflects the engine of the Silk Roads trade between the 2nd century BCE and the 16th century CE, the enormous wealth generated by merchants, as exemplified in the TJ-02 Castle on Mount Mugh, and TJ-09 Town of Ancient Penjikent component parts, the transformational impact that the trade had on the lives of communities, in terms of agricultural development, and the adoption of new religions.

The nominated property is at the heart of the Silk Roads networks linking trade roads and corridors from east-west as well as north-south. It acted not only as a central nodal point of international trade in Central Asia that channelled much of the exchanges between the 2nd century BCE and 16th century CE, but also as a melting pot of ethnicities, cultures, religions, science, and technologies. The nomination dossier presents the property in a convincing way that effectively supports the proposed Outstanding Universal Value and describes its strengths and challenges. The comparative analysis justifies the consideration of nominated property as a whole on the World Heritage List, while the internal comparison justifies the selection of its individual component parts. The property meets criteria (ii), (iii) and (v), the conditions of integrity and authenticity, and overall satisfies the requirement for protection and management.

While ICOMOS considers that what is presented is significant to justify Outstanding Universal Value, it nevertheless also considers that further component sites could be considered as potential future extensions of the current nomination, when conditions allow it, to strengthen certain aspects, particularly water management. The Zarafshan River basin was an area of intensive agriculture supported by a large network of

canals and lakes. This aspect and the structures associated with it are currently underrepresented. In particular, ICOMOS considers that the remains of the Sheibanikhan Water Divider Bridge could be considered together with the remains of associated water management structures, and other irrigation systems as extensions to the property.

The conservation interventions in the past have led to the loss of authenticity, while more recent conservation measures observed the internationally accepted principles.

The majority of component parts are vulnerable to rising damp coupled with salt activities. This threat to the property should be addressed in the future through research and experiments.

While the legal protection of the nominated property is overall satisfactory, law enforcement is essential for the protection to be effective. The overall management system is adequate.

An effective interpretation strategy at the Corridor, section and component part levels should be developed, whose approach is adopted by all States Parties.

In summary, the nominated property demonstrates Outstanding Universal Value, meets criteria (ii), (iii) and (v), and conditions of integrity and authenticity. Its protection, conservation and management are overall satisfactory.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the Silk Roads: Zarafshan-Karakum Corridor, Tajikistan, Turkmenistan, and Uzbekistan be inscribed on the World Heritage List on the basis of **criteria (ii), (iii) and (v)**.

Recommended Statement of Outstanding Universal Value

Brief synthesis

The Zarafshan-Karakum Corridor is one of the key sections of the Silk Roads in Central Asia that connects other corridors from all directions. Comprising thirty-four component parts located in rugged mountains, fertile river valleys, and uninhabited desert, the 866-kilometre corridor runs from east to west along the Zarafshan River and further southwest following the ancient caravan roads crossing the Karakum Desert to the Merv Oasis.

Dotted along the corridor passing through varied geographical areas such as highland, piedmont, dry steppe, oases, fertile valleys, and arid-desert zones, the selected component parts reflect the complexity of landscapes and the adaptation of societies to the control of the Silk Roads movement and trade. The variation in

human responses between the fertile valleys and deltas, and the desert and river crossings, are clearly reflected in the selection of small towns, forts, and way stations; while the outcomes of the political and social capital generated by trading contacts are reflected in the range of commercial, elite, and religious buildings included in the nomination. It was the place where the Sogdians, some of the most international merchants in the world history, flourished. The control of these corridors was of vital significance to many of the great Silk Roads empires, such as the Sogdian, the Parthian, the Sassanian, the Timurid and the Seljuk, as they were fundamental to long-distance exchange along the Silk Roads.

Along the corridor, a large quantity of goods and some high-value commodities from the East and the West were moved and traded, and many famous local products were brought out of there to feed the desires of the populations afar. People travelled, settled, conquered, or were defeated there, making it a melting pot of ethnicities, cultures, religions, sciences, and technologies. During the historic period of the Silk Roads between the 2nd century BCE and the 16th century CE, the Corridor had experienced three prosperous periods: the rise of Sogdians merchants between the 5th and 8th centuries CE; the thriving trade with the Muslim world and beyond between the 10th and 12th centuries CE, and significant development of science, culture, urban planning and economics under the Mongols' rule from the 13th century to the 17th century CE.

Criterion (ii): The Zarafshan-Karakum Corridor exhibits an important interchange of human values over a span of eighteen centuries in the heart of Central Asia as demonstrated by the architecture, monuments, town planning, landscapes, arts, and technology of its component parts which reflect diversified cultures, ethnic traditions, beliefs, and technologies in both distinct and fused ways. Being one of the key sections at the centre of the Silk Roads network linking multiple ethnic regions, which has been alternatively controlled by nearby great empires, the Zarafshan-Karakum Corridor clearly demonstrates the diversity of populations, and the cultures and traditions, ideas and beliefs, as well as knowledge and technologies associated with them.

Criterion (iii): The territory of the Zarafshan-Karakum Corridor is overlaid by rich layers of cultural depositions which accumulated throughout history, which is an exceptional testimony to the cultural traditions of the societies that were shaped by the trade and exchanged along the Corridor. These are evidenced by the wealth of the Sogdian merchants as displayed by their luxurious residences, the Sogdian temples with fire altar and murals, the Achaemenid citadels, the early Islamic hypostyle mosques with a large minaret, the rich Sufism buildings after the Great Arab Conquest, the advanced irrigation systems, as well as the wide spectrum of the caravan service facilities that had been provided and maintained by the successive empires controlling the Corridor.

Criterion (v): The Zarafshan-Karakum Corridor is an outstanding example of traditional human settlements and land use that is representative of human interaction with nature. The territory of the Corridor covers diverse geographic areas such as highlands, piedmonts, dry steppes, oases and fertile valleys, and arid-desert zones, which dictated the town planning, architectural designs, agricultural and other production activities. It was also the people's determination, initiatives, and ingenious designs that transformed the harsh land into one on which populations thrived.

Integrity

The integrity of the property is at two levels: the corridor level and the individual component part level. At the corridor level, the diversity of forms and functions of the selected component parts, including mausoleums, *sardobas*, caravanserais, minarets, mosques, religious complexes, settlements, and remains of ancient cities, fully demonstrate the active role the Corridor once played in history as a nodal section, which not only linked other corridors but also contributed to the trade with locally produced goods. The serial property as a whole also showcases the exchange of ideas and knowledge along the Silk Roads as the result of the movement of people and goods. At the individual component part level, all the attributes that are needed to convey the Outstanding Universal Value of the property are included in the property. The factors affecting the property, such as development pressure, are largely under the control of the States Parties.

Authenticity

The authenticity of the property resides at both the corridor level and the individual component part level. At the corridor level, the direction of the route, the geographical conditions, and the landscape settings that had shaped this section remain relatively unchanged over time. At the component part level, the location, the planning, and the layout of the sites remain unchanged. With many stretches of roads still used for transportation as they were used in the past, and most of the religious buildings and cemeteries still performing their original functions today. Many archaeological sites have been excavated and backfilled to protect the materials from deterioration, with the great majority of the portion remaining untouched, providing an opportunity for future research and the recovery of authentic data. The original materials and designs are found in most of the buildings. Conservation interventions conducted on the buildings observed internationally accepted principles such as minimal interventions. Reconstruction for interpretation purposes was undertaken in such a way that the reconstructed parts are distinguishable from the original structures and materials.

Management and protection requirements

The legal protection operates at the international, national, and component part levels. At the international level, an Agreement between the Ministry of Culture of the

Republic of Tajikistan, the Ministry of Culture of the Republic of Uzbekistan and the Ministry of Culture of Turkmenistan for common promotion, management and protection of the components of the Serial Transnational Nomination “Silk Roads: Zeravshan-Karakum Corridor” was signed among the States Parties in 2020 as the legal basis for the protection and management of the property. At the national level, all thirty-four nominated component parts are state-owned and listed under state-level legal designations. At the site level, all thirty-four component parts have been meticulously surveyed, studied, and documented, the necessary measures required for their preservation are implemented, and land-use restrictions as well as planning regulations necessary for conservation purposes, are put into effect.

The Zarafshan-Karakum Corridor is managed at the transnational, national, and component part levels. At the corridor level, the management is regulated by the Agreement, which establishes a Coordinating Committee and a Working Group for the overall protection and management of the property. The Coordinating Committee conducts meetings with relevant stakeholders to resolve arising issues on the protection and management of the Corridor. The Coordinating Committee, together with the local authorities also provides the necessary tools and training to the managers and inspectors and encourage research and joint activities for the protection and promotion of the Silk Roads Corridor. The Working Group conducts meetings to discuss issues on protection and management of the component parts at the request of the Coordinating Committee. The Working Group is also responsible for the monitoring of the state of conservation of the component parts and informing the Coordinating Committee on adopted decisions. The International Institute for Central Asian Studies (IICAS), based in Samarkand (Uzbekistan), facilitates the sharing of information among the countries during management processes. It also acts as the secretariat of the nomination of the Zarafshan-Karakum Corridor.

At the national level, all the component parts are owned by the States Parties, and designated as protected heritage sites. Ministries of Culture of the States Parties are respectively responsible for the management of the cultural heritage in their countries in terms of state registration, policy-making, administration and budget allocation, among others.

At the component part level, each site is managed by the regional branches or governmental institutions under the Ministries of Culture of the States Parties. The costs of site management, maintenance, conservation, and monitoring are mainly covered by the central and local government annual budgetary fund, while national and international ex-budgetary aids are allocated for specific projects such as conservation campaigns, capacity building, and research. Technical support is provided by international resources, as well as universities, and academic institutions of the States Parties.

Staff capacity has been significantly improved in the past decade, but can be further strengthened in the future. A site management plan with a monitoring mechanism should be developed for each component part, and an interpretation strategy should be adopted.

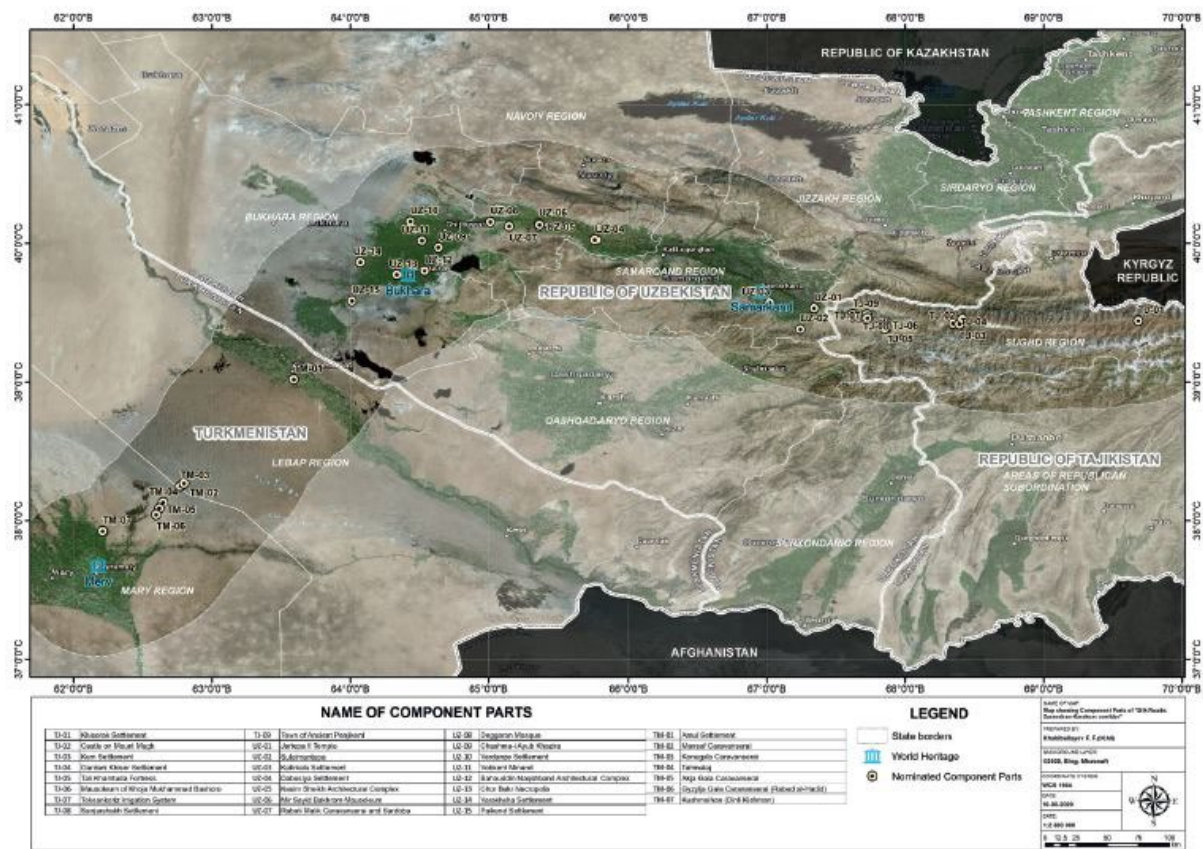
Additional recommendations

ICOMOS further recommends that the States Parties give consideration to the following:

- a) Developing and implementing a five-year management plan with monitoring mechanisms as an integral part,
- b) Developing and implementing a coordinated interpretation strategy to guide all the interpretation initiatives at the component parts,
- c) Establishing visitor management systems at all component parts with basic infrastructure, safety measures, service, and interpretation,
- d) Continuing capacity building for on-site staff members,
- e) Undertaking research to address the problem of rising damp coupled with salt activities that damage the lower portion of historic structures of the component parts,
- f) Engaging local communities in site management, archaeological excavation, conservation and restoration, and tourist services for them to better benefit from the World Heritage status,
- g) Undertaking research on artificial irrigation systems that helped the growth of the populations and cities in the region, with the view to consider potential extensions in the future of the current nomination,
- h) Considering the Sheibanikhan Water Divider Bridge in the future as an extension of the current nomination when conditions allow it,
- i) Investigating on the location and extent of the TJ-07 Toksankoriz Irrigation System component part and adjusting the boundaries of the property area and the relevant buffer zone accordingly, so as to cover the whole historical irrigation system, through a minor boundary modification request,
- j) Undertaking a study on the associative values of the necropolis, the pilgrim route, and the sacred spring outside the buffer zone of the TJ-06 Mausoleum of Khoja Mukhammad Bashoro component part, taking into consideration the requirements of integrity and authenticity, and considering adjustments of the boundaries of

this component part, through a minor boundary modification request, if relevant,

- k) Incorporating the three World Heritage sites along the Corridor into the management and interpretation systems of the current nomination,
- l) Submitting to the World Heritage Centre by 1 December 2024, a report on the implementation of the above-mentioned recommendations for examination by the World Heritage Committee at its 47th session;



Map showing the location of the nominated components