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Dunhuang – An Outstanding Example for the Protection of UNESCO World Heritage Sites, the Value of Cross-Civilizational Dialogue and the Timeless Wisdom of Ancient Civilizations

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Abstract

This article examines Dunhuang as an outstanding example of the protection and global significance of UNESCO World Heritage sites, emphasizing its historical role as a crossroads of civilizations along the Silk Road. Through the artistic, cultural, and documentary treasures of the Mogao Caves, Dunhuang illustrates centuries of exchange among China, Central Asia, India, Persia, and beyond. The caves' murals, sculptures, and manuscripts document religious diversity, trade networks, artistic innovation, and everyday life across the first millennium, highlighting the region as a hub of intercultural dialogue and intellectual interaction. The article also explores contemporary relevance, showing how Dunhuang has become a model for international cooperation in heritage conservation, digital preservation, and sustainable tourism. By connecting ancient cultural achievements with modern technological innovation and global collaboration, Dunhuang demonstrates how cultural heritage can foster dialogue among civilizations, inspire artistic creativity, and contribute to ethical reflection and sustainable development in the twenty-first century.

Dunhuang is a shining example for the global protection of UNESCO World Heritage sites and their impact on cross-civilizational dialogue—over centuries and continuing today. Located in the North-West of China's Gansu province at a point of vital strategic and logistical importance, Dunhuang has been at the crossroads of two major trade routes, namely the ancient Southern Silk Route and the main road leading from India via Lhasa to Mongolia and southern Siberia. These roads have acquired again their economic and social relevance with introduction of the Belt and Road Initiative, launched by China barely five years ago and the renewed focus on Silk Road and its importance. Dunhuang remains deeply relevant today—culturally, academically, diplomatically, economically and scientifically. Its importance has actually grown in the 21st century, focusing as it does on environmental sustainability and technological innovation.

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Centuries ago, Dunhuang also controlled the entrance to the narrow Hexi Corridor which led straight to the heart of the north Chinese plains and the ancient capitals of Chang'an (today known as Xi'an) and Luoyang. Lying in an oasis at the edge of the Taklamakan Desert, the city also sits near the western edge of the Gobi Desert, and north of the Mingsha Sand Dunes (whose name means 'gurgling sand', a reference to the noise of the wind generated over the dunes), and other natural wonders, like the crescent lake.

Dunhuang was the first trading town reached by foreign merchants entering Chinese-administered territory from the west. It served as a crucial supply point for caravans traveling the Silk Road during the first millennium AD. Initially it also acted as a garrison town protecting the region and its trade routes. A commandery was established in the 2nd century BC by the Chinese Han dynasty (206 BC–220 AD), protecting ancient passes, such as the Yü Guan or "Jade Gate" and the Yang Guan, or "Southern Gate". They highlighted the strategic position of the city on what represented a medieval highway across the deserts. Over the centuries, Dunhuang became a melting pot of various cultures, religions, musical and intellectual influences and artistic traditions. The city changed hands many times over its long history but remained a vibrant hub of exchange until the 11th century, after which its role in Silk Road trade began to decline.

The history of the ancient city is reflected in the Mogao Caves, also known as the Qianfodong (the Caves of the Thousand Buddhas) designated in 1987 as a UNESCO World Heritage site recognizing their outstanding universal value. The Mogao Caves represent a unique artistic achievement with its astonishing complex of 492 Buddhist cave temples, sanctuaries and cells. Built between the 4th and 14th centuries on five levels, they were dug and carved into the cliffs above the Dachuan River just south of the city. The Caves comprised approximately 2,400 painted sculptures, and 45,000 square meters of murals, primarily focused on Buddhism, among which are many masterpieces of Chinese art. They represent the largest, most richly endowed, and longest used treasure house of Buddhist art in the world. Occupied by Buddhist monks from the end of the 19th century up to 1930, the rock art ensemble at Mogao preserves the example of a traditional monastic settlement. UNESCO-driven conservation plans have established guidelines for the caves' utilization and conservation. This will ensure the authenticity of the site and its settings while open for tourism. Thus, Dunhuang has established itself as a global center of cultural heritage. It is today a model of heritage preservation in harsh climates and a symbol of cross-cultural exchange between East and West.

For 1,000 years, from the period of the Northern Wei Dynasty (386-534) to the Mongol-led Yuan Dynasty (1276-1386), the caves of Mogao played a decisive role in artistic exchanges between China, Central Asia and India. The first caves were constructed in 366 A.D. by Buddhist monks. They distinguished Dunhuang as a centre of Buddhist learning, drawing large numbers of pilgrims. Monks and pilgrims often travelled via the Silk Roads. In this way, a number of religions spread into areas around the trading routes.

The construction of the caves was most likely an intensely religious process, involving prayers, incense and ritual fasting. The caves were painted with Buddhist imagery. The

earliest wall paintings date back to the 5th century A.D., with older paintings showing scenes from Buddha's life. Those built after 600 A.D. depict scenes from Buddhist texts. The paintings at Mogao bear exceptional witness to the civilizations of ancient China during the Sui, Tang and Song dynasties.

Cave 302 of the Sui dynasty contains one of the oldest and most vivid scenes of cultural exchanges along the Silk Road, depicting a camel pulling a cart typical of trade missions of that period. Caves 23 and 156 of the Tang dynasty show workers in the fields and a line of warriors respectively. In the Song dynasty Cave 61, the celebrated landscape of sacred Mount Wutai is an early example of artistic Chinese cartography, with mountains, rivers, cities, temples, roads and caravans all depicted.

In their entirety, the caves contain the largest repository of historic documents and ancient manuscripts and artifacts along the Silk Roads reflecting influences from India, Persia, Greece, and beyond. Altogether, they bear witness to the cultural, religious, artistic, social and commercial activities and exchanges during the first millennium.

In 1900, thousands of documents dating from the 4th to the 10th century were discovered by chance in a small cave near Dunhuang. It was labeled as the 'Library Cave' (cave 17). Sealed for nearly 900 years, it contained a repository of tens of thousands of manuscripts, paintings, artifacts, relics, printed documents and objects spanning literature, theology, medicine, science, politics and the arts. Its contents represented an astonishing time capsule detailing life in and around Dunhuang during the first millennium. This significant heritage provides invaluable reference for studying the complex history of ancient China and Central Asia.

The discovery triggered a race between foreign archaeologists and explorers for studies. Though the documents were 90% Buddhist and many written in Chinese, they also included items in Tibetan, reflecting the power of the Tibetan empire in the area in the 9th century, and many in other scripts such as Sogdian. Trade documents, tax documents, and fragments of the imperial census were all piled together. They also reflected the extraordinary mix of religions that moved along the trade routes, such as Buddhism, Nestorian Christianity, Manichaeism, Zoroastrianism, and Judaism.

After the 1987 inscription of the Mogao Caves in UNESCO's World Heritage List efforts to preserve and study the caves have involved international collaboration, highlighting the importance of global cooperation in cultural heritage protection.

Organizations like UNESCO and the Dunhuang Academy have worked with experts worldwide to ensure the site's conservation and to promote understanding of its historical significance. This cross-civilizational dialogue has not only helped protect Dunhuang's cultural treasures but also foster a greater appreciation of the interconnectedness of human history across centuries until today.

The creation of the International Dunhuang Programme (IDP)—formerly the International Dunhuang Project—was a pioneering international collaboration that continues to bring together online platforms with collections from 35 partner institutions worldwide forming an ever expanding network of libraries, museums and research institutes. The international

orientation of IDP means that all objects are completely accessible to everybody with internet connection, providing access to images, information and learning resources.

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Seven cities were the original IDP founding partners: London, Beijing, Berlin, St. Petersburg, Kyoto, Paris and Dunhuang. They acted as regional nodes, hosting their own databases and websites. They also committed to coordinate the conservation, cataloguing and digitization of the Eastern Silk Road collections in their custodianship, bringing together global teams for conservation, digitization, and scholarship. Dunhuang has attained a particular leadership position with regard to introducing digital preservation and technology, including the preservation of high-resolution 3D scans of caves, virtual reality cave tours and AI-enhanced restoration. In the process, it has set global standards for how ancient cultural heritage can be preserved and shared.

How relevant are the Buddhist artworks in the Dunhuang caves for societies today? Indeed, the Buddhist murals and sculptures of the Dunhuang caves (Mogao Grottoes) remain highly relevant for societies in many respects today, as mentioned earlier—culturally, spiritually, socially, and even technologically.

In the first place, they are a living archive of global cultural exchange and reflect the movement of ideas along the Silk Road, involving India, Persia, Central Asia, and China. They offer models for intercultural coexistence and remind societies that cultural blending has long been a source of innovation. In addition, in a world grappling with polarization, Dunhuang demonstrates that exchange—not isolation—creates flourishing civilizations. The Dunhuang style has become iconic in modern Chinese culture and is increasingly recognized internationally.

Secondly, the Dunhuang artworks display a record of everyday life and social values. Beyond religious themes, Dunhuang imagery and art documents comprise:

- Contemporary art
- Fashion and design
- Architecture
- Classical and modern music, including instruments
- Film and animation
- Dance and rituals
- Medicine
- Trade and agriculture

They offer insights for historians, designers, and anthropologists into how ordinary people lived and organized their communities. Nowadays, contemporary fashion, performing arts, and media frequently draw inspiration from Dunhuang iconography and aesthetics.

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Thirdly, Buddhist values and ethical features depicted in the caves—compassion, generosity, patience, mindfulness—are increasingly sought after in modern societies dealing with materialism and trying to overcome social fragmentation. The artworks serve as accessible gateways into ethical reflection, prompting discussions about wellbeing, nonviolence, prosperity and empathy.

Fourthly, as the Dunhuang caves face threats from environmental conditions, tourism pressure and the fragility of ancient pigments, the area is a global example of how to protect cultural heritage using latest scientific tools for preservation, digital archiving, and controlled, responsible tourism. The preservation techniques applied inform approaches to safeguarding other threatened cultural treasures in other locations worldwide.

Fifthly, massive digitization projects (such as high-resolution scans or VR reconstructions) make Dunhuang one of the world's most advanced digital-heritage testbeds. They show how technology can democratize access to cultural heritage. Moreover, artists, animators, and game designers worldwide use Dunhuang motifs (celestial figures, narrative fresco sequences) for new creative works. They have a potential to guide us today.

Sixthly, for many communities—Buddhist or not—Dunhuang represents perseverance across centuries, human creativity and a desire to express the transcendent.

Overall, the Dunhuang artworks help societies ask: *What is worth preserving? How do we define our cultural identity?* The Buddhist artworks are not just relics. They function as bridges between cultures, mirrors of human history, guides for ethical living, laboratories for preservation and sources of artistic inspiration. Their relevance today lies in how they connect past wisdom with contemporary spiritual, cultural, and technological challenges in transdisciplinary manners.

Sir Aurel Stein, a Hungarian-British archaeologist, had conducted several expeditions to Central Asia, including Dunhuang. He acquired a significant number of manuscripts and artifacts, which he brought back to the UK. Many of these items are now housed in the British Library and the British Museum in London. These collections have allowed scholars in London and around the world to study the rich cultural exchanges that took place along the Silk Road. The artifacts and manuscripts from Dunhuang provide insights into the religious, cultural, artistic and economic interactions between different civilizations over a

millennium ago. This historical connection has fostered a deep academic and cultural interest in Dunhuang within London.

As evidence of the evolution of Buddhist art in the northwest region of China, the Mogao Caves are of unmatched historical value. These works provide an abundance of materials depicting various aspects of medieval politics, economics, culture, arts, religion, ethnic relations, and daily dress in western China. The unique artistic style of Dunhuang is not only the amalgamation of Han Chinese artistic tradition and styles assimilated from ancient Indian and Gandharan customs, but also an integration of the arts of the Turks, ancient Tibetans and other Chinese ethnic minorities. Many of these masterpieces are creations of an unparalleled aesthetic talent.

In addition to Buddhist texts, Zoroastrian, Manichee, Eastern Christian, Daoist, and Jewish documents can be found in the Mogao collection, suggesting that communities of many different religions lived side by side in the city. Although the majority of the scrolls are in Chinese and Tibetan, there are also texts in Sanskrit, Khotanese, Uighur, and Sogdian, as well as one Hebrew prayer, folded and carried in a small purse. These were all languages of the traders who travelled to Dunhuang, and their storage in the Mogao Caves suggests that these foreign trading communities were a vital part of the city's social structure and the wider, cosmopolitan community.

The Mogao Caves illustrate not only the religious importance of Dunhuang, but also its significance as a centre of commercial and cultural exchange, interaction and dialogue. According to these documents, a large number of imports arrived from as far away as north-east Europe. The scrolls that mention merchant caravans are usually written in Sogdian, Uighur, or Turco-Sogdian, indicating that they were produced by foreign traders in the city. The range of imported goods included brocade and silk from Persia, metalware, fragrances, incense and a variety of precious stones, such as lapis lazuli (from north-eastern Afghanistan), agate (from India), amber (from north-east Europe), coral (from the ocean) and pearl (usually from Sri Lanka). Dunhuang was both a recipient of trade and an export market. The scrolls refer to many goods that were produced in the city and its surrounding and sold to merchants, including silks of many varieties, cotton, wool, fur, tea, ceramics, medicine, fragrances, jade, camels, sheep, dye, dried fruits, tools, and embroidery.

Crafts and skills also moved along the Silk Roads as traders and craftsmen met. A small number of scrolls in the Mogao Caves illustrate the use of woodblock printing, a technique that originated in China in the early 8th century. The most famous text in the library cave, the Diamond Sutra, which dates to 868 A.D., was made using this technique as the world's first complete printed book. Woodblock printing would later spread across Asia, as traders passed on knowledge and ideas that they had acquired.

The Mogao Caves also hold a distinct treasure trove of musical scores and instruments depicted in the murals. These artifacts provide valuable insights into the cultural and musical traditions of ancient China. Yet, Dunhuang has not often been linked to music and musical performances in the traditional sense. Consequently, the musical potential and aspects of Dunhuang are often overlooked, if not ignored. This is changing in recent years.

In terms of contemporary music, the themes and stories depicted in the Dunhuang murals have now increasingly inspired the creation of new music that blends traditional Chinese elements with modern styles. Scholars and musicians have been studying the musical notations and instruments found in Dunhuang to revive ancient music.

Dunhuang today is not just a relic—it is a living center of global scholarship, culture, international cooperation, digital innovation and sustainable practices.

Nowadays, Dunhuang hosts various cultural festivals that celebrate its heritage, including music performances that feature both traditional and contemporary works. These events attract musicians from around the world exploring the fusion of ancient and modern music. Educational initiatives and collaborations with music institutions worldwide have helped promote the study and appreciation of Dunhuang's musical heritage.

The famous Chinese composer, conductor and UNESCO Goodwill Ambassador Tan Dun has left an indelible mark on the world's music scene with a repertoire that spans the boundaries of classical music, multimedia performance, and Eastern and Western traditions. His latest creations are inspired by Dunhuang and the Dunhuang Academy Ancient Music Consort. Tan Dun had immersed himself for years in the murals of Dunhuang and in ancient music manuscripts stranded overseas. He recreated numerous ancient musical instruments of the Tang dynasty. As regards compositions, his *Music of the Mogao Grottos* takes the audience back thousands of years to experience the vanishing Mogao caves through ancient dance, vocal performances and mini-operas. The world premiere took place at the Musée Guimet in Paris in December 2024.

In the first part, the orchestra plays instrumental and choreographic pieces found in the Mogao Caves and deciphered by Tan Dun. Then, two one-act operas are played in Chinese and Sanskrit. The first one, *The Deer of Nine Colours*, is inspired by a Buddhist popular tale set in stone in the Mogao frescoes. The second one, *The Heart Sutra*, tells the imaginary love story between two strangers who meet during a Silk Road journey.

There are 6 movements, each devoted to a distinct instrument: Bili; Xiqin; Chiba; 5-String Pipa; Sheng; and Quintet. Dean of the Bard College Conservatory of Music in New York, Tan Dun has also staged with the Dunhuang Academy Ancient Music Consort's five Chinese musicians in a special workshop performance of music from the Tang Dynasty 618-907 A.D. It was translated from those original "Library Cave" manuscripts kept in the collections of the French National Library, another founding partner of IDP. The instruments are replicas based on images found in the Mogao Cave murals.

In 2023 Tan Dun's *Buddha Passion* began with a visit to ancient caves in the Dunhuang desert, which have hundreds of drawings and paintings featuring musicians, instruments, and orchestras. Dun was "so deeply moved that I could almost hear the sounds emanating from

the murals". He then spent the next six years composing a work that would give the murals voice. The music is a wide-ranging mix of styles. Tan Dun's libretto, which he assembled himself, tells in each act a story, ending with an 'Ode' that summarizes the moral lesson we are meant to take away. Soloists and choirs sing Buddhist texts in a mix of Chinese, Sanskrit and English. In this way, the listener joins a little prince on his journey as he moves through each scene, eventually finding enlightenment and becoming Buddha, and finally reaching Nirvana.

Being historically connected with China, Central Asia, India, and the Middle East, Dunhuang symbolizes the relevance of a Dialogue among Civilizations, the value and importance of religious diversity, and the abiding value and perseverance of peaceful cultural exchange. These areas are not only a symbol of East-West Dialogue but they can guide us even more so as key elements for international cooperation, preserving and reinforcing peace in conflictual situations.

Apart from diplomatic, political and interactive dimensions, Dunhuang's location on the edge of the Gobi Desert, demonstrates how fragile ecosystems can be protected, how ancient communities have adapted to desert environments, as well as the importance of water management and oasis culture throughout centuries until today. The environmental challenges with which Dunhuang had and has to cope, resonate with the current global concerns for attaining the sustainable development goals, promoting the resilience of communities and coping with climate change under deteriorating and even extreme conditions.

Thus, Dunhuang today is not just a relic—it is a living center of global scholarship, culture, international cooperation, digital innovation and sustainable practices. It represents how ancient art and approaches can continue to influence modern society and how heritage can be preserved for future generations.

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