ICOMOS 15th General Assembly, Xi’an and Mogao Grottoes, Dunhuang – China
Oct. 2005

ICOMOS 15th General Assembly, Xi’an

More than 1,200 participants registered to the ICOMOS General Assembly, making it one of the organization’s most attended events.

Ahang Bai, President of ICOMOS China was elected the General Assembly’s president by acclamation.

Michael Petzet, the President of ICOMOS, first welcomed everyone and reminded them that the 15th General Assembly coincided with ICOMOS’ 40th anniversary. During this period of time, the organization grew from an initial nucleus of 26 National Committees with just a few hundred professionals to an organization of 130 National Committees with more than 8,000 members. It also evolved from its original Euro centric position to one that now encompasses all cultures and regions of the world.

Mr. Petzet announced the creation of an ICOMOS Foundation to help protect heritage sites at risk. Two German companies based in the World Heritage City of Lubeck have come forward with a pledge of $50,000 each.

ICOMOS won high praise from Zhang Siqing, Vice-chairman of the Chinese People’s Political Consultative Conference, who met leaders of
ICOMOS 15th General Assembly opening speeches

ICOMOS before the opening ceremony. “ICOMOS has always been supporting heritage preservation in China. The convening of this meeting in China will offer suggestions for the Chinese heritage society to handle the rising contradictions between fast economic development and heritage protection, as well as between the utilization of heritage and its conservation” Zhang said.

Richard Engelhardt, UNESCO representative in Asia agreed. “The devastating earthquake in Kashmir, the Tsunami in the Indian Ocean, as well as the bombing of the Bamiyan Buddha all reminds us of how vulnerable cultural heritage is”. He added that ICOMOS has played a special global role in protecting heritage sites from natural and man-made disasters. He lauded the theme of the conference, “Monuments and Sites in their setting: Conserving cultural heritage in changing townscapes and landscapes.”

He said that it is of particular importance to modern times when much heritage is in danger of becoming just another tourist attraction.

Besides representatives of UNESCO’s World Heritage Center, ICCROM, and ICOM, Antoine Wilmering expressed the GCI’s and Getty Foundation’s intentions to cooperate further with ICOMOS on the occasion of its 40th anniversary. Ton also presented several conservation projects supported by the Foundation in recent years that showed the breath of support offered by it. This was very well received by the delegates who have expressed several times during the conference their appreciation of Getty support.

John Stubbs, vice-president of Programs, World Monuments Fund, said ICOMOS’ idea of defining the settings of heritage sites and monuments and determining their category was of great importance at a time of much pressure on heritage conservation.
Antoine Wilmering welcoming the participants and introducing the work of the Getty Foundation

Since 1995, the WMF has listed 100 heritage sites in danger across the world and tried to help their stakeholders improve the situation. Now, 19 Chinese heritage sites have been included in this list. The foundation has invested $6 million dollars to help salvage and maintain these Chinese sites.

Like WMF, many members of ICOMOS have helped China to improve its heritage site conservation and several of them were mentioned, including the GCI.

Following these opening remarks, the participants were entertained by a local choir that sang a welcome song specifically composed for this occasion by the China Minister of Culture himself. A panoramic group photo was taken and given to each participant. Following the traditional reports by the President, the Secretary General and the Treasurer General, a small group of ICOMOS members were designated as honorary members and the Gazzola Prize, the highest recognition award offered by ICOMOS for the significant contributions of one of its members was bestowed upon Ann Webster Smith of US/ICOMOS.

Yukio Nishimura from ICOMOS Japan chaired the opening session of the Scientific Symposium. Three Keynote Speakers addressed the delegates. They were: Mr. Shan Jixiang, Director General, State Administration of Cultural Heritage (China), Ms. Elizabeth Vines, Heritage Consultant and author of Streetwise Asia (Australia) and Mr. Benjamin Mouton, Architect in Chief and Inspector General for Historic Monuments (France). They all spoke of various aspects of the Symposium’s theme as it applies to their particular cultural contexts.

Then, it was the presentation of the four Symposium sub-themes:

1. **Defining the Setting of Monuments and Sites**: The Significance of Tangible and Intangible cultural and Natural Qualities (Coordinator: Tamás Fejérdy)
2. **Vulnerabilities within the Setting of Monuments and Sites**: Understanding the Threat and Defining Appropriate Responses (Coordinator: Bogusław Szmygin)
3. **Evolving townscapes and Landscapes within their Settings:**
   Managing Dynamic Change (Coordinator: Ray Bondin)

4. **Cultural Routes:**
   The Challenges of Linear Settings for Monuments and Sites (Coordinator: Maria Rosa Suarez Inclan Ducassi)

More than five hundred papers were received on these themes and two hundred were printed in color in the two-volumes proceedings given to all registered participants. A copy will soon be available at the GCI’s Documentation Center.

There were also many special evening sessions organized, one of which was dedicated to our RecorDIM Initiative. There we had the opportunity to showcase some of the Task Groups already working on bridging gaps between documentation users and providers and invite participants to create new Task Groups if they were interested in participating actively to this international initiative.

Other interesting sessions were held, notably one on ICOMOS’ role and participation process for supporting the World Heritage Convention. Among other things, it was pointed out that ICOMOS awards approximately 60 international missions every year to evaluate new nominations, review threats to existing properties on the list or for other purposes. Interestingly, it was pointed out that even though travel expenses are covered by the budget awarded to ICOMOS by the WHC, the time of the experts is not paid (volunteer) and because the amount of money available for traveling expenses is so small, all missions are limited to three days. One can imagine how unfair this is for the nominations of cities or large and complex sites. Furthermore, when the World Heritage Committee meets, ICOMOS is allowed only a maximum of 10 minutes to present each nomination, and when time is limited because other Committee administrative discussions have taken too much time, ICOMOS is asked to limit its presentations to 3 minutes. There is definitely room for improvements in this process.

Another interesting session was held on the subject of Heritage Impact Assessments. It was the first time that this subject was discussed on the ICOMOS platform and it generated quite a lot of debate and interesting ideas and suggestions. Representatives of the World Bank attended the workshop and participated actively. Among other things, it was pointed out that there are no international standards available for the preparation of such assessments, i.e. “what” to report and “how” to report on it. There is a need for a common methodology, general guidelines and a review of what is being done currently in various parts of the world. There is also a need for identifying and developing a knowledge base, a set of skills and values for conservation professionals to deal with environmental impact assessments.

During the last plenary session, the four Rapporteurs presented their reports; a large number of resolutions were adopted, including one to “express appreciation to the Getty Conservation Institute and the Getty Foundation for their support of international programs and for the granting
of funds to support attendance at this General Assembly by those unable to attend otherwise”.

A program and budget for the next three years was adopted as well as the Xi’an Declaration that will be posted on the ICOMOS web site (http://www.icomos.org).

The elections were held and the following candidates elected:
- President: Michael Petzet (Germany)
- Secretary General: Dinu Bumbaru (Canada)
- Treasurer General: Giora Solar (Israel)

Vice-Presidents:
- Gustavo Araoz (USA)
- Kristal Buckley (Australia)
- Tamas Fejerdy (Hungary)
- Guo Zhan (China)
- Carlos Pernaut (Argentina)

Executive Committee:
- Andrew Hall (South Africa)
- Axel Mykleby (Norway)
- Gilles Nourissier (France)
- Yasuyoshi Okada (Japan)
- Hae-Un RII (Rep. Of Korea)
- Angela Rojas (Cuba)
- Bénédicte Selfslagh (Belgium)
- Hristina Staneva (Bulgaria)
- Lazar Sumanov (Macedonia)
- Boguslaw Szmygin (Poland)
- Javier Villalobos (Mexico)
- Ray Bondin (Malta)
The China Principles

A special three-hour session was held on Tuesday Oct. 18 on Principles for the Conservation of Heritage Sites in China in the Grand Ballroom of the Sofitel Convention Center.

The China Principles is an epoch-defining document for China’s heritage protection. Based on the Chinese experience in heritage protection in the past century, this document has strong theoretical significance and applicable norms. It facilitates the Chinese heritage conservation sector to improve its overall capacities. Several Chinese scholars and authorities spoke about the preparation and application of the China Principles in their country. Neville Agnew explained the process to develop the document, the Chinese, Australian Heritage Commission and GCI’s role in this process and the application of the China Principles both at Mogao and at Chengde where the GCI is involved in conservation projects.

Background

China’s heritage protection in the five years since 2000 has experienced remarkable changes. The investment in heritage protection has been significantly increased and the protection contents and targets have been altered. In this period, the principles and methods of protection have shown two trends – high-tech approaches and a return to traditional approaches.

In 2001, the State Council, China’s cabinet, released the fifth list of nationally significant heritage properties. The list, increasing the protected sites from 750 to 1,271, also includes traditional rural communities and modern campus construction.

Meanwhile, the key national heritage and relic protection programs, such as the salvage of heritage and relics in the site of the Three Gorges Project (major dam project), have posed new challenges to China’s heritage protection method and theoretical system.

For the Three Gorges Project, nearly 1,200 surface and underground heritage properties have to be moved, excavated, recorded or protected in their original location. This has put huge pressure on the Chinese heritage conservation sector.

Questions of how to use high-tech measures and how to combine high-tech measures and the traditional protection measures to maintain the historical integrity of the heritage properties have also been raised.

China has also joined the international community in the sphere of heritage conservation. In 1985, China joined the World Heritage Convention and in 1987, the Forbidden City, the Great Wall, the Zhoukoudian primitive habitants in Beijing, the tomb of Qinshihuang and the Huangshan Mountain were listed as World heritage sites. As applying for World Heritage status becomes trendy in China, Chinese researchers now focus
more on how the world manages and protects the world’s heritage and monitors its protection.

In this context, how to determine protection principles that reflect both China’s cultural character and particular heritage situation has become a challenging issue for the heritage conservation sector in China. For long periods of time, people considered the “return to the original historical appearance” as the highest pursuit of heritage protection. There is a big difference between this understanding and the modern awareness of preserving historical information in the fabric of the buildings or places.

Since the 1930s, the debate about restoring historic properties in such a way that the repairs don’t show or ensuring that modern interventions are discernable, went on for 60 years. The debate was not only on the repair methods, but also on the aesthetics, i.e. what the final restoration looked like.

**The Principles**

ICOMOS China (Chinese Association of Cultural Heritage Protection as it is called in China) cooperated with the GCI and ICOMOS Australia in 1997 to launch the work of “The Principles for the Conservation of Heritage Sites in China”. Experts from China were invited to Australia and the US to visit various restored or conserved historic sites and discussed with local experts the application of international conservation principles in different cultural and legal contexts. A first text was prepared then revised many times as the concepts and the words to describe them were finally agreed upon.

The China Principles were adopted during the ICOMOS China conference in 2000, which was held in Hebei Province’s Chengde.

There are several important points in the China Principles. Firstly, the document was formed in the framework of the Venice Charter. Secondly, it stresses the least intervention principle adopted in the conservation field. Thirdly, the document stresses the important role of the necessary procedure in the process of conservation. The China Principles have helped to address the question of aesthetics in China by stating that this value is associated with the historical integrity and it is not permitted to change the original fabric in order to pursue aesthetic or “completeness” goals. Also, a property that has disappeared should not be rebuilt.

These are important points for China’s heritage protection. They clearly state the importance of respecting historical values and original fabric above purely aesthetic pursuits.

Since 2000, ICOMOS China has applied the China Principles to many projects, while the GCI and ICOMOS Australia have applied them in their conservation work at Cave 85 in Mogao and at the Shuxiang Temple in Chengde.
**Dynasty Chronology**

We had the opportunity to visit many historic sites in and outside the region of Xi’an. The guides were constantly relating these to the various Chinese dynasties and it got to be a bit confusing after a while. So following here is a chronology of the various dynasties:

<table>
<thead>
<tr>
<th>Dynasty</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Age of the Five Rulers</td>
<td>27-22 Century B.C.</td>
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<tr>
<td>Xia</td>
<td>22-16 Century B.C.</td>
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<tr>
<td>Shang</td>
<td>16-11 Century B.C.</td>
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<tr>
<td>Western Zhou</td>
<td>1066-771 B.C.</td>
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<tr>
<td>Eastern Zhou</td>
<td>770-221 B.C.</td>
</tr>
<tr>
<td>Spring &amp; Autumn Period</td>
<td>770-475 B.C.</td>
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<tr>
<td>Warring States Period</td>
<td>475-221 B.C.</td>
</tr>
<tr>
<td>Qin (pronounced “chin”)</td>
<td>221-206 B.C.</td>
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<tr>
<td>- Terra cotta warriors</td>
<td>221-206 B.C.</td>
</tr>
<tr>
<td>Western Han</td>
<td>206-8 B.C.</td>
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<tr>
<td>- Silk Road begins</td>
<td>119 B.C.</td>
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<tr>
<td>Eastern Han</td>
<td>25-220</td>
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<tr>
<td>Three Kingdoms</td>
<td>220-265</td>
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<td>Jin</td>
<td>265-420</td>
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<tr>
<td>Southern &amp; Northern Dynasties</td>
<td>386-581</td>
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<td>Sui</td>
<td>581-618</td>
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<tr>
<td>Tang</td>
<td>618-907</td>
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<tr>
<td>Five Dynasties &amp; Ten Kingdoms</td>
<td>907-960</td>
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<tr>
<td>Song</td>
<td>960-1279</td>
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<td>Yuan</td>
<td>1271-1368</td>
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<td>Ming</td>
<td>1368-1644</td>
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<td>Qing</td>
<td>1636-1911</td>
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<tr>
<td>Republic of China</td>
<td>1912-1949</td>
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<tr>
<td>People’s Republic of China</td>
<td>1949-</td>
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</tbody>
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Little Potala Palace - Built between 1767 and 1771 by Emperor Qian long in Chengde, Putuo Zongcheng Temple is a downsized replica of the Potala temple in Tibet. The temple was built as a sign of respect to the Tibetans to show them that China wanted to live in harmony with them.
**Wall Paintings at Mogao Grottoes**

The Mogao Grottoes, a World Heritage Site on the Silk Road, is located near the ancient town of Dunhuang in northwestern China. Dating from the fourth to the fourteenth centuries, the ancient Buddhist site contains 492 decorated caves temples excavated into 1.6 kilometers of cliff face. The site includes some 45,000 square meters of wall paintings and over 2,400 polychrome sculptures comprising the largest body of Buddhist art in China. If all the paintings at Mogao Grottoes were on one single wall, it would be 5 meters high by 10 kilometers long!

This is an extraordinary site. Visitors have certainly discovered it during the past decade and management now has to deal with over 400,000 visitors each year. In order to manage these visitors and offer them a quality experience while ensuring that the historical resource is preserved, the local administration, under the leadership of Director Fan Jinshi has recently adopted a reservation system. One cannot simply show up at the site and expect to be admitted. Visitors have to book a time for their visit from the offices in Dunhuang. Soon, they will be able to do this via the Internet. The travel agencies at the beginning vigorously opposed this system but now they realize that it is better for everyone. Groups are spread throughout the site and throughout the day to ensure quality experience and easier management; tour guides can better plan and spread their workload, especially at times when large numbers of visitors wish to come to the site.

Under a collaborative agreement with China’s State Administration of Cultural Heritage (SACH), the Getty Conservation Institute (GCI) has been
working with the Dunhuang Academy since 1989 on conservation at the Mogao Grottoes. The first five years of collaboration addressed site-related issues, culminating in an international conference at Mogao in 1993, Conservation of Ancient Sites along the Silk Road, which also commemorated the fiftieth anniversary of the Dunhuang Academy. Since 1997, the collaboration has focused primarily on the conservation of wall paintings at Mogao.

Over a thousand-year period, the cave temples of Mogao were hewn into a rock cliff face of soft conglomerate. The temple walls were plastered over with a mixture of clay, sand, and plant fiber, and the paintings were executed as line drawings in red and black ink on a ground layer covering the earthen plaster, then filled in with bright mineral pigments and washes of organic colorants. For centuries, the paintings have suffered deterioration of various kinds, from flaking of the paint layer to progressive loss of adhesion between the conglomerate and the clay plaster. The latter problem is the most serious, having resulted in the detachment or separation of painted plaster from the support, a problem common to Mogao and other sites on the ancient Silk Road. Large areas of the paintings have been lost as the detachment ultimately leads to the collapse of the painted plaster.

In order to develop effective conservation measures to stabilize the paintings at Mogao and to address the causes of their deterioration, Cave 85, constructed in the late–Tang dynasty (618–906), was chosen as a case study for the application of a rigorous methodology for development and implementation of an overall conservation plan. The methodology is based on the Principles for the Conservation of Heritage Sites in China guidelines developed by SACH, the GCI, and the Australian Heritage Commission, and issued by China ICOMOS.

Cave 85, completed in 867, is among the larger caves at Mogao and contains some of the highest-quality wall painting of the late–Tang dynasty. The cave is comprised of an antechamber corridor, and large main chamber containing some 350 square meters of painting and three polychrome sculptures on a large altar base. Sixteen large painted sutras decorate the walls of the main chamber. The cave had several periods of redecoration, including the addition of donor figures in the entrance corridor painted during the Five Dynasties (907–960), redecoration of the antechamber during the Yuan Dynasty (1271–1368), and repainting of the sculpture group and replacement of one of the sculptures during the Qing Dynasty (1644–1911). Cave 85 was selected because the deterioration of its wall paintings — in particular, the widespread exfoliation of paint and plaster detachment from the bedrock — is representative of the problems faced in many of the site’s caves.

Deterioration of the wall paintings at Mogao has never been studied in a way that would allow for the development of long-term conservation and maintenance solutions. As a result, deterioration often recurs after conservation efforts; over time it can escalate in severity.
The causes of deterioration of the wall paintings exist both in the past and in the present and have been both immediate and gradual: from periods of flooding of ground level caves and earthquakes, to gradual physico-chemical changes of the original materials that make up the paintings, to the ongoing deterioration caused by fluctuating environmental conditions in conjunction with the presence of soluble salts. Systematic and thorough study of deterioration, determination of what phenomena are active, and an understanding of the causes and mechanisms at work are therefore essential. Given that certain problems may never be completely eliminated, it is important to understand these causes and processes—in particular the role of humidity and soluble salts—in order to develop appropriate conservation interventions and preventive measures that can reduce the rate of deterioration over the long-term.

The Dunhuang Academy brings to the collaboration long and extensive experience with the preservation of the wall paintings at Mogao, while the GCI’s contribution includes expertise in project management, wall paintings conservation, and conservation science. All aspects of the project were designed in collaboration between the project partners and included training to ensure sustainability.

The sheer extent of the wall paintings at Mogao — the equivalent of a painted wall 5 meters high and 10 kilometers long — and the complexity of the deterioration problems dictate a methodological approach that favors preventive conservation. The project in Cave 85 is a demonstration of an appropriate methodology and conservation approach that can be applied at other cave temples at Mogao and to similar Silk Road sites. Results of the project were presented at the Second International Conference on the Conservation of Grotto Sites, held at Mogao in 2004 and will be published in the Cave 85 project report.

Cave 85 Internal Review Meeting

Project evaluation and review is a fundamental step in any project. To learn lessons about what went well and should be continued and what did not go so well or remains unfinished, is an integral part of the project management process and is something that should happen at every critical stage of a project.
The Dunhuang Academy and the GCI organized a 2 ½ day workshop to review Cave 85 project objectives, challenges and outcomes, to identify what could have been done more efficiently, to discuss unresolved issues or unfinished tasks and to discuss completion of the project and decide on roles and responsibilities for both organizations in the coming years.

Dunhuang Academy Director Fan Jinshi and twenty-three staff participated along with GCI Project Leader Neville Agnew and nine staff. Also present were representatives from the Courtauld Institute of Arts, the Department of the Environment and Heritage of Australia, the Taiyuan Municipal Cultural Relics Bureau and the Archaeology Research Institute and the DA/Landa Students.

The participants reviewed the following topics:

- Assessment Phase: Information gathering, condition assessment
- Environmental Assessment and Salt Investigations
- Technical Investigations: original technique
- Training
- Conservation Research and Treatment: methodology, development and testing program
- Monitoring
- Presentation and Interpretation
- Information Management and the Project Report
- Conclusions and Summary Decisions

Among the important decisions made was the commitment from both institutions to allocate the necessary resources and time to prepare the final project report that should become a model for similar projects elsewhere in China. Also, the commitment to archive the project data and documents according to best practices.
Martha Demas (GCI)

Sharon Sullivan (Dept. of the Environment and Heritage, Australia)

Part of desert sand protection system above caves

Jonathan Bell (GCI)

Sharon Cather (Courtauld Institute of Arts)

Francois LeBlanc (GCI) at Jade Gate

Dunhuang street market

Steve Rickerby (GCI consultant)

Michael Schilling (GCI)

Entrance Gate to the Mogao Grottoes site

Lorinda Wong, Neville Agnew, Po-ming Lin

Jade Gate, 2000 year old earth structure
The City of XI’AN

Xi’an (“Western Peace”) is the modern capital of Shaanxi province and a major industrial center. It does, however, preserve the Ming city walls in their entirety (13.7 km) and is one of the most famous tourist centers in China, particularly since the discovery of the spectacular “Buried Army” of terracotta warriors.

It served as the capital of China for most of the Han, Sui and Tang dynasties, when it was known as Chang’an (“Eternal Peace”). Particularly during the Han, it was used as a major capital in conjunction with Luoyang (“Eastern Capital”), whence the court retreated if Chang’an was menaced by barbarians from the West. Excavations have revealed the huge spread of the Tang city, far beyond the limits of today’s Xi’an, and the surrounding countryside is dotted with the tumuli of emperors, empresses and courtiers of the Han and Tang.

Xi’an’s historic importance lies mainly in its use as a capital by the Han and Tang, although there were earlier settlements in and near Xi’an. The city’s significance in the early part of the 20th century derived from its nearness to the Communist Party’s 1937-45 headquarters at Yan’an. The city is also famous for the Xi’an incident of 1936 when Chiang Kai-shek was captured by his own allies in a vain attempt to make him behave sensibly about the Japanese invasion.

The archaeological remains of the “Lantian Woman” discovered in the region, appear to date as far back as 800,000 BC.

The first emperor of the Qin, Qin Shi huangdi, established his imperial capital at Xianyang, some 15km northwest of Xi’an. Qin was the name of the state in which he rose to power and was used for the dynasty he established after conquering all the other states in 221 BC; huangdi means “emperor”. He was buried in a tumulus in Lintong county, 18km northeast of Xi’an, near the many subsidiary pits of his grave, which contained, amongst other treasures, the “Buried Army”.

Remains of the Han dynasty capital of Chang’an (Xi’an’s ancient name), including parts of the city wall, are plentiful and the most spectacular are some of the Han tombs in the surrounding countryside.

Xi’an today sprawls out beyond the Ming city walls with cotton mills, electrical-equipment factories, fertilizer factories and many others surrounding the old walled city. It has seen the relocation of various industries from the overcrowded eastern seaboard, with whole factories including workers moved in to promote the development of the relatively backward northeast.
In the early days of visiting the Buried Army (late 1970s), before hotels and restaurants were built in the area to supply the needs of tourists, visitors were often given lunch in a neighboring sewing-machine factory whose canteen ran a profitable sideline in tourist lunches. The visit was rather uncanny since the factory and its workers had all come from Shanghai (where there were two sewing-machine factories) to Xi’an (where there were none) and in the middle of rough rural Shaanxi all you could hear was the rather feminine Shanghai dialect. In the last couple of decades, particularly since the discovery of the Buried Army, Xi’an’s major industry is that of tourism, with ever-expanding numbers of Chinese and foreign visitors being rushed through the major sites.

The Buried Army

The Buried Army is just under 30km east of Xi’an and forms only a part of the huge grave of the first Qin emperor (reigned 221-209 BC).

Although only 13 when he ascended the throne of the state of Qin in 246, the first emperor managed to achieve the subjugation of all the other six states in 221 BC – “as a silkworm devours leaves”, thus unifying China into one empire for the first time. Naturally a leader capable of such a feat is not generally characterized by historians as a gentle and humane character and Qin Shi huangdi is one of the tyrants of Chinese history, vilified in particular by Confucians throughout the ages for his support of Legalism, a philosophy which assumed that human nature was basically anarchic and evil and required firm government by rule of law rather than the moral precepts and examples of Confucianism.
The first emperor is most famous for his “burning of the books” in 213 BC, an event which also included burning (burying alive to be precise) quite a few of their authors. This was an attempt to wipe out all subversive writing and all works inimical to the ruling Legalist philosophy, including poetry and philosophy, historical chronicles and practically everything except manuals on farming and the law. Few works survived.

The Qin empire barely survived the death of its initiator, for his equally ruthless advisers eliminated his heir in favor of a more pliable second son, but they were finally overthrown in a series of revolts against their tyranny and the Han dynasty replaced the Qin in 206 BC. As part of their attempts to retain power, the first emperor’s ministers are said to have tried to conceal the death of their patron as long as possible, driving his corpse around in an imperial carriage followed by a cart full of rotting fish (to conceal the odor of the decaying corpse). The first emperor was, however, finally laid to rest in the tumulus he had constructed for himself, beginning in the first year of his reign.

The Buried Army is part of a massive complex of burial pits, which surround the tumulus in which the emperor is buried. The tomb itself, a grassy mound of considerable size some 1.5km west of the Buried Army, can be climbed by visitors. It has a stepped path to the top, running through stalls where peasants sell anything from appallingly fragile miniature clay warriors to apples and “ancient coins”. It has not yet been scientifically excavated.

The contents of the mound, or its supposed contents, are well known from the account left by Sima Qian, the Grand Historian, in his Historical Records, 1C BC. He describes how 700,000 workmen labored on the site, where a representation of the rivers of China in mercury was made to flow by machinery; the heavens were depicted and the whole was protected by automatic crossbows and arrows designed to fire if the tomb was entered. It is probable that, like almost all others, the tomb was robbed soon after it was closed and so precious metals and jewels were probably removed. The description of the contents of the tomb is so extraordinary that some said Chinese archaeologists were afraid to open it up in case the marvels crumbled before their eyes on exposure to the air. A month-long excavation in 1986, however, revealed extensive damage, probably by Tang and song robbers, and archaeologists are now concentrating on subsidiary sites in the area.

Pit No. 1 was discovered in 1974 when local peasants decided to build a well during a drought. They found a vast vault of some 12,000 square meters about 5m underground and constructed with 11 parallel pits running east to west containing an estimated 8,000 terracotta figures. These were drawn up in battle formation with three rows, each of 70 archers as the vanguard, a single column of spearmen facing outwards and a central group of 38 columns of infantry and chariots. The wooden chariots have all but disappeared, except for the terracotta horses that drew them and their metal fittings. The soldiers were provided with real bronze arms: swords, daggers, spears, halberds, axes, crossbows (of wood and of
which only the bronze fittings have survived) and arrowheads. Some of the alloys used were quite complex, with over ten elements included, and the weapons were sharp and untarnished on discovery.

The figures were about 1.8m tall on average and must have been considerably larger than life-size when they were made. The upper part of the body is solid clay, the lower part and legs hollow and, while there is a degree of mass-production about the bodies, the faces in particular were individually modeled, exhibiting a considerable range of facial expressions, hairstyles and head-dresses. The figures were originally painted but few traces of the colors now remain.

**The Great Wall of China**

The red line shows the location of the Great Wall during the Ming Dynasty

A trip to China would not be complete without a visit to the World Heritage Site of the Great Wall. A good place to begin this visit is at Badaling, a small community located 70km north of Beijing. Known for some centuries to foreigners, the Wall received some recent publicity when it was said (inaccurately) to be the only man-made structure distinguishable from the moon. It is too narrow to be easily visible from that distance. The wall is 10,000km long although it has been estimated that if all the bits were added to the original Qin Wall, it would be 50,000km long.

The history of the Wall begins in the 7th century BC when the State of Chu built a defensive wall and this fortification was copied by others of the
Warring States, some of whose walls were several thousand km long. The first emperor of the Qin, who unified China in 22a BC, had a great deal of work done on the present Wall, extending it to some 5,000km. All the way along the Wall small fortresses were constructed and their garrisons maintained a constant supply of brushwood to fire signal beacons, which could instantly transmit the news of military emergencies through fire and smoke signals. A quantity of wood and bamboo slips used by Chinese garrison commanders to record events in and around their fortresses have been unearthed in the dry sands of the Goby desert to provide a picture of frontier life.

The Great Wall at Badaling; the quality of the visitor experience is certainly affected by the great number of visitors.

The Great Wall was not particularly effective, partly because its enormous length made it impractical to garrison effectively. The fact that the Tang, for example did not do much to maintain the Great Wall reflects on the contemporary perception of threat, which to the Tang, came from the west, not the north. Those who worked on the Wall included soldiers, men on corvée duty (corvée labor being a form of taxation paid through the performance of public works by all able-bodied men) and criminals (the latter especially in the “exile” area of Gansu province).
They built a Wall that was some 6.7 to 7.9m high, 6.4m wide at the base and 5.5m wide at the top. Its width meant that up to five horsemen could ride abreast along it and it served as a military road through difficult terrain. Nowadays, the Great Wall is one of the most visited sites in China. Mass tourism has certainly reached critical limits at the most popular entry points. The property itself is probably not under threat, but the visitor experience is definitely affected by the number of visitors who, elbow to elbow try to get a glimpse at the surrounding environment or take pictures of each other without being disturbed by other visitors.

Several thousand kilometers of the Great Wall were built in rammed earth as opposed to stone. The remains are still visible, even after more than 2000 years; the image above shows a portion of the Great Wall in the province of Gansu, approximately 100km west from Dunhuang where the Mogao Grottoes are located.

The Starting Point Of The Great Wall – Lao Long Tou

Located on the shore of Bohai Sea approximately four kilometers from the city of Shanhaiguan, and three hours by train east of Beijing, Laolongtou is the starting point of the Ming Dynasty Great Wall. Set against the mountain and facing the sea, the 11 meters-high wall was constructed with stones at its base, with a section of 25 meters extending down to the sea.
It is called “The Stone Wall Entering the Sea” and was built by Qi Jiguang, commander of the garrison troops at Jizhen in the Ming Dynasty. The huge stonewall looks like a dragon’s head poking into the sea to play with the waves, hence the name “Laolongtou” (old dragon’s head).

**Traditional Chinese Crafts - Cloisonné**

As part of technical visits, we were shown several traditional Chinese crafts.

Cloisonné, also called “Copper-body” and “Wire Inlaid Enamel” has a long-standing history of several hundred years. It was very popular as far back as in the years of the reign of emperor Chingtai of the Ming dynasty. Because the technique was already well developed plus the fact that blue enamel was chiefly used, it was termed in Chinese “Chingtai Blue”.

The manufacture of cloisonné ware requires for rather elaborate and complicated processes in nature, namely: base hammering, copper-wire curving, soldering, enamel-filling, enamel firing, polishing, gilding, etc.

Variety of products available are vases, jars, bowl, plates, ashtrays, pieces in set and so on. Colors comprise red, black, white, light, blue, dark blue, cream, yellow, light gray, green, brown, etc.

<table>
<thead>
<tr>
<th>Step 1: create a copper vase or plate – Base hammering</th>
<th>Step 2: copper-wire cutting and curving</th>
<th>Step 3: soldering of the patterns to the vase or plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 4: fill the patterns with mineral colors</td>
<td>Step 5: Enamel firing in 800 degrees furnace</td>
<td>Step 6: Polish with emery stones and charcoal and gilding</td>
</tr>
</tbody>
</table>
Traditional Chinese Crafts - Jade Sculpture

Step 1: drawing shape on Jade stone
Step 2: cutting
Step 3: polishing

Jade is available in many colors and quality; the best jade is harder than glass
China imports much Jade but is also a producer
Visitors can watch Jade carvers and polishers working in the factory without disturbing them

Traditional Chinese Crafts – Paper Cutting

Jen Feng Paper cutting store in Chengde
The paper cutting skill is transmitted to family members from generation to generation
Three lovely butterflies cut out of color paper in just a few minutes