

World Heritage

PERIODIC REPORTING ON THE APPLICATION OF THE WORLD HERITAGE CONVENTION

Section II

The current state of the conservation of the World Heritage property

State Party: the People's Republic of China (PRC)

Name of the Property: Peking Man Site at Zhoukoudian

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Overview

Peking Man Site at Zhoukoudian is a valuable historical and cultural heritage because of the status in and the influence on the evolution of man by the discovery and research of fossilised remains of Peking Man and the cultural relics dated 500,000 years ago. As it satisfied the sixth criterion for cultural heritages to be included into the third World Heritage List, it was included into the World Heritage List in December 1987. In order to strictly implement the Convention on the Protection of World Cultural and Natural Heritages, enhance the authenticity, integrity and the level of protection management of Peking Man Site at Zhoukoudian and guarantee the value of the world heritage, we have thereon completed the following tasks:

1. Defined the protection area of Peking Man Site at Zhoukoudian and formulated the protection/management regulations for the Site (Annex 1)

After 1988, the State Cultural Bureau, China Academy of Sciences (CAS) and the Municipal Government of Beijing (MGB) carried out a joint study and defined the protection areas of Peking Man Site at Zhoukoudian. After it was approved by the People's Congress of Beijing in 1988, the MGB issued, in the form of Decree No. 1, Measures on Protection and Management of Peking Man Site at Zhoukoudian. Thus, the protection and management of the Site moved onto a legal track ever since.

2. Resettled one cement plant and tow lime plants from inside the protection area

In order to protect Peking Man Site at Zhoukoudian, the CASS and the MGB have jointly invested RMB14 million since 1988 to resettle the Cement Plant of Zhoukoudian Township, the Lime Plant of Shilou Township and the Lime Plant of Chengguan Township from inside the protection area. Thus, the industrial pollution sources inside were removed, and a good foundation was laid for the planning of the protection area.

3. Completed some basic work to formulate the protection and development plan for Peking Man Site at Zhoukoudian

Since 1993, with support and assistance from UNESCO, the Institute of Vertebrate Palaeontology and Paleoanthropology (IVPP) of CAS has cooperated with Japan and France, exploring such issues as protection, research and the museum of the Site. They have done a large amount of basic work for the formulation of the protection and development plan for the Site.

4. With support from UNESCO, the wild vegetation on the cliffs of the Peking Man Site was cleared in 1994 for the first time, and the original sight at the time of excavation was restored. The vegetation has been cleared every two years ever since.

5. Improved exhibition facilities of the museum

With support from UNESCO, the exhibition boards, portable speakers for tourists, interpretive signs and road maintenance within the site have been upgraded twice since 1994. In 2001, Sunshine, Star and Moon Group of Zhejiang Province and UNESCO jointly funded a large renovation of the museum, which added the video show and updated the interpretive signs with standard Chinese and English.

6. On 16 September, 2002, CAS signed an agreement with MGB on joint management of Peking Man Site at Zhoukoudian. According to the agreement, CAS is responsible for the excavation, research and right of the specimen of the Site, while the government of Fangshan District is responsible for the protection, management and the museum of the Site. A plan for Peking Man Site at Zhoukoudian is being formulated and the protection and development work is underway.

To sum up, since its inscription into the World Heritage List, the authenticity and integrity of Peking Man Site at Zhoukoudian have not changed, and its value remains intact.

**PERIODIC REPORT ON THE APPLICATION OF
THE WORLD HERITAGE CONVENTION**

Section II: The current state of the conservation of the World Heritage property

II.1 Introduction

a.	State: the PRC	001
b.	Name of World Heritage property: Peking Man Site at Zhoukoudian	002
c.	<p>Location of the World Heritage property:</p> <p>The Site is situated on the Dragon Bone Hill west of Zhoukoudian, 50 km southwest of Beijing, five km west of Fangshan Township. The area of the Site totals two square kilometres. In the east, it is 30 meters away from the central line of the outmost track of the west side of the railway planned. In the southeast, it is 300 meters away from the central line of the north track of the special railway line. In the south, it is situated where Point One (Coordinates 273520/469270) turns to Point Two (Coordinate 273340/469310). In the southwest, it connects 171 highland from Point Two, turns to include Point Three (Coordinate 273250/469765) in the north, links to Point Four (Coordinate 273160/470145) along the 150 contour line to reach the boundary stone, and then connects to Point Five (Coordinate 273300/470515) in the north-west along the 150 contour line. In the north, it extends to the north wall of Peking Man Site.</p> <p>In this investigation form (At least three values of coordinates are provided for large sites, townships and areas):</p> <p>Central point: 115° 55'E, 39° 44' N</p> <p>The north-west point:</p> <p>The southeast point: 300 meters away from the central line of the north track of the special railway line.</p>	003
d.	<p>Date of inscription on the World Heritage List</p> <p>1 December, 1987</p>	004
e.	<p>Organization or entity responsible for preparation of the report:</p> <p>Organization/entity: The People's Government of Fangshan District</p> <p>Person in charge: Liu Yajun</p> <p>Address: No. 12, East Chengguan Street, Fangshan District, Beijing</p> <p>Telephone No.: (010) 69313975</p> <p>Fax No.: (010) 69313975</p>	005
	Email address:	
f.	<p>Date of report:</p> <p>1 September 2002</p>	006
g.	<p>Signature on behalf of the state party:</p> <p>Signature: Mei Ninghua</p> <p>Name:</p> <p>Title: Director, Beijing Administration of Cultural Heritage</p>	

II.2 Statement of significance

<p>The property is included into the World Heritage List.</p> <p>Cultural criteria:</p> <p>It meets Criteria iii and vi for the World Cultural Heritage. In 2001, the representatives from the World Heritage Center inspected Peking Man Site at Zhoukoudian and suggested that it meet the criteria iii and iv.</p> <p>Criterion iii: Bear a unique or at least exceptional testimony to a civilisation or cultural tradition which has disappeared.</p> <p>Criterion iv: Be an outstanding example of a type of building or architectural ensemble which illustrates (a) significant stage(s) in history.</p> <p>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 justify inclusion in the List only in exceptional circumstances or in conjunction with other criteria).</p> <p>After inclusion in the List, is there any new criterion added due to re-nomination or extension of the site?</p> <p>Yes/No</p> <p>No.</p>	<p>008</p> <p>009</p> <p>010</p>
<p>The comments on the property by the advisory body in evaluating the nomination:</p> <p>In fact, the site is not only an exceptional reminder of the human societies of the Asian continent from the mid-Pleistocene to the end of Palaeolithic period, but also illustrates the process of evolution.</p>	<p>011</p>
<p>The finding and recommendation of the World Heritage Committee upon inscription and extension:</p> <ol style="list-style-type: none"> 1. Improving the surrounding environment of the Site and eliminating pollution. 2. Clearing the vegetation on the profile of the site. 3. Increasing relevant contents of display in the museum and improving display. 	<p>012</p>
<p>Follow-up actions adopted after the comments and/or findings:</p> <ol style="list-style-type: none"> 1. MGB removed a cement plant and two lime plants. 2. Vegetation on the profile of the Site has been cleared every two years since 1994. 3. With the help of UNESCO, the exhibition displays have been renovated twice since 1994. In 2001, a thorough renovation was made, which improved the style of the displays, added the contents on historical and geological changes, installed video equipment, and modified the interpretative signs on the Site. 	<p>013</p>
<p>Statement of significance:</p> <p>The property is a world-famous site of prehistorical man. It has the richest, most complete and most representative materials among sites of the same period, and is of significant value in the research and reconstruction of early human history.</p>	<p>014</p>

Will there be any consideration for re-nomination because of extension? No.	Yes/No	015 016
Are the boundaries of the property and its buffer zone (still) protected and preserved with an aim to ensure the universal values of the property? Yes.	Yes/No	017
Is the State Party actively considering the modification of the boundaries or the buffer zone of the World Heritage property? No.	Yes/No	019

II.3 Statement of the authenticity/integrity

Since the property was included on the World Heritage List, have the values defined above been maintained? Yes	Yes/No	021I
Since inscription on the List, are there any changes in the authentic/integrity of the property? No.	Yes/No	024 025
In the near future, are there any predictable (further) changes in the authentic/integrity of the property? No.	Yes/No	026 027

11.4 Management

How to make the most appropriate arrangement for the protection and management of the property (more than one choice may be ticked)? legislative (<input checked="" type="checkbox"/>) contractual (<input type="checkbox"/>) traditional (<input type="checkbox"/>)		028
Please illustrate and evaluate the implementation of the arrangement and the effectiveness of preserving the values described under Item II.2 at the national, provincial and/or municipal level. With its authority and weight, the Cultural Relics Protection Law of the PRC stipulated that the protection of cultural relics is mainly the responsibility of governments at all levels, and therein legally guaranteed the authenticity and integrity of cultural relics. In order to better protect the Site and its surrounding areas and to address specific issues concerning the management of the Site, MGB has particularly formulated Measures on the Management of Peking Man Site at Zhoukoudian in Beijing.		029
In general, can the legislative, contractual and/or traditional protection be deemed as sufficient? Yes.	Yes/No	030

<p>Please explain:</p> <p>With regard to the state of conservation of the Site, although major or minor problems do exist, they have been more at the operational level. In fact, the specific laws and legal stipulations are scientific and effective, and the Site enjoys a protection norm that is complete and rational in legal terms. According to Paragraph 7, Article 1 of the Law of the PRC on the Protection of Cultural Relics, the fossils of paleovertebrates and paleoanthropoids of scientific value shall be protected by the state in the same way as cultural relics. Article 4 states that cultural relic protection should follow the principles of taking protection as the primary task and salvation as the top priority, making reasonable utilization and enhancing management. Paragraph 1, Article 9 stipulates that people's governments at all levels must attach importance to the protection of cultural relics and guarantee the safety of cultural relics. Paragraph 2 requires that capital construction and tourist development must abide by the cultural relic protection principles, and those activities shall not cause damage to cultural relics. Article 11 states that cultural relics are non-regenerative cultural resources. The state shall strengthen publicity education on cultural relic protection, enhance the awareness of the whole population on cultural relic protection, encourage scientific research in cultural relic protection and raise the scientific and technological level of cultural relic protection. Article 17 states that no other construction project or explosion, drilling and excavation operation should be carried out within the protection area of the site protected for its cultural and historical value (cultural relic protection unit). In exceptional circumstances when such project or operation is carried out, they must be done with guarantee to the safety of the cultural relics. In addition, they must be approved by the people's government that has certified and announced the designation of cultural relic protection unit, who, prior to the approval, must obtain consent from the cultural relic administrative department of the upper level people's government. Other construction projects or explosion, drilling and excavation operations to be carried out inside the protection area of national key cultural relic protection units must be approved by people's governments of provinces, autonomous region or municipalities directly under the Central Government. Prior to the approval, consent should be obtained from the cultural relic administrative department of the State Council. Article 18 stipulates that based on the actual demand of cultural relic protection, with the approval of people's governments of provinces, autonomous regions and municipalities directly under the Central Government, certain construction control zones may be defined around the cultural relic protection unit and be announced. Construction projects inside the construction control zones of a cultural relic protection unit should not damage the historic sight of the latter. According to the level of cultural relic protection unit, the project conceptual design should be agreed by the corresponding cultural relic administration department and be reported for approval by the urban and rural construction planning department. Article 19 states that inside the protection area and construction control zones of a cultural relic protection unit, no facility that might pollute the cultural relic protection unit and its environment shall be constructed, and no activity that may affect the safety and the environment of the cultural relic protection unit shall be carried out. Existing facilities that pollute the cultural relic protection unit and its environment should be dealt with within a fixed timeline. Article 26 stipulates that the use of immovable cultural relics must abide by the principle of no change to the original status of the cultural relics, be responsible for the safety of the buildings and their attached cultural relics, and not damage, alter, increase or remove any immovable cultural relic. Local people's governments should investigate into and</p>	<p>031</p>
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	deal with buildings and structures that harm the safety and damage the historical sight of cultural relic protection units in a timely manner. When it is necessary, they should demolish and remove such buildings and structures.	
	A list and summary of the law and regulations governing the protection and management of cultural and natural heritage: The Law of the PRC on the Protection of Cultural Relics (Articles annexed below), the Criminal Law of the PRC (Articles annexed below), the Environmental Protection Law of the PRC (Articles annexes below), and Measures on Protection and Management of Peking Man Site at Zhoukoudian (Articles annexes below)	032
	What administrative and management arrangement has been made for the property concerned? In order to further strengthen protection and development of Peking Man Site at Zhoukoudian, CAS and MGB agreed to join efforts with each other, thus fully utilizing the advantage of the academic institution in science research and that of the governmental agency in cultural relic protection. The agreement was executed in August 2002. CAS set up the Center of Vertebrate Palaeontology and Paleoanthropology to continue science research on the Site, while the management right and utilization right of Peking Man Site at Zhoukoudian were transferred to MGB. MGB authorized the People's Government of Fangshan District to protect and manage the Site with full power.	033
	Under the leadership of which level of institution is the property managed? Please indicate: Property () Local (✓) National () Other (please specify): the People's Government of Fangshan District of Beijing	034
	The full name, address and telephone/fax/email of the entity directly responsible for the management (preservation, maintenance and tourist control) of the property: Management Office of Peking Man Site at Zhoukoudian (Zhoukoudian Peking Man Site Museum) No. 1, Zhoukoudian Street, Fangshan District, Beijing Telephone No.: (010) 69301454 Fax No.: (010) 69301454	035
	Is it necessary to revise the administrative and management arrangement for the property? Yes/No Yes.	036
	The property is a world-famous paleoanthropological site. Having been included into the World Cultural Heritage List as early as in 1987, it is the most complete and richest relic of the activities of pre-historical man, as well as the most valuable historical and cultural wealth of mankind. However, due to complex reasons such as system issues in the past, the protection of Peking Man Site at Zhoukoudian lagged behind that of other cultural heritages. That aroused concerns from domestic and foreign media, as well as the close attention of the Central Party Committee, Beijing Municipal Party Committee and the Municipal Government. Peking Man	037

	<p>Site at Zhoukoudian was home to Peking Man, <i>Sinanthropus pekinensis</i>. The protection of the Site is our irrefutable obligation. In order to further protect and develop the Site and fully utilize its significant values in science, education and tourist development, MGB and CAS decided to join effort with each other. For that purpose a signing ceremony was held on 16 August, 2002. The management right of the Site has since been transferred to MGB and the Government of Fangshan District is in charge of the protection, management and construction of the Site with full power.</p>	
	<p>Is there any management plan? Yes/No</p> <p>Yes.</p> <p>The Municipal Government of Beijing is formulating an overall protection and development plan for Peking Man Site at Zhoukoudian, which includes measures to protect the Site and improve the surrounding environment, as well as a scheme for the construction of the museum. The plan will be duly presented to domestic and foreign experts for examination and comments. It is estimated that the plan for the Site will be realized before 2008. It will greatly benefit the protection of the authenticity and integrity of the World Heritage property as well as the education on the Site. The Measures on the Protection and Management of Peking Man Site at Zhoukoudian as revised has provided sufficient legal protection for the Site, and the formulation of the Plan to Restore the Surrounding Environment of Peking Man Site has started.</p>	<p>038</p> <p>039</p>
	<p>What legal and administrative measure will be adopted in the future to protect the values described under Item II.2?</p> <p>The Measures on the Protection and Management of Peking Man Site at Zhoukoudian provides a legal footing for the protection and development of the world cultural heritage. MGB and the Government of Fangshan District shall formulate and implement the plan for the Site according to law. The authenticity and integrity of Peking Man Site at Zhoukoudian will certainly be guaranteed, and its educational function can also reach a higher level.</p>	040
	<p>Providing detailed information about the following items, particularly the significant changes (if any) since the inscription of the property on the List:</p> <ul style="list-style-type: none"> • <u>Conservation</u> <p>Citing all major interventions on the site and explaining the current state of the preservation:</p> <p>The conservation status of the Site has been the focus of concern of interested state agencies. A number of long-existing cement plants and other dust pollution enterprises around Zhoukoudian have been phased out as approved by the government. Next year, all polluting enterprises will be closed down. Since its inclusion into the List in 1987, the preservation status of the Site has been satisfactory. At present, in the core area of the Site, seven projects are underway, including renovation of two star toilets, reparation of the main entrance and replacement of the enclosing fences. In the protection area and the environmental impact areas, 6170 square meters of buildings have been demolished, including those of the former Red Flag Cement Plant (4170 M²), of the Quarry Plant (40 M²), of the Lime Plant of Chengguan Township(1920 M²), and illegal buildings of the Zhoukoudian villagers(40 M²). The total green area has reached 100 <i>Mu</i>.</p> <ul style="list-style-type: none"> • <u>Ownership</u> 	041

	The ownership of the Site by the People's Republic of China has remained unchanged so far.	042
	<p>Detailed explanations on staffing:</p> <p>Is the staffing sufficient for appropriate management of the Site? Yes/No</p> <p>Yes.</p> <p>Does the staff need extra training? If yes, what training do they need? Yes/No</p> <p>Yes.</p> <p>The staff of the Site needs training in areas of scientific monitoring, scientific management and scientific protection.</p>	<p>043</p> <p>044</p> <p>045</p> <p>046</p> <p>047</p>
	<p>Funds and financial status:</p> <p>Since the late 1990s, the main source of funds for the Site has been ticket sales. From 2000 to 2001, the annual tickets proceeds were about RMB700,000 while the annual expenditures amounted up to RMB800,000-900,000. In 2003, the financial department of Fangshan District will provide fixed financial support.</p> <p>Is the current fund sufficient for appropriate management of the Site? Yes/No</p> <p>No.</p> <p>If not, explain what finance resources are needed for the management of the Site?</p> <p>Before August 2002, the Site was used and managed by CAS. There was a shortage of fund for the research of the Site, and almost no fund for environmental protection at all. The management of the Site is in need of more finance support from relevant government departments and government at all levels.</p>	048
	<p>Point out the international assistance from which the property has benefited:</p> <p>The World Heritage Fund:</p> <p>The Site obtained about RMB32,000 <i>yuan</i> worth of audio recording facilities and equipment in 1998.</p> <p>The UNESCO International Promotion Programme:</p> <p>No.</p> <p>Country/regional projects of the UNDP, the World Bank and other institutions:</p> <p>No.</p> <p>Bilateral cooperation:</p> <p>No.</p> <p>Other assistance:</p> <p>In 2001, the Star, Moon and Sunshine Group committed to the Site RMB1 million, payable at three times. The actual payment made is RMB200,000.</p>	<p>051</p> <p>052</p> <p>053</p> <p>054</p> <p>055</p>
	<p>Information technology (computer) equipment:</p> <p>The computer equipment of the Site was purchased generally in later 1990s or early 21st century. Their satisfactory performance and capacity address the needs of</p>	056

<p>routine office work. Currently in use:</p> <p style="text-align: center;">PC (<input checked="" type="checkbox"/>) (Apple) Macintosh (<input type="checkbox"/>) Host computer (<input type="checkbox"/>)</p>	057
<p>The number of computers: 3</p>	
<p>Are they linked to the Internet?</p>	Yes/No
<p>Is email used in daily correspondence?</p>	Yes/No
<p>Yes.</p>	059
	060

<p>Is there a GIS in place for the Site?</p>	Yes/No	061
<p>No.</p>		062

<p>Science research plan already underway for the Site:</p> <p>Science research plan in the near future: Since 1997, the IVPP of CAS has co-operated with over a dozen of other CAS and non-CAS institutions in multi-disciplinary researches on the Site. In 1995, China and France co-operated in geophysical prospecting over the Site to discover new suspicious areas. Meanwhile, China and the USA co-operated in the analysis of samples from the profile of the Site and reached new conclusion on the use of fire by mankind.</p>	063
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<p>The financial and human resource input for the research plan and/or facilities:</p> <p>The implementation of science research plan involved several hundred experts and technical personnel from CAS and other institutions. It lasted for more than three years and incurred huge cost (It is estimated at RMB1 million, though the accurate figure is not available).</p>	064
<p>How to disseminate the information/results?</p> <p>The results of this comprehensive research have been widely publicized through the publication of <i>Comprehensive Research on Peking Man Site</i> (Science Publishing House) and the videotape under the same title. The findings of Sino-French joint research have been compiled into a special work and those of Sino-American research published in the British magazine, <i>Science</i>.</p>	065

Are there any statistics about tourists to the site? Yes.	Yes/No	066 067
	Domestic tourist	Foreign tourist
1989-1991	90,000 per year	10,000 per year
1992-1995	70,000 per year	10,000
1996-1997	55,000	5,000
1998	50,000	5,000
1999	45,000	5,000
2000-2001	40,000 per year	5,000 per year
What facilities are available to tourists? The museum halls (which provide video and audio equipment and interpretation services) and other tourist facilities, such as public toilets, parking lot, shops, the ticket office and long benches.		068
What facilities are needed for tourists' convenience? We need fully functioning exhibition halls that can provide excellent services, a multi-purpose tourist centre, star-level bio-toilets, reasonable parking grounds, as well as other related facilities.		069
Does the property have a public utility plan? Yes. If yes, please summarise below: The Municipal Government of Beijing is establishing overall criteria for the protection and management of Peking Man Site at Zhoukoudian and formulating the Plan to Renovate Peking Man Site at Zhoukoudian and Its Surrounding Areas. With the core area and the protection area as the principal axis, a 2.4 km ² Site Park will be built, extending to Zhoukoudian River in the east. The proposed cultural resort will perfectly fit the environment of the Site and attract people to trace the legendary activities of prehistorical men. Those structures that affect the environment of the Site will be demolished, and the spatial structure of the landscape will be optimized. Efforts will be made towards greening and setting up a green barrier to protect the cultural remains of the prehistorical men. In 3-5 years, Zhoukoudian will be built into a park of Paleoanthropological site, with satisfactory protection conditions, beautiful environment and pleasant scenery.	Yes/No	070 071

How to communicate the world heritage value of the property to residents, tourists and the public? We have publicized the value of this property mainly through the free interpretation services by the museum staff, distribution of brochures, and relevant video playing.		072
Are there any educational programs for schools? No. The site is an education base for Beijing No. 15 Middle School, Zhoukoudian Middle School and Zhoukoudian Central Primary School, a National Patriotism Education Demonstration Base, a Patriotism Education Base of Beijing, and a National Popular Science Education Base. The social educational department of the museum formulates work programs every year on receiving schoolteachers and students, including rebating tickets by half for students, strengthening link between the museum and schools for educational purpose.	Yes/No	073 074
What role does the World Heritage designation play in promoting tourist arrivals at the site, its research plans and/or awareness building activities? The World Heritage designation has positively affected tourist arrivals, the research plans and/or awareness building activities. The number of tourists increased, and both research programs and awareness building have been improved.		075

11.5 Factors affecting the property

	<p>To what degree is the property threatened by particular problems and risks?</p> <p>At present, negative impacts on Zhoukoudian Site mainly come from the threat of residents in the surrounding areas and the cement production industry nearby. They have certain negative impacts on the overall landscape and safety of the Site.</p>	076
	<p>Is there any emergency/peril preventive plan for the property?</p> <p style="text-align: right;">Yes/No</p> <p>Yes.</p> <p>All levels of government departments of Beijing are intensifying effort to thoroughly improve the environmental condition of Peking Man Site at Zhoukoudian. The district Party Committee and the district government have made painful decisions to sacrifice the local interests to thoroughly solve the problems of pollution caused by cement dust. They will move the cement plants out of the surrounding areas of the Site, close down 11 vertical kilns of nine cement plants near the Site. A plan has been made to invest RMB200 million to construct a cement production line in the remote mountainous area far away from the Presidential Office Site of Zhoukoudian. It will exploit the new dry process to turn out an output of 2000 ton/day, and thus fundamentally solve the dust pollution problem. So far, two cement production lines and 19 non-coal mines have been closed down.</p>	077 078 079
	<p>Areas for anticipated improvement and/or the orientation that the State Party strives for:</p> <p>Areas to be improved include:</p> <p>Thorough improvement of the surrounding areas of the property;</p> <p>Formulation and implementation of protection programs for the property as soon as possible;</p> <p>Overall renovation of the exhibition and display facilities and means; and</p> <p>Completion of tourist service facilities.</p>	080
	<p>Has the impact of the factors affecting the property increased or decreased?</p> <p>Since the cooperation between MGB and CAS, MGB has authorised Fangshan District Government to take charge of the Site with full power. The latter has input large amount of resources in the restoration of the Site. Due to active effort of local government, the impacts have decreased greatly and are continuing to diminish.</p>	081
	<p>In order to address those factors affecting the property, what effective measures have been adopted or planned for the future?</p> <p>To eliminate the factors affecting the Site, MGB has resettled the residents from the nearby areas, closed down small businesses, suspended their operation, merged them with other plants or relocated them. An overall greening effort has been made with a view of improving the ecological environment in the Site.</p>	082

11.6 Monitoring

<p>Detailed information about the previous monitoring of the property on a regular or responsive basis: Yes/No</p> <p>Yes.</p> <ol style="list-style-type: none"> 1. Monitoring over the sulfation rate of ambient air, filtering the discharge and membrane measurement of the monthly average value of sulphur in the air. 2. Measuring the dust-fall and using collector to collect dust-fall for analysis, so as to reflect the overall situation in the area. 3. Monitoring SO₂ and nitrogen oxides in the air. 	083
<p>Is there a formal monitoring system for the Site? Yes/No</p> <p>No.</p>	084
<p>If none at present, is there a plan to set up a formal monitoring system? Yes/No</p> <p>Yes.</p>	085
<p>The property is an important paleoanthropological site. Both of its administrative and management rights have been transferred to MGB, who will intensify efforts to restore the surrounding environment of the Site, including setting up a formal monitoring system.</p>	086 087
<p>Has any indicator been identified for measuring the state of conservation? Yes/No</p> <p>No.</p> <p>If no such indicator is defined and/or utilized so far, please determine the major indicators to be used in future monitoring.</p> <ol style="list-style-type: none"> 1. Dust sedimentation rate: for monitoring the impact of dust from limestone, cement and small coal mines on the Site. 2. Cavity breath (crack width): for monitoring the movement of early mankind, such as Peking Man and Upper Cave Man, from lower to upper lands under natural conditions. 3. Vegetation growth rate: for monitoring the growth and extension of natural vegetation at the Site. 	088 089 090
<p>Which partner, if any, has participated or will participate in regular monitoring?</p> <ol style="list-style-type: none"> 1. The Bureau of Environmental Protection 2. The CAS 3. The Bureau of Fire Control 	091
<p>To define the administrative stipulations on organizing regular monitoring of the property:</p> <p>According to Paragraph 2, Article 3 of <i>the Measures on Protection and Management</i>, the municipal, district, urban planning and environmental protection, public security, mining and industry and commerce administrative agencies, as well as local township governments should cooperate with the cultural relic administrative agencies in the protection and management of the Site.</p>	092

	<p>What improvement is foreseen or would be considered desirable in improving the monitoring system?</p> <p>Based on the actual conditions of Zhoukoudian Site, improvements may be made in monitoring technology, method and equipment.</p>	093
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	<p>If applicable, please provide detailed information: In specific cases, the World Heritage Committee and/or its Bureau may have already examined the state of conservation of the property and made recommendations to the State Party, either at the time of inscription or afterwards. In such cases the State Party is requested to report on the actions that have been taken in response to the observations or recommendations made by the Bureau or Committee:</p> <ol style="list-style-type: none"> 1. Closing down lime kilns, planting trees, and improving the surrounding environment; 2. Having monitoring facilities installed, reporting periodically; and 3. Education: museum construction, recruitment of specialized and young staff for the Social Educational Department. 	094
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11.7 Conclusion and recommended actions

	<p>Primary conclusions regarding the state of the World Heritage values of the property: With concerted efforts of all relevant departments, the world heritage value of Zhoukoudian Site has remained intact since 1987.</p>	095
	<p>Primary conclusions regarding the management and factors affecting the property: The management of this property by the Management Office of Peking Man Site at Zhoukoudian has always operated in a standard and effective manner. However, due to financial, personnel and technical restrictions, the work is not completely satisfactory. The main factors affecting the Site include the residents and the industrial and mining enterprises within the surrounding areas.</p>	096
	<p>Summarise actions to be adopted in future:</p> <ol style="list-style-type: none"> 1. Closing down polluting enterprises and improve the surrounding areas; 2. Planting trees to restore the original sight; and 3. Building up a new museum and carry out education. 	097
	<p>The name of responsible implementing agency/agencies (if different from 005): MGB</p>	098
	<p>The timeframe for implementing the above action:</p> <p>By March 2003, complete the beautification and afforestation of the protection area of Zhoukoudian Site;</p> <p>By the end of 2003, closing down polluting enterprises;</p> <p>By March 2004, complete the beautification and afforestation of the environmental impact area, and complete the third stage of the restoration project of the 1.8 km² protection area and the other demolition and resettlement tasks inside the protection area and the environmental impact area.</p> <p>By December 2006, construct a large museum.</p>	099
	<p>Among the planned activities, which may need international assistance from the World Heritage Fund (If any):</p> <p>The construction of a large museum is costly and may need support from the World</p>	100

	Heritage Fund. The Government of Fangshan District is in charge of the demolition and resettlement of the buildings affecting the environment within the Site, as well as the process of the overall afforestation and beautification.	
	Are there any links with the management agencies of domestic and overseas WH properties? Yes/No	101
	If yes, please explain: Chinese National Commission of the United Nations World Heritage organises a working conference for domestic world heritage units every year. The World Heritage Research Society of China also holds a business meeting each year.	102
	What experience obtained from periodic reporting and/or the conservation/protection of the property can be shared with other State Parties with similar problems/or matters? Based on years of experience, we have realised that the protection and management of the property is a systematic and comprehensive task. It is absolutely insufficient to count on the management agency of the property alone. Satisfactory result can only be gained with concerted effort from government departments and local residents.	103
	To this end, the name and address of agencies or experts available for contact: Agency/Organisation: IVPP The Cultural Commission of Fangshan District, Beijing Person in charge: Zhu Ming, Liu Yajun Address: No. 142, Xizhimenwai Street, Xicheng District, Beijing No. 12, East Chengguan Street, Beijing City and postal code: 100044, 102400 Telephone No.: (010) 68151363 (010) 69313975 Fax No.: (010) 68337003 (010) 69313975 Email address:	104
	At the preparatory stage of periodic reporting, have you provided enough and sufficient information to responsible agencies and individuals? (provided information and held meetings)? Yes.	105
	Is the survey sheet clear and is it helpful for the State Party to meet the criterion? Yes.	106
	What are the explicit benefits and lessons drawn from periodic reporting? From the periodical reporting, we have learnt that Zhoukoudian Site is a cultural property that belongs to the whole mankind and its protection and management have always been the concern of the international community. Meanwhile, we have also realised that there are still many defects in the protection and management of this site.	107
	What results do you expect from periodic reporting activities and what follow-up actions do you expect from the World Heritage Committee: We hope the World Heritage Committee will continue to strengthen scientific monitoring of Zhoukoudian Site in future and provide necessary technical and personnel assistance to it.	108

Annex 1. Maps and pictures indicating the general location, the boundaries of the site and necessary details about the property itself

1. Map indicating the location of Peking Man Site at Zhoukoudian in the PRC
2. Aerial view of Peking Man Site at Zhoukoudian
3. Map indicating the location of Zhoukoudian in Beijing
4. Geological map of Zhoukoudian in Beijing
5. Map indicating the distribution of localities in Zhoukoudian
6. Front view of the ape men cave in Zhoukoudian
7. Picture of the site where the No. 1 skullcap was discovered in Zhoukoudian
8. Picture of the model of the No. 1 skullcap
9. Picture of stoneware used by Peking Men at Zhoukoudian
10. Reconstructed bust of Peking Man from Peking Man Site
11. Ashes – the evidence of fire-use by Peking Man
12. Burned bones
13. Burned stones
14. Skeleton of cave bear
15. Front view of Locality 4
16. The Upper Cave
17. Reconstructed bust of Upper Cave Man
18. Stone needle excavated from the Upper Cave
19. Skullcap of Upper Cave Man
20. Chop-ware discovered in Locality 15
21. Pointed ware discovered in Locality 13
22. Original sight of Locality 14

Annex 2: Excerpts of Relevant State, Provincial and Municipal Laws and Regulations on the Protection of Cultural and Natural Heritages

Law of the People's Republic of China on the Protection of Cultural Relics

Article 2

- (1) Fossils of paleovertebrates and paleoanthropoids of scientific value shall be protected by the state in the same way as cultural relics.

Article 4

- (2) Sites of ancient culture, ancient tombs and grottos are properties of the state. Monumental buildings, ancient architectural structures and stone carvings designated for protection by the state are properties of the state, unless otherwise provided for by the state.

Article 11. No additional construction project may be undertaken within the protection area of a cultural site. In case of special need, consent must be obtained from the people's government that made the original announcement on the designation of such a site and from the cultural administration department at the higher level. If an additional construction project is to be undertaken within the protection area of a state key cultural relic protection unit, consent must be obtained from the people's government of the relevant province, autonomous region, or municipality directly under the Central Government and from the state cultural administration department.

Article 12. Based on the actual needs for the protection of cultural relics and with the approval of the people's government of a province, an autonomous region or a municipality directly under the Central Government, a certain area to control construction may be delimited around a cultural protection unit. Construction of new buildings or other structures in this area must not deform the environmental features of the cultural relic protection unit. The construction designs must be agreed by the cultural administration department before submitted for approval by the urban and rural planning department.

Article 16. All archaeological excavations are required to undertake the approval procedure. No unit or individual may excavate underground cultural relics without permission. The cultural relics unearthed, except for those to be handed over, as may be necessary, to scientific research institutions for research, must be taken care of by the units designated by local cultural administration departments, and no unit or individual may take them into its or his own possession. To ensure the safety of cultural relics, conduct scientific research and make full use of cultural relics, the cultural administration departments of provinces, autonomous regions, and municipalities directly under the Central Government may, when necessary, transfer and use the cultural relics within their respective administrative areas after reporting to and obtaining the approval from the people's governments of these administrative divisions. The state cultural administration department may, upon approval by the State Council, transfer and use major cultural relics unearthed anywhere in the country.

Article 17

- (2) Any archaeological excavation necessary to be conducted in a state key cultural relic protection unit should be assessed jointly by the state cultural administration department and the Chinese Academy of Social Sciences before it is forwarded to the State Council for approval.

Criminal Law of the People's Republic of China

Article 324. Whoever intentionally destroys cultural relics under state protection or designated cultural relics of state institutions for protecting major cultural relics and provincial-level cultural relics protection departments shall be sentenced to not more than three years in fixed-term imprisonment or criminal detention, and may in addition or exclusively be sentenced to a fine; or when the circumstances are serious, not less than three years and not more than ten years of fixed-term imprisonment, and may in addition be sentenced to a fine.

Whoever intentionally destroys state-protected places of historical interest or scenic beauty, and when the circumstances are serious, shall be sentenced to not more than five years of fixed-term imprisonment or criminal detention, and may in addition or exclusively be sentenced to a fine.

Whoever, through negligence, destroys precious cultural relics under state protection or designated cultural relics of state institutions for protecting major cultural relics and provincial-level cultural protection departments shall be sentenced to not more than three years of fixed-term imprisonment or criminal detention.

Article 325. Whoever violates laws and regulations on cultural relics protection by secretly selling or giving to foreigners his or her collection of precious cultural relics, the export of which is banned by the state shall be sentenced to not more than five years of fixed-term imprisonment or criminal detention, and may in addition be sentenced to a fine.

Institutions which commit the crime mentioned in the preceding paragraph shall be sentenced to a fine, and principal persons directly responsible for the crime and other persons with direct responsibility shall be punished in accordance with the stipulations of the preceding paragraph.

Article 326. Whoever, for the purpose of profit, resells, the cultural relics, the sale of which is prohibited by the State, if the circumstances are serious, shall be sentenced to fixed-term imprisonment of not more than five years or criminal detention, and shall also be fined; if the circumstances are especially serious, he shall be sentenced to fixed-term imprisonment of not less than five years but not more than 10 years and shall also be fined.

Where a unit commits the crime mentioned in the preceding paragraph, it shall be fined, and the persons who are directly in charge and the other persons who are directly responsible for the offence shall be punished in accordance with the provisions of the preceding paragraph.

Article 327. State-owned museums, libraries and other units that violate the laws and regulations on protection of cultural relics, selling or giving without permission cultural relic objects under state protection to non-state-owned units or individuals are to be sentenced to a fine and persons in direct charge of the units and other persons directly involved in the case for responsibility are to be sentenced to not more than three years of fixed-term imprisonment or criminal detention.

Article 328. Whoever robs ancient cultural ruins and ancient tomb burial objects that have historical, artistic, and scientific value are to be sentenced to not less than three years and not more than ten years of fixed-term imprisonment and are to be sentenced to a fine; when the circumstances are relatively light in nature, the sentence is to be not more than three years of fixed-term imprisonment, criminal detention or surveillance and the offender is also to be sentenced to a fine; whoever has one of the following cases is to be sentenced to not less than ten years of fixed-term imprisonment, life imprisonment or death penalty and are in addition to be sentenced to a fine or confiscation of property:

- (1) Robbing ancient cultural ruins and ancient tomb burial objects selected for national cultural relic protection units and province-level cultural relic protection units;
- (2) Ringleaders of gangs engaged in robbing ancient cultural ruins and ancient tomb burial objects;

- (3) Whoever has robbed ancient cultural ruins and ancient tomb burial objects many times; and
- (4) Whoever robs ancient cultural ruins and ancient tomb burial objects and whoever steals precious cultural relics or causes great damage on precious cultural relics.

Whoever robs fossils of paleovertebrates and paleoanthropoids of scientific value that are under the state protection is to be punished according to the provisions of the preceding article.

Article 329. Whoever seizes and steals state-owned records is to be sentenced to not more than five years of fixed-term imprisonment or criminal detention.

Whoever violates the provisions of the Archives Law, selling and transferring state-owned records without authorization and when the circumstances are serious is to be sentenced to not more than three years of fixed-term imprisonment or criminal detention.

Whoever commits the preceding two acts and at the same time, they form the other crimes specified in this law is to be convicted and punished according to the provisions that provide relatively severe punishment.

Environmental Protection Law of the People's Republic of China

Article 2. "Environment" as used in this Law refers to the total body of all natural elements and artificially transformed natural elements affecting human existence and development, which includes the atmosphere, water, seas, land, minerals, forests, grasslands, wildlife, natural and human artifacts, natural reserves, historical sites and scenic spots, and urban and rural areas.

Article 17. The people's government at various levels shall take measures to protect regions representing various types of natural ecological systems, regions with a natural distribution of rare and endangered wild animals and plants, regions where major sources of water are conserved, geological structures of major scientific and cultural value, famous regions where karst caves and fossil deposits are distributed, traces of glaciers, volcanos and hot springs, traces of human history, and ancient and precious trees. Damage to the above shall be strictly forbidden.

Article 18. Within the scenic spots or historic sites, nature reserves and other zones that need special protection, as designated by the State Council, the relevant competent department under the State Council, and the people's governments of provinces, autonomous regions and municipalities directly under the Central Government, no industrial production installations that cause environmental pollution shall be built; other installations to be built in these areas must not exceed the prescribed standards for the discharge of pollutants. If the installations that have been built discharge more pollutants than are specified by the prescribed discharge standards, such pollution shall be eliminated or controlled within a prescribed period of time.

Article 29. If an enterprise or institution has caused severe environmental pollution, it shall be required to eliminate and control the pollution within a prescribed period of time.

For enterprises and institutions directly under the jurisdiction of the Central Government of the people's government of a province, an autonomous region, or a municipality directly under the Central Government, the decision on a deadline for the elimination or control of pollution shall be made by the people's government of the province, autonomous region and the municipality directly under the Central Government. For enterprises and institutions under the jurisdiction of a people's government at or below the city or county level, such decision shall be made by the people's government of the city or county. Such enterprises and institutions shall accomplish the elimination or control of pollution within the specified period of time.

Measures of Beijing Municipality on the Protection and Management of Peking Man Site at Zhoukoudian

(Decree No. 1 of the People's Government of Beijing on 1 February 1989; revised in accordance with Decree No. 12 by the People's Government of Beijing on 31 December 1997)

Article 1. These Measures are formulated for the purpose of better protecting and regulating Peking Man Site at Zhoukoudian.

Article 2. These Measures apply to the protection area and construction control zone (hereinafter referred to as "protection area" and "control zone") at Peking Man Site at Zhoukoudian (hereinafter referred to as "the Site").

The demarcation sign placards for the protection area and control zone shall be designed and planted by the People's Government of Fangshan District under the direction of the Cultural Heritage Bureau of Beijing (hereinafter referred to as "the Municipal Cultural Heritage Bureau").

Article 3. The Municipal Cultural Heritage Bureau is in charge of the cultural relic protection of the Site and inspects over the implementation of these Measures.

In accordance with these Measures, the People's Government of Fangshan District is responsible for the overall management of and supervision over the protection of the Site. The District Bureau for Culture and Cultural Relics (hereinafter referred to as "the District Cultural Heritage Bureau") is responsible for the routine management and supervision, under the guidance of the Municipal Cultural Heritage Bureau and the leadership of the district Government.

The administrative departments at the municipal and district levels responsible for urban planning, environmental protection, public security, minerals, forestry and industry and commerce, as well as the local county governments, should coordinate with the cultural relic administration departments for successful protection of the Site.

Article 4. The Management Office of Peking Man Site at Zhoukoudian under the Institute of Paleovertebrates and Paleoanthropoids of China Science Academy (hereinafter referred to as "the Office") is the unit that utilizes and regulates the Site. It should provide full protection to the Site in accordance with the laws and decrees on protection of cultural relics, these Measures, as well as requirements of cultural relic administration departments. It should also restrain acts in violation of these Measures and report such acts to the cultural relic administration departments.

All institutions and individuals within the protection area and the control zone are obligated to protect the Site and observe the provisions of these Measures.

Article 5. For the purpose of protecting the paleocultural relics inside the protection area, the Office should establish protection signs, apply strict protection to the Site and prevent sabotage. The paleovertebrates and paleoanthropoids fossils and other relics unearthed from the Site should be securely stored to prevent damage or loss.

All acts of archaeological excavation inside the protection area may be conducted only after the Municipal Cultural Heritage Bureau has reported to and obtained approval from the state cultural relic administration department and undertaken by specially designated professional archaeological institutions.

The topographical and geological features inside the protection area must be preserved and the biological environment therein should also be preserved and appropriately improved.

Construction projects inside the protection area should match the surrounding style of the Site. Except family housing of farmers living inside the protection area, construction programs must be agreed by the District Cultural Heritage Bureau and approved by the District Urban Planning Bureau (hereinafter referred to as "the District Planning Bureau"). In addition, they must be handed over by the Municipal Cultural Heritage Bureau and the Municipal Urban Planning Bureau (hereinafter referred to as "the Municipal Planning Bureau") to the Municipal People's Government and the state cultural relic administration department for approval.

Commercial and service businesses inside the protection area should be confined to locations

designated by the Municipal Cultural Heritage Bureau and should not set up unauthorized outlets.

Afforestation inside the control zone should be carried out in accordance with the relevant regulations of Beijing Municipality without jeopardizing the topographical and geological features.

Article 6. All acts of sabotaging or damaging cultural relics or jeopardizing the Site are prohibited inside the protection area. It is also prohibited to remove, dismantle, defile or damage protection signs therein.

It is prohibited to excavate underground cultural relics without approval, or unlawfully trade unearthed cultural relics.

It is prohibited to construct unauthorized buildings or structures of any kind.

It is prohibited to conduct mining, pitting, excavating, indiscriminate logging, and hunting of wild animals, namely, acts that damage the topography and geological features and the biological environment of the protection area.

It is prohibited to construct production installations that generate industrial dusts, waste gases, solids and liquids and noises, or to undertake production activities that pollutes the environment.

Prior approval must be obtained from the Municipal Cultural Heritage Bureau for permitted production activities, except normal agricultural production activities.

Article 7. The Division should formulate plans for the protection and utilization of the protection area and control zone, which should be examined and approved by the Municipal Cultural Heritage Bureau and the Municipal Planning Bureau, and then handed over to the Municipal People's Government for approval and implementation.

Existing buildings and structures inside the protection area should be dealt with as planned.

Article 8. Acts in violation of these Measures shall be punishable accordingly as follows:

- (1) Acts of illegal removal, dismantling, defiling or damaging the protection signs shall be ordered to take corrective actions by cultural relic administration departments and be levied with a fine of RMB200 or less.
- (2) Acts of illegal excavation of underground cultural relics shall be reprimanded and ordered to take corrective actions by cultural relic administration departments and be levied with a fine ranging from RMB1000 to RMB10000. The cultural relics thus unearthed shall be returned to the possession of the state.
- (3) Acts resulting in damage to cultural relics shall be ordered by cultural relic administration departments for compensation and be levied with a fine ranging from RMB3000 to RMB30000.
- (4) Persons engaged in unprohibited production activities other than normal agricultural production activities but without prior approval shall be reprimanded and ordered to take corrective actions by cultural relic administration departments and be levied with a fine ranging from RMB100 to RMB1000.
- (5) Acts in violation of the other provisions of these Measures shall be handled accordingly by the administrative departments for industry and commerce, planning, environmental protection, mineral production and forestry with their respective responsibilities and powers.

Article 9. The cultural relic administration departments and other administration departments, as well as their staff should be faithful to their respective responsibilities and strictly exercise their authority, so as to successfully protect and regulate the Site, its protection area and the control zone. Any act of negligence or abuse of power, or any act of negligence resulting in damage or sabotage of the Site, shall be pursued for administrative responsibilities, by the higher level of authority, of the responsible or directly responsible persons.

Article 10. The Municipal Cultural Heritage Bureau shall interpret specific issues in the implementation of these Measures.

Article 11. These Measures shall be effective as of 1 February 1989.

Annex 3: Protection and Management Plans for the Site and the Related Documents

Demolition, Relocation and Renovation Plan for Zhoukoudian Site and Its Ambient Environment

Zhoukoudian Site is a world famous paleoanthropological site. As a well-known world cultural heritage, the protection and construction of the Site is not only a major project for the protection of these relics, but also a political mission for the people-centered Olympic games. At present and with the overwhelming support from the MGB and relevant departments, Fangshan District is engaged in comprehensive planning for the protection of the Site and for environmental improvement of both the Site and its ambient area. The call of the project is “a green home to Beijinger and a blue sky for Zhoukoudian”, with the objective to make Zhoukoudian Site an exemplary model for world heritage protection. In order to better protect and construct the Site, we have hereby formulated the Plan for Demolition, Relocation and Renovation at Zhoukoudian Site and in Its Ambient Environment, as follows:

1. Demolition, relocation and renovation at Zhoukoudian Site and its adjacent areas

(1) Demolition, relocation and renovation in the 0.24 km² core area of the Site

Replace the overgrown pine hedges in front of the Site museum with a 200-m² lawn; repair two toilettes; repair the main entrance of the Site and the booking office; repaint approximately 247.5 m² of fences around *Gezitang*, Locality 4, Locality 15 and the Upper Cave; remove the kiosk in front of the office area, a kiosk and a postal stand inside the main entrance; repair the doors and windows of the boiler and pump rooms and repaint the walls; repaint the outer wall of the specimen storage building; and replace 50 trash-boxes.

Purchase 8 air-conditioners (5 kw/each) and install them in the museum; improve services of the museum, increase various exhibition-related activities and prepare brochures in both Chinese and English.

(2) Demolition, relocation and renovation in the 1.8 km² protection area of the Site

According to the Renovation Plan for Zhoukoudian Site adopted on 8 June 2001 by Fangshan District, the priority target buildings are: 35 rooms of the abandoned lime stone factory of Shilou Township with a total floor area of 1050 m²; 30 rooms of the abandoned lime stone factory of Chengguan Township with a total floor area of 920 m²; and 8 rooms of Longgushan Coal Mine with a total floor area of 170m².

152 rooms of the Installation Company of Yanshan Petro-Chemical Group and of the No.2 staff dormitory of the railway station, a total floor area of 4600 m².

Other buildings: 495 rooms of 51 rural households inside the Site, a total area of 7434.4 m²; 117 rooms of 13 non-rural households, a total area of 1765.2 m²; and 25 rooms of the railway construction site, a total area of 560 m².

(3) Demolition, relocation and renovation in 0.4 km² adjacent area

Target buildings planned for demolition or relocation: 1059 rooms of 116 rural households, a total floor area of 15888.64 m²; 225 rooms of 33 detached residents, a total floor area of 3377.72 m²; 1813 rooms of ten institutions, including the Changgouyu Mineral Oil Storage and staff dormitory of a quarry plant, a total floor area of 37592.44 m².

2. Zhoukoudian Street Renovation Plan

As planned, 74 households will be relocated, with a total area of 16000 m², and the investment will be RMB 10 million, plus another RMB 26.18 million for road construction.

To date, a total area of 11000 m² has been cleared.

Appendices:

Estimated Budget for Renovating the 0.24 km² Core Area of Zhoukoudian Site

Table of the Estimated Budget for Demolition, Relocation, and Renovation in the 1.8 km² Protection Area of Zhoukoudian Site

Table of the Estimated Budget for Demolition, Relocation, and Renovation in the 0.4 km² Environmental Impact Area of Zhoukoudian Site

Estimated Budget for Renovating the 0.24 km² Core Area of Zhoukoudian Site

Renovation in the core area of the Site mainly include eight tasks:

1. Replacing the aging cypress hedges in front of the museum with a 200-m² lawn, for RMB100,000;
2. Renovating two toilets, for RMB200,000;
3. Renovating the entrance and the booking office, for RMB200,000;
4. Painting an area of 247.5 m² of 165-meter- long fences of the Pigeon Hall, the Locality 4, the Locality 15 and the Upper Cave, for RMB30,000;
5. Demolishing a kiosk in front of the office area, and a kiosk and a post stand inside the main entrance, renovating and repairing the doors and windows of the boiler room and the water pump room and painting the outer walls of these rooms; and painting the outer walls of specimen storage building; for RMB200,000;
6. Replacing 50 garbage bins, for about RMB50,000;
7. Purchasing eight sets of 5kw air conditioners for the museum, for RMB20,000 each, which makes RMB160,000 in total; and
8. Improving exhibition condition, strengthening services of the museum, implementing various relevant activities and compiling publication articles in English, for about RMB150,000.

The above tasks will need a total of RMB1.09 million.

Table of Estimated Budget for Demolition, Relocation and Renovation in the 1.8 km² Protection Area of Zhoukoudian Site

Unit	Quantity	Housing (room)	Area (M2)	Demolition and resettlement expenses (RMB Yuan)
Railway line working area		25	560	420000
Family housing of the railway station		70	1700	1275000
Housing of the railway station		45	822	616500
Installation Company affiliated to Beijing Yanshan Petrochemical Group		74	2900	217000
No. 7 Coal Mining Plant, Beijing Coal Group		8	170	157500
Rural households	51	495	7434.35	5575500
Residential households	13	117	1765.19	1323750
Total	64	834	15351.54	9585250

Table of Estimated Budget for Demolition, Relocation and Renovation in the 0.4 km² Environmental Impact Area of Zhoukoudian Site

Unit	Quantity	Housing (room)	Area (M2)	Demolition and resettlement expenses (RMB Yuan)
Office building of the Ministry of Geology		860	15610	11707500
The Ministry of Geology		33	503.1	377250
The No. 2 Dormitory of the Quarry Plant		251	5785	4338750
No. 7 Coal Mining Plant, Beijing Coal Group		166	4160	3720000
Lead Printing Plant		25	1058	793500
The Housing Management Station		145	2626.34	1969500
The well house of No. 825 Army Unit		2	37	27750
Changkuang Oil Depot		7	300	225000
Family housing of the railway station		62	941	705750
Office area of the ticket office		262	6572	4929000
Rural households	116	1059	15888.69	11916000
Residential households	33	225	3377.72	2532750
Total	149	3097	56858.85	43242750

Total:

Renovation in the 0.24 km² of the core area of the Site, renovation and resettlement in the 1.8 km² *Wengzhong* protection area of the Site and renovation and resettlement in the 0.4 km² environmental impact area requires RMB53.918 million. Resettlement in Zhoukoudian Street requires RMB10 million, while the road construction requires RMB26.18 million.

Closing down of cement plants and non-coal mines by Fangshan District to protect Peking Man Site at Zhoukoudian

Zhoukoudian area enjoys rich resources. It has 56 kinds of mineral resources with mining values, and is especially famous for limestone, coal, marble and granite. Relying on these resources and through years of accumulation and development, the township and village enterprises there experienced rapid growth. It now has eight pillar sectors, i.e. the cement, coal, chemical industry, printing, garment, construction, transportation and commerce and trade, and has become a major construction material production base of Fangshan District.

At present, there are six vertical-kiln cement production enterprises in Zhoukoudian area. They make an annual sales income of RMB126 million, hand over about RMB5 million taxes every year, and employ 1918 people on annual average.

There are 71 non-coal mines at present. Of which, there are four lime (lime power) enterprises, 21 rock board exploitation enterprises, 28 limestone mining enterprises, 16 granite exploitation enterprises, one marble exploitation enterprise and one earth mining enterprise. They have an annual employment of 2567 people, make an annual sales income of RMB67 million and hand over RMB5.6 million taxes. Zhoukoudian ape-man site is the world-famous site of prehistorical man. It was included into the World Heritage List together with the Forbidden City, the Temple of Heaven and the Great Wall at Badaling in as early as 1987. On 6 August 2002, the management right over Peking Man Site at Zhoukoudian was transferred to MGB, with joint construction to be carried out by the municipality and CAS. In order to further protect and better construct Peking Man Site at Zhoukoudian and thoroughly solve the severe pollution problem in the surrounding areas of the Site, the District Government of Fangshan has decided to close down, by the end of 2003, 6 vertical-kiln cement production enterprises inside Zhoukoudian, and 31 non-coal mines that seriously affect the terra and landform of the surrounding areas and engage in disorderly and excessive exploitation.

Cement production and mining are resource-intensive and labour-intensive businesses. Cement production, in particular, leads the growth of various sectors, such as mining, transportation and catering services, and is the major economic pillar of the township and the administrative villages in the surrounding areas. Therefore, the closing down of these six cement enterprises and 31 non-coal mines encounters huge pressure and faces various difficulties in implementation. First, it involves many aspects and its impact will be extensive. The 37 enterprises to be closed down cover 16 natural villages and will directly cause unemployment of over 2870 people. Of which, there are 1918 from the cement plants and 960 from the non-coal mines, who are all local employees. Indirectly, it will lead to employment problem for 1870 people in the related transportation and catering service sectors and affect financial security of 6467 people. Second, large amount of assets will thus become idle and there will be no way to repay the debts. In fact, the six vertical-kiln cement enterprises have 11 production lines, a total of RMB309 million assets and a total debt of RMB378 million. Third, the related sectors such as transportation and catering services will be severely affected. Take transportation sector alone for example, it will directly affect about RMB70 million of incomes and indirectly lead to unemployment of over 1600 people, sending unemployment rate in Zhoukoudian Township up to 70%. Fourth, closing down these enterprises will reduce the tax income by about RMB7.5 million. Fifth, the enterprises have made huge input over the past few years to meet the criteria of environmental protection. The six enterprises to be closed down have made a total input of RMB37.1 million for environment

protection and all reached the state stipulated emission standards.

Due to reasons stated above, closing down the vertical-kiln cement production enterprises and non-coal mines to restore the surrounding areas of Peking Man Site at Zhoukoudian faces various difficulties. On the one hand, the closing down effort will incur huge economic losses and generate significant pressure on the maintenance of social stability in our district and the township. On the other hand, the beautification and restoration of the surrounding areas of Peking Man Site at Zhoukoudian require huge amount of financial input.

Proposals on the Comprehensive Project (Phase I) to Renovate the Mid-stream of Zhoukoudian River

A. Overview

Zhoukoudian River is originated from the north-west of Longmenkou Village in Zhoukoudian Township. It flows through Zhoukoudian, Dahanji and south of Tuotou Village before it enters into Dashi River at Sanchakou. It has a whole watercourse of 15 km and a valley area of 79.6 km², of which, 34.25 km² is situated up the Zhanbeilu Bridge. Though originally a seasonal river, it has become a constant river since the 1970s when part of the sewage of Yanshan Petrol-chemical Company was discharged onto the watercourse. Situated in the central storm area in front of Mao-er Mountain, it often suffers from big floods during flood season, which put serious threat to the villages and farmlands along the river. A big flood took place in 1939 with a food peak of 812 m³/second and caused huge losses to the people and farmlands along the river.

B. The necessity of renovation

1. The narrow watercourse and serious sedimentation, especially the less than 10 meters of river width below the south of Peking Man Site Bridge, severely affect flood flow in the river and the foods directly threaten the lives and assets of people on both sides of the river.
2. Peking Man Site at Zhoukoudian is a world-famous site of prehistorical man. The UNESCO designated it as world cultural heritage in 1987. Flowing in front of the Site, Zhoukoudian River displays its shabby banks in disrepair, narrow waterway and poor environment, which do not match the protection objective of the Site.
3. In order to further protect Peking Man Site at Zhoukoudian, construct the Site into a human civilisation window of the long history of Beijing in a beautiful environment and fully employ its functions of science research and patriotism education, the section of river, based on the overall plan of Zhoukoudian township, needs comprehensive renovation.

C. Renovation principles and criteria

1. Renovation principle. Zhoukoudian River is a major branch of Dashihe River, and its renovation principles are:
 - (1) “Storage at upper-stream, dredging at mid-stream and discharging at lower-stream”. It means that the upper-stream mountain areas (above Zhoukoudian railway bridge) will focus on water conservation projects, plant water conservation forests, construct terraces and dams to stop the sand and sediments, and build dams where conditions allow, to retain water and stop surface flow. The mid-stream areas (from below the railway bridge to Zhanbeilu Bridge) will focus on dredging the watercourse and raising the flood flow standard. The lower-stream (from Zhanbeilu Bridge to the river mouth) will focus on dredging the watercourse and building dikes at both banks of the river to raise the flood flow standard.
 - (2) The natural flow direction of the watercourse will be maintained, and no effort will be made to straighten the natural curves of the river, to keep the natural flow status of the river.
2. Renovation criteria
Results of hydrological calculation (above Zhanbeilu Bridge)
 - (1) Rainfall
Maximum of 24-hour rainfall once in every ten years is 214 mm.
Maximum of 24-hour rainfall once in every 20 years is 250 mm.

(2) Flood

Maximum flux of flood peak once in every 10 years is 224 m³/second.

Maximum flux of flood peak once in every 20 years is 296 m³/second.

Based on the state criteria for harnessing middle and small rivers, and taking account of the specific situation of Zhoukoudian River, the comprehensive renovation criteria are:

Design criterion: 224 m³/second for maximum flux of flood peak once in every 10 years.

Calibration criterion: 296 m³/second for maximum flux of flood peak once in every 20 years.

3. Definitions for the cross sections

The cross section of the upper-stream (above the railway bridge) is natural river in mountainous areas.

The cross section of the mid-stream (between the railway bridge and Zhanbeilu Bridge) is in half rectangular and half echelon shape, with a bottom width of 25 meters, a side/slope ratio of 1:2 and a ceiling width of 5 meters. See the standard cross section plane for details.

The cross section of the lower-stream (below Zhanbeilu Bridge) is in a duplex echelon shape. The river will be dredged according to the calibration criterion for flood of 170 m³/second in every five years, and the dikes will be built according to the calibration criterion for flood in every 20 years. The top of the dikes will be five meters wide, and the area five meters from the feet of the dikes will be the green area. (Specific measurements will be defined separately.)

D. Project scale and investment

1. Scale of the Phase I project

The comprehensive project to renovate Zhoukoudian River will be completed in multiple phases. The Phase I project will cover the section from the railway bridge in the north of Zhoukoudian Village to Zhanbeilu Bridge (the section in front of Peking Man Site). The watercourse is 2350 m³ and the banks at both sides 4700 m³. The main construction work includes seven joint-arch water gates, seven culverts, one bridge and 4700 meters of protective coverage. The main workloads of the project (Phase I) are as follows:

The total workload of the project is 98,000 m³. Of which, there are 68,000 earthwork, 28,000 m³ grouting work and 2,000 m³ concrete work.

2. Investment on the Phase I project

Direct cost: RMB7.57 million

Indirect cost: RMB1.525294 million (gate opening and closing facilities, drainage, temporary structure, project reconnaissance and design, etc)

Other cost: RMB30,267.2

Total: RMB9.125561 million

E. Environmental assessment

Through comprehensive renovation, this river section will be further improved, with green trees planted on both banks and shaded long corridors to keep out the sun. The joint-arch gates will stop and retain the base water flow and form a water area of about 50,000 m². It will draw people closer to water and nature, provide them with leisure and recreation sites and turn the surrounding areas of Peking Man Site more elegant.

F. Project benefits

1. Raise the flood flow level and guarantee the lives and assets of people living on both sides of the river;
2. Change the sight of the waterway and make the surrounding areas of Peking Man Site more elegant;
3. Cut and retain the base flow of the river to solve irrigation problem for a part of the farmlands and fruit trees on both sides of the river; and
4. Supplement the underground water resource of Zhoukoudian area.

Compilation bases

1. Compilation bases:

- (1) Compositions and Calculation Criteria of Budgetary Estimates for Designing Water Conservancy and Hydro Power Projects, issued in Document No. 5 (1998) by the Ministry of Water Conservancy
- (2) Budgetary Norms for Water Conservancy and Hydro Power Construction Projects, the Ministry of Water Conservancy (1987)
- (3) Norms for the Cost of Machine Shift of Water Conservancy and Hydro Power Construction Machinery, the Ministry of Power and the Ministry of Water Conservancy (1991)
- (4) Document No. 10 (2002) of the circular on the issuance of the Stipulations on Regulating Fee Charging for Project Reconnaissance and Design.

2. Project investment:

Total investment is RMB9,125,561

Project Estimates Table

Project name: Mid-stream Zhoukoudian River comprehensive renovation project (Phase I)

No.	Project name	Unit	Quantity	Unit (Yuan)	Total (Yuan)
A	Principal part of the project				7566800
1	Earthwork	m ³	68000	12	816000
2	Grouting work	m ³	28354	200	5670800
3	Concrete work	m ³	2000	330	660000
4	Joint-arch gates	Set	7	60000	420000
B	Other projects				
	Construction management cost				
1	Management cost of construction units		1%		75668
2	Project supervision cost		2%		151336
3	Project construction management cost		15%		1135020
	Research, reconnaissance and design cost				
1	Research experiment cost		0.20%		15133.6
2	Reconnaissance design cost		2.0%		151336
C	Others		0.4%		30267.2
	Total project investment				9125561

Project Report on Afforestation in the Surrounding Areas of Peking Man Site and on Both Sides of the Road Section from Yancun Exit of Jing-Zhou (Beijing-Zhoukoudian) Expressway to Peking Man Site

Peking Man Site is situated on Dragon Bone Hill within the boundaries of Zhoukoudian Township of Fangshan District. It is 46 km from the city center. In 1961, it was designated as the state key cultural relic protection unit. In 1987, it was included into the World Natural and Cultural Heritage List by the UNESCO. On 16 August 2002, CAS and MGB signed an agreement to transfer Peking Man Site at Zhoukoudian to MGB for management. Since then, the latter is responsible for the protection, construction, management and popular science education in the protection area and construction control zones of the Site. To speed up afforestation in the surrounding areas of Peking Man Site and realize the MGB's aim to hold green and cultural Olympic Games in 2003, the Party Committee and the District Government of Fangshan attach great importance to the ecological environmental construction of this area. They plan to, starting from 2003, carry out a comprehensive renovation of the ecological environment of the surrounding areas of Peking Man Site at Zhoukoudian. The renovation will focus on two areas. The first is high-standard afforestation in the surrounding areas of Dragon Bone Hill, and the second is afforestation along both sides of the road section from Yancun Exit on Jing-Zhou Expressway of Jing-Shi Highway to Peking Man Site

1. Afforestation in the area of Dragon Bone Hill

Peking Man Site is situated on the Dragon Bone Hill of Zhoukoudian Township. It covers an area of 160 *Mu*, and has become a key target of protection. In its surrounding areas, there still remain barren hills, wasteland and deserted grounds of cement and lime plants. Governments at all levels have endeavored for many years to renovate the area. In 1984, certain cement plants were removed from the surrounding areas. To date, the ecological environment of the surrounding areas remains severe, which does not match the protection objectives of Peking Man Site. In order to fundamentally change the ecological environment in the surrounding areas of Peking Man Site, we have, based on the characteristics of the Site, followed the principles of appropriately planting proper trees and bio-diversity, adopted the technique of explosion to reclaim land for trees, and focused our effort on afforestation, so as to realize the objectives of protecting the Site of ancient man. We plan to, starting from 2003, plant 5700 *Mu* of trees in the surrounding areas of Peking Man Site, with 700,000 new trees. The planned investment of the project is RMB17.1 million. Of which, there will be RMB7 million for nursery stock, RMB7 million for land work (digging and refilling holes), RMB1 million for water and electricity, RMB1 million for planting and maintenance, and RMB1.1 million for other expenses. The project will last for three years.

After the completion of the project, the proportion of forest coverage in the project area will increase by 40 percentage points to arrive at 80%. Thus, the ecological environment of the project area will fundamentally improve. As a window of development of world civilization, Peking Man Site will receive visitors from home and abroad with a new image. It will inevitably play a positive role in promoting economic development of Zhoukoudian area, bring more wealth to farmers there, and effectively realize the objectives of protection, development and utilisation.

2. Afforestation along both sides of the road section from Yancun Exit on Jing-Zhou Expressway of Jing-Shi Highway to Peking Man Site

In order to strengthen management of Peking Man Site at Zhoukoudian, our district has formulated the Plan on Comprehensive Renovation of the Environment of Peking Man Site at Zhoukoudian and the Work Program in the Near Future for the Core Area of Peking Man Site at Zhoukoudian. It has also implemented an eight-item environmental restoration project of "three areas, one river, one belt and one industry". Of which, the one belt refers to the environmental belt from Yancun Exit on Jing-Zhou Expressway of Jing-Shi Highway to Peking Man Site. It is 17 km

long and covers four townships, namely, Liangxiang, Yancun, Chengguan and Zhoukoudian.

Based on the Planning Criteria for Scenic and Historical Spots, the Construction, Examination and Acceptance Criteria for Urban Afforestation, the Planning Criteria for Protecting Road Environment, the Design and Planning Criteria for Urban Roadside Afforestation, the Detailed Plan for the Control of the Center and the Industrial Zone of Chengguan of Yanfang Satellite City of Beijing, and the renovation plan for Zhoukoudian Street, we will build a 51-meter wide green belt on either side of the road. In the belt, we will construct a 31-meter wide green zone and a 20-meter wide green industry zone. To do so, we will follow the principle of planting proper trees according to specific characteristics of the locality and abided by the criteria and technical requirements of afforestation of “five rivers and ten roads”. We will combine beautification with afforestation, with restructuring of plants and benefits to farmers, and with improvement of local people’s living environment and providing leisure and recreation sites to people. We plan to plant 120,000 trees of various types and built a green land of 1.06 million m². The total project investment will be RMB39.6 million. The project will last for two years.

With the completion of the green belt afforestation project, the environment of the roadsides will be significantly improved. It will enhance the quality of Fangshan and create the landmark project of green Fangshan. It will also play an active role in promoting economic development of our district.

The afforestation of the above two projects will cover an area of 8300 *Mu*, with a total investment of RMB56.7 million. With the completion of the entire projects, the forests will constitute a part of the south-west bio-barriers of the capital city. They will not only provide green cultural and leisure sites for the general public of the capital city, but also become a key attraction in Beijing for green and cultural Olympic games, as well as a key attraction in the world.