Major Archaeological Discoveries of China in Recent Years

10th Anniversary

Handbook for Archaeology
1. 何謂「考古」?
What is ‘Archaeology’?

許多人以為考古就是挖寶，或是蒐集古董，其實並不正確。基本上，考古學是一門專門的科學，根據古人各種活動遺留下來的實物資料，經過發掘、整理及研究，認識人類古代社會的歷史、文化及生活。這些資料能夠補充文字記載，有些歷史上的謎團，更只有透過考古發掘才能找出答案。

以下是一些考古名詞及解釋，請將它們配對起來，考考你對考古學的基本認識：

Many people believe that archaeology is about hunting treasures or collecting antiques. Archaeology is in fact a specialised discipline of science. Through excavation, processing and research, artefacts tell us about the history, culture and lifestyle of ancient societies. The information we obtain can supplement written records. Some mysteries of history can only be solved through archaeological excavation.

Match the archaeological terms below to test your basic knowledge of archaeology:

1. 遺址  Site
2. 遺物  Relic
3. 文化層  Cultural Stratum
4. 田野考古  Field Archaeology
5. 水下考古  Underwater Archaeology

A. 在陸上進行的調查和考古發掘工作，是採取遺蹟和遺物資料的基本手段。Investigation and excavation carried out on land; a means to discover archaeological site and relics.

B. 同一地方不同時期人類生活的遺蹟，掩埋後在泥土中形成不同層次的堆積，每層代表一個特定時期。Relics left at the same site by people from different periods; during the course of time, one layer of relics was buried on top of another, forming strata. Each stratum represents a particular period.

C. 古代人類留下活動證據的一個區域，內裡包括遺物、遺蹟及人工建築結構等。An area with traces of ancient human activities, where relics, remains and architectural structures are found.

D. 在海中向海底進行的考古調查和探取遺物工作。Archaeological investigation and excavation carried out on the seabed.

E. 古人用過的物品。Objects used by the ancient people.
II. 尋找遺物
Finding Relics

在明白考古的意義後，我們便可開始尋找遺址及文物了。究竟如何開始尋找呢？首先可以翻查歷史文獻，以確定是否有相關記載及資料；又可查閱地方資料及新聞，以了解是否有發現文物碎片的先例。經過研究及考證，就可確定遺址的大概地點了。

以下是一幅展覽廳平面圖，上面標示了四件文物，你能根據提示找出他們，並寫下名稱嗎？

After understanding the meaning of archaeology, we can start looking for archaeological sites and relics. How to start? First, we can read through historical documents to find out if there are any related accounts or information. We can also turn to local sources of information and the news to see if fragments of cultural relics have been discovered at the site or nearby before. After investigation and research, we will know the rough location of the site.

Four relics are marked on the floor plan of the exhibition gallery below. Can you find them out with the hints and write down their names?

6. 文明探源
The Origins of Chinese Civilisation

提示：商代晚期文物，上有銘文「亞長」。
Hint: a relic from the late Shang dynasty inscribed with Chinese characters '亞長'.

7. 王陵風采
The Splendour of the Imperial Tomb Finds

提示：秦代文物，表現宮廷藝人的形象。
Hint: a relic from the Qin dynasty depicting a court acrobat.

8. 大唐風采
The Delightful Charm of the Tang Dynasty

提示：明代文物，有龍紋圖案。
Hint: a relic from the Ming dynasty with dragon design.

9. 水下珍寶
Underwater Treasures

提示：南宋文物，蓋、口及底部呈正六邊形。
Hint: a relic from the Southern Song dynasty with the lid, mouth and base in the shape of a hexagon.
III. 考古工具
Archaeological Equipment

在確定遺址後，我們便可以制定詳細的發掘計劃。考古遺址有不同類型，包括墓葬、居址、
騁址、古城等，又有田野和水下考古之分；配合不同類型，發掘方法並不一定相同，所需
工具便有差異。

以下一些工具，有些是田野考古用的，有些是專門水下考古用的，有些是不相關的，你能
分辨出來嗎？

After identifying the site, we can plan the excavation in detail. There are different types of
archaeological site, including tombs, villages, kilns and ancient cities. Besides,
archaeology is divided into field and underwater archaeologies. Different excavation
methods and equipment are used for different types of site.

Some of the equipment below is used in field archaeological excavation, some for under
water. There are also irrelevant items. Can you sort them out?

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Positioning System</td>
<td>Gun</td>
<td>Trowel</td>
<td>Theodolite</td>
<td>Working Vessel</td>
<td>Brush</td>
<td>Diving Equipment</td>
<td>Telescope</td>
</tr>
</tbody>
</table>

10. 田野考古工具
Equipment for field archaeology

11. 水下考古工具
Equipment for underwater archaeology
IV. 文物記載

Records of Relics

在考古工具的幫助下，我們終於發現遺址和文物了。但發現文物後，並非第一時間取走，而是先要做簡單的清理及記錄，以及繪圖和拍照，作為日後研究的根據。

你可以為下面三件文物做一個簡單的文物記錄卡嗎？

With the help of the excavation equipment, we have finally discovered the site and relics. We should not remove the relics from the site at once. Instead, we should first have a simple cleaning and recording of them, and then draw and take photographs for future reference.

Can you fill in the record cards for the three relics below?

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Site of Excavation</th>
<th>Year of Excavation</th>
<th>Material</th>
<th>State of Preservation</th>
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<tbody>
<tr>
<td>12.</td>
<td>玉人</td>
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<td>玉</td>
<td>Excellent / Damaged / With Traces of Repair</td>
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<tr>
<td>13.</td>
<td>三彩風帽俑</td>
<td></td>
<td></td>
<td>玉</td>
<td>Excellent / Damaged / With Traces of Repair</td>
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</tr>
<tr>
<td>14.</td>
<td>海獸葡萄紋銅鏡</td>
<td></td>
<td></td>
<td>紫銅</td>
<td>Excellent / Damaged / With Traces of Repair</td>
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</table>
V. 年代確定

Dating of Relics

在找到文物後，便要送到研究室進行分析及研究，以確認文物的年份、用途等資料。以下介紹兩種科學測定年代的方法：

After the relics have been excavated, they are sent to the laboratory for analysis and study in order to date the relics and identify their use. The following are two scientific dating methods to determine the age of a relic:

熱釋光斷代法
土壤含有天然放射性物質、各種無機晶體和礦物質。如果晶體被加熱，部分能量會以可見光的形式釋放出來，這種現象便是熱釋光。熱釋光斷代法可判斷古物距離最近一次加熱的時間，古物發出的熱釋光越強，年代就越遠，反之則屬較近期。

Thermoluminescent Dating
Natural radioactive substance, inorganic crystals and minerals can be found in soil. When the crystals are heated up, some of the energy will be released in the form of visible light. This phenomenon is called thermoluminescence. Thermoluminescent dating can be used to determine when a relic has been last heated up – the stronger the thermoluminescence, the older the relic, and vice versa.

15. 考考你 Test
你知道熱釋光斷代法通常用於鑑定哪類文物？
On which kind of relic is thermoluminescent dating applied?

碳14斷代法
即放射性碳素斷代法。隨著生物的死亡，體內的碳14得不到補充便會慢慢降低，通常以每隔約5,730年減少一半的速度遞減。只要測量有機物現存的碳14放射性水平，和它原始水平比較，便可計算出標本死亡的時間，從而得知有機物所在地層和遺蹟的年代。

Carbon-14 Dating
This method is also known as radiocarbon dating. After an organism dies, the amount of carbon-14 in the body decreases gradually because it is not replaced. Generally speaking, the amount of carbon-14 falls by half every 5,730 years. We can calculate the time of death of the specimen by measuring the present radioactivity of carbon-14 in the organic substance and comparing it with the initial level. In this way, the age of the stratum and the site can be worked out.

16. 考考你 Test
你知道碳14斷代法有甚麼缺點嗎？
What are the shortcomings of carbon-14 dating?

還有其他斷定年代的方法，試試在圖書館或互聯網上找尋詳細資料吧。
Go to the library or search from the Internet for further information on other dating methods.
VI. 文物保護
Preservation of Relics

每一個遺址、每一件遺物都是考古學家研究及追溯遠古文化的重要憑藉，所以它們一旦被破壞，那麼這塊土地過去的歷史，就有可能變成一片空白了。因此，我們一定要好好保存它們，愛護它們。

以下就有兩個反面例子，每題均有兩個錯誤，你能找出來嗎？

Every historical site and relic is immensely significant for archaeologists in their study of ancient civilizations. If these invaluable evidences are destroyed, we may never be able to learn about the history of our land. Therefore, we must preserve and protect our historical sites and relics.

Below are two bad examples and there are two mistakes in each. Can you spot them?

17. 有天，小強與兩個朋友隨便往村後山發掘，竟掘出數枚漢代五銖錢，於是小強據為己有。
One day, John and his two friends went digging on the hill behind the village. They dug up several Wuzhu coins from the Han dynasty. John then kept them for himself.

A __________________________________________

B __________________________________________

18. 工人用挖土機挖掘山坡時，發現許多散落的陶片和貝殼，但因為趕著下班，於是把混在泥土的文物用卡車運往別處傾倒。
When some workers were digging on a slope with a power shovel, they found pottery fragments and shells scattered around. The workers were eager to finish their work, so they transported the soil — and the relics — to another place by lorry and disposed them.

A __________________________________________

B __________________________________________
文物修復
Restoration of Relics

這是一個西周的"逹"盤，但出土時欠缺了三塊。你能從下面碎片中找出適當的碎片拼合，以回復它的原貌嗎？

It is a Lai pan basin from the Western Zhou dynasty, but three pieces were missing during excavation. Can you find out the correct pieces so as to restore its original look?

Lai is a noble in the Western Zhou dynasty. The Lai pan basin is a bronze water vessel with an inscription of 372 words about the history of the 12 Western Zhou kings.
模型製作
Model Making

下面是一幅秦代石甲冑的圖樣，請用剪刀沿邊慢慢剪下，再用膠水或膠紙將之拼合成立體模型，方便研究。你更可利用顏色筆畫上你喜愛的顏色及圖案呢！

Below is the drawing of the stone helmet from the Qin dynasty. Use the scissors to cut the pattern and use glue or adhesive paper to form this three-dimensional model for research purpose. You can even draw and paint the model in your favourite colour!
Helmet is used for protecting the head during wars in the ancient time. This helmet is made up of 74 plates in six layers. Most of the plates are trapezium in shape, with holes on all sides and corners for attachment.
答案 Answers:

9. 青釉鉄六棱壺 Ewer with Handle and Six Flanges In Bluish White Glaze  10. C, D, F  11. A, E, G
12. 安徽省壽縣楚畫家墓址 Lingjiatian, Hanshan County, Anhui Province; 1996; 黃嘉 Excellent  13. 陶 Pottery; 黃嘉 Excellent
14. 浙江省杭州市雷峰塔塔底 The Crypt of Leifeng Pagoda, Hangzhou City, Zhejiang Province; 銅銅Bronze; 黃嘉 Excellent
15. 墨器、瓷器和其他用火燒過的黏土器皿 Pottery ware, porcelain ware and other clay objects which have been fired
16. 可測的年代只由數千年至數萬年；假定地球的碳14永遠處於同一水平；樣本身的採集或實驗過程可能影響測試結果 This dating method is only applicable to relics that are a few thousand to one hundred thousand years old; the method is based on the assumption that the Earth's carbon-14 level is always constant; the specimen itself, the way it has been collected or the experiment procedures may affect the test results.
17. A. 出土文物歸國家所有，不能私自擁有 Unearthed cultural relics belong to the government. Private possession is not allowed；
   B. 未領有發掘牌照，不能隨便進行發掘 Excavation can only be carried out with an excavation license.
18. A. 未經政府許可，不能私自挖掘山坡 Without permission from the government, digging on slopes is not allowed；
   B. 如發現可疑文物，應通知政府有關部門跟進 If suspected relics are discovered, relevant government departments should be informed.

恭喜你！經過以上測試後，相信你對考古工作應該有更多的認識。如果想知道內地及香港有關考古的最新資訊，可以瀏覽以下網址：

Congratulations! After completing the above tests, you should have a better understanding of archaeological work. If you would like to have the latest information on archaeology in Mainland China and Hong Kong, you may wish to visit the following websites:

國家文物局 State Administration of Cultural Heritage
http://www.sach.gov.cn/

中國社會科學院考古研究所 The Institute of Archaeology, Chinese Academy of Social Sciences
http://www.archaeology.net.cn/

古物古蹟事務處 Antiquities and Monuments Office
http://www.amo.gov.hk/

香港考古學會 Hong Kong Archaeological Society
http://www.hkarch.org/
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Organised by the Hong Kong Museum of History and the Art Exhibitions China

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http://hk.history.museum