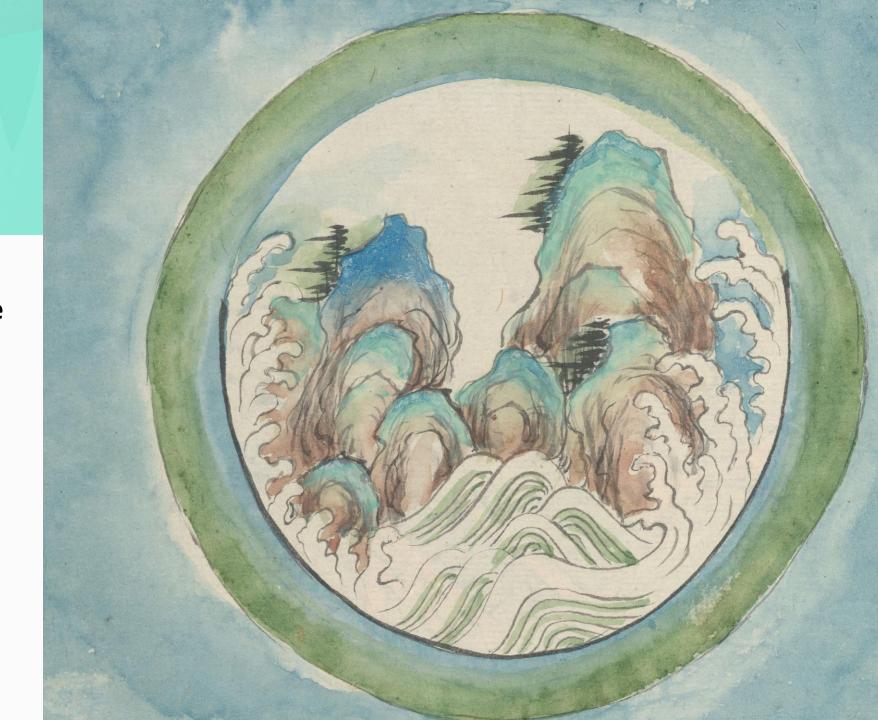


The Sally T. WongAvery Digital Collection of Chinese Materials at Cambridge University:

Digitisation, Cataloguing, Metadata Creation and Content Overview

Yan He and Błażej Mikuła









* / View all collections / WongAvery Collection of Chinese Materials

Sally T. WongAvery Digital Collection of Chinese Materials

66 要知天下事,须读古人书。

To know all that happens under the sun, be sure to read books by our ancestors."

- Feng Menglong, Stories to Awaken the World



The Sally T. WongAvery Digital Collection of Chinese Materials grows out of the WongAvery East Asian Collections Collaboration between Cambridge University Libraries and UC San Diego Library (June 2023 to June 2026).

This digitisation project has been made possible through the generous sponsorship of the Avery-Tsui Foundation in honour of Sally T. WongAvery. With their support, we have been able to preserve and share digitally an array of items from the University Library's Chinese collections, which are now accessible for the first time to both scholars and the public worldwide. We believe that this project will have a profound impact on research in fields such as history, archaeology, palaeography, linguistics, art, religion and geography, while simultaneously expanding opportunities for scholarship, education, and engagement with collections.

The selection of materials for digitisation has been carefully curated to represent premodern and late imperial history of China and highlight significant moments and developments in Chinese culture and intellectual life. The collection includes oracle bones, the earliest known form of Chinese writing, offering a window into ancient Chinese divination practices and valuable insights into language development. The rare books and manuscripts encompass some important literary, artistic, and historical texts from different periods. We have also chosen to digitise a selection of single-sheet prints and documents, maps as well as an array of hanging scrolls and examples of Chinese calligraphy. This selection of diverse materials is but a glimpse into the breadth and the significance of the Chinese collections at Cambridge University Library, which reflect the intellectual, artistic, religious and cultural history of China over millennia.



c 1 2 3 4 5 ... 79 s

Over three thousand years old, the Chinese Inscribed Oracle Bones in the Hopkins Collection are by far the oldest written ...



剑桥大学金璋甲骨收藏 (CUL2)

Over three thousand years old, the Chinese Inscribed Oracle Bones in the Hopkins Collection are by far the oldest written ...



剑桥大学金璋甲骨收藏 (CUL3)

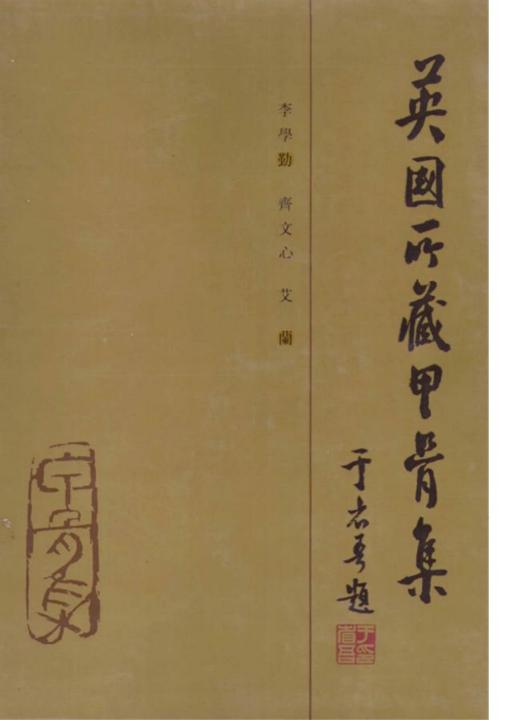
Over three thousand years old, the Chinese Inscribed Oracle Bones in the Hopkins Collection are by far the oldest written ...



剑桥大学金璋甲骨收藏 (CUL4)

Over three thousand years old, the Chinese Inscribed Oracle Bones in the Hopkins Collection are by far the oldest written ...





Oracle Bones at Cambridge (Hopkins collection)

Over 800 oracle bones in Chinese collection

Mostly purchased during 1908-1912 in Weixian, donated to CUL by Lionel Hopkins during 1950s

614 rubbings (477 bones and 137 shells) published in 1985

3 digitised 3D oracle bones in 2015



Hopkins Archive

- Two boxes of archives housed at Manuscript Department.
- Over 300 letters from Frank Chalfant,
 Percival Yetts, etc. to Hopkins.
- A large number of personal manuscripts, treatises, tracings regarding Hopkins bones.





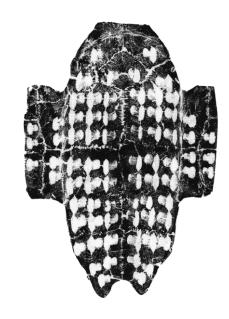


Front Side:

- 1. Cracks
- 2. Inscriptions
- 3. Pigments

Back Side:

- 1. Drills
- 2. Hollows
- 3. Burning marks



Oracle Bone Studies

- Typology, Classification, Dating
- Paleography, Phonology, Linguistics
- History, Geography,
 Economics, Religion, etc...
- Archeological, Forensic Studies



MS-CHI-BONES-CUL-00001

- Metadata for CUL1:
- Physical Location: Cambridge University Library
- Classmark: CUL1
- Alternative Title(s): Hopkins Oracle Bone Collection CUL1
- Subject(s): Inscriptions, Chinese; China -- Civilization; Astronomy and Calendar
- Origin Place: Yinxu 殷墟, Anyang 安阳 (China)
- Date of Creation: 1400-1200 BCE
- Language(s): Chinese
- Former Owner(s): <u>Hopkins, Lionel Charles, 1854-1952</u>
- Note(s): Full list of contents; The inscription on the verso has been identified as the lunar eclipse of 27-28 December 1192 BC (Dubs 1951, Chou 1965). Other possibilities include the eclipses of 24 November 1311 BC (董作宾 1950, Pang 1989) and 16 November 1218 BC. See especially 张培瑜 1999:3 p.60.; This bone bears an inscription which has been identified as the lunar eclipse of 27-28 December 1192 BCE.;
- Theme: <u>Astronomy and Calendar</u>
 Physical description: Inscriptions on obverse partially damaged.
- Extent: height: 115 mm, width: 23 mm, depth: 9.5 mm. Weight: 14.7 g
- Material: Ox scapula
- Script:
- 甲骨文 Jiaguwen
- **Provenance:** Bequeathed to the University Library by Lionel Charles Hopkins (1854-1952) in 1952. Purchased by Hopkins from Frank Herring Chalfant (1862-1914).



Taiping Collection 太平天國收藏

С	D	E	F	G	
Title	Alternative Title	Author	VIAF ID	Note	L
太平救世歌	Tai ping jiu shi ge			框19 x 11.6公分,10行24字,白口,左右雙邊,單黑魚原	₹
太平救世誥	Tai ping jiu shi ga	0		框19.4 x 11.5公分,10行24字,白口,左右雙邊,單黑魚	à.
詔書蓋璽頒行論	Zhao shu gai xi ba	吳容寬 Wu, Rongki	ıan	框19.1 x 11.6公分,10行24字,白口,左右雙邊,單黑魚	à.
天父詩	Tian fu shi	洪秀全 Hong, Xiuqu	7219417	框17 x 11.6公分,5行7字,白口,左右雙邊,單黑魚尾,	
太平天日	Tai ping tian ri	洪秀全 Hong, Xiuqu	7219417	框20.8 x 13公分,8行20字,白口,四周單邊,單黑魚尾	,
資政新篇	Zi zheng xin pian	洪仁玕 Hong, Reng	5799561 ⁻	框18.8 x 11.6公分,10行24字,白口,左右雙邊,單黑魚	à.
天父天兄天王太平	Tai ping tian guo j	洪仁玕 Hong, Reng	5799561 ⁻	框19 x 12公分,10行24字,白口,四周單邊,單黑魚尾。)
誅妖檄文	Zhu yao xi wen	洪仁玕 Hong, Reng	5799561 ⁻	框20.7 x 13公分,8行20字,白口,四周單邊,單黑魚尾	,
欽定軍次實錄	Qin ding jun ci shi	lu		框20.9 x 13公分,8行20字,白口,四周單邊,單黑魚尾	,
欽定英傑歸真	Qin ding ying jie g	洪仁玕 Hong, Reng	5799561 ⁻	框20.3 x 12.6公分,8行20字,白口,四周單邊,單黑魚	厚
太平詔書	Tai ping zhao shu			框18.2 x 11.2公分,9行22字,白口,左右雙邊,單黑魚	Ę
天父下凡詔書	Tian fu xia fan zha	楊秀清 Yang, Xiuqi	8757081	框20 x 11.8公分,9行22字,白口,左右雙邊,單黑魚尾	,

Metadata Schema:

- VIAF for name authority
- LCSH for subject headings
- Internal Search/Local SH/NAF

Way of uploading and revise metadata:

- TEI/XML in Oxygen
- Uploading spread sheet with scripts written by CDL colleagues
- · Revise directly in the CUDL loader





XML Metadata template (TEI standard) for cataloging rare books

Tag Name (TEI)	Field displayed in CUDL	Content	Tag and content displayed in CUDL
<title>太平天日</title>	Uniformed Title	太平天日	brief view in the search result)
<title type="alt">Tai ping tian ri</title>	Alternative Title(s)	Tai ping tian ri	Alternative Title(s): Tai ping tian ri
<author> <persname <="" key="person_v72194171" person_v74620220"="" ref="http://viaf.org/viaf/74620220" td=""><td>Former Owner(s)</td><td>Wade, T. F. (Thomas Francis), 1818-1895</td><td>Former Owner(s): Wade, T. F. (Thomas Francis), 1818-1895</td></persname></author>	Former Owner(s)	Wade, T. F. (Thomas Francis), 1818-1895	Former Owner(s): Wade, T. F. (Thomas Francis), 1818-1895
<textlang mainLang="chi">Chinese</textlang 	Language(s)	Chinese	Language(s): Chinese
<note> 框20.8 x 13公分,8行20字,白口, 四周單邊,單黑魚尾,版心上鐫書名。 <lb></lb> </note>	Note(s)	框20.8 x 13公分 ,8行20字,白口 ,四周單邊,單 黑魚尾,版心上 鐫書名。	Note(s): 框20.8 x 13公分,8 行20字,白口,四周單邊, 單黑魚尾,版心上鐫書名。







[滿漢雙文雍正特恩誥命碑]

Classmark: (FH.990.137(1)-(4))



TEI/XML for rubbing collection

Examples of various features we use:

- Decoration: e.g. linkable seals. <DecoDesc> and <decoNote>
- 2. Multi-parts for one item (classmark): <msPart>
- Table of Contents (linkable):
 <msContents>,<msItem>
- 4. Thumbnails (linkable): <facsimile><Graphic><surface> (automatically generated in CUDL)
- 5. Transcription: <text><div>,<pb>,,<lb/>

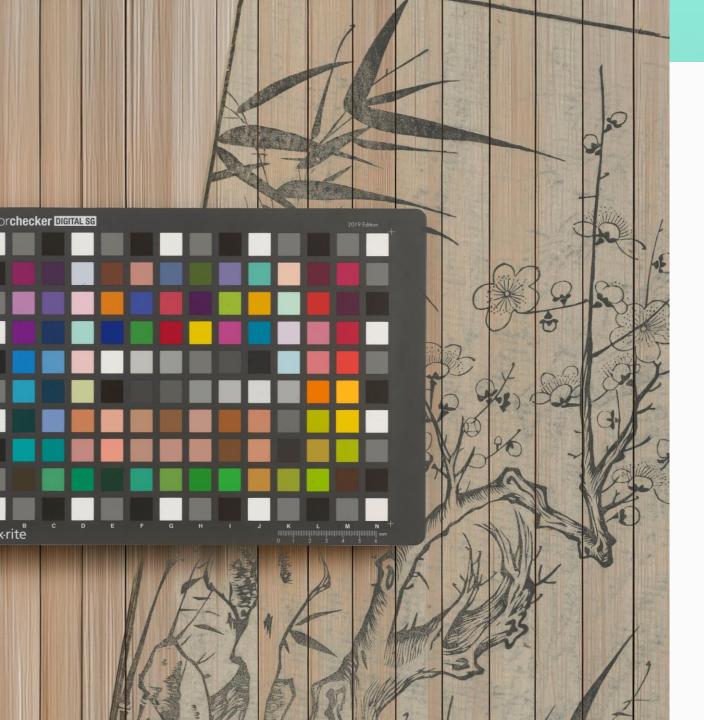


芥子園畫譜:草蟲花卉譜 (FH.910.217)









Cultural Heritage Imaging Laboratory

- Colour accuracy (using ΔE 2000 metrics)
- Illumination uniformity
- ICC profiles (basICColor)
- Phase One IQ4 (100 and 150)

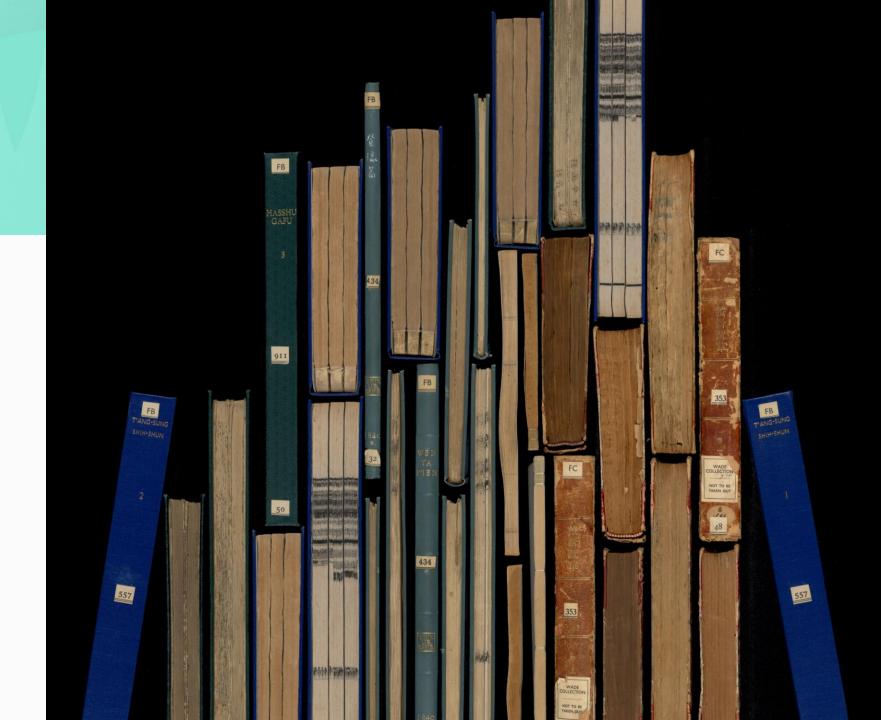


Assessment of Rare Books and Manuscripts

- Single shot (Conservation cradle)
- Scrolls and Rubbings (XYZ table)
- Openings (Bungee cradle)
- Oracle bones (Copy stand)



Head Tail Fore-edge Spine





Openings

Bungee cradle





Large items

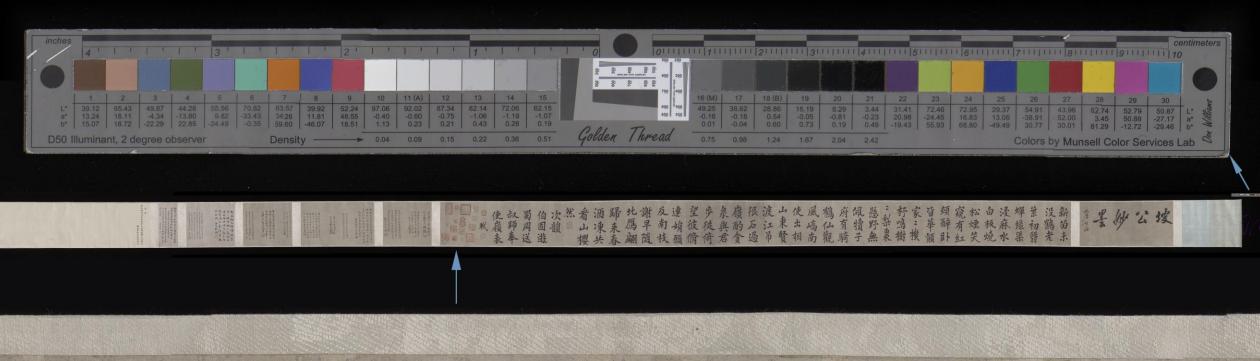
MS-FH-00990-00143

Images: 15

Stitched image: 2.69GB Tiff

Resolution: 19492px x 46008px





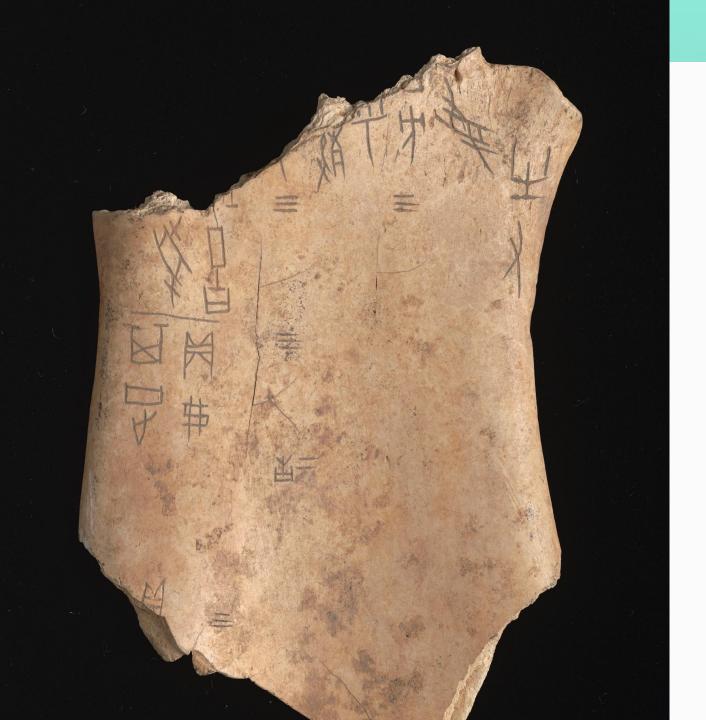






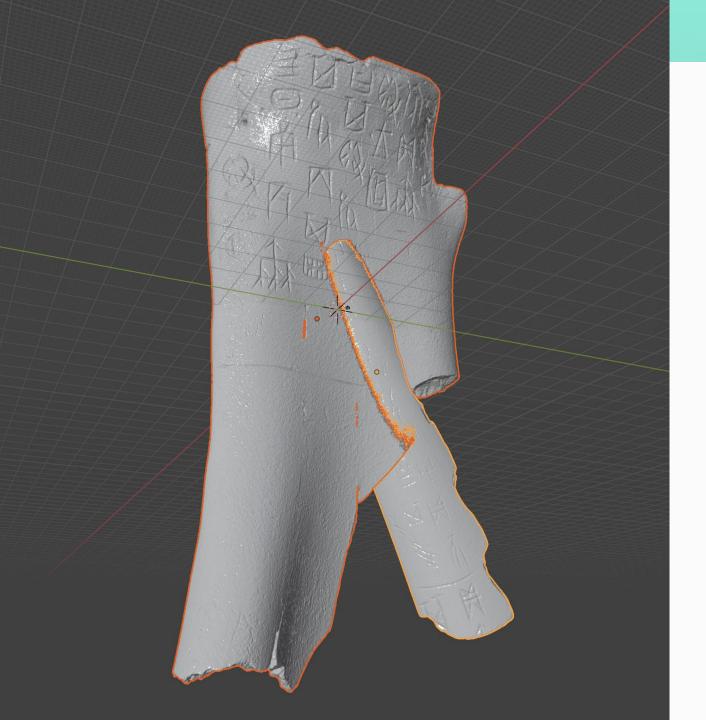
Oracle Bone Access Protocol

- No oracle bones should be moved unnecessarily
- Please handle oracle bones wearing nitrile gloves



Photography

- Raking light: photographic technique where light is cast at a shallow angle across a surface to emphasize texture and surface details.
- Focus stacking: photographic technique that combines multiple images taken at different focus distances to produce a final image with greater depth of field and sharpness throughout.



3D scan

- Artec Eva: accuracy: Up to 0.1 mm
- Cross-polarized texture



- Detailed Analysis Without Physical Handling
- Virtual Reconstruction
- Augmented Reality and Virtual Reality
- Publication and Visualization
- Remote Collaboration





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CUL 39-40



CUL 29



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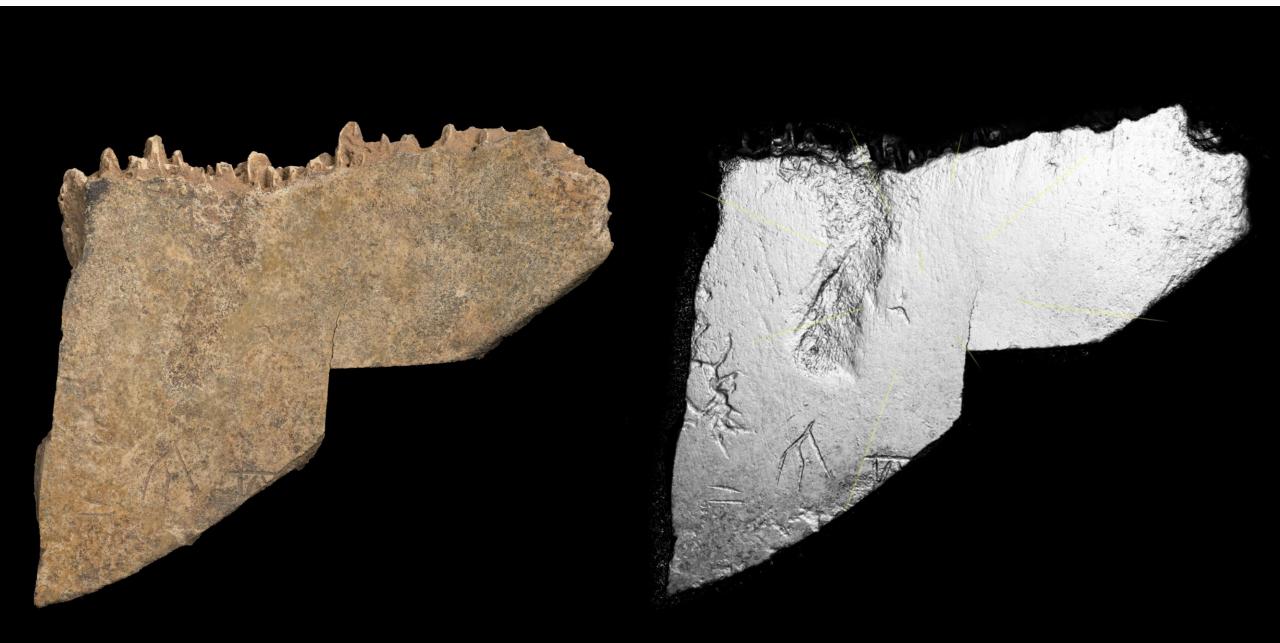




RTI (Reflectance Transformation Imaging)

 Computational technique that captures how light interacts with a surface from multiple angles to reveal fine details, textures, and surface variations not visible under standard lighting







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