



Anonymous ACL submission

Abstract

Understanding historical and cultural artifacts demands human expertise and advanced computational techniques, yet the process remains complex and time-intensive. While large multimodal models offer promising support, their evaluation and improvement require a standardized benchmark. To address this, we introduce *TimeTravel*, a benchmark of 10,250 expert-verified samples spanning 266 distinct cultures across 10 major historical regions. Designed for AI-driven analysis of manuscripts, artworks, inscriptions, and archaeological discoveries, TimeTravel provides a structured dataset and robust evaluation framework to assess AI models’ capabilities in classification, interpretation, and historical comprehension. By integrating AI with historical research, TimeTravel fosters AI-powered tools for historians, archaeologists, researchers, and cultural tourists to extract valuable insights while ensuring technology contributes meaningfully to historical discovery and cultural heritage preservation. We evaluate contemporary AI models on TimeTravel, highlighting their strengths and identifying areas for improvement. Our goal is to establish AI as a reliable partner in preserving cultural heritage, ensuring that technological advancements contribute meaningfully to historical discovery.

1 Introduction

In recent years, Large Multimodal Models (LMMs) have made significant strides in visual reasoning, perception, and multimodal understanding. Models such as GPT-4V (OpenAI, 2024) and LLaVA (Liu et al., 2023) have excelled in image captioning, visual question answering (VQA), and complex visual reasoning, driving the development of benchmarks (Chiu et al., 2024; Nayak et al., 2024; Alwajih et al., 2024) to assess their capabilities. These benchmarks predominantly focus on modern objects, cultural landmarks, and textual sources, extending multimodal AI applications to domains

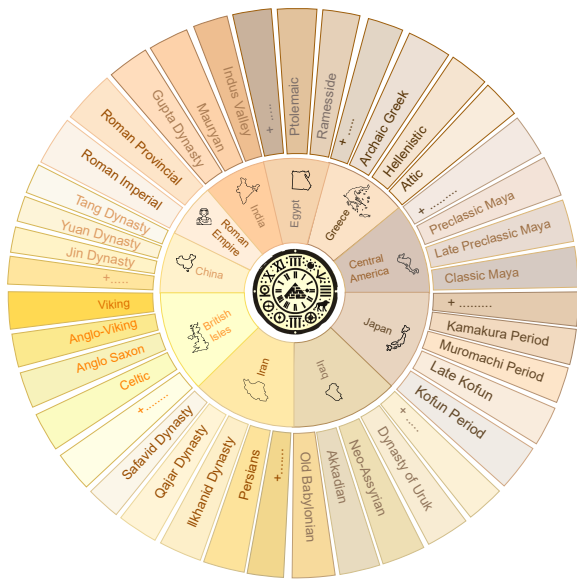


Figure 1: TimeTravel Taxonomy categorizes artifacts from 10 major civilizations, spanning diverse historical and prehistoric periods. It encompasses 266 distinct cultures and over 10k manually verified historical artifact samples, providing a structured framework for comprehensive AI-driven analysis.

such as medical imaging, remote sensing, and real-world scene understanding (Ghaboura et al., 2025). However, a critical gap remains—LMMs fail to address the historical dimension of visual data, particularly artifacts that shaped human civilization.

Historical artifacts, from ancient manuscripts and inscriptions to architectural ruins and cultural symbols, offer invaluable insights into the evolution of societies, artistic expression, and technological advancements. These artifacts preserve cultural heritage and serve as primary sources for understanding belief systems, trade networks, and socio-political structures of past civilizations. However, interpreting them requires deep contextual knowledge, which current LMMs struggle to achieve, particularly in non-English and non-Western historical contexts. While some models have been extended to low-resource languages to bridge cul-



Figure 2: **TimeTravel Samples.** Showcasing diverse cultural representations from various regions across the globe, these examples span multiple artifact categories, including coins, accessories, tools, and statues from ancient civilizations. Each artifact is accompanied by a detailed description, providing valuable contextual and historical insights. Additional TimeTravel examples can be found in Fig.7 and Fig.8.

tural gaps (Heakl et al., 2025), they lack systematic capabilities to analyze artifacts from diverse civilizations. This limitation highlights the urgent need for a specialized benchmark that evaluates AI’s ability to process and understand historical artifacts with cultural and temporal awareness. To address this challenge, we introduce TimeTravel, an open-source comprehensive benchmark (see Table 1) for evaluating LMM performance in historical artifact analysis across diverse civilizations. TimeTravel encompasses several major ancient and prehistoric civilizations across 10 distinct regions, spanning 266 cultural groups. It offers a structured taxonomy tailored for AI-driven historical research (see Fig. 1). Unlike existing benchmarks that focus on generic object recognition, TimeTravel prioritizes historical knowledge, contextual reasoning, and cultural preservation, making it a pioneering effort in multimodal AI evaluation. The benchmark consists of over 10k curated samples, each accompanied by high-quality images of manuscripts, inscriptions, sculptures, paintings, and archaeological discoveries. These samples assess key aspects of multimodal understanding, including visual perception, contextual reasoning, and cross-civilizational knowledge. Meticulously verified by historians and archaeologists, the dataset ensures accuracy, cultural relevance, and historical integrity. By evaluating both closed- and open-source LMMs on TimeTravel, we aim to identify their strengths and limitations in handling historically significant artifacts, paving the way for AI models that contribute meaningfully to cultural heritage preservation and historical analysis.

2 The TimeTravel Dataset

2.1 Data Collection

Our research is based on a well-structured and meticulously curated dataset sourced from museum

Domain	British Museum	MMMU	Oracle-MNIST	Ithaca	Kao Kore	HUST-OBS	TimeTravel (ours)
Hist. Artifact Recog.	✓	✗	✗	✗	✓	✗	✓
Geographic Region	✓	✗	✗	✓	✓	✗	✓
Ancient Artifacts	✓	✗	✗	✗	✗	✗	✓
Contextual History	✗	✗	✗	✗	✗	✗	✓
Image-Text Pairs	✓	✓	✗	✗	✗	✓	✓
Open-Source	✗	✓	✓	✗	✓	✓	✓

Table 1: The comparison of datasets and benchmarks for historical and cultural artifacts, evaluating features like **artifact recognition**, **geographic coverage**, **multimodal understanding**, and **metadata inclusion** with existing data such as British Museum (Tully, 2020), MMMU (Yue et al., 2024), Oracle-MNIST (Wang and Deng, 2022), Ithaca (Assael et al., 2022), KaoKore (Tian et al., 2020), HUST-OBS (Wang et al., 2024). TimeTravel stands out as the most comprehensive benchmark, uniquely integrating multimodal data, historical context, and a dedicated focus on ancient artifacts to support AI-driven cultural heritage research.

collections, which houses an extensive collection of artifacts from diverse civilizations. From this vast repository, we compiled a dataset spanning 266 cultural groups, allowing the analysis of cultural, technological, and social developments over a broad historical timeline.

To ensure the integrity of our benchmark, we followed a systematic data collection process. We first identified key civilizations and historical periods relevant to our study, then collaborated closely with experts to validate the authenticity and completeness of each record. As a result, our dataset comprises 10,250 carefully curated samples (see Fig 2). Each entry—ranging from artifacts and inscriptions to ancient manuscripts—was meticulously verified by historians and archaeologists, ensuring accuracy and reliability. By incorporating data from multiple civilizations, our benchmark provides a diverse and comprehensive perspective, avoiding the limitations of a single historical narrative while preserving the historical context for in-depth analysis. This meticulous approach allows us to reveal significant patterns in human history, offering valuable insights into the evolution of human history and civilizations over time.

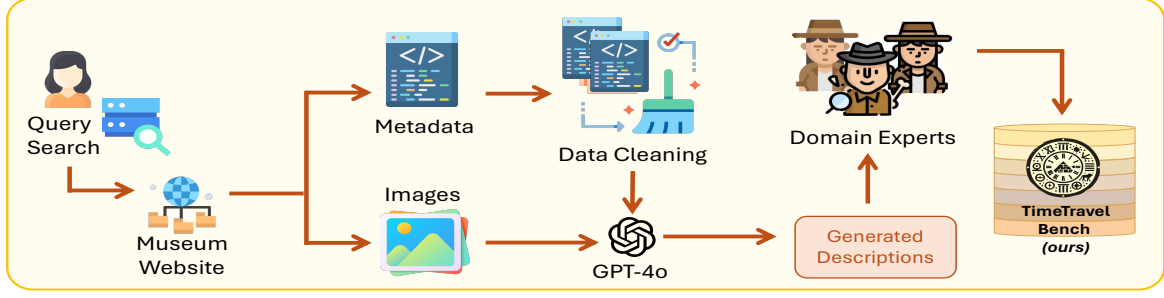


Figure 3: **TimeTravel Data Pipeline.** A structured workflow that collects image and text data from museum websites, cleans metadata, and integrates it with visual content. The GPT-4o model generates detailed, context-aware descriptions, which are refined by experts for accuracy before forming the TimeTravel Benchmark.

2.2 Image-Text pair Generation

The dataset features a diverse range of historical objects, ensuring comprehensive documentation and contextual understanding. However, many metadata fields—such as title, iconography, and date—were missing or incomplete. To address this, we employed GPT-4o to generate detailed, context-aware textual descriptions based on the available metadata (see Fig. 5 and 6). To further enhance usability, we structured these descriptions into image-text pairs, ensuring that each artifact is not only visually documented but also enriched with contextual and cultural insights. By improving multimodal model compatibility and supporting digital archiving, this approach strengthens research in cultural heritage preservation while bridging gaps in existing records.

2.3 Data Filtering and Verification

To guarantee the accuracy and reliability of our dataset, we implemented a rigorous data filtering and verification process (Fig. 3). This process combined manual expert validation with automated techniques to eliminate inconsistencies, fill in missing details where possible, and authenticate historical records. During data cleaning, we addressed missing or incomplete metadata—such as titles, dates, and iconography—by cross-referencing museum archives, academic sources, and expert insights. Unavailable key information was transparently documented. Additionally, automated checks identified formatting inconsistencies, metadata mapping errors, and numerical anomalies, ensuring a structured and standardized dataset. For verification, we collaborated with historians, archaeologists, and museum curators to review each artifact’s description, cultural attribution, and historical significance. Expert validation ensured that generated textual descriptions were accurate, contextually relevant, and aligned with histori-

cal records. This rigorous process enhances the dataset’s credibility, making it a valuable resource for historical research, machine learning, and cultural heritage preservation while ensuring reliable insights into human history. Additional details are presented in Appendix (Sec. D).

3 TimeTravel Benchmark Evaluation

Evaluation Metric: To assess the quality, accuracy, and relevance of our generated textual descriptions, we employed a combination of traditional and advanced metrics. BLEU (Papineni et al., 2002) and ROUGE-L (Lin, 2004) evaluate linguistic fluency and structural similarity, ensuring syntactic alignment with reference texts. METEOR (Banerjee and Lavie, 2005) enhances this by incorporating synonym matching and paraphrasing, improving adaptability to human variations. SPICE (Anderson et al., 2016) assesses semantic accuracy through scene graph analysis, preserving object relationships and cultural context. Additionally, BERTScore (Zhang et al., 2019) offers a deep learning-based evaluation of semantic similarity, capturing contextual meaning beyond simple word overlap. LLM-Judge further enhances assessment by evaluating coherence, factual accuracy, and contextual appropriateness.

Results and Analysis: Our evaluation of closed-source and open-source models on the TimeTravel dataset reveals clear differences in their ability to generate historically accurate descriptions (see Table 2). Among closed-source models, GPT-4o-0806 achieved the highest BLEU (0.1758), ROUGE-L (0.1230), SPICE (0.1035), BERTScore (0.8349), and LLM-Judge score (0.3013), indicating superior semantic alignment and contextual richness. However, its lower METEOR score (0.2439) suggests that while it generates highly structured descriptions, they may lack word-level diversity and fluency. GPT-4o-mini-0718, de-

	Model	BLEU	METEOR	ROUGE-L	SPICE	BERTScore	LLM-Judge
Closed	GPT-4o-0806 (OpenAI, 2024)	0.1758	0.2439	0.1230	0.1035	0.8349	0.3013
	Gemini-2.0-Flash (Reid et al., 2024)	0.1072	0.2456	0.0884	0.0919	0.8127	0.2630
	Gemini-1.5-Pro (Reid et al., 2024)	0.1067	0.2406	0.0848	0.0901	0.8172	0.2276
	GPT-4o-mini-0718 (OpenAI, 2024)	0.1369	0.2658	0.1027	0.1001	0.8283	0.2492
Open	Llama-3.2-Vision-Inst (Meta AI, 2024)	0.1161	0.2072	0.1027	0.0648	0.8111	0.1255
	Qwen-2.5-VL (Team, 2025)	0.1155	0.2648	0.0887	0.1002	0.8198	0.1792
	Llava-Next (Liu et al., 2024)	0.1118	0.2340	0.0961	0.0799	0.8246	0.1161

Table 2: Performance comparison of various closed and open-source models on our proposed TimeTravel benchmark.

	Model	India	Roman Empire	China	British Isles	Iran	Iraq	Japan	Central America	Greece	Egypt
Closed	GPT-4o-0806	0.2491	0.4463	0.2491	0.1899	0.3522	0.3545	0.2228	0.3144	0.2757	0.3649
	Gemini-2.0-Flash	0.1859	0.3358	0.2059	0.1556	0.3376	0.3071	0.2000	0.2677	0.2582	0.3602
	Gemini-1.5-Pro	0.1118	0.2632	0.2139	0.1545	0.332	0.2587	0.1871	0.2708	0.2088	0.2908
	GPT-4o-mini-0718	0.2311	0.3612	0.2207	0.1866	0.2991	0.2632	0.2087	0.3195	0.2101	0.2501
Open	Llama-3.2-Vision-Inst	0.0744	0.145	0.1227	0.0777	0.2000	0.1155	0.1075	0.1553	0.1351	0.1201
	Qwen-2.5-VL	0.0888	0.1578	0.1192	0.1713	0.2515	0.1576	0.1771	0.1442	0.1442	0.2660
	Llava-Next	0.0788	0.0961	0.1455	0.1091	0.1464	0.1194	0.1353	0.1917	0.1111	0.0709

Table 3: Analysis of LLM-Judge evaluation of various models in describing archaeological artifacts across civilizations from different geographical locations. Additional comparisons are presented in Appendix (Table 4).

spite scoring slightly lower in BLEU (0.1369) and ROUGE-L (0.1027), outperformed all models in METEOR (0.2658), highlighting its strength in producing more lexically diverse and well-formed outputs. Gemini-2.0-Flash and Gemini-1.5-Pro, while achieving moderate performance across all metrics, demonstrated weaker lexical alignment (BLEU: 0.1072, 0.1067) and semantic coherence (BERTScore: 0.8127, 0.8172), suggesting that they may struggle with historical specificity and structured descriptions. Among open-source models, Qwen-2.5-VL performed the best, achieving higher BLEU (0.1155), METEOR (0.2648), and SPICE (0.1002) compared to its counterparts. These scores indicate a better balance between fluency and contextual accuracy, making it a strong contender despite being an open-source model. Llama-3.2-Vision-Inst and Llava-Next, however, showed lower SPICE (0.0648, 0.0799) and LLM-Judge scores (0.1255, 0.1161), suggesting difficulties in capturing object details and historical context.

Table 3 presents the LLM-Judge evaluation of models in describing archaeological artifacts across civilizations from different geographic regions. GPT-4o-0806 outperformed other models in describing archaeological artifacts, excelling in regions like the Roman Empire, Iran, Iraq, and Egypt, indicating strong contextual understanding. GPT-4o-mini-0718 and Gemini-2.0-Flash showed strengths in India, Central America, and China, but with some limitations. Among open-source models, Qwen-2.5-VL performed best in Iran, the British Isles, and Egypt, though overall, closed-source models provided more accurate historical

descriptions. Additional analysis based on the METEOR score is presented in Appendix (Table 4).

Overall, closed-source models outperform open-source models in generating context-aware descriptions, but ongoing improvements in open-source models highlight opportunities for fine-tuning and dataset expansion. These findings will guide further model enhancements, advancing AI-driven historical analysis and cultural heritage preservation.

4 Conclusion

We present the TimeTravel dataset, a curated collection of historical artifacts from 10 cultural regions, extensively curated by domain experts. We developed a rigorous data collection, filtering, and verification process, ensuring accuracy and completeness. Using GPT-4o, we generated detailed textual descriptions, making the dataset more accessible and valuable for AI-driven historical research. Our evaluation, using BLEU, METEOR, ROUGE-L, CIDEr, SPICE, BERTScore, and LLM-Judge, showed that closed-source models outperformed open-source alternatives, though open models are rapidly improving. Our analysis highlights the potential of LLMs in bridging gaps in historical records while maintaining academic integrity. By leveraging AI-driven methodologies, this work sets the foundation for advancing cultural heritage preservation and enhancing digital humanities research, ensuring greater accessibility and accuracy in historical documentation.

5 Limitations and Societal Impact

While this research demonstrates the potential of LMMs in enhancing historical documentation, the quality of generated descriptions depends on the completeness and accuracy of the input data. In cases where historical records are fragmented or ambiguous, AI-generated text may lack full contextual depth. Additionally, biases present in training data can influence how models interpret and describe cultural artifacts, necessitating continuous evaluation and expert validation to ensure historical accuracy and cultural sensitivity. Despite these challenges, this research contributes to cultural heritage preservation, educational accessibility, and AI-driven humanities research. By digitizing and enriching historical records, it enables wider public engagement with history, supports museum digitization efforts, and provides a foundation for future advancements in AI-assisted historical analysis, bridging the gap between technology and human expertise in understanding our collective past.

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A Appendix

In this appendix, we provide additional details to support our research, including related work, data statistics, and a comprehensive overview of archaeological samples from various cultures, civilizations, and dynasties. The related work section provides a review of existing research in AI-driven historical text generation, contextualizing our contributions within the broader field. The data statistics section offers a structured breakdown of collected samples, highlighting their geographical distribution and cultural significance. Additionally, the inclusion of archaeological records from diverse historical periods reinforces the depth and diversity of the dataset.

B Related Work

Recent years have seen significant progress in studying cultural representation in AI, particularly in behavioral patterns, food, landmarks, and historical knowledge. However, most works focus on misalignment and biases in AI models or modern cultural trends, rather than positioning artifacts within their historical context and era across ancient civilizations. Meanwhile, studies on cultural inclusion in LLMs highlight the challenges of capturing the contextual and multifaceted nature of culture, emphasizing the limitations of text-based models in representing underrepresented cultures and the need for more robust evaluation methods (Adilazuarda et al., 2024).

Research on cultural influences in AI has increasingly focused on biases and misalignment in language models, particularly how they reflect and perpetuate dominant cultural norms. Early research on cultural biases in LLMs revealed their alignment with Western norms, particularly in moral reasoning, historical narratives, and societal values. Ramezani et al. (2023) analyze how monolingual English language models tend to reflect Western moral norms more strongly than diverse cultural perspectives, limiting their applicability in cross-cultural ethical contexts (Ramezani and Xu, 2023). Tao et al. (2024) further highlight the overrepresentation of Anglo-American and Protestant European values in AI-generated content, often underrepresenting non-Western traditions and belief systems (Tao et al., 2024). Similarly, Bu et al. (2025) explore value misalignment in cultural heritage-related text generation, warning of historical inaccuracies, cultural identity erosion,

and oversimplification of complex narratives, with 65% of the generated content showing significant misalignment (Bu et al., 2025).

To mitigate these biases, several approaches have been proposed. AlKhamissi et al. (2024) introduce Anthropological Prompting, a method that encourages LLMs to reason like cultural anthropologists by incorporating both emic (insider) and etic (outsider) perspectives (AlKhamissi et al., 2024). Similarly, Li et al. (2024) propose CultureLLM, a fine-tuning approach designed to integrate cultural knowledge into LLMs, particularly for low-resource cultures (Li et al., 2024). While these techniques improve cultural alignment, their focus remains on modern cultural settings, leaving gaps in historical artifact contextualization across different time periods.

With the rise of Vision-Language Models (VLMs), cultural research has expanded to multimodal AI, revealing similar biases. Liu et al. (2025) introduce CultureVLM, a model designed to improve cultural understanding in VLMs, highlighting their inability to recognize non-Western cultural symbols, historical artifacts, and traditional gestures (Liu et al., 2025). Their work also presents CultureVerse, a large-scale multimodal dataset covering several cultural concepts, designed to evaluate VLMs' cultural reasoning. However, CultureVerse has a primary focus on modern cultural symbols, traditions, and everyday life. Additionally, Romero et al. (2024) develop CVQA, a multilingual and culturally diverse Visual Question Answering (VQA) benchmark, which reveals that state-of-the-art VLMs struggle with culturally grounded reasoning, particularly in non-Western contexts (Romero et al., 2024). However, these datasets primarily focus on present-day cultural contexts, even when historical artifacts are included, as they are often framed through the lens of modern nations rather than their original civilizations and historical epochs (Liu et al., 2025). This leaves a significant gap in representing artifacts within their authentic temporal and cultural contexts.

Efforts to bridge AI research with historical studies have led to the development of Historical Large Language Models (HLLMs), trained on historical texts to simulate past societies' psychology and value systems (Varnum et al., 2024). These models aim to provide insight into long-term cultural evolution, but their reliance on text-only representations limits their application in multimodal historical

Model	India	Roman Empire	China	British Isles	Iran	Iraq	Japan	Central America	Greece	Egypt
GPT-4o-0806 (OpenAI, 2024)	0.2566	0.2713	0.2324	0.2175	0.2486	0.2428	0.2269	0.2384	0.2441	0.2567
Gemini-2.0-Flash (Reid et al., 2024)	0.2478	0.2603	0.2183	0.2189	0.2432	0.242	0.2256	0.2264	0.2488	0.2588
Gemini-1.5-Pro (Reid et al., 2024)	0.2586	0.2596	0.2198	0.2203	0.2535	0.2524	0.2253	0.2218	0.2551	0.268
GPT-4o-mini-0718 (OpenAI, 2024)	0.2762	0.2731	0.2570	0.2531	0.2660	0.2640	0.2611	0.2741	0.2649	0.2741
Llama-3.2-Vision-Inst (Meta AI, 2024)	0.2128	0.2253	0.1867	0.1917	0.2115	0.2078	0.1944	0.1979	0.2138	0.2182
Qwen-2.5-VL (Team, 2025)	0.2707	0.2815	0.2526	0.2464	0.2607	0.2631	0.2499	0.2587	0.2713	0.2827
Llava-Next (Liu et al., 2024)	0.2482	0.2527	0.2156	0.2192	0.2389	0.2321	0.2207	0.2196	0.2388	0.2427

Table 4: Analysis of METEOR Evaluation of various models in describing archaeological artifacts across civilizations from different geographical regions.

studies. Similarly, Assael et al. (2022) introduce Ithaca, a deep learning model designed to assist historians in restoring, geographically attributing, and dating ancient Greek inscriptions, significantly improving accuracy over traditional methods (Assael et al., 2022). While these works contribute to historical AI, they primarily focus on text-based reconstruction rather than multimodal representations of historical artifacts across civilizations.

TimeTravel fills this gap by providing a 10k historical artifact open-source dataset spanning 10 ancient world regions (prehistoric and historic), offering the first benchmark to evaluate LMMs on temporal-cultural understanding with expert verification. Unlike prior datasets focused on contemporary cultural knowledge, TimeTravel enables AI models to contextualize artifacts within their historical era, ensuring a more accurate representation of civilizations and their material culture. With domain expert verification, the dataset enhances reliability and authenticity, mitigating potential biases and inaccuracies in AI-generated interpretations. By integrating both textual and multimodal perspectives, TimeTravel advances research in historical-cultural AI, enabling AI systems to better understand and reason about artifacts in their original context.

C TimeTravel Samples Regional Distribution

Fig. 4 illustrates the balanced regional distribution of dataset samples based on archaeological provenance. Greece holds the largest share at 18%, followed by multiple regions, including the Roman Empire, China, British Isles, Egypt, Iraq, and Iran, each at 10%. Japan (9%), India (8%), and Central America (5%) contribute smaller yet significant portions. Overall, the dataset ensures diverse cultural representation without dominance by any single region.

Tables 5 to 14 present further details about

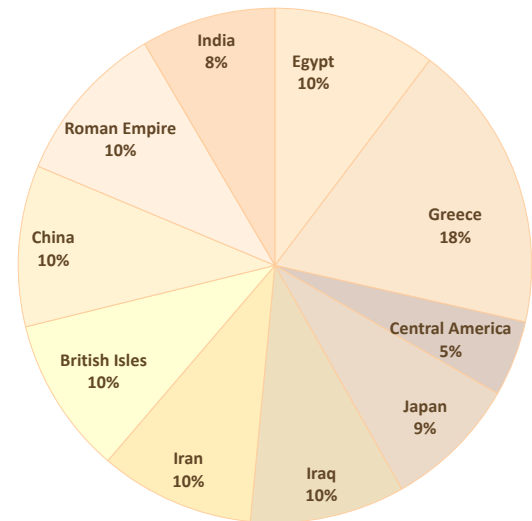


Figure 4: Regional distribution of dataset samples based on their archaeological provenance. Greece holds the largest share at 18%, with a balance-like distribution over regions.

sample counts categorized by region of discovery, section, and cultural affiliation.

The covered areas in our study are ordered as follows:

Tab. 5 → “Roman Empire”, Tab. 6 → “Greece”, Tab. 7 → “British Isles”, Tab. 8 → “Central America”, Tab. 9 → “Egypt”, Tab. 10 → “India”, Tab. 11 → “Iran”, Tab. 12 → “China”, Tab. 13 → “Japan”, and Tab. 14 → “Iraq”,

Place	Roman Empire
Section	Roman
Culture	Samples
Roman Imperial	610
Roman	3
Roman Provincial	436
Total	1049

Table 5: Culture Sample Counts from the Roman Empire.

D TimeTravel Benchmark Examples

Place	Greece		
Section	Greek		
Culture	Sample	Culture	Sample
Greek; Hellenistic; Roman Imperial	4	Hellenistic; Roman Imperial	2
Attic	806	Middle Corinthian	5
Corinthian	41	East Greek; Classical Greek	1
Attic; Classical Greek	47	Transitional Corinthian	1
Middle Corinthian; Late Corinthian; Archaic Greek	7	Classical Greek; Attic	2
Proto-Corinthian	4	Classical Greek; Attic; Archaic Greek	1
Orientalising Period	14	East Greek Archaic II; Archaic Greek	1
Archaic Greek; Classical Greek	1	Attic; Western Greek	1
Archaic Greek	40	East Greek	23
Late Corinthian; Archaic Greek	11	Attic; Archaic Greek	318
Western Greek; Hellenistic	1	Attic; Archaic Greek; Classical Greek	12
Early Corinthian	8	Attic; Classical Greek; Archaic Greek	3
Laconian; Archaic Greek	10	Archaic Greek; East Greek	2
Classical Greek; Corinthian; Hellenistic	1	Rhodian	3
Late Helladic IIIB	2	Greek; Classical Greek	2
Transitional Corinthian; Archaic Greek	1	Early Corinthian; Archaic Greek	3
East Greek; Hellenistic	2	Middle Corinthian; Archaic Greek	11
Late Geometric IIA; Attic	1	East Greek; Orientalising Period	1
Archaic Greek; Attic	8	Late Minoan I; Late Minoan II	1
Late Minoan I	2	Archaic Greek; East Greek; North Ionian	1
Paestan	1	East Greek; Archaic Greek	237
Early Corinthian; Middle Corinthian; Archaic Greek	1	Greek; Hellenistic	2
Archaic Greek; East Dorian	1	Greek	3
Hellenistic	110	Western Greek	5
East Greek; Archaic Greek; Classical Greek	1	Roman; Hellenistic	3
East Dorian; Archaic Greek	2	Classical Greek	38
East Greek; East Dorian; Archaic Greek	11	Boeotian	25
Geometric Greek; Early Proto-Attic	1	Hellenistic; Classical Greek	2
East Greek; South Ionian	1	Geometric Greek	8
Greek; Classical Greek; Hellenistic	5	Hellenistic; Roman	4
Total		1869	

Table 6: Culture Sample Counts from Greece (Greek Section).

Place	British Isles
Section	Viking
Culture	Samples
Viking; Carolingian; Late Anglo-Saxon	1
Viking; Early Anglo-Saxon; Mid. Anglo-Saxon	1
Middle Anglo-Saxon Viking; Anglo-Saxon	1
Celtic; Viking	14
Viking; Late Anglo-Saxon	19
Viking; Finno-Ugrian	1
Anglo-Viking	52
Viking	895
Carolingian; Viking	1
Viking; Medieval	1
Late Anglo-Saxon; Viking	1
Viking; Celtic	26
Total	1013

Table 7: Culture Sample Counts from the British Isles (Viking Section).

Place	Central America
Section	Maya
Culture	Samples
Classic Maya; Classic	3
Classic Maya; Late Preclassic Maya	64
Formative (Pre-Classic); Early Classic	8
Maya	
Late Classic Maya	23
Olmec; Maya	1
Classic Maya	275
Preclassic Maya	10
Classic Maya; Late Classic	2
Classic Maya; Olmec	1
Preclassic Maya; Classic Maya	2
Maya	95
Late Classic Maya; Late Classic	4
Total	488

Table 8: Culture Sample Counts from Central America (Maya Section).

Place	Egypt
Section	Ancient Egyptian
Culture	Samples
6 th Dynasty	1
Late Cypriot; 18 th Dynasty	1
26 th Dynasty; Archaic Greek; Punic	1
Late Period; 30 th Dynasty	1
30 th Dynasty; Ptolemaic	15
22 nd Dynasty	69
18 th Dynasty; 19 th Dynasty	2
New Kingdom; 19 th Dynasty; 20 th Dynasty	1
12 th Dynasty	1
26 th Dynasty; Archaic Greek; East Greek; Hellenistic	1
New Kingdom	21
Late Predynastic; 1 st Dynasty	2
25 th Dynasty	7
30 th Dynasty	128
Middle Kingdom	1
Late Period	96
18 th Dynasty; 21 st Dynasty	1
21 st Dynasty	171
19 th Dynasty; 20 th Dynasty	3
20 th Dynasty; 21 st Dynasty	2
26 th Dynasty	257
19 th Dynasty	40
18 th Dynasty	95
1 st Dynasty	7
Ramesside	21
23 rd Dynasty	1
22 nd Dynasty; 23 rd Dynasty	3
26 th Dynasty; 27 th Dynasty	1
20 th Dynasty	25
Late Period; 26 th Dynasty	3
25 th Dynasty; Kushite	1
26 th Dynasty; Punic; Archaic Greek	1
27 th Dynasty	13
25 th Dynasty; 26 th Dynasty	1
Third Intermediate	47
Late Period; Archaic Greek	2
Late Period; Ptolemaic	5
29 th Dynasty	1
New Kingdom; Third Intermediate	1
Ancient Egypt	5
26 th Dynasty; 30 th Dynasty	1
Total	1056

Table 9: Culture Sample Counts from Egypt (Ancient Egyptian Section).

Place	India
Section	Mohenjo-Daro
Culture	Sample Count
Indus Valley Civil.	114

Section	Mauryan
Culture	Sample Count
Mauryan	17

Section	Gupta Dynasty
Culture	Sample Count
Gupta	737
Total	868

Table 10: Culture Sample Counts from India.

Place	Iran
Section	Persian
Culture	Samples
Inju Dynasty	3
Middle Islamic; Seljuq Dynasty; Persian	1
Safavid Dynasty; Mughal Dynasty	1
Persian; Islamic	11
Persian; Late Islamic	3
Samanid Dynasty	27
Safavid Dynasty	395
Timurid Dynasty; Islamic	1
Safavid Dynasty; Post-Medieval	1
Mughal Dynasty; Persian	1
Ilkhanid Dynasty; Persian	3
Turkman Dynasty	3
Early Sasanian; Safavid Dynasty	1
Islamic; Safavid Dynasty	1
Ilkhanid Dynasty	192
Middle Islamic; Persian	6
Islamic; Qajar Dynasty	2
Persian; Safavid Dynasty	1
Safavid Dynasty; Persian; Islamic	2
Mughal Dynasty; Safavid Dynasty	1
Qajar Dynasty	193
Safavid Dynasty; Islamic	4
Persian; Mughal Dynasty	1
Islamic; Persian	2
Timurid Dynasty	35
Persian	108
Total	999

Table 11: Culture Sample Counts from Iran (Persian Section).

Place	China
Section	Tang Dynasty
Culture	Samples
Tang Dynasty; Sui Dynasty	1
Tang Dynasty; Ming Dynasty	3
Tang Dynasty; Ming Dynasty; Jin Dynasty; Yuan Dynasty	1
Tang Dynasty; Song Dynasty	1
Song Dynasty; Tang Dynasty	1
Liao Dynasty; Tang Dynasty	2
Tang Dynasty; Northern Wei Dynasty	1
Six Dynasties; Tang Dynasty	5
Tang Dynasty	1
Northern Qi Dynasty; Sui Dynasty; Tang Dynasty	1
Tang Dynasty; Liao Dynasty	3
Six Dynasties; Sui Dynasty; Tang Dynasty	1
Tang Dynasty; Five Dynasties; Northern Song Dynasty	381
Five Dynasties; Tang Dynasty	4
Tang Dynasty	628
Sui Dynasty; Tang Dynasty	5
Total	1039

Table 12: Culture Sample Counts from China (Tang Dynasty Section).

Place	Japan
Section	Japanese
Culture	Samples
Momoyama Period	6
Genroku Era; Hoei Era	1
Asuka Period	1
Muromachi Period; Momoyama Period	2
Late Kofun; Nara Period	1
Nara Period	12
Middle Kofun	13
Yayoi Period	5
Middle Kofun; Late Kofun	34
Edo Period; Kamakura Period	1
Oei Era	2
Kyowa Era; Oei Era	1
Edo Period; Momoyama Period	1
Jomon Period	16
Kyowa Era	1
Bunka Era	1
Bun'An Era; Bunsei Era	1
Muromachi Period	40
Asuka Period; Nara Period	1
Heian Period	9
Muromachi Period; Momoyama Period; Edo Period	1
Muromachi Period; Buddhist	1
Meiji Era	1
Hakuho Period	1
Showa Era	13
Early Kofun; Middle Kofun	26
Nanbokucho Period	2
Kofun Period; Edo Period	1
Edo Period	24
Kamakura Period; Meiji Era	1
Kofun Period	419
Early Kofun	7
Wado Era	1
Late Kofun	179
Kofun Period; Asuka Period	5
Kamakura Period	26
Nara Period; Edo Period	1
Kofun Period; Nara Period	1
Kamakura Period; Muromachi Period	9
Heian Period; Kamakura Period	1
Total	869

Table 13: Culture Sample Counts from Japan (Japanese Section).

Place	Iraq
Section	Mesopotamian
Culture	Samples
Neo-Assyrian; Late Babylonian	9
Late Babylonian; Assyrian	1
Elamite; Third Dynasty Of Ur	1
Early Dynastic (Middle East)	1
Old Assyrian; Early Bronze Age III	1
Late Uruk	26
Isin-Larsa	3
Neo-Assyrian	406
Uruk	3
Late Uruk; Chalcolithic	1
Middle Babylonian; Neo-Babylonian	1
Dynasty	
Old Babylonian; Cypriot	1
Late Babylonian	20
Babylonian; Neo-Assyrian	1
Neo-Assyrian; Babylonian	1
Assyrian; Late Babylonian	2
Jemdet Nasr; Proto-Elamite	1
Halaf	38
Assyrian	7
Middle Assyrian	11
Jemdet Nasr	27
Third Dynasty Of Ur; Ubaid	1
Old Babylonian	41
Kassite	4
Babylonian	3
Neo-Babylonian Dynasty	2
Babylonian; Akkadian	1
Old Assyrian	2
Old Babylonian; Third Dynasty Of Ur	1
Ubaid	15
Early Dynastic (Middle East); Akkadian	2
Early Dynastic II	2
Isin-Larsa; Old Babylonian	1
Jemdet Nasr; Akkadian	1
Old Babylonian; Assyrian	1
Akkadian	102
Early Dynastic III; Akkadian	10
Old Babylonian; Old Assyrian	1
Isin-Larsa; Old Babylonian; Kassite	1
Uruk; Jemdet Nasr	3
Early Dynastic II; Early Dynastic III	1
Early Dynastic III	81
Mesopotamian	1
Late Babylonian; Neo-Assyrian	3
Assyrian; Ubaid	1
Third Dynasty Of Ur; Old Babylonian	2
Third Dynasty Of Ur	137
Neo-Assyrian; Phoenician	2
Middle Babylonian	11
Lagash II	1
Third Dynasty Of Ur; Isin-Larsa	4
Total	1000

Table 14: Culture Sample Counts from Iraq (Mesopotamian Section).



```
{
  "id": 4621,
  "Image": "https://media.britishmuseum.org/media/Repository/Documents/2014_11/5_17/e572b5a1-adcb-4691-871c-a3da0123a3fa/preview_01222265_001.jpg",
  "Description": "Silver coin.; Bust of Skandagupta, facing to the right, wearing a decorated cap and collar.; Peacock, with outspread wings and tail, standing facing with head to left. Surrounded by a border of dots.",
  "Production date": "456-467 (about)",
  "Find spot": null,
  "Materials": "silver",
  "Technique": null,
  "Inscription": "Inscription type: inscription Inscription position: reverse Inscription language: Sanskrit Inscription script: Brahmi",
  "Subjects": "king/queen; peacock",
  "Assoc name": "Named in inscription & portrayed: Skandagupta",
  "Culture": "Gupta",
  "Section": "Gupta dynasty",
  "Place": "India"
}

for this artifact, we generated a
description such as:
{
  "description": "This silver coin from the Gupta dynasty, produced approximately between 456-467 CE, features a distinguished portrait of Skandagupta on the obverse. Wearing an ornate cap and collar, Skandagupta is depicted facing right, encapsulating the regal aesthetic of the period. The reverse displays a majestic peacock, wings and tail fully spread, elegantly poised with its head turned to the left, bordered by a circle of dots adding to the coin's decorative appeal. An inscription in Sanskrit, using the Brahmi script, adorns the reverse, providing linguistic and cultural context. This artifact, emblematic of Gupta artistry and power, underscores the dynastic symbolism and reverence for nature characteristic of this era in Indian history."
}
}
```

Figure 5: This entry represents a silver coin from the Gupta dynasty from India, featuring a distinguished portrait of Skandagupta on the obverse. GPT-4o generated a detailed, context-aware description based on the available metadata, highlighting its craftsmanship, ceremonial significance, and cultural context.



```
{
  "id": 7443,
  "Image": "https://media.britishmuseum.org/media/Repository/Documents/2015_9/4_10/b0f2152e-0ab5-4585-a7ca-a50900a611e8/preview_1997-q_1879__a_.jpg",
  "Description": "Votive object in the form of polished piece of jade with six holes drilled in it.",
  "Production date": null,
  "Find spot": "Excavated/Findspot: Tzimin Kax (?); Excavated/Findspot: Hatzcap Ceel (?); Excavated/Findspot: Cahal Pichik (?)",
  "Materials": "jade",
  "Technique": "polished; drilled",
  "Inscription": null,
  "Subjects": null,
  "Assoc name": null,
  "Culture": "Classic Maya; Late Preclassic Maya",
  "Section": "Maya",
  "Place": "Central America"
}

for this artifact, we generated a
description such as:
{
  "description": "This votive object, crafted by the Classic and Late Preclassic Maya cultures, is a testament to the artistry and spiritual practices of ancient Central America. Made from polished jade, a material revered for its symbolic and aesthetic value, this artifact features six precision-drilled holes, showcasing the sophisticated techniques employed by the Maya artisans. Although specific inscription details are absent, the object's polished surface and drilled holes suggest it may have had ceremonial or religious significance. Unearthed at find spots such as Tzimin Kax, Hatzcap Ceel, and Cahal Pichik, this piece provides valuable insights into the ritualistic and cultural engagements of the Maya civilization."
}
}
```

Figure 6: This particular entry represents a polished jade votive object from the Classic and Late Preclassic Maya features six precision-drilled holes, reflecting advanced craftsmanship and likely ceremonial significance. Unearthed at sites like Tzimin Kax, it offers insight into Maya rituals.





<p>Ancient Egyptian / Egypt</p> <p>"description": This exquisite shabti, crafted from green glazed composition, hails from the Late Period of Ancient Egypt and was excavated at Tuna el-Gebel. It features a striated kappel-wig, a finely modelled face with a beard, and crossed hands that hold a relief adze, hoe, and the string of a seed-basket draped over the shoulder. Notably, the leg section is inscribed with nine rows of hieroglyphic text that identifies the figure as Djehutyris, the High Priest of Thoth, with maternal references to Nebhotyris. The presence of a back-pillar and plinth adds to its structural elegance, embodying the funerary function and cultural significance of these figures as servants in the afterlife.</p> 	<p>Indus Valley Civilisation / India</p> <p>"description": This artifact is a fragmentary terracotta figure from the Indus Valley Civilization, dating approximately from 2500 to 2000 BC. It represents a female figure, speculated to depict a pregnant woman, crafted from buff terracotta with a red slip finish, suggesting its original vibrant coloration. As part of the Mohenjo-daro section, this piece belongs to one of the core urban centers of the ancient Indus Valley, underscoring the sophisticated craftsmanship and cultural emphasis on fertility or femininity of the era. Discovered at the renowned archaeological site of Mohenjo-daro in present-day India, this artifact provides a tangible connection to one of the world's earliest urban settlements</p> 	<p>Tang Dynasty / China</p> <p>"description": This exquisite earthenware cup, dating from the late Tang dynasty through the Ming dynasty (1368-1644), is a remarkable example of Chinese craftsmanship. It is distinguished by its cream glaze and unique design, featuring three lion-shaped feet that reflect both artistic and cultural significance. The use of animal motifs is characteristic of the period, symbolizing strength and protection, and speaks to the aesthetic preferences in medieval Chinese artistry. This artifact was found in China, offering valuable insight into the ceramics that were both cherished and utilized during these significant historical eras.</p> 	<p>Classical Greek / Greek</p> <p>"description": This Classical Greek terracotta relief plaque, known as a 'Mellian relief', dates from circa 490-470 BC and depicts the mythological scene of Eos carrying off Kephalos. Crafted using a moulding technique, this artifact captures a moment from classical mythology featuring Eos, the personification of dawn, and Kephalos, a mortal figure entwined in various mythic narratives. The plaque exhibits the artistic style characteristic of the period, with intricate detailing that evokes the ethereal beauty and narrative depth of Greek mythology. Unearthed from grave 172 in Fikellura, this piece not only represents the aesthetic values of its time but also enriches our understanding of Greek funerary practices and mythological storytelling</p> 
<p>Japanese / Japan</p> <p>"description": This shallow bowl, dating from the 12th to 14th centuries, originates from Japan's Kamakura Period. Crafted from high-fired stoneware, the bowl displays a conical shape with a slightly concave base. It features a coarse surface with visible wheel marks, indicative of its handcrafted nature, and throat marks are evident on its base. Notably, the bowl bears traces of a natural ash glaze, a technique typical of the period, enhancing its rustic aesthetic. An inscription in English referencing 'near Akasaka, Mino Kiyomizu mura azana Atoagawa' adds to its historical intrigue. This artifact was discovered at Akasaka-cho, specifically near the Kiyomizu dolmen, highlighting its archaeological significance within the region.</p> 	<p>Maya / Central America</p> <p>"description": This artifact collection consists of ten stone tools of Maya origin, reflecting the sophisticated craftsmanship of Central American societies. Although the precise production date remains unspecified, these implements serve as a testament to the technological and cultural practices of the Maya civilization. The tools, excavated from the region of Lubantun, are crafted from stone, a material commonly employed by the Maya for tool-making due to its durability and availability. Without inscriptions or specific iconographic elements, these tools speak primarily through their form and functionality, offering insights into daily life and survival strategies in ancient Maya communities</p> 	<p>Mesopotamian / Iraq</p> <p>"description": This exquisite Neo-Assyrian gypsum wall panel relief, crafted between 645-635 BC, exquisitely depicts a female musician in the lush setting of Ashurbanipal's garden. The musician is portrayed advancing to the right amidst conifers and palm trees, adorned with a headband, necklace, triple-knotted earrings, and bracelets. Her garment features a distinctively patterned edge on the sleeves, and she plays a double pipe, capturing the opulent aesthetic and cultural sophistication of the Neo-Assyrian period. This fragment was excavated from the North Palace in Nineveh, present-day Iraq, providing a vivid glimpse into the artistic accomplishments and daily life in the heart of the Assyrian Empire.</p> 	<p>Tang Dynasty / China</p> <p>"description": This black earthenware vase, dating from the 8th to the 10th century, originates from the Tang dynasty in China. It features a distinctive design with a broken neck and is adorned with two incised bands around the shoulder, showcasing the incised carving technique prevalent during this cultural period. Crafted from earthenware, the vase reflects the aesthetic and functional qualities typical of Tang dynasty ceramics. The artifact was excavated from Dunhuang, a site historically significant for its role as a cultural crossroads along the Silk Road. This find spot underscores the vase's historical context within the exchange of art and ideas during the Tang era</p> 
<p>Viking / British Isles</p> <p>"description": This Viking silver armlet, crafted between the 9th and 10th centuries, exemplifies the artistry of Norse metalwork. It features overlapping ends and an expanded center adorned with a 6-pointed star created through a punched zigzag technique, while each terminal is marked by a satiric, reflecting the cross motifs prevalent in Viking symbolism. This armlet, a token of personal adornment, offers insight into the cultural exchanges within the British Isles during this period, as evidenced by its discovery in the Republic of Ireland. The use of silver and intricate punched designs suggest it may have been a status symbol among its original owners, further underlining the interconnectedness of Viking and local cultures in the British Isles</p> 	<p>Persian / Iraq</p> <p>"description": This exquisite artifact from the Qajar dynasty, dating approximately from the 18th to 19th century, is a delicate figure of a dove crafted from steel and adorned with inlaid garnet and gold. Notably, it bears the inscription of its maker, Haji 'Abbas, showcasing the intricate craftsmanship and meticulous attention to detail characteristic of the Islamic period in Persian artistry. The use of fine materials and the inlay technique highlight the luxurious and refined aesthetic practices of the era, symbolizing both cultural and artistic values within the context of Qajar Iran. While the specific findspot remains undisclosed, the figure resonates with the rich heritage and artistic innovation prevalent in the region during this period.</p> 	<p>Ancient Egyptian / Egypt</p> <p>"description": This exquisite Late Cypriot falcon scarab, dating from 1504-1300 BCE, reflects the artistry and cultural symbolism of Egypt's 18th Dynasty. Crafted from glazed composition, the piece is intricately engraved with the hieroglyphic name of Pharaoh Tutmosis II (Men-Kheper-re), framed within a cartouche flanked by the protective Uraeus serpents and adorned with neb signs. Above these, smaller uraei and maat feathers are delicately etched, accompanied by the hierarchical sign for gold, emblematic of divinity and royalty in ancient Egyptian society. Although much of the original glaze has vanished, traces of the original detailing remain, showcasing the sophisticated mould-making and glazing techniques of the period. Perforated for suspension, this artifact may have served a ceremonial or decorative purpose. It was discovered around Maroni, further enriching its historical and geographic narrative tied to the ancient Egyptian realm</p> 	<p>Gupta / India</p> <p>"description": This Gupta dynasty gold coin, dating approximately to 456-467 CE, epitomizes the opulence and artistry of its era. On the obverse, it portrays Shandagupta, regally depicted standing and facing left, adorned in a decorated coat with a long sash and trousers, and encircled by a halo. He holds a bow in his left hand and an arrow in his right, with a Garuda standard with ribbons in the left field and a crescent in the right. The reverse features Lakshmi seated gracefully on a lotus, clad in lower garments, a shawl, and jewelry, and also haloed. Her right hand is outstretched holding a fillet, while her left supports the stem of a lotus, a symbol present in the left field, and the scene is encircled by a border of dots.</p> 
<p>Neo-Assyrian; Late Babylonian / Mesopotamia</p> <p>"description": This artifact is a black stone conical pendant originating from the Neo-Assyrian to Late Babylonian period, dated between the 9th and 4th centuries BC. The pendant features a holed loop at the top, suggesting it was designed to be worn or suspended. Carved from stone, the pendant depicts a crudely fashioned figure oriented to the right, accompanied by a flower and the sun, which are emblematic of ancient Mesopotamian symbolism. The representation of the sun and flower may allude to religious or cultural motifs common in the region during this era. The pendant was excavated from the South East Palace in Nimrud, Iraq, providing a glimpse into the artifacts utilized in the heart of ancient Assyrian civilization."</p> 	<p>Mohenjo-daro / India</p> <p>"description": This terracotta figure represents a humped bull, crafted between 2500-2000 BCE by the Indus Valley Civilization. Exhibiting a buff hue, the bull figure likely served a symbolic or ritualistic purpose, reflecting the agricultural and cultural significance of cattle in the Indus Valley region. This artifact was unearthed from the ancient city of Mohenjo-daro, a major urban center of the civilization located in present-day Pakistan. It encapsulates the artistic and societal practices of one of the world's earliest urban cultures, offering a glimpse into their agricultural life and spiritual beliefs.</p> 	<p>Mesopotamian / Iraq</p> <p>"description": This exquisite chalconedry cylinder seal, originating from the Neo-Assyrian to Late Babylonian period and possibly dating back to ancient Mesopotamia, is a captivating artifact both in form and detail. Crafted from pale-grey, clouded chalconedry, the seal depicts a dynamic scene characterized by a likely female worshipper with extended hands, standing opposite a beardless deity, presumed to be a goddess adorned with a globular, horned headdress and a detailed, tiered skirt. Adding to the mythical tableau is a bearded scorpion-man, whose form merges human traits with a bird or lion's hindquarters, signified by distinctive drill-hole markings.</p> 	<p>Persian / Iran</p> <p>"description": This exquisite ewer, originating from the Safavid dynasty in the 17th century, exemplifies the luxurious ceramic craftsmanship of post-medieval Iran. The artifact is crafted from stonepaste with a flattened globular body, a stepped shoulder, and a flaring neck, all resting on a ring foot. Distinctive features include an elegant European brass fish-shaped handle and a lid adorned with vegetal swirls and a cherub or merman finial, further enhanced by a foot with a scalloped edge. The ewer showcases a complex decorative schema: a white slip underlies the transparent colorless glaze on the sides, while a lustrous overglaze accentuates the cobalt glaze on the shoulder.</p> 
<p>Greek / Greece</p> <p>"description": This Attic black-figure skyphos, crafted around 480 BCE, presents a painted and incised depiction of a draped figure with a lyre, likely Apollo, seated between palmettes. Made from pottery, its design exemplifies classical Greek artistry and the cultural significance of music and deities in ancient Greece. The skyphos was unearthed from grave 61 at Fikellura, indicating its use in funerary contexts and providing valuable insight into the burial practices and artistic expressions of the period.</p> 	<p>Ancient Egyptian / Egypt</p> <p>"description": This exquisite 19th Dynasty Egyptian pectoral, dated circa 1275 BC, is a remarkable example of ancient artistry and religious symbolism. Crafted from glazed composition, it is shaped like a pylon, mimicking the monumental gateway entrances of Egyptian temples. The pectoral features sloping sides and a curved cavetto cornice, decorated with block patterns around its edges. Its vibrant color palette (2014) includes yellow inlaid with blue, red, and green glazes (2014) emulates precious materials like gold, lapis lazuli, cornelian, and turquoise. Central to the design is a dark blue heart scarab, representing lapis lazuli and depicted within a solar barque, flanked by the goddesses Isis.</p> 	<p>Tang Dynasty / China</p> <p>"description": This exquisite white ware cup from the Tang dynasty, dating between 618-906 CE, exemplifies the artistry of ancient China. Crafted from cream-glazed and carved earthenware, the cup is adorned with an intricate design featuring seven figures of Buddha, artfully splashed with green accents. These decorative elements reflect the spiritual and artistic sensibilities of the period, highlighting the profound influence Buddhism had on Chinese culture during the Tang dynasty. Discovered in China, this artifact provides valuable insight into the religious and aesthetic practices prevalent during one of the golden ages of Chinese history.</p>	<p>Greek / Greece</p> <p>"description": This Attic black-figured kyathos, dating back to circa 500 BC, is a testament to the skilled craftsmanship of ancient Greece, combining both painted and incised techniques. Made from pottery, the dipper features a striking depiction between its iconic eyes: a scene illustrating a satyr in an act of assault on a fawn, a subject that reflects the era's exploration of themes such as eroticism and the interplay between mythological creatures and nature. While no inscriptions are present, the visual narrative is rich and evocative. Although the exact findspot remains undocumented, the kyathos hails from Greece, providing insight into the cultural expressions and iconography of the period.</p> 

Figure 7: Cultural and material diversity of TimeTravel dataset samples across civilizations and historical periods. The dataset includes artifacts from Ancient Egypt, Greece, Mesopotamia, China, and Japan, spanning prehistoric to medieval times. A wide range of materials, including ceramics, metals, and stone, highlights artistic, technological, and societal influences, ensuring a comprehensive representation of historical craftsmanship and cultural heritage.

<p>Roman Imperial / Roman Empire</p>	<p>GPT-4o</p>	<p>Gemini</p>	<p>Qwen</p>	<p>LLava-Next</p>	<p>Ground-Truth</p>
<p>This image features an ancient Roman coin, possibly a sestertius. The coin's design includes a laurel wreath, which is a symbol of victory and authority. The inscription around the perimeter reads "IMP CAESAR AVGVSTVS PATER PATRIAE". The central figure is a laurel wreath, which is a symbol of victory and authority. The inscription around the perimeter reads "IMP CAESAR AVGVSTVS PATER PATRIAE". The central figure is a laurel wreath, which is a symbol of victory and authority. The inscription around the perimeter reads "IMP CAESAR AVGVSTVS PATER PATRIAE".</p>	<p>The image shows a profile of a Roman emperor, likely Augustus, wearing a laurel wreath. The inscription around the coin reads "IMP CAESAR AVGVSTVS PATER PATRIAE". The central figure is a laurel wreath, which is a symbol of victory and authority. The inscription around the perimeter reads "IMP CAESAR AVGVSTVS PATER PATRIAE". The central figure is a laurel wreath, which is a symbol of victory and authority. The inscription around the perimeter reads "IMP CAESAR AVGVSTVS PATER PATRIAE".</p>	<p>Here's a detailed description of the image: The image shows a profile of a Roman emperor, likely Augustus, wearing a laurel wreath. The inscription around the coin reads "IMP CAESAR AVGVSTVS PATER PATRIAE". The central figure is a laurel wreath, which is a symbol of victory and authority. The inscription around the perimeter reads "IMP CAESAR AVGVSTVS PATER PATRIAE". The central figure is a laurel wreath, which is a symbol of victory and authority. The inscription around the perimeter reads "IMP CAESAR AVGVSTVS PATER PATRIAE".</p>	<p>The image depicts a seated figure, likely a Roman deity or emperor, wearing a laurel wreath. The inscription around the coin reads "IMP CAESAR AVGVSTVS PATER PATRIAE". The central figure is a laurel wreath, which is a symbol of victory and authority. The inscription around the perimeter reads "IMP CAESAR AVGVSTVS PATER PATRIAE". The central figure is a laurel wreath, which is a symbol of victory and authority. The inscription around the perimeter reads "IMP CAESAR AVGVSTVS PATER PATRIAE".</p>	<p>The image presents two ancient coins, each with its own inscription. The left coin features a laurel wreath, while the right coin shows a profile of a Roman emperor. The inscription around the left coin reads "IMP CAESAR AVGVSTVS PATER PATRIAE". The central figure is a laurel wreath, which is a symbol of victory and authority. The inscription around the perimeter reads "IMP CAESAR AVGVSTVS PATER PATRIAE".</p>	<p>This Roman Imperial coin, possibly an aureus, produced between 104-111 CE, displays a highly crafted bust of Emperor Trajan, laureate, facing right, with drapery adorning his left shoulder. The reverse intricately illustrates the Genius of the Aequa Traiana as a river-goddess reclining on rocks from which water gushes, symbolized through an architrave grid supported by two columns, holding a reed in his right hand and resting his left arm on a Latin inscription. The obverse features the legend "IMP CAES TRAIANVS AVG GER DAC P P TR COS V P P" and the reverse reads "S P Q R OPTIMO PRINCIPI" along with "AQUA TRAIANA" and "S P Q R OPTIMO PRINCIPI".</p>
<p>Roman Imperial / Roman Empire</p>	<p>GPT-4o</p>	<p>Gemini</p>	<p>Qwen</p>	<p>LLava-Next</p>	<p>Ground-Truth</p>
<p>The image shows two sides of an ancient coin, which appears to be heavily corroded and covered with a green patina, typical of aged bronze or copper. The coin is irregular in shape, indicating it might have been minted in ancient times when coinage techniques were less precise than modern ones. The obverse (front) side, a faint impression is visible, though the details are obscured by corrosion. It might depict a figure or symbol, but the exact form is difficult to discern due to wear. The reverse side shows some considerable degradation. Subtle shapes and lines, possibly representing inscriptions or symbols, are visible but not clear enough to interpret accurately. The patina and condition of the coin suggest significant age, potentially dating back to ancient times. Coins like these are often associated with ancient civilizations such as the Greeks or Romans, though without clearer images or inscriptions, it is challenging to determine its precise origin or cultural significance.</p>	<p>The image shows two sides of an ancient coin, which appears to be heavily corroded and covered with a green patina, typical of aged bronze or copper. The coin is irregular in shape, indicating it might have been minted in ancient times when coinage techniques were less precise than modern ones. The obverse (front) side, a faint impression is visible, though the details are obscured by corrosion. It might depict a figure or symbol, but the exact form is difficult to discern due to wear. The reverse side shows some considerable degradation. Subtle shapes and lines, possibly representing inscriptions or symbols, are visible but not clear enough to interpret accurately. The patina and condition of the coin suggest significant age, potentially dating back to ancient times. Coins like these are often associated with ancient civilizations such as the Greeks or Romans, though without clearer images or inscriptions, it is challenging to determine its precise origin or cultural significance.</p>	<p>Here's a description of the image, incorporating the idea of an ancient artifact/virtuThe image shows two sides of an ancient coin, which appears to be heavily corroded and covered with a green patina, typical of aged bronze or copper. The coin is irregular in shape, indicating it might have been minted in ancient times when coinage techniques were less precise than modern ones. The obverse (front) side, a faint impression is visible, though the details are obscured by corrosion. It might depict a figure or symbol, but the exact form is difficult to discern due to wear. The reverse side shows some considerable degradation. Subtle shapes and lines, possibly representing inscriptions or symbols, are visible but not clear enough to interpret accurately. The patina and condition of the coin suggest significant age, potentially dating back to ancient times. Coins like these are often associated with ancient civilizations such as the Greeks or Romans, though without clearer images or inscriptions, it is challenging to determine its precise origin or cultural significance.</p>	<p>The image depicts an ancient coin, likely Roman, based on the inscription "IMP CAESAR AVGVSTVS PATER PATRIAE". The coin is heavily corroded and covered with a green patina, typical of aged bronze or copper. The inscription around the coin reads "IMP CAESAR AVGVSTVS PATER PATRIAE". The central figure is a laurel wreath, which is a symbol of victory and authority. The inscription around the perimeter reads "IMP CAESAR AVGVSTVS PATER PATRIAE".</p>	<p>The image displays two ancient coins, each with a distinct shape and texture. The artifact on the left appears to be a small, irregularly shaped object, possibly a coin or a piece of jewelry, with a rough, weathered surface. The artifact on the right is a larger, more rounded object, possibly a coin or a piece of jewelry, with a smooth, polished surface. The image also shows a small, rectangular object, possibly a coin or a piece of jewelry, with a smooth, polished surface. The image also shows a small, rectangular object, possibly a coin or a piece of jewelry, with a smooth, polished surface.</p>	<p>This copper coin, originating from the Gupta dynasty between 375-415 CE, presents a striking depiction of Chandragupta II. The king is portrayed standing and facing left, adorned with a vastadito and jewelry, with his right hand raised, signifying authority or blessing. To the right of the king, a diminutive attendant figure bears an exquisitely decorated parasol above him, an accessory emblematic of royal power. The reverse side of the coin features a seated figure, likely a deity or royal ancestor, within a circular frame. The coin's design is highly detailed, reflecting the sophisticated metalworking techniques of the Gupta period. The coin's inscription, though partially obscured, likely identifies the ruler and the mint. The coin's condition, showing signs of wear and corrosion, suggests it was in circulation for some time. The coin's design is highly detailed, reflecting the sophisticated metalworking techniques of the Gupta period. The coin's inscription, though partially obscured, likely identifies the ruler and the mint. The coin's condition, showing signs of wear and corrosion, suggests it was in circulation for some time.</p>
<p>Roman Imperial / Roman Empire</p>	<p>GPT-4o</p>	<p>Gemini</p>	<p>Qwen</p>	<p>LLava-Next</p>	<p>Ground-Truth</p>
<p>The image depicts an intricately crafted gold neck ring, often associated with ancient Nordic cultures. The ring is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The ring is shown in a close-up view, highlighting its intricate design and the way it is worn around the neck. The ring is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The ring is shown in a close-up view, highlighting its intricate design and the way it is worn around the neck. The ring is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The ring is shown in a close-up view, highlighting its intricate design and the way it is worn around the neck.</p>	<p>The image depicts an intricately crafted gold neck ring, often associated with ancient Nordic cultures. The ring is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The ring is shown in a close-up view, highlighting its intricate design and the way it is worn around the neck. The ring is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The ring is shown in a close-up view, highlighting its intricate design and the way it is worn around the neck. The ring is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The ring is shown in a close-up view, highlighting its intricate design and the way it is worn around the neck.</p>	<p>Here's a detailed description of the image, focusing on the artifact's appearance and potential cultural context: The image shows a gold neck ring, likely from the Bronze Age, made of a thick, circular band of metal. The ring is shown in a close-up view, highlighting its intricate design and the way it is worn around the neck. The ring is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The ring is shown in a close-up view, highlighting its intricate design and the way it is worn around the neck. The ring is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The ring is shown in a close-up view, highlighting its intricate design and the way it is worn around the neck.</p>	<p>The image depicts an intricately woven bracelet, likely from the Bronze Age, made of a thick, circular band of metal. The bracelet is shown in a close-up view, highlighting its intricate design and the way it is worn around the wrist. The bracelet is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The bracelet is shown in a close-up view, highlighting its intricate design and the way it is worn around the wrist. The bracelet is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The bracelet is shown in a close-up view, highlighting its intricate design and the way it is worn around the wrist.</p>	<p>The image shows a small, white ceramic figurine that appears to be a representation of a seated Buddha. The figure is depicted in a meditative pose, with one hand resting on its knee and the other on its lap. The figure is shown in a close-up view, highlighting its intricate design and the way it is worn around the wrist. The figure is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The figure is shown in a close-up view, highlighting its intricate design and the way it is worn around the wrist. The figure is made of a thick, circular band of metal, possibly gold or silver, with a textured surface. The figure is shown in a close-up view, highlighting its intricate design and the way it is worn around the wrist.</p>	<p>This exquisite artifact is a seated figure sculpted from white stoneware, dating back to the 10th and 11th centuries, exemplifies the artistry and metalwork skills of the era. Composed of blended silver wires, the necking culminates in two elongate, elegant terminals that are beaded flat and intricately ornamented with rows of stamped triangular rings on their upper surfaces, concluding in a functional hook. Such neckrings were likely symbols of wealth and status within the elite, reflecting both the wearer's preferences and technical prowess. This particular artifact was unearthed as part of the Safford Hoard, located in the British Isles, providing valuable insights into Viking presence and influence in the region.</p>
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Figure 8: Cross-model comparison of generated descriptions for TimeTravel dataset samples, highlighting variations in detail and accuracy. It illustrates differences in descriptive depth across open- and closed-source models, emphasizing the diversity in interpretative approaches and alignment with the ground truth.