

# The Looting of Iraqi Cultural Property during the 2003 Invasion and Subsequent Occupation by the United States and Coalition Forces

**Jane Marston**

University of South Africa  
jane@marston.co.za

## Abstract

Despite exhaustive efforts by scholars, archaeologists, and national and international organisations the United States chose not to protect the National Museum of Iraq, but to send its troops to guard the Oil Ministry and oil fields instead. As a result, the National Museum was looted. No attempts were made to stop the looting; orders were specifically given not to do so. Looting at archaeological sites increased significantly during the invasion and in the lawlessness and chaos which characterised the occupation of Iraq. The United States forces as occupiers had an obligation to prevent the plunder and looting, but they failed to do so. Further, they participated in the destruction of some sites through military occupation and irresponsible construction. As a result, many sites were partially or completely destroyed, and parts of others have been rendered useless for further archaeological research. It necessarily follows that knowledge has been lost and humankind is the poorer for it.

**Keywords:** invasion of Iraq; occupation of Iraq; looting of National Museum of Iraq; destruction of sites

## Introduction

This article focuses upon Iraq; its importance, the devastation wrought upon the cultural property of that country during its invasion and occupation by the United States of America and the Coalition forces, and the response that this engendered. This article<sup>1</sup> will focus upon the damage wrought by the United States and Coalition forces during

---

1 This article is largely extracted from the author's Master's dissertation (Marston, 2013).

the 2003 invasion and the subsequent occupation of the country, a period which lasted from 20 March 2003 to 18 December 2011.

In Iraq, the link between oppression and archaeology is not new. From the very earliest phase of excavation, which lasted from the 1830s to World War I, archaeology was characterised by Western domination (Bernhardsson 2005, 10) and perceived to be part of an imperialist strategy in terms of which westerners plundered the riches of the country. The attitude which characterised Western interests served to exacerbate these negative views still further: Western archaeologists were discovering, rescuing, and preserving historical treasures from a barbaric, unenlightened people who lacked the interest, knowledge, and erudition to appreciate and care for the antiquities (Bernhardsson 2005, 17).

The Ba'ath Party, and Saddam Hussein in particular, utilised Iraq's Mesopotamian past as an ideological tool in the creation of an Iraqi national identity. In an effort to unite the ethnically diverse population, Hussein sought to link modern Iraq to ancient Mesopotamian civilisations on a cultural basis (Baram 1991, 48).<sup>2</sup> The decision to politicise archaeology and cultural property meant that it became associated with the regime, and an attack upon cultural property was seen as an act of opposition to its oppression. During the 1991 Gulf War, nine of the thirteen regional museums were looted, and some were burned. Over 4 000 items were looted, and few have been recovered.

With the imposition of sanctions and no-fly zones following the invasion of Kuwait, the ability of the Iraqi State Board of Antiquities and Heritage (SBAH) to fulfil its functions was severely compromised. Sanctions made it impossible to acquire the skills, equipment, and chemicals necessary to maintain cultural property, and the poverty, lack of food, and medical supplies occasioned by the sanctions resulted in skilled workers leaving the country to pursue job safety and personal security elsewhere. By the time of the 2003 invasion, the severely reduced numbers of skilled personnel in museums and guards at sites had rendered it impossible to protect and preserve the nation's cultural property, or even to record it properly.

Although Hussein's punishment of captured looters was draconian<sup>3</sup> — in one instance he televised the execution of ten wealthy businessmen (Rothfield 2009, 19) — it had

---

2 He also pursued personal aggrandisement by associating himself with ancient heroes, portraying himself as their successor. In stage-managed events, he promoted himself through slogans like "Yesterday Nebuchadnezzar, today Saddam Hussein" (Baram 1991, 48).

3 His attitude was inconsistent. The Third River Project, for example, destroyed many Sumerian sites in the dry river bed of the Euphrates, and roads built in the vicinity caused further damage. Similarly, the salvage operations performed prior to construction, such as that at Tell al-Makhada, were superficial and deeper layers were destroyed (al-Hussainy 2010, 86).

little effect as poverty increasingly gripped the nation and the international market for Mesopotamian antiquities became increasingly lucrative. Even government officials engaged in illegal excavations, damaging many sites such as Isin, Adad, Shurruk, abu-Hatab, Bezikh, Larsa, Shmet, Umma, Tulul al-Dhaher, az-Zebleiat, and Tell al Wilaya (al-Hussainy 2010, 86).

When it became clear to archaeologists and the wider cultural community that an American-led invasion of Iraq was inevitable, extensive efforts were made to alert both the American and British governments to the dangers of looting that would inevitably follow. The importance of the Iraqi National Museum in Baghdad<sup>4</sup> was highlighted in these discussions and resulted in it being placed second on a list of sixteen institutions that were to be protected during the invasion (Johnson 2005, 4). Similarly, the importance of the archaeological sites in Iraq was emphasised, and on numerous occasions maps and lists were provided to the authorities to facilitate their protection.

## **The Looting of the Museum**

On 20 March 2003, the attack on Iraq began — initiated by an air assault designed to “shock and awe” Iraqis into submission (Nissen and Heine 2009, 160).<sup>5</sup> In spite of all of the warnings and promises that had been made prior to the invasion, no efforts were made to protect the museum when the battle to take Baghdad commenced on 5 April 2003.<sup>6</sup> This failure was not addressed subsequently when American senior officers were informed that looting had commenced on the outskirts of the city. It later transpired that orders had specifically been given on 9 April 2003 that nothing should be done to stop the looting (Conroy and Martz 2005, 223), orders that emanated directly from Washington (Bahrani 2008, 69).

---

4 The Iraqi National Museum was not the only museum looted — it was one of many. It was, however, the most significant museum in the country, with unique holdings which traced the rise of civilisation. As a result, it was the one upon which archaeologists and other concerned persons focused in their dealings with the American and British governments.

5 Although exact figures are unknown, it is estimated that around ten thousand Iraqi civilians and tens of thousands of Iraqi soldiers were killed in the first three weeks. Some 13 000 cluster munitions exploded into 2 million cluster bombs, wiping out entire areas. 128 American and 31 British soldiers were killed, most by friendly fire. During the invasion and period of occupation, over 1 million civilians died and the social infrastructure, including electricity, potable water, and sewage systems were completely degraded. In addition, over 400 academics were targeted for assassination and approximately 4 million people were displaced (Baker, Ismael and Ismael 2010, 4).

6 The first institution on the list was the Iraqi Central Bank, which was bombed; the second was the museum, which was unprotected and looted. Sixteenth on the list was the Oil Ministry, the only place in Baghdad that was secured and protected. Rather than protect the other listed institutions, 2 000 troops and armoured vehicles were sent to secure the oilfields in the north of the country (Sandholtz 2005, 237; Johnson 2005, 4).

On 10 April 2003, the Iraqi National Museum in Baghdad was entered and the looting commenced. Some looters went through the premises selectively removing items, even from underground storerooms. Others removed artefacts from display cases and the walls of the public galleries (George and Gibson 2008, 23), and took furniture, office equipment, curtains, computer equipment, fans, air conditioners, electrical fixtures, and even part of the electrical wiring from the administrative offices (George and Gibson 2008, 21). They scattered administrative records on the floor and tried to set them alight (George and Gibson 2008, 23). The registration room and conservation laboratories were also stripped<sup>7</sup> and vandalised (Russell 2003, 7).

Although some pieces had been left in place because they were considered either too fragile or too heavy to move, this did not deter the looters. The 300-pound Akkadian copper statue from Bassetki (circa 2300 B.C.E.) was dragged down the stairs and out of the building (Russell 2003, 4). The foot of the stolen Warka vase, a white limestone votive vase (circa 3200 B.C.E.) and one of the museum's most valuable possessions, was still attached to the pedestal to which the vase had been affixed (Russell 2003, 4). Forty of the artefacts left in the public galleries were stolen (Bogdanos 2003b, 7) and fifteen others were vandalised (Elich 2004, 1). Thieves attempted to behead a terracotta statue of a Harmal-type lion (circa 1800 B.C.E.) and a statue of a woman from Hatra with a blunt instrument (Elich 2004, 1). Twenty-five objects were damaged in the galleries, corridors, and restoration rooms, including eight clay pots, four statues, three sarcophagi, three ivory reliefs, two rosettes, and a reproduction of the Golden Harp of Ur (Bogdanos 2005, 214). The items stolen from the restoration room<sup>8</sup> included gaming plates from the royal tombs of Ur, a large Assyrian ivory-relief headboard, a ninth-century B.C.E. wheeled brazier from Nimrud, an eighth-century B.C.E. ivory depicting a lioness attacking a Nubian, and the 5 000-year-old Mask of Warka, the first known naturalistic depiction of a human face (Bogdanos 2005, 214). Some 199 pottery pieces, metal tools, and beads were stolen from boxes contained in the restoration and registration rooms (Bogdanos 2003b, 8), and 236 pieces were stolen from the Heritage Room, which contained the more modern scrolls and antique Islamic furniture and porcelain (Bogdanos 2003, 3). 5 144 cylinder seals<sup>9</sup> and 5 542 pins, beads, pendants, necklaces, and glass bottles were taken from one of the rooms in the basement (Bogdanos 2005, 297).

---

7 The only equipment left behind was a broken electron microscope and four kilns used to fire tablets (Russell 2003, 7).

8 The fact that so many extremely valuable objects were moved to the restoration room and left on the table has been considered too serendipitous to be the result of mere chance, particularly since there were two safes in the room in which they could have been safely stored (Bogdanos 2005, 214). However, it ultimately made no difference as the safes were all opened.

9 The cylinder seals, accessioned into the museum prior to 1991, had been removed to a place of safety prior to the 1991 invasion. Although returned in 2000, they had not yet been secured in the locked

The lockers in the old magazine contained artefacts excavated from a number of sites during the 2002 season which, although registered, had not yet been filed away (Elich 2004, 1). From the two storage rooms it is estimated that 2 703 objects were stolen (Bogdanos 2003b, 9), including cuneiform tablets from recent excavations that were waiting to be catalogued (Biggs 2005, 4).

Based upon his investigation, Bogdanos<sup>10</sup> (2005, 213) formed the view that the artefacts stolen pointed to three distinct types of looters. Those who stole the objects from the public galleries were both selective<sup>11</sup> and discriminating; their careful selectivity spoke of professional involvement (Bogdanos 2005, 213).<sup>12</sup> Those who stole from the administrative offices and the storage rooms were indiscriminate — they emptied entire shelves with the sweep of an arm, often taking replicas and leaving more valuable items on adjacent shelves. Many of the artefacts were subsequently dropped and abandoned (Bogdanos 2005, 215). Some 90% of the items returned under the amnesty programme were stolen from these rooms (Bogdanos 2003b, 9). The 10 686 objects stolen from the basement storage room fall into the third category — one Bogdanos believes is indicative of inside involvement on the basis that “they knew how to get in, they knew where to find the keys, and they knew what they were looking for” (Bogdanos 2005, 216).<sup>13</sup>

In his final report dated 8 September 2003, Bogdanos (2003b, 13) recorded that a total of 13 515 artefacts were looted, a figure that increased once the cylinder seals were

---

cabinets, and were thus readily accessible to looters (Russell 2003, 9). One of the collections of cylinder seals was considered to be the first state archive (Polk 2005, 7).

10 Colonel Matthew Bogdanos conducted an official investigation into the looting of the Iraqi National Museum in Baghdad on behalf of the United States.

11 One exhibit consisted of 27 cuneiform bricks which demonstrated the development of cuneiform during the Sumerian, Akkadian, Old Babylonian, and New Babylonian periods. Only nine bricks, each representing one period, were taken (Bogdanos 2005, 213).

12 Elich (2004, 1) quoted witnesses who spoke of “well-dressed men” who walked through the galleries while speaking on cell-phones or walkie-talkies.

13 This led some journalists to allege that museum curators were complicit in the theft and named Donny George as the ringleader (Carboni 2003, 6). These accusations did not find favour with archaeologists who knew the staff members concerned and had worked with them for many years. In their defence, Gibson (2003, 111) cited the failure of the looters to locate the museum’s valuable and highly prized cuneiform tablet collection and the secret storage facility which contained many of the artefacts removed from the public exhibition and the bunker containing manuscripts. Bogdanos (2005, 295) dismissed Gibson’s argument as “premature,” stating that there could be many (unspecified) reasons why the cuneiform collection was not stolen; that Gibson is not a “cop”. Elizabeth Stone’s investigation led her to conclude that the thieves had taken the keys from the safe, as “all of the safes in the offices were opened (quite professionally in some cases)” (Stone 2003, 4). Almira Poudrier believes that the guards were bribed to provide the keys (quoted in Bogdanos 2005, 277).

recounted (Bogdanos 2003b, 11). This figure was subsequently increased further by George<sup>14</sup> to over 15 000 (George 2008, 102).

In addition to the direct losses were the other artefacts and thousands of pieces of artefacts which were smashed and/or thrown on the floor in the museum. Robert Fisk (2003, 2) reported that “[o]ur feet crunched on the wreckage of 5,000 year old marble plinths and stone statuary and pots”, and they picked up pieces of an Assyrian jar, perhaps 2ft high originally, which was broken into pieces. He also reported flashing his torch onto one shelf, which had held pottery from 3500 B.C.E., all of which had been smashed (Fisk 2003, 2).<sup>15</sup>

When the BBC reported that the museum was being looted on 11 April, McGuire Gibson of the University of Chicago’s Oriental Institute wrote to Kenworthy<sup>16</sup> and Limbert,<sup>17</sup> pointing out that since late January:

I have been cooperating with the army to try to save archaeological sites. In every conversation I have had, and in a lot of e-mails, I have put first in importance the Iraq National Museum. I even pointed it out on a map to a group. I was told that a special effort was to be made to protect it. I also mentioned the importance of one of the buildings of the Central Bank. Again, I was assured that something would be done. For the last three days, I have been waiting to hear that the museum had been secured. I started to send special messages two days ago to everyone I had contact with in the Army. Now I see on the wires that the museum has been badly looted. The U.S. forces had to have been on the street right in front of the museum in the past three days. Why was the building not secured? (Quoted in Rothfield 2009, 98)

Gibson received a call from the State Department the same day, advising that the army would be flying in troops to guard the museum that evening. However, as the military did not know where the museum was located, Gibson was requested to provide this information to Limbert in Kuwait (Rothfield 2009, 101), which he did. Limbert was however helpless, as the response he received from those he contacted was either “hand-wringing” or that it was “not a priority” (Rothfield 2009, 99).

---

14 Dr Donny George Youkhanna became a member of staff of the Iraqi National Museum in 1976 and served as the director-general of the museum from 2003 until he was forced to flee Iraq in 2006.

15 Subsequently, the UNESCO team who visited on 17–19 May 2003 commented upon the “considerable vandalism,” which would require “a long campaign of re-assembling fragments” (UNESCO 2003, 6).

16 Lt-Col Kraig Kenworthy was part of the joint task force appointed in February 2003 to deal with post-combat stabilisation.

17 Army Lt-Gen. Jay Garner, who was responsible for overseeing the initial phase of occupation, appointed Ambassador John Limbert, a man with no expertise in Iraqi archaeology, peacekeeping, or the protection of museums or sites, to deal with the cultural sector three weeks before the invasion (Rothfield 2008, 16).

Still no troops arrived to protect the museum. With the assistance of reporters, George was able to contact John Curtis, curator of the Near Eastern Department of the British Museum, on 15 April. After he was informed of the continued lack of protection, Curtis immediately advised Neil MacGregor, who contacted the prime minister's office and requested that protection be provided (Curtis et al. 2008, 202). Curtis also called Gibson, who contacted Major Chris Varhola, a staff member of Civil Affairs, and John Marburger, the White House science advisor (Rothfield 2009, 113). On 16 April Captain Jason Conroy was instructed to secure the museum and did so.<sup>18</sup>

## **The Looting of Archaeological Sites**

Looting of sites was observed on the day that the invasion began (Gibson 2008, 38). The SBAH was obviously unable to protect sites during the invasion and more particularly after the looting of their offices and the theft of their vehicles. Further, once the ministry of finance ceased to function, no employees were paid (Russell 2008, 33), a situation exacerbated by the disappearance of the Iraqi police and the Coalition's decision to disband the Iraqi army. No-one remained to enforce Iraq's antiquities laws.

Although sites of all sizes were looted, Elizabeth Stone's study established that looting was more prevalent at sites likely to produce artefacts popular with collectors: it was more intense at sites dating from the beginnings of civilisation in Mesopotamia, and escalated at later Early Dynastic and Akkadian sites, a time when the carving of cylinder-seals was at its finest. Heavy looting was also common at late third to second millennium B.C.E. sites for cuneiform tablets, and Achaemenid and Parthian sites for coins and jewellery (Stone 2008, 134).

It has been estimated that in the first two years following the invasion, looters removed as much earth as had archaeologists in the previous 180 years, and that between 400 000 and 600 000 artefacts were looted during this period alone (Rothfield 2009, 137).

## **Nimrud**

Nimrud was occupied from prehistoric times, but reached its zenith as the Assyrian capital under Assurnasirpal II (884-859 B.C.E.).<sup>19</sup> Even after the royal capital was

---

18 When they arrived, Conroy reports that there was a crowd of people and about two dozen cars outside: "About 50 people were outside, trying to get in. Another twenty or so were behind locked gates, trying to keep the others out" (Conroy and Martz 2005, 235).

19 Over a period of some 15 years, Assurnasirpal II transformed Nimrud from a small town to a city covering an area of some 360 hectares, surrounded by a wall approximately 7.5 kilometres long (Oates and Oates 2004, 27). The wall was originally about 100 feet high (Layard 1853, 123), and was constructed of mud-brick with stone foundations (Oates and Oates 2004, 28).

moved to Khorsabad, Nimrud remained an important provincial capital and was occupied until Parthian and Sassanian times (Curtis 1997, 141).

Assurnasirpal built temples and a magnificent palace complex (Foster and Foster 2009, 116), adorned with stone reliefs and colossal human-headed winged animals who were intended “by their nature to turn back an evil person” (Oates and Oates 2004, 36). The entrances to some temples were guarded by colossal lions, and other important buildings were decoratively painted and guarded by winged bulls (Curtis 1997, 144).

When the palace was burnt in 612 B.C.E., the fire baked and preserved the tablets in the archives together with, *inter alia*, carbonised seeds, mortars and grindstones, spindle whorls and loom weights, pottery, ivories, part of a musical instrument (Oates and Oates 2004, 46), and copper vessels (Oates and Oates 2004, 57).

Archaeologists located a number of undisturbed royal and other graves in the North-West Palace, with rich grave goods including gold ornaments weighing some fifty-seven kilograms (Foster and Foster 2009, 118). Other artefacts were discovered in wells.<sup>20</sup> Archaeological discoveries from the site have been extremely rich, even though only around 40% of the city had been excavated (Elich 2004, 6).

The site suffered after the 1991 Gulf War when reliefs were looted (Elich 2004, 6) and the storerooms ransacked (Paley 2003, 2). The looters again appeared at the site on 11 April 2003, calling the guards by name and threatening their families if they intervened. Several fragments of reliefs were stolen from the throne room and Room I, or damaged<sup>21</sup> (Elich 2004, 6; Paley 2003, 6), and the site museum was again looted (Paley 2003, 2). As a result of widespread reports of damage and theft, the United States stationed a military unit there (Gibson 2003, 112).

## Nineveh

Although the core mound of the city was occupied from the seventh millennium B.C.E. to early Islamic times (Stronach and Codella 1997, 144), the city reached its zenith as the capital of the Assyrian empire under Sennacherib.<sup>22</sup> Its location on the Tigris ford enabled it to control major trade routes (Russell 1998, 9).

---

20 These included ivories, carved tusks, writing boards and sculptures (Curtis 1997, 143), seals, ivories, manacled human skeletons (Oates and Oates 2004, 100), glazed pottery, objects made of gold and semi-precious stones, a copper mirror, beautifully carved ivory containers, and other objects made of bronze and iron (Oates and Oates 2004, 101).

21 While breaking apart the restored fragments, a piece of the face broke off and was shattered. As a result of this damage the bas-relief was dropped and abandoned (Paley 2003, 6)

22 The city covered 750 hectares, and was surrounded by double walls twelve kilometres long. While the inner wall was made of mud-brick, the outer wall was dressed with limestone and capped with stone



Sennacherib's new palace was the largest in Assyria, with walls decorated with reliefs, and doorways with "colossal human-headed bulls" (Layard 1853, 102). One continuous series of reliefs covered the entire gallery of the palace (Layard 1853, 104), and reliefs decorated the walls of other rooms in the palace,<sup>23</sup> one of which detailed the progress of an Assyrian conquest (Layard 1853, 70). The reliefs created subsequently by his grandson Assurbanipal are regarded as "unsurpassed in Mesopotamian art" (Stronach and Codella 1997, 146), and, based upon these reliefs, it is argued that the famous Hanging Gardens were not in Babylon, but in Assyrian Nineveh (Dalley 1994, 57).

Layard also discovered 10 colossal human-headed bulls bearing cuneiform inscriptions from the time of Sennacherib, which provided the annals of six years of his reign as well as information on Assyrian religion (Layard 1853, 138). Once translated, these inscriptions caused great excitement, for they corroborated certain events described in the Bible (Layard 1853, 144).

His successor, Hormuzd Rassam, uncovered the Lion Hunt series of reliefs of Assurbanipal as well as his library (Oates and Oates 2004, 6), comprising over twenty-four thousand cuneiform tablets (Stronach and Codella 1997, 145).<sup>24</sup> This library has proved to be a rich source of information on the region as well as on the lives, beliefs, and literature of its ancient inhabitants.

Looters began pillaging this site in the 1991 invasion<sup>25</sup> and in April 2003, in the absence of guards, looters damaged and removed segments from the only surviving wall in Sennacherib's palace still bearing reliefs, and stole protective structures (Foster et al. 2005, 80). They also dug holes in the floors in search of artefacts (Carboni 2003, 4). Although American military forces were camped a few hundred metres away, this did not stop the looting, although there were military patrols during the day (Foster et al. 2005, 80; Gibson 2003, 112).

## **Nippur**

Because it was in this city that Enlil was believed to have created mankind, it became a centre for pilgrimage across the region and escaped the depredations of ancient wars,

---

crenellations. It contained fifteen gates, the most magnificent being the Nergal Gate, which was guarded by winged colossi. Work on the city was continued by his successors, Esarhaddon (680–669 B.C.E.) and Assurbanipal (668–627 B.C.E.) (Stronach and Codella 1997, 146).

23 During his excavations, Layard uncovered almost three kilometres of carved reliefs (Stronach and Codella 1997, 145).

24 It was among these tablets that in 1872 George Smith found part of the tablet dealing with the flood; the remaining part he located during an excavation in 1873 (Stronach and Codella 1997, 145). It was also in this library that the Sumerian civilisation was rediscovered (Bernhardsson 2005, 49).

25 Nineveh was badly damaged in 1991 when looters removed the marble reliefs from Sennacherib's palace. The reliefs were broken up and sold in pieces on the antiquities market (Russell 1998, 15).

providing an “unparalleled archaeological record spanning more than 6000 years” (Oriental Institute 1997, 1).<sup>26</sup> According to Zettler (1997, 150), the Inanna temple in Nippur provides the “longest continuous archaeological sequence for Mesopotamia: twenty-two building levels spanning the Middle Uruk through Late Parthian periods”. Archaeologists have located relief-carved plaques, sculpture, and clay sealings, as well as cuneiform tablets dealing with the period from the late eighth and early seventh century B.C.E., a period for which sources are scarce (Zettler 1997, 151).

Archaeologists also located an archive containing 15 000 Sumerian and Akkadian tablets—lexical tablets and tablets dealing with Sumerian literature (Zettler 1997, 150), medicine (El Guindi 1991, 152), administration and other correspondence dating to the 14th and 13th centuries B.C.E. (Foster and Foster 2009, 90). These include the oldest versions of literary works, such as the Epic of Gilgamesh and the Creation Story (Oriental Institute 1997, 2), and have thrown light upon the curricula of schools in that area around 1740 B.C.E. (Robson 2001, 40,45). In 1990, Gibson located the ruins of a temple to Gula, the goddess of healing, which may produce new insights into the early practice of medicine.<sup>27</sup> Among the artefacts left at the temple were small clay figurines of humans, one touching his neck, another holding his head, and yet another his chin and stomach (Oriental Institute 1997, 1), gestures that Gibson believes refer to their ailments (El Guindi 1991, 151). Among the tablets found were three which deal with gynaecological problems (Oriental Institute 1997, 2).

In May 2003, the first UNESCO fact-finding mission discovered four new holes. Gibson paid the guards and spoke to the local sheikh in an attempt to prevent further looting (Gibson 2003, 112). The second fact finding mission undertaken by UNESCO in June/July 2003 reported that Nippur had some 100 holes and that the guards were ineffective as they were both outgunned and subject to threats against their families (Gibson 2003, 113). By 2004, looters had already dug at least three deep pits next to the *ziqqurat* (Atwood 2004, 6).

## Hatra

Hatra was first settled during the Late Hellenistic period (second to first centuries B.C.E.). Situated upon the commercial route from Ashur to Syria, it became an

---

26 This Sumerian city-state was occupied in the early sixth millennium, and the main mound remained occupied until 800 C.E. The city was large, covering 135–150 hectares, and was fortified by a wall (Zettler 1997, 149). Nippur was where the kings of Sumer and Akkad were crowned (Foster et al. 2005, 29), and later became a centre of learning.

27 The ruins examined date from circa 2000 B.C.E., but structures below are believed to date to circa 3000 B.C.E. (Oriental Institute 1997, 2). Gibson considers that the large size of the temple might indicate a greater emphasis on health and medicine than previously believed (El Guindi 1991, 151).

important trading centre<sup>28</sup> and remained an important centre on the caravan route between Seleucia-Ctesiphon and Singara and Nisibis (Teixidor 1997, 485) until the end of the third century C.E. This community was unique, for it had a trinity of deities not found elsewhere in the West Semitic region: “our lord”, “our lady”, and “their son” (Teixidor 1997, 486).

The statuary removed from the site to the Mosul and Baghdad museums was damaged by looters, and two of the statues left on site, the head of a figure from the northern *iwan* and a camel in relief, were looted. Although the site was protected by armed guards, their effectiveness was compromised by fears of reprisals against their families (Rothfield 2008, 21). At the time of the invasion, it was the only Iraqi site on the World Heritage List (Stone 2008b, 75). The controlled explosion of ordnance close to the site has endangered the stability of the ancient structures (Foster et al. 2005, 112).

---

28 With a central temple complex, Hatra was surrounded by six kilometres of walls with over 160 square towers (Foster et al. 2005, 111). The central temple complex housed the Temple of Shamash, smaller sanctuaries and the administrative centre. The temple had two large *iwans* in the centre, each with a row of smaller *iwans* next to them (White 1997, 485). The early inscriptions were Aramaic, followed by Greek and Latin. The art and architecture reflect a mix of Greek, Parthian, and Roman influences (White 1997, 484).

## Other Damaged Sites<sup>29</sup>

The damage to sites of Sumerian city-states has been catastrophic. Sites such as Umma<sup>30</sup> and Isin<sup>31</sup> have been completely destroyed; others, such as Adab,<sup>32</sup> Zabalam,<sup>33</sup> and Shuruppak,<sup>34</sup> have been so badly damaged that little remains of the top three metres of the archaeological record (Garen and Carleton 2005, 18). Gibson points out that some sites are so riddled with holes that any future excavations will require “laborious work to link islands of intact stratigraphy among the many holes” and may even be considered impossible to excavate (Gibson 2003, 115). At the Sumerian city of Um Alkarab, the bricks which formed the facade of the palace have been removed from the wall, almost destroying the palace (Fisk 2003, 3). There were also instances of damage to sites

- 
- 29 Looting was also reported at several other sites, but it is beyond the purview of this article to detail the damage suffered to every site.
- 30 The Sumerian city-state of Umma was one of the earliest to emerge in the fourth millennium B.C.E. and displayed early evidence of economic specialisation and political organisation (Starr 1991, 32). It was never officially excavated, although the SBAH conducted an emergency excavation in 1996 in the face of increased looting (Garen and Carleton 2005, 18). In the 1990s, it was reported that looters had located and removed a cuneiform archive (Brodie 2006, 206). On the day the war began, dozens of looters arrived at the site, drove off the guards, and began looting (Atwood 2004, 6). Over 200 looters, some armed, were still active when Gibson inspected the site in May 2003 (Elich 2004, 7). When George travelled to Umma to rescue certain carvings, the looters were using bulldozers and dump trucks in their haste to take whatever they could (Jenkins 2007, 1).
- 31 Although Isin was believed to have been founded by the king of the first dynasty, Ishbi-Erra (2017–1985/1953–1921 B.C.E.), excavations indicate that it was occupied as early as the ‘Ubaid period. It was a centre of traditional learning (Foster and Foster 2009, 71), and an ancient version of Lourdes, where some four millennia ago people sought healing through prayer to the goddess Gula. Human bones evidencing deformity, trauma, and disease have been excavated (Atwood 2004, 2), and an anthropologist has found evidence of arteriosclerosis, a blow to the head, stroke injuries, and small artificial openings in a skull indicating trepanation (Hrouda 1997, 187). Although American military forces had their area headquarters in nearby Afak, with tanks and armoured personnel carriers, their armed patrols made no effort to stop the looting or the destruction of the site (Atwood 2004, 3).
- 32 This town, occupied from at least as early as the early third millennium B.C.E., appears in the Sumerian King-list. Bricks stamped with the names of kings from the Early Dynastic and Akkadian periods were found, together with cuneiform tablets, fragments of pottery, and statuary. Considered one of the most important third millennium sites in Mesopotamia, it had not been fully excavated (Crawford 1997, 15).
- 33 This site, occupied from the early third millennium to the Akkadian period (circa 3000–2200 B.C.E.), had not yet been excavated. The large mound, some 30 to 40 metres high, is believed to have contained the remains of a *ziqqurat* (CENTCOM Historical/Cultural Advisory Group).
- 34 The fame of the city lay principally in the belief that it was the home of Utnapishtim, the hero of the flood. First settled in circa 3000 B.C.E., and covering an area of some 200 hectares, it was occupied until the Ur III period. Although the deposits from the Jemdet Nasr period were substantial, they were not fully excavated. Cuneiform tablets and clay sealings located in the mud-brick structures from the Early Dynastic period provided insight into the administrative, economic, and daily life of the period (Matthews 2000, 271).

unrelated to looting. The famous arch of Ctesiphon<sup>35</sup> was defaced by graffiti, and children have been permitted to play with the bricks, which were scattered across the site (Carboni 2003, 4).

Not all the looting has been carried out by impoverished inhabitants. According to al-Hussainy, some foreign archaeologists took advantage of the prevailing chaos during the period of occupation and conducted excavations without permission. One, Giovanni Pettinato, announced that he had discovered some 500 cuneiform tablets<sup>36</sup> at Eridu, a figure which he later increased to around 5 000. These artefacts have yet to be properly evaluated (al-Hussainy 2010, 88).

## **Damage to Sites from Military Occupation**

### **Ur**

This ancient city<sup>37</sup> was occupied for some four thousand years, from the fifth millennium B.C.E. to the mid-first millennium B.C.E., reaching its zenith circa 2100–2200 B.C.E. (Pollock 1997, 288). It was abandoned around 400 B.C.E. (Pollock 1997, 291).

Since the city's principal excavator, C. Leonard Woolley, focused only in one particular area of the city, our knowledge of the city is largely restricted to its religious<sup>38</sup> and civic aspects during the 'Ubaid, Uruk, Jemdet Nasr, and Early Dynastic Periods (Pollock 1997, 288), and further excavation is still necessary.

---

35 Ctesiphon was founded by the Parthians after they captured Mesopotamia from the Seleucids during the second century B.C.E. (Simpson 1997, 77). It was where kings were crowned and the site of the royal winter residence. In 224 C.E. the Parthians were defeated by the Sassanians, who retained the city as their capital and place of coronation. It was an important cultural and administrative centre and housed the royal mint. The city was encircled by a fired brick wall and a moat. After its conquest by the Arabs in 637 C.E., several mosques were built. After the foundation of Baghdad, the city was devastated by the removal of bricks for reuse (Simpson 1997, 78).

36 He subsequently said that he had erred; that they were not cuneiform tablets, but rather stamps on bitumen (al-Hussainy 2010, 88).

37 The city covered at least fifty hectares (Pollock 1997, 289). Although most of the central area of the city was destroyed by the Elamites in circa 2000 B.C.E., the city was rebuilt by the kings of Isin. A political capital no longer, it remained an important religious and commercial centre, expanding still further. With the rise of Babylon in the eighteenth century B.C.E., the city fell into decline, and the city walls and main buildings were destroyed following a rebellion against Babylon in circa 1740 B.C.E. Although many of the religious buildings were restored by the Kassites in circa 1400 B.C.E., the city never regained its former glory (Pollock 1997, 290).

38 It was a regional religious centre, where gods such as Nannar (god of the moon), Anu (god of the heavens), En-ki (god of earth), and the goddess NinGal (wife of Nannar) were worshipped (Hamdani 2008, 151).

It was in Ur that many of the discoveries that we rely on today were made, including writing, principles of irrigation and architecture, developed agriculture, and the use of metals, particularly copper. Woolley's excavations brought to light the *ziggurat*, temples, and palaces which displayed advanced knowledge in the fields of engineering and construction, and the cuneiform tablets excavated demonstrated Sumerian progress and advances in the fields of literature, science, mathematics, and astrology (Hamdani 2008, 151). The site still boasts the remains of a *ziggurat* and various palaces and temple ruins. The oldest use of a brick-built arch in Mesopotamia is found in one of the temples (Hamdani 2008, 152).

The royal tombs of Shulgi and Amar-Sen have been located there (Hamdani 2008, 153), and Woolley's excavation of three cemeteries,<sup>39</sup> each from a different period, provide evidence of the change in burial practices over the 1000 years that they represented (Woolley 1928, 5). These excavations revolutionised "our ideas of Mesopotamian civilisation in the fourth millennium" (Woolley 1928, 10). As well as vessels for food and drink, decorative household items, tools, weapons,<sup>40</sup> jewellery, and personal ornaments were found (Woolley 1928, 10).<sup>41</sup> He also discovered harps and lyres beautifully decorated with white shell inlay on black bitumen and terminating in bulls' heads of gold (Kriwaczek 2010, 95). It appears that face- and possibly body-painting was practised. The colours found included black, white, yellow, red, green, and blue (Woolley 1928, 14).

The sanctuary, believed to have been built by the kings of Agade (Woolley 1923, 322), was small, and its five chambers were clearly intended only for use by the priests (Woolley 1923, 324). The temple later constructed by Nebuchadnezzar, however, contained a lower court clearly intended to house a congregation. Based on this, Woolley believes that Nebuchadnezzar "introduced a new plan of building to accommodate a new form of worship" (Woolley 1923, 327).

The ancient city of Ur lay within the perimeter fence of the second largest American airbase built in Iraq, which covered 2 832 hectares (Curtis 2007, 1). This airbase was

---

39 These cemeteries lay in successive layers. An examination of the grave goods enabled him to establish that they dated from circa 2700–2500 B.C.E., circa 3200–3100 B.C.E., and the lowest to circa 3500 B.C.E. (Woolley 1928, 3); the cylinder seals were particularly helpful as were the pictographic tablets found near the graves (Woolley 1928, 9).

40 Woolley (1928, 13) believes that the prevalence of "hollow-socketed weapons" is indicative of how much more advanced the Sumerian smiths were than their Egyptian counterparts, who only implemented this technology towards the end of the 18th Dynasty. The bows found in the graves disproved the prevailing view that they were only introduced during the Third Dynasty (Woolley 1928, 14).

41 The cloak pins worn by the males may explain the Babylonian report that courtiers murdered king Rimush of Akkad "with their seals". Some of these pins of copper, with pierced heads from which a short string of beads or sometimes a cylinder seal was suspended, were almost a foot long and could easily be used to stab someone (Woolley 1928, 13).

adjacent to the *ziqqurat*, with two runways and four satellite camps. During the construction of facilities for their aircraft and Predator unmanned drones, over 9 500 truckloads of sand were moved (Johnson 2005, 4).

During their occupation of the site, marines spray-painted their motto, “Semper Fi” onto the walls of the city, and there were reports that American military personnel took bricks from the site as souvenirs (Johnson 2005, 4). By driving heavy military vehicles across the site and treading over the site and the buildings,<sup>42</sup> the occupying forces not only changed parts of the landscape, but probably damaged or destroyed unexcavated artefacts and buildings as well (Hamdani 2008, 154). The stairs from the royal cemetery were severely damaged, and some of the large hulls were cracked (al-Hussainy 2010, 87).<sup>43</sup> The cost to the archaeological record and the knowledge lost in consequence was also trivialised by unnecessary expansion.<sup>44</sup>

The bombardment of the American airbase also had an effect upon the site. In September 2006 and January 2007, the site was hit by several shells (Hamdani 2008, 155), and in February 2007 a rocket landed on the site creating a crater some one metre across and one metre deep (Curtis 2007, 4). Another three rockets landed in April 2008 (Curtis et al. 2008, 8).

The most serious damage was in the area of the new front gate, built in Diqqiqqa, a suburb of Ur which has not yet been fully excavated. The new development was extensive,

---

42 When Curtis attempted to inspect Ur with al-Hussainy, former chairman of the SBAH, US soldiers refused to allow al-Hussainy entry. Curtis was outraged by this refusal: “It is quite galling that coalition soldiers can look around the site, whereas ordinary Iraqis, even the Chairman of the State Board of Antiquities himself, are not granted access” (quoted in Tarbrush 2007, 3). This was not the only occasion upon which he and his staff were refused entry to archaeological sites by Coalition forces. As Stone and Bajjaly (2008, 12) point out: “It is possible to understand, if not easily accept, the logic of restricted access to military camps positioned on archaeological sites; however, it is surely impossible to accept the exclusion of Iraqi specialists while allowing Europeans in.”

43 Not all of the damage to the site is attributable to US military occupation. Rainwater and wind have damaged the site, as has neglect, a lack of conservation and, in some cases, poor conservation, where the pressure of concrete placed on top of walls to protect them from rain has damaged the walls below. Hussein constructed asphalt roads upon the site (Hamdani 2008, 153), and a military airbase south of the site, with army barracks in and around the site, some in areas which have not yet been excavated. The armoury was built close to the *ziqqurat*. The activity of aircraft and helicopters have caused fissions and cracking in the walls and roofs of the *ziqqurat*, the E-Dub-lal-makh temple, and the royal tombs. The *ziqqurat* had already been damaged by American aircraft in February 1991 in response to anti-aircraft fire (Hamdani 2008, 154).

44 On 24 October 2003, the occupying forces opened its second Burger King at the airbase: “The new facility, co-located with [a] ... Pizza Hut, provides another Burger King restaurant so that more service men and women serving in Iraq can, if only for a moment, forget about the task at hand in the desert and get a whiff of that familiar scent that takes them back home” (quoted in Johnson 2005, 4).

comprising a processing area, passages for pedestrians between HESCO<sup>45</sup> containers, and a compacted gravel area for vehicles. The HESCO containers were filled with earth from a trench cut through archaeological deposits, and contained numerous potsherds (Curtis 2007, 4). This development irreparably damaged this part of the old city, and the changes made to the landscape have materially affected the archaeological record of both the city and the surrounding area. Indeed, parts of it have been lost forever (Hamdani 2008, 154). Further, a site dating to the time of Hammurabi was bulldozed and completely destroyed (Stone 2008a, 78).

## Babylon

Of all ancient Mesopotamian cities, this is probably the most familiar to Western society for, through its representation in the Bible, its destruction became a salutary reminder of the dangers of human arrogance (Klengel-Brandt 1997, 251): it symbolised both “oppression and iniquity”, and its destruction served to remind “secular authority of the ephemeral nature of power”. Greek scholars and soldiers left descriptions of the massive city wall, the temple of Bel, and the Hanging Gardens, one of the seven wonders of the ancient world (Edens 1997, 146).

After the city was conquered by the Persians in 539 B.C.E., Cyrus elevated Babylon to a royal residence, and royal fortresses were rebuilt. In 331 B.C.E., Alexander the Great made Babylon the capital of his empire and rebuilt several the temples. Regrettably, in order to rebuild the tower, he had the ruins of city walls and several buildings removed. After it was conquered by Mithrades I (171–138 B.C.E.) the city declined (Klengel-Brandt 1997, 255).

When excavations were opened by Hormuzd Rassam in 1876,<sup>46</sup> looting at the site was rampant. The baked bricks were being reused and the stone monuments were being burned for gypsum (Klengel-Brandt 1997, 252). The British Museum entered into an agreement with the local inhabitants that “the extraction of bricks would be tolerated”, but all tablets, cylinder seals, and artefacts were to be sold to them. This agreement led to the destruction of certain areas, and some of the buildings were so thoroughly dismantled that it became impossible to establish their original layout (Klengel-Brandt 1997, 252).

Although there has been some excavation of the Neo-Babylonian,<sup>47</sup> Achaemenid, Seleucid, and Parthian periods of occupation, archaeological access to the Old

---

45 These are sandbags 1.5m high and 1.10m wide (Moussa 2008, 148).

46 The earliest investigation of Babylon was undertaken by Pietro della Valle in 1616, who returned to a disinterested Europe the first cuneiform tablets from Babylon and Ur (Klengel-Brandt 1997, 251).

47 During the Neo-Babylonian period, the city was heavily fortified with inner and outer walls some eighteen kilometres long, with eight gates, later supported by a large embankment and a moat, dating from the Neo-Assyrian period. The streets were laid out in the directions of the wind — northeast,



Babylonian period was limited owing to the high water table (Klengel-Brandt 1997, 252).

The largest body of excavated artefacts consists of ceramics and pottery, while the remaining artefacts comprise tablets relating to building, history, culture, and astronomy, and cover the period from the early second millennium B.C.E. to the third/fourth century C.E. It is apparent that Babylon was a religious and scientific centre (Klengel-Brandt 1997, 255).

Following the 2003 invasion the modern palace was looted, the museum buildings damaged,<sup>48</sup> and the administrative offices and study centre burned down. In response to calls for assistance from museum staff, American forces elected to occupy Babylon in April 2003, establishing Camp Alpha in the centre of the ancient city (Moussa 2008, 144). It was developed into a 150-hectare camp, which covered one eighth of the site and housed 2 000 soldiers (Jenkins 2007, 2).<sup>49</sup> A barbed wire fence, held in place by iron pegs driven into archaeological deposits, was erected around the city as well as in other locations within the ancient city itself (UNESCO 2009, 17).

The decision to locate a helipad<sup>50</sup> in the Kulabba zone required an area within the buildings of the ancient city to be levelled and fuel tanks<sup>51</sup> to be dug into the earth (Oledzki 2008, 251). The daily flights of helicopters, which shook ancient walls and sandblasted the fragile structures, caused the wall of the Temple of Nabu and the roof

---

northwest, southeast, and southwest. A long and wide processional street led to the Ishtar Gate, and the high walls on either side of the street marked a fortress on the east, and a citadel, constructed during the reign of Nebuchadnezzar, on the west (Klengel-Brandt 1997, 253). The temple precinct was located in the centre of the city (Klengel-Brandt 1997, 254).

48 Although the Nebuchadnezzar and Hammurabi museums were looted, the objects stolen were copies (Moussa 2008, 144).

49 Not all the damage at Babylon can be attributed to this period of occupation. Prior to 2003, the city was damaged by Hussein. A cement-lined moat was constructed to link three new lakes on the north, south, and east. A fourth lake was connected to the “Babylon Stream” to the north. Three artificial mounds were created, and parking lots (surfaced with gravel) and roads were built (UNESCO 2009, 9). Restaurants, museums, service buildings (UNESCO 2009, 10), and parks were constructed in the centre of the site. Further damage was caused to ancient structures by attempts at restoration/reconstruction, and by lack of appropriate maintenance and protection (UNESCO 2009, 12). Agriculture and construction resulted in the removal of parts of the walls and the loss of features in the western side of the city. As much of the land is private property, some houses incorporate parts of the outer wall (UNESCO 2009, 11).

50 The removal of the helipad is not going to be easy: “How are we supposed to get rid of the helipad now? With jackhammers? Can you imagine taking a jackhammer to the remains of one of the most important cities in the history of mankind? I mean, come on, this is Babylon” (George quoted in Gettleman 2006, 2).

51 Curtis (2004, 7) found evidence that fuel was seeping from the tanks into archaeological layers. Additional evidence of serious fuel seepage was found in the areas where vehicles were refuelled.

of the reconstructed Temple of Ninmah, both dating from the sixth century B.C.E., to collapse.

Several trenches and pits were dug in different parts of the city.<sup>52</sup> The excavated soil, containing fragments of ancient baked brick, earthenware, and pottery,<sup>53</sup> was used to construct barriers (UNESCO 2009, 14) and roads to accommodate the passage of heavy vehicles (Moussa 2008, 146), which will have damaged the artefacts below. Not only were many archaeologically sensitive areas and mounds<sup>54</sup> scraped and levelled, but they were then covered with sand and gravel<sup>55</sup> from elsewhere and compacted by heavy machinery (UNESCO 2009, 15). The movement of soil contaminates the archaeological record, rendering the soil, as well as the area to which it is moved, archaeologically useless. To make matters worse, some of the soil taken from archaeological mounds was mixed with sand brought from outside the city (UNESCO 2009, 14).<sup>56</sup>

Some areas were treated with chemicals (UNESCO 2009, 15), and pits were dug into a number of wells, while others were used as the base for observation towers (Oledzki 2008, 251). Parts of the site were mined (Thompson 2005, 2).

The small unpaved car park south of the theatre was enlarged, covered with sand and gravel, compacted, and encircled with HESCO barriers, for the use of heavy trucks, heavy equipment, and accommodation caravans (UNESCO 2009, 15). A parking lot for heavy machines and vehicles was constructed adjacent to the remains of the Greek theatre, which dates from the time of Alexander the Great, and other large car parks were constructed or expanded in the ancient city, where ancient pottery fragments were clearly evident upon the surface (UNESCO 2009, 15). Many other areas were levelled and surfaced to provide roads (UNESCO 2009, 16).<sup>57</sup> It must be borne in mind that most of Babylon, particularly where this construction took place, had not yet been excavated.

The Ishtar Gate, one of the most important and prominent ancient buildings in the city, was damaged; bricks on nine of the animal bodies which adorn it were smashed (Curtis

---

52 A trench was even dug at the corner of the *ziggurat* (UNESCO 2009, 13).

53 Curtis reported that one brick bears the inscription “Nebuchadnezzar, King of Babylon, who provides for Esagila and Ezadila, the eldest son of Nabopolassar, King of Babylon, am I” (Thompson 2005, 2).

54 Fourteen mounds were cut into, and the soil removed. There is evidence that the cut in one mound extends into a wall of baked brick (UNESCO 2009, 14).

55 It is estimated that some 300 000 square metres have been covered with gravel (Curtis 2004, 7).

56 On 3 November 2003 an order was given that the bags should only be filled with sand and earth brought in from outside Babylon (Curtis 2004, 8), but this merely substitutes one problem for another. As the bags disintegrate, the contents contaminate the surrounding deposits and the record of Babylon itself.

57 When Curtis conducted his inspection in 2005, he was unable to inspect the entire site, as part of it was fenced off and mined. His report was thus not exhaustive (Thompson 2005, 2).

2004, 6).<sup>58</sup> In the temple of Nabushakhari, the imprints from wheels of heavy equipment are apparent, and the passage of vehicles broke the paving in the procession street, the main street of the city (UNESCO 2009, 18). Further, three rows of concrete blocks, each weighing approximately two tons, were placed on the ancient paving, damaging both the paving and any artefacts below.<sup>59</sup> A row of HESCO bags, filled with earth from a different part of the site, was placed in the middle of the street. Barbed wire, held in place with iron spikes, was attached to the wall, and a ditch was dug into the eastern wall (UNESCO 2009, 18).

Babylon has paid the price of war. Damaged, looted, levelled, contaminated and paved over, much of its information is lost forever.

## **Samarra**

Northedge (1997, 473) believes that Samarra might be “the largest archaeological settlement site in the world”, covering some fifty kilometres along the Tigris River. The Milwiyah minaret, built between 848–852 C.E. (English 2006, 7), with its external spiral staircase, is considered by some to be a “descendant” of the Mesopotamian *ziggurat* (Hansen 1997, 472), and the inspiration for western representations of the Tower of Babel (Northedge 1997, 476).

The graves of the Chalcolithic period contained distinctive handmade pottery, now known as Samarra ware.<sup>60</sup> The city has several buildings of architectural significance—the Milwiyah minaret, the Octagon of Husn al-Qadisiyya (Northedge 1997, 475), the Dar al-Khilafa palace, the mosque of al-Mutawakkil, and the Abu Duluf mosque (Northedge 1997, 476).

Within the early Islamic city complex lies the site of Tell es-Sawan, a sixth millennium settlement, which has provided insight into the culture and life of the time (Nissen and Heine 2009, 14). It is also a place of pilgrimage for those wishing to visit the tombs of the Shi’ite Imams al-’Askari and al-Hadi (Northedge 1997, 473).

---

58 This included the Inner Wall, the Temples of Ninmah and Ishtar, the royal palaces, the Babylonian houses and the Temple of Nabushahare (UNESCO 2009, 18). Many of the reconstructed features and buildings were also damaged. During the occupation, the modern buildings, including the presidential palace, the rest-house, study centre, museums, restaurants, projects and administration offices were stripped bare, leaving them empty shells, without windows, doors or even electrical fixtures (UNESCO 2009, 19).

59 These were removed on 29 November 2004 to prevent further damage (Curtis 2004, 3).

60 This pottery is well made, with a matte finish and a wide variety of colour. The designs painted upon the pottery include “geometric patterns as well as abstract animal and human motifs”. The pottery was popular and has been found across a wide geographical area, sometimes together with that from the Hassuna culture (Hansen 1997, 472).

American military forces constructed a berm around the city, cutting through archaeological deposits.<sup>61</sup> Their unlawful use of the Milwiya minaret as a sniper position resulted in its damage when, in retaliation, Iraqis fired a missile at it (English 2006, 7). The top was also damaged in March 2005 when, after American military forces withdrew from the minaret, Iraqis set off small bombs (Gerstenblith 2005–2006, 298).

The Iraqi National Police, under the supervision of Coalition forces, built barracks and a training centre for 1 500 Iraqi security forces within the archaeological site and close to the minaret (Stone and Bajjaly 2008, 12). In February 2006, the golden dome of the Al-Askari mosque was bombed by Al Qaeda. In July 2007, the building in which the SBAH was located was attacked, looted and stripped bare; cars and archaeological equipment were also taken (Rothfield 2009, 150).

In 2007, Samarra was placed on both the World Heritage List and World Heritage in Danger List by UNESCO, as a result of the close proximity of new military installations (Stone and Bajjaly 2008, 12).

### **Other Damaged Sites**

Satellite imagery obtained by Stone indicates that one site, dating from the early second millennium B.C.E., was completely levelled to allow for the expansion of a nearby US military base (Bahrani 2010, 75).

After the medieval Khan of Rubua was converted into a military base, the detonation of discarded weapons and explosives in a well within the building caused the roof to collapse (al-Hussainy 2010, 87).

Kisiga, a Sumerian site occupied from the Early Dynastic period to the end of the Kassite period,<sup>62</sup> was badly damaged by military activity, tank emplacements, and circular and rectangular cuttings. Subsequently, the main mound was covered in holes dug by looters (Curtis et al. 2008, 16).

Khorsabad, built by Sargon II (721–705 B.C.E.) as his new capital, was the first Mesopotamian site to be extensively excavated and has produced a wealth of

---

61 Professor Alastair Northedge of the Sorbonne believes the berm has cut through important remains of the ninth century Abbasid palaces and other structures, as well as a Chalcolithic cemetery (Gerstenblith 2005–2006, 298).

62 Excavations of the site have been cursory, and it is believed that the main mound contains a first millennium B.C.E. cemetery (Curtis et al. 2008, 16).

information.<sup>63</sup> Many of the rooms in the palace were decorated with reliefs<sup>64</sup> (Collins 2009, 71), and five human-headed winged bulls guarded the gateways to both the city and the palace.<sup>65</sup> Neither the city nor the citadel had been fully excavated. The main palace was damaged by looters, and several trenches were dug in various parts of the site. Unexploded bombs were also found at the site (UNESCO 2003, 14).

## **The Significance of ANE Cultural Losses**

The smaller items looted, such as the cylinder seals, cuneiform tablets, pottery, and figurines were largely unpublished and have in all likelihood already found their place among the collections of private individuals. Others will be in the hands of antiquities dealers, and disposed of in sale rooms in Europe, North America, Japan, and of course on the Internet. During this period, an Internet search called up scores of sites offering “early Sumerian” and “Mesopotamian” artefacts to any willing buyer. Their provenance is lost, and the tablets, which could have provided us with hitherto unknown information, may be lost to scholarship forever.

The importance of each individual tablet has been demonstrated on numerous occasions. With the outbreak of the Crimean War in 1855, excavations were terminated, and the emphasis shifted to the study of the artefacts which had been repatriated, particularly the translation of cuneiform tablets (Bernhardsson 2005, 49). In 1869, Jules Oppert, a French scholar, established that the script on the cuneiform tablets from Nineveh was Sumerian, a hitherto unknown culture (Bernhardsson 2005, 49).<sup>66</sup> Some ten years later, studies by the British Assyriologist Reverend Arthur Sayce led to the discovery of the Hittites (Romer 2001, 156).

In 1872, George Smith, an employee in the British Museum, found a part of a tablet that appeared to contain a story of a flood. His find generated such public interest that he was commissioned to return to Nineveh to seek the rest of the tablet. Amazingly, he

---

63 Surrounded by a wall measuring seven kilometres in length, it was built upon a terrace. Within the city were numerous temples and a palace containing over 240 rooms (Collins 2009, 71). Covering some ten hectares, it served residential, administrative, ceremonial, and religious purposes (Frame 1997, 296). Unfinished at Sargon’s death, the capital was moved to Nineveh by his son, Sennacherib. It remained the provincial capital until it was abandoned in 612 B.C.E. when the empire fell (Frame 1997, 297).

64 Some of the reliefs were lost when the boats carrying them to France were attacked and sunk (Frame 1997, 295).

65 Many of the reliefs depict processions of courtiers and others bringing tribute to the king, while others depict military and sporting activities and scenes of banquets. There is also a focus upon scenes depicting the defeat and punishment of enemies. The reliefs are carved in two registers, divided by an inscription, reflecting the annals of the king. Landscapes are also popular, and multiple figures are shown against a background, so that “they no longer appear to float in space” (Collins 2009, 72).

66 Oppert called the culture “Sumerian”, which he derived from the phrase “King of Sumer and Akkad” (Romer 2001, 156).

did. A study of this tablet revealed a deluge which was similar in many respects to the flood in Genesis (Bernhardsson 2005, 49). It caused an international debate: those who believed in the Bible as a historical truth saw this as confirmation that the flood had occurred, while others posited that, as the story had been borrowed, the Bible was not unique (Bernhardsson 2005, 49). Subsequently, a Babylonian text was found to record the birth of Sargon of Agade and his placement in a reed basket, a tale strikingly similar to the story of Moses (Kuhrt 1995, 5).

During excavations at Tell al-Dhibai, archaeologists recovered over 600 cuneiform tablets. Although most dealt with business and agricultural issues, one turned out to be of particular significance, for this mathematical text contained a proof of the Pythagorean Theorem, some two thousand years before the life of the Greek to whom it had been attributed (Werr 2005, 32).

The discoveries made as these tablets are translated continue. More recently, in January 2016, it was announced that the translation by Mathieu Ossendrijver of four Babylonian tablets dating from 350–50 B.C.E. contained a calculation of the position of Jupiter using a method known as the “Mertonian mean speed theorem,” previously thought to have been invented at Merton College, Oxford in the 14th century C.E. This demonstrates that Babylonian astronomers used “geometrical methods for computing planetary positions” (Ossendrijver 2016, 484).

Although the study of tablets has provided much information, in many instances additional evidence is still required to elucidate and expand upon the information already revealed. The Babylonian “Venus Tablets”, so-called because they record the planetary movements of Venus, have been used to provide dates prior to 1450 B.C.E. (Knapp 1988, 8). Unfortunately, as observations of Venus are possible every 64 years, scholars disagree upon which of the three possible Venus cycles to which these tablets refer. For this reason, three separate chronologies exist for Babylonia during the 2nd millennium: high, middle, and low.<sup>67</sup> Although the middle is the most popular, we are not yet possessed of an absolute dating system (Knapp 1988, 8). As a result, as texts and artefacts are examined, dates are continually being revised. Accurate celestial observations are helpful, as Newtonian astronomy enables us to date certain

---

67 As a result, the reign of Hammurabi has been dated to 1848–1806 B.C.E. (long), 1792–1750 B.C.E. (middle), 1728–1686 B.C.E. (short), and 169–1654 B.C.E. (ultra-short). King lists and dynastic lists have proved to be misleading, as they do not concur and contain gaps or scribal errors. They have also been found to list partly overlapping or contemporaneous dynasties as successive (Kriwaczek 2010, 9).

phenomena (Kriwaczek 2010, 9). However, it is sometimes difficult to establish what is being described.<sup>68</sup>

Tablets, when found in context, also provide information on the area in which they are found. When excavating at Ur, Woolley confirmed the purpose of the building and the “service chambers and storerooms” by the nature of the tablets found within them. The bulk of the tablets dealt with temple revenue and other matters which one would expect to find in temple archives (Woolley 1923, 321). During his excavations of the south-east quarter of Ur, Woolley (1931, 359) records that they were able to date the levels of the houses by the tablets found in the rooms. Further, that the numerous tablets “so scattered might imply the destruction of the houses and the breaking up of business archives” simultaneously with the destruction and burning of the houses, indicative of the looting of the city which took place by Babylonian forces after the defeat of Rim-Sin by Hammurabi around 1910 B.C.E. (Woolley 1931, 359). He also identified a schoolroom in a house in Ur by the alterations to the house, and the nature of the nearly 2000 tablets located there (Woolley 1931, 365).

There is much still to be learned; only a relatively small number of the cuneiform tablets held in the museum had been translated. Spanning more than 3 000 years of Mesopotamian culture, cuneiform tablets provide information on the lives, dreams, economics, and cultures of hitherto little known, or even unknown, civilisations of the ancient world. They also provide us with information on those cultures of which we were aware only through such sources as the Bible and classical authors, but now our information comes, *inter alia*, from the mouths of the very peoples themselves. The importance of these tablets, even individual ones, cannot be over emphasised.

Some cylinder seals carry cuneiform inscriptions which provide information additional to the reliefs carved thereon. Unlike most museums whose seal collections have been sourced from dealers, the seal collection in the Iraqi Museum was from “controlled excavations”, with its context appropriately documented. Unfortunately, 5 144 cylinder seals were lost to looters in April 2003 (Bogdanos 2005, 297). Small, beautiful, and highly prized, cylinder seals are unfortunately highly collectable.

Cylinder seals vary from period to period, and can thus often be dated from their shape, size, material employed, and design. Information is also gleaned not only from the seal itself, but from the impressions it makes. The importance of these impressions should

---

68 On one tablet, the following statement is made: “The day of the Moon of Hiyaru was put to shame. The Sun went in with her gatekeeper, Rashap” (quoted in Kriwaczek 2010, 9). Although some scholars believe that this refers to a solar eclipse that occurred on 3 May 1375 B.C.E., others have dated it to one which took place on 5 March 1223 B.C.E., 21 January 1192 B.C.E., or even 9 May 1012 B.C.E. Indeed, some are of the view that it does not refer to an eclipse at all (Kriwaczek 2010, 9).

not be underestimated, as their presence on documents assists scholars to date seals from their texts, and to establish chronological sequences (Collon 1987, 6).

Cylinder seals can provide an important balance in the information of the period. Since most of the art and literature was produced by elite members of society, their views and interests tend to be over-represented: propaganda is rife. Cylinder seals were more personal objects and tended to reflect the beliefs of the owner. Not only do they depict daily life, boats, sport, wars, food production and collection, product manufacture, and agricultural activity, but they also teach us about architecture, religious activity, midwifery, musical instruments (including the earliest evidence of a lute) (Collon 1987, 151), changing fashion, hairstyles, and military equipment of the periods they represent.

There is also concern regarding the looted fragments and bas-reliefs, as they generally suffer wanton destruction by being cut down or broken apart with a sledgehammer to obscure identification. In 2003, pieces of bas-reliefs from both Nimrud and Nineveh were identified when they were put forward for sale (Paley 2003, 3).

Although the looting of the museum attracted the most international attention, the losses sustained at the sites are far more critical. Unfortunately, once a site is excavated, whether scientifically by archaeologists or destructively by looters, information is lost forever unless properly documented. The scientific excavation of Mesopotamian sites is particularly challenging, for the mud brick settlements were often occupied for centuries, with later generations building upon the ruins of earlier generations. Consequently, since degraded mud-brick walls are nearly indistinguishable from the surrounding matrix, preserving the stratigraphy and chronological interrelationships requires great skill.<sup>69</sup>

## **Conclusion**

The unstable situation in Iraq, created by the 2003 invasion and subsequent occupation, made it a prime target for looting. Indeed, the presence of prized and collectable cultural property, a breakdown of local law and order, the poverty of local inhabitants, and a lucrative international market for its cultural property made it inevitable.

Baghdad fell after two “thunder runs” through the city, on 5 and 7 April respectively, one of which passed right in front of the museum. Had the American forces sent troops and armoured vehicles to protect the museum at that time, and had they taken the same steps to protect it as they did with the Oil Ministry, the museum would not have been looted.

---

69 Indeed, Sir Leonard Woolley postponed the excavation of the Royal Graves at Ur for four years in order to train his workmen properly (Foster et al. 2005, 216).



Further, our ability to advance our knowledge of Sumerian culture is now extremely limited as it appears that these sites are largely destroyed. Umma, a site considered exciting because of its early achievements in the rise to civilisation, appears to be completely destroyed. In addition to the loss of the artefacts looted, we have also lost most of the information associated with them. Items such as broken pieces of pottery, pollen, fauna, and flora are of no interest to looters, and are either destroyed in the process or cast aside. This tragedy is being played out over and over again at archaeological sites across the country.

As a result of the looting of archaeological sites, the damage and destruction of the archaeological record is extensive. Many sites have been completely destroyed or extensively damaged, while others have had their record so severely compromised by the introduction of foreign matter, such as soil from other parts of the site, or even completely different sites, that the knowledge which could have been gleaned from their scientific excavation has, at best, been irreparably compromised.

## References

- Al-Hussainy, A. 2010. "The Current Status of the Archaeological Heritage of Iraq." In *Cultural Cleansing in Iraq. Why Museums were Looted, Libraries Burned and Academics Murdered*, edited by R.W. Baker, S.T. Ismael, and T.Y. Ismael, 82–92. London: Pluto.
- Atwood, R. 2004. *Stealing History. Tomb Raiders, Smugglers and the Looting of the Ancient World*. New York: St Martin's.
- Bahrani, Z. 2008. "The Battle for Baghdad." In *The Destruction of Cultural Heritage in Iraq*, edited by P.G. Stone and J.F. Bajjaly, 165–172. Woodbridge: Boydell.
- Bahrani, Z. 2010. "Archaeology and the Strategies of War." In *Cultural Cleansing in Iraq. Why Museums were Looted, Libraries Burned and Academics Murdered*, edited by R.W. Baker, S.T. Ismael, and T.Y. Ismael, 67–81. London: Pluto.
- Baram, A. 1991. *Culture, History & Ideology in the Formation of Ba'hist Iraq*. New York: St Martin's.
- Bernhardsson, M.T. 2005. *Reclaiming a Plundered Past. Archaeology and Nation Building in Modern Iraq*. Austin: University of Texas Press.
- Biggs, R.D. 2005. "The Theft and Destruction of Iraq's Ancient Past." *Journal of Assyrian Academic Studies*. 19 (1): 1–5.
- Bogdanos, M. 2003. "US Concludes Investigation of Looting of the Iraqi National Museum in Baghdad." *Culture Kiosque*.  
<http://www.culturekiosque.com/art/news/baghdadmuseum.html> accessed 10 July 2011.

- Bogdanos, M. 2003b. "Iraq Museum Investigation: 22 Apr-8 Sep 03." <http://www.defense.gov/news/Sep2003/d20030922fr.pdf> accessed 10 July 2011.
- Bogdanos, M. 2005. *Thieves of Baghdad*. New York: Bloomsbury.
- Brodie, N. 2006. "The Plunder of Iraq's Archaeological Heritage, 1991-2005, and the London Antiquities Trade." In *Archaeology, Cultural Heritage and the Antiquities Trade*, edited by N. Brodie, M.M. Kersel, C. Luke, and K.W. Tubbs, 206–226. Gainesville: University Press of Florida. <https://doi.org/10.5744/florida/9780813029726.003.0011>.
- Carboni, S. 2003. "Report on the Current Situation of 'Cultural Heritage in Iraq' presented at the Second Annual Convention of the Association of Art Museum Curators, The Brooklyn Museum of Art, Brooklyn, New York. 18 June." <http://www.historiansofislamicart.org/iraq/carbonireport.htm> accessed 14 August 2011.
- CENTCOM Historical/Cultural Property Protection. "Nine 'Dos'." Cultural Property Advisory Group Training Resource. <http://www.cemml.colostate.edu/cultural/09476/chp04-01iraqenl.html> accessed 10 July 2011.
- Collins, P. (with photographs by Baylis, L. and Marshall, S.) 2009. *Assyrian Palace Sculptures*. London: British Museum.
- Collon, D. 1987. *First Impressions. Cylinder Seals in the Ancient Near East*. London: British Museum.
- Conroy, J. and Martz, R. 2005. *Heavy Metal. A Tank Company's Battle to Baghdad*. Washington: Potomac.
- Crawford, H. 1997. "Adab." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, Vol. 1: 14–15. Oxford: Oxford University Press.
- Curtis, J. 1997. "Nimrud." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, Vol. 4: 141–144. Oxford: Oxford University Press.
- Curtis, J. 2004. "Report on Meeting at Babylon 11<sup>th</sup> – 13<sup>th</sup> December 2004." <http://www.britishmuseum.org/PDF/BabylonReport04.pdf> accessed 27 July 2009.
- Curtis, J. 2007. "Ur of the Chaldees in February 2007." <http://www.britishmuseum.org/PDF/Ur%20Repot%20doc.pdf> accessed 27 July 2009.
- Curtis, J., Raheed, Q.H., Clarke, H., Al Hamdani, A.M., Stone, E., Van Ess, M., Collins, P. and Ali, M. 2008. "An Assessment of Archaeological Sites in June 2008: An Iraqi British Project." [http://195.224.71.221/pdf/Iraq%20Report\\_with%20images.pdf](http://195.224.71.221/pdf/Iraq%20Report_with%20images.pdf) accessed 25 August 2011.

- Dalley, S. 1994. "Nineveh, Babylon and the Hanging Gardens: Cuneiform and Classical Sources Reconciled." *Iraq* 56: 45–58. <https://doi.org/10.1017/S0021088900002801>.
- Edens, C. 1997. "Babylon." In *The Story of Archaeology*, edited by P.G. Bahn, 146–147. London: Phoenix.
- El Guindi, F. 1991. "Waging War on Civilization." In *War Crimes. A Report on United States War Crimes against Iraq*, edited by R. Clark et al., 746–757. <http://deoxy.org/wc/warcrim.htm> accessed 16 September 2011.
- Elich, G. 2004. "Spoils of War: The Antiquities Trade and the Looting of Iraq." [www.globalresearch.ca/articles/EU401A.htm](http://www.globalresearch.ca/articles/EU401A.htm) accessed 20 September 2011.
- English, S. 2006. "Three Years after looting of Iraqi National Museum: An Official Whitewash of US Crime." *World Socialist Web Site*. 7 April. <http://www.wsws.org/articles/2006/apr2006/muse-a07.html> accessed 15 March 2011.
- Fisk, R. 2003. "Raiders of the Lost Iraq." *The Independent*. 5 June. <http://www.independent.co.uk/.../fisk/raiders-of-the-lost-iraq-745262.html> accessed 15 March 2011.
- Foster, B.R. and Foster, K.P. 2009. *Civilizations of Ancient Iraq*. Princeton: Princeton University Press.
- Foster, B.R., Foster, K.P. and Gerstenblith, P. 2005. *Iraq Beyond the Headlines. History, Archaeology and War*. New Jersey: World Scientific. <https://doi.org/10.1142/5865>.
- Frame, G. 1997. "Khorsabad." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, 3: 295–298. Oxford: Oxford University Press.
- Garen, M. and Carleton, M.H. 2005. "Erasing the Past: Looting of Archaeological Sites in Southern Iraq." In *The Looting of the Iraq Museum, Baghdad*, edited by M. Polk and M.H. Schuster, 15–19. New York: Abrams.
- George, D. 2008. "The Looting of the Iraq National Museum." In *The Destruction of Cultural Heritage in Iraq*, edited by P.G. Stone and J.F. Bajjaly, J.F, 97–108. Woodbridge: Boydell.
- George, D. and Gibson, M. 2008. "The Looting of the Iraq Museum in Context." In *Catastrophe! The Looting and Destruction of Iraq's Past*, edited by G. Emberling and K. Hanson, 19–28. Chicago: The Oriental Institute of the University of Chicago.
- Gerstenblith, P. 2005-2006. "From Bamiyan to Baghdad: Warfare and the Preservation of Cultural Heritage at the Beginning of the 21<sup>st</sup> Century." *Georgetown Journal of International Law*. 37 (261): 245–351.

- Gibson, M. 2003. "From the Prevention Measures to the Fact-finding Mission." *Museum International* 55 (3–4): 108–117. <https://doi.org/10.1111/j.1350-0775.2003.00446.x>.
- Gibson, M. 2008. "The Acquisition of Antiquities in Iraq, 19<sup>th</sup> century to 2003, Legal and Illegal." In *The Destruction of Cultural Heritage in Iraq*, edited by P.G. Stone and J.F. Bajjalay, J.F, 31–40. Woodbridge: Boydell.
- Hamdani, A. 2008. "The Damage Sustained to the Ancient City of Ur." In *The Destruction of Cultural Heritage in Iraq*, edited by P.G. Stone and J.F. Bajjalay, J.F, 151–156. Woodbridge: Boydell.
- Hansen, D.P. 1997. "Samarra." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, 4: 472–473. Oxford: Oxford University Press.
- Hrouda, B. 1997. "Isin." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, 3: 186–188. Oxford: Oxford University Press.
- Jenkins, S. 2007. "In Iraq's Four-Year Looting Frenzy, the Allies have become the Vandals." *The Guardian*. 8 June. <http://commondreams.org/archive/2007/06/08/1734/> accessed 15 March 2011.
- Johnson, C. 2005. "The Smash of Civilizations." *Asia Times*. 9 July. <http://www.tomdispatch.com/post/4710/> accessed 28 June 2011.
- Klengel-Brandt, E. 1997. "Babylon." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, 1: 251–256. Oxford: Oxford University Press.
- Knapp, A.B. 1988. *The History and Culture of Ancient Western Asia and Egypt*. Belmont: Wadsworth.
- Kriwaczek, P. 2010. *Babylon. Mesopotamia and the Birth of Civilization*. London: Callisto.
- Kuhrt, A. 1995. *The Ancient Near East c.3000-330 BC*. 2 Volumes. London: Routledge.
- Layard, A.H. 1853. *Discoveries in the Ruins of Nineveh and Babylon: With Travels in Armenia, Kurdistan and the Desert*. <http://books.google.co.za/books?hl=en&lr=&id=UC3o3GnYeusC&oi=fnd&pg=PA18dq=Austen+Henry+Layard&ots=brKu4RihRu&sig=ll8q3m2wdPfs4XWUfknrKZol9g> accessed 15 March 2011.
- Marston, J.E. 2013 "Canting the Cradle: The Destruction of a Mesopotamian Civilization." Unpublished MA dissertation. University of South Africa. <http://uir.unisa.ac.za/handle/10500/10145>.

- Matthews, R. 2000. "Shurrukak." In *Dictionary of the Ancient Near East*, edited by P. Bienkowski and A. Millard, 271–272. Philadelphia: University of Pennsylvania Press.
- Moussa, M.U. 2008. "The Damages Sustained to the Ancient City of Babel as a Consequence of the Military Presence of Coalition Forces in 2003." In *The Destruction of Cultural Heritage in Iraq*, edited by P.G. Stone, and J.F. Bajjalý, 143–150. Woodbridge: Boydell.
- Nissen, H.J. and Heine, P. 2009. *From Mesopotamia to Iraq. A Concise History*. Chicago: University of Chicago Press. <https://doi.org/10.7208/chicago/9780226586656.001.0001>.
- Northedge, A. 1997. "Samarra: Islamic Period." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, 4: 473–476. Oxford: Oxford University Press.
- Oates, J. and Oates, D. 2004. *Nimrud. An Assyrian Imperial City Revealed*. London: British School of Archaeology in Iraq.
- Oledzki, L. 2008. "Polish Activity on Behalf of the Protection of Iraqi Cultural Heritage." In *The Destruction of Cultural Heritage in Iraq*, edited by P.G. Stone and J.F. Bajjalý, 241–258. Woodbridge: Boydell.
- Oriental Institute of the University of Chicago. 1997. *The Nippur Expedition*. <http://oi.uchicago.edu/research/projects/nip/> accessed 15 March 2011.
- Ossendrijver, M. 2016. "Ancient Babylonian Astronomers Calculated Jupiter's Position from the Area under a Time-Velocity Graph." *Science* 351 (6272): 482–484. <https://doi.org/10.1126/science.aad8085>.
- Paley, S.M. 2003. "Nimrud, The War and the Antiquities Markets." <http://www.ifar.org/tragedy.htm> accessed 15 March 2011.
- Polk, W.R. 2005. "Introduction." In *The Looting of the Iraq Museum, Baghdad*, edited by M. Polk and M.H. Schuster, 5–9. New York: Abrams. [https://doi.org/10.1007/978-1-137-09411-7\\_1](https://doi.org/10.1007/978-1-137-09411-7_1).
- Pollock, S. 1997. "Ur." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, 5: 288–291. Oxford: Oxford University Press.
- Robson, E. 2001. "The Tablet House: A Scribal School in Old Babylonian Nippur." *Revue d'assyriologie et d'archeologie orientale*. 1 (93): 39–66. <https://doi.org/10.3917/assy.093.0039>.
- Romer, J. 2001. *The History of Archaeology*. New York: Checkmark.

- Rothfield, L. 2008. "Preserving Iraq's Heritage from Looting. What Went Wrong (Within the United States)." In *Antiquities Under Siege. Cultural Heritage Protection After the Iraq War*, edited by L. Rothfield, 5–25. Lanham: Altamira.  
<https://doi.org/10.7208/chicago/9780226729435.001.0001>.
- Rothfield, L. 2009. *The Rape of Mesopotamia*. Chicago: University of Chicago Press.
- Russell, J.M. 1998. *The Final Sack of Nineveh*. New Haven: Yale University Press.
- Russell, J.M. 2003. "A Personal Account of the First UNESCO Cultural Heritage Mission to Baghdad, May 16-20, 2003."  
[http://www.archaeological.org/pdfs/papers/J\\_Russell\\_IraqA5S.pdf](http://www.archaeological.org/pdfs/papers/J_Russell_IraqA5S.pdf) accessed 27 July 2009.
- Russell, J.M. 2008. "Efforts to Protect Archaeological Sites and Monuments in Iraq, 2003-2004." In *Catastrophe! The Looting and Destruction of Iraq's Past*, edited by G. Emberling and K. Hanson, 29–44. Chicago: The Oriental Institute of the University of Chicago.
- Sandholtz, W. 2005. "The Iraqi National Museum and International Law: A Duty to Protect." *Columbia Journal of Transnational Law* 44: 185–240.
- Simpson, S.J. 1997. "Ctesiphon." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, 2: 77–79. Oxford: Oxford University Press.
- Starr, C.G. 1991. *A History of the Ancient World*. 4<sup>th</sup> edition. Oxford: Oxford University Press.
- Stone, E.C. 2003. "Cultural Assessment of Iraq: The State of Sites and Museums in Southern Iraq. May."  
[http://nres.nationalgeographic.com/nres/2003/06/0611\\_030611\\_iraqlootingreport3.html](http://nres.nationalgeographic.com/nres/2003/06/0611_030611_iraqlootingreport3.html) accessed 18 September 2011.
- Stone, E.C. 2008. "Patterns of Looting in Southern Iraq." *Antiquity* 82 (315): 125–138.  
<https://doi.org/10.1017/S0003598X00096496>.
- Stone, E.C. 2008a. "Archaeological Site Looting: The Destruction of Cultural Heritage in Southern Iraq." In *Catastrophe! The Looting and Destruction of Iraq's Past*, edited by G. Emberling and K Hanson, 65–80. Chicago: The Oriental Institute of the University of Chicago.
- Stone, P.G. and Bajjaly, J.F. 2008a. "Introduction." In *The Destruction of Cultural Heritage in Iraq*, edited by P.G. Stone and J.F. Bajjaly, 1–18. Woodbridge: Boydell.
- Stone, P.G. and Bajjaly, J.F. 2008b. "The Identification and Protection of Cultural Heritage during the Iraq Conflict: A Peculiarly English Tale." In *The Destruction of Cultural Heritage in Iraq*, edited by P.G. Stone and J.F. Bajjaly, 73–84. Woodbridge: Boydell.

- Stronach, D. and Codella, K. 1997. "Nineveh." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, 4: 144–148. Oxford: Oxford University Press.
- Tarbrush, S. 2007. "Invaders, Looters and Vandals Threaten to Bury Iraq's Past." [http://www.arablife.org/index.php?option=com\\_content&task=view&id=827&Itemid=176](http://www.arablife.org/index.php?option=com_content&task=view&id=827&Itemid=176) accessed 12 March 2011.
- Teixidor, J. 1997. "Hatra." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, 2:484–486. Oxford: Oxford University Press.
- Thompson, H. 2005. "US Occupation Damages Ancient Sites at Babylon." *Uruknet.info*. 26 January. <http://www.uruk.net.info/?p=m9199&1-i&size=1&hd=0> accessed 12 March 2011.
- UNESCO. 2003. "Report on the Situation of Cultural Heritage in Iraq up to 30 May 2003." <http://www.unesco.org/new/enu> accessed 18 September 2011.
- UNESCO. 2009. "Report on Damage Assessments on Babylon." International Coordination Committee for the Safeguarding of the Cultural Heritage of Iraq: Sub-Committee on Babylon 26 June CLT/EO/CIP/2009/RP/114.
- Werr, LA-G. 2005. "A Museum is Born." In *The Looting of the Iraq Museum, Baghdad*, edited by M. Polk and M.H. Schuster, 27–33. New York: Abrams.
- White, L.M. 1997. "Hatra." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, 1:484–485. Oxford: Oxford University Press.
- Woolley, C.L. 1923. "Excavations at Ur of the Chaldees." *The Antiquaries Journal* 3 (4): 311–333. <https://doi.org/10.1017/S0003581500014980>.
- Woolley, C.L. 1928. "Excavations at Ur, 1926-7. Part II." *The Antiquaries Journal* 8(1): 1–29. <https://doi.org/10.1017/S0003581500057565>.
- Woolley, C.L. 1931. Excavations at Ur, 1930-1. *The Antiquaries Journal*. 11/4: 343-381. <https://doi.org/10.1017/S0003581500033965>.
- Zettler, R.L. 1997. "Nippur." In *The Oxford Encyclopaedia of Archaeology in the Near East*, edited by E.M. Meyers, 4:148–152. Oxford: Oxford University Press.