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BRICK IN ASIA



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# Contents

Editorial: Cry the Beloved Country	....	....	....	....	....	....	....	....	2
Brick at Risk: Asia and Islamic Africa	....	....	....	....	....	....	....	....	6
Searching for the Tower of Babel: Ur, Eridu, Babylon, Rome									
by David H. Kennett	....	....	....	....	....	....	....	....	13
From East Anglia to Ephesus: Roman Tiles as Bonding in Walls									
by David H. Kennett	....	....	....	....	....	....	....	....	24
Benteay Srei, Angkor, Cambodia: a Buddhist Temple using Brick and Laterite									
by Anthony Preston	....	....	....	....	....	....	....	....	25
Book Notice	....	....	....	....	....	....	....	....	36
Some Brick Minarets from Central Asia									
by David H. Kennett	....	....	....	....	....	....	....	....	37
Down with It, Down with It, Even to the Ground: Destruction of an iconic brick minaret in Al Mawşil (Mosul), Iraq									
by Terence Paul Smith	....	....	....	....	....	....	....	....	40
Paid in Bricks; Settling Arrears of Wages at a Brickfield in China									
by Mike Kingman	....	....	....	....	....	....	....	....	46
Brickmaking in India: Udaipur, Rajasthan, India, 2003: a photographic essay									
by Susan Rowntree	....	....	....	....	....	....	....	....	47
The British Brick Society and General Data Protection Regulation								....	52

## *Cover Illustration:*

The minaret of the Great Mosque of Samarra, Iraq: a casualty of war

## Editorial: Cry the Beloved Country

Cry, the beloved country, that is the inheritor of our fear. Let him not laugh too gladly when the water runs through his fingers nor stand too silent when the setting sun makes red the veld with fire. Let him not be too moved when the birds of his land are singing nor give too much of heart to a mountain or a valley. For fear will rob him of all if he gives too much.

Alan Paton, *Cry the Beloved Country*, 1948, chapter 12.

The children of the Near East are inheritors of that fear. Their worlds have crumbled around them; their cities have been destroyed; in one sense, their lives have lost all purpose beyond searching in the rubble for some small portion of the already inadequate supply of physical goods needed for mere survival.

In the contemporary Near East, a world of multi-dimensional and seemingly unresolvable conflicts, the unspeakable human suffering matters far more than the physical destruction of historically important brick buildings, but it is in that now destroyed built environment where the children of Syria and Iraq and, beyond the Near East, in Yemen too, find it impossible to laugh let alone to “laugh too gladly when the water runs through their fingers” if, in fact, there is water available, which often there is not. Now it is not “the setting sun [which] makes the veld red with fire” but the bombs and rockets of opposing armies, not least because it is the bombs and rockets of the opposing armies which destroy the buildings and thus the unspoken feeling of security which an undamaged built environment and, in Britain, the sight of a green field bring.

The sight of the relief buses threading their way through the rubble and the ruins of Eastern Ghouta, east of Damascus, could bring tears to one’s eyes. The concrete frames of the apartment blocks still stood with here and there a course or even two of concrete bricks which with the now non-existent windows had provided the infill to the frames. People were escaping the devastation of their city.

Condemned to live in the vast tented refugee camps which litter the desert of Jordan and the valleys of Lebanon the displaced Syrian peoples have little or no sense of security. The land where they live is not their land, even if the refugee camp is within the territorial limits of Syria, but it not their land and the tented city is not their city. Their city — be it Aleppo, Damascus, Homs, Eastern Ghouta, or Al Rakkah — is no more. And the same is true of Iraq: Baghdad (fig.2), Basra, Mosul, and Samarra (fig.1) have all suffered loss.

The Great Mosque of Damascus and its minaret had stood for thirteen hundred years before ill-aimed air strikes shattered both the tower and the central fountain in the great courtyard. The Great Mosque was one symbol in the Near East of religious pluralism. Its triple-arcaded structure, built AD 705-715, incorporates parts of a Christian church, dedicated to St John, probably dating to the third century AD, but in turn the church had been built on the site of the principal temple in Roman Damascus, dedicated to Jupiter Maximus and built in the first century BC. Towards the end of that century at around the time of Christ’s birth, a man named Gaius Quintus Quirinius was *legatus imperatium* (imperial legate) of the Roman imperial province of Syria, the equivalent in an imperial province of the Governor; he is mentioned in Luke 2:1. St Luke’s confusion is that Quirinius may have had the job twice, returning to be in charge at the time of the census of AD 6; the census probably providing the context for visit of Jesus with his parents to Jerusalem when aged twelve, the time of his disputations with the learned doctors in the Jerusalem temple (Luke 2:39-51).

The most serious unintended consequence of the Second Oil War (2003-2011; often called the Iraq War) has been the creation of a total vacuum of political power in former territories of the Ottoman Empire as divided by the Sykes-Picot agreement between Britain and France in 1922: the local inhabitants had no say in which portions would be under French influence — Syria and Lebanon — and which under British control — Iraq, Transjordan, and Palestine.

The vacuum in political power in the Near East is made worse by the selective if shifting support given by the power brokers of both West and East to various regional powers, regimes that can be dictatorial, repressive, and brutal to peoples under their control, especially to members of minority communities. In many ways this oppression is a very new phenomenon.

For two thousand years, men and women of different religious persuasions, particularly those of the Abrahamic faiths — Judaism, Christianity, and Islam — had lived in comparative peace and relative harmony, both within faiths — Orthodox with Reformed, Catholic with Eastern Orthodox, Sunni with Shia — and with



each other. Those who study the western-inspired Crusades of the eleventh to thirteenth centuries frequently remark on how the eastern sources point to the largely peaceful co-existence between the Franks, meaning the Europeans, and the Arabs.

This is not to say that wars did not occur in the lands between the Orontes and the Arabian Peninsula and between Zagros Mountains and the Mediterranean. But many, and certainly the most destructive, were the result of outside intervention, from the East with the Mongols, from the West with the Crusades.

What is seemingly appears to be new to the Near East but is not is the vindictive destruction of history. A recent book by Catherine Nixey, *The Darkening Age: The Christian Destruction of the Classical World*, London: Macmillan, 2017, delineates the way in which from the fourth century onwards the emboldened Christians of the Near East eliminated as far as possible all traces of previous religious practice. It was done with a fury which closely parallels that of fanatical men in England in the reign of Edward VI and during the early years of the Interregnum in the mid sixteenth and mid seventeenth centuries respectively.

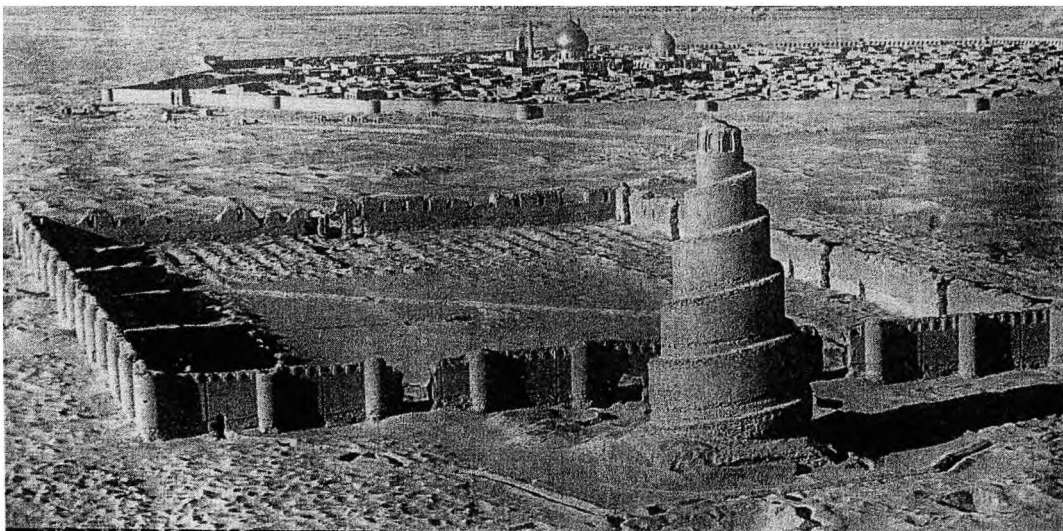


Fig.1 The Great Mosque of Samarra, Iraq, with its spiral minaret in the foreground. In the background is the later settlement with the al-Askari mosque, built in 944, which was damaged three times in the Second Oil War. After repairs, the mosque, the third most holy site in Shia Islam, reopened in April 2009.

One early casualty of the wars of the twenty-first century in the Near East was the spiral minaret of the al-Malwiya Mosque of Samarra, Iraq (cover and fig.1), built of brick; construction of the al-Mutawakkil mosque with the minaret commenced in 848 (235 AH) and building was completed in 851 (237 AH) in the short-lived capital of the Abbasid dynasty between 836 and 892. Commissioned by the second Abbasid ruler, al-Mutawakkil (r.847-886), the mosque covered a vast area, in total 42 acres (17.7 hectares). The square base of the minaret measured 108 feet (33 metres) across and the height of the minaret was 171 feet (52 metres).

The minaret has an external ramp which winds its way round the core of the structure. Both this and the Abu Dulaf mosque, also brick built and with a similar external spiral ramp, were the chief surviving monuments of the period when Samarra was briefly the capital of the Mesopotamian state in the mid ninth century AD.

In the Second Oil War, with a not inconsiderable arrogance, the invading forces of the USA had no scruples about building their camp in Samarra adjacent to its most prominent ancient monument; similarly, other camps were erected on the site of Babylon and next to the ziggurat of Ur (see below, pages 14-15).

The English architectural historian, Dan Cruickshank, did a television programme in the months leading up to the Second Oil War. He was fearful that the coming conflict would result in damage to one of the most remarkable monuments of its time.

In September 2005, the top of the minaret of the Great Mosque was damaged by enemy fire.

Also damaged by enemy fire in Samarra was the al-Askari mosque, the third most holy site in Shia Islam. Its dome was damaged just before 7.00 am (local time) on 22 February 2006, its two remaining minarets on Monday 18 June 2007, and its clock tower in an attack in July 2007. After repairs, the mosque and its shrine reopened in April 2009. The al-Askari Mosque had been built in 944 and serves the local town clearly visible in the background of figure 1.



Fig.2 A brick-built Shia shrine in Baghdad, Iraq, damaged by bombing in 2006.

Samarra was not the only city damaged in the conflict during the Second Oil War. As the final draft of this Editorial was being revised, a remarkable film, *Another Day in Baghdad*, set in the last week of 2006 was on the point of being released. The film uses Iraqi actors who each bring their own stories to the catalogue of destruction wrought on the capital during the Second Oil War and before and since. The damage to a Shia shrine, the mosque in figure 2, is just one of the pieces of wreckage wrought by the war. The damage to people was far greater: marauding gangs of soldiers — Iraqi, American, and criminals dressed in uniforms — and sniper bullets took their toll as did summary arrest and executions, the kidnappings followed by torture, the corpses in the street.

As the invasion of Iraq settled down to an uneasy peace, in February 2006, outside Baghdad a Shia shrine was blown up; the Second Oil War became a civil war of incomprehensible complexity: Shia against Sunni and Kurd against Arab are divisions within the conflict which are easier to understand. And it became a dirty war. As in all dirty wars — and all civil wars are basically dirty wars — women fared worse than men. Too many of the corpses littering the streets or thrown into the Tigris were of women who failed to wear the right clothing: undergraduates wearing jeans rather than the hijab. Or killed for daring to pursue the idea of being educated.

As Irada al-Jabbouri, whose journal forms the basis of the script of the film *Another Day in Baghdad*, says, “We deserved better than the dictator [Saddam Hussein] and better than the invasion.” Jabbouri is working with Maysoon Pachachi, a London-based Iraqi film director, and Raya Asee, who involved in trying to bring conflict resolution to the troubled city of Baghdad.

Dictatorial regimes elsewhere — Pol Pot in 1980s Cambodia, the ailing Mao Zedong in 1960s China, and Stalin in the Soviet Union in the 1930s are three examples — have gone back to Year Zero or its equivalent with the concomitant enforced removal of professional expertise from the population. But despite sometimes brutal regime changes over the last thousand years in the Levant and Mesopotamia, until the second decade of the twenty-first century, with rare exceptions — the execution of all surviving members of garrison of Acre in 1191 springs to mind — after the destruction of the Temple in Jerusalem in AD 70, except briefly in the Great War (1914-1918), the Near East has been relatively free of mass genocide and without experiments in the use



of weapons of mass annihilation whether chemical or merely constant and indiscriminate bombing from the air. Both experiments in slaughter and inducing fear have been current in whatever broader designation will ultimately be given to the civil war in Syria and the somewhat tortuous multi-dimensional conflict continuing to rage across Syria and what had once been Iraq.

The world has rightly been shocked by the destruction of the Roman temples of Palmyra, Syria, and the stringing up of the keeper of antiquities of the museum there but photographs of Aleppo, Syria, published in broadsheet newspapers and television footage of Eastern Ghouta both paint a picture of residential districts reduced to concrete frames, perhaps with some of the concrete block infill still surviving in part but with the windows blown out and/or removed completely. In a tersely-written, extremely short chapter, entitled 'Death of a City', in *Aleppo The Rise and Fall of Syria's Great Merchant City*, London and New York: I.B. Tauris, 2016, pages 61-65, Philip Mansel does not shrink from describing the horror, which in three short years, 2012 to 2015, befell and destroyed the multi-cultural, tolerant city at the western end of the great TransAsia trade routes and their inter-section with the route from the south.

In early June 2017, as an early draft of this Editorial was being revised, the battle for Mosul, Iraq, began. Mosul is a city built of brick which subsequently has been pounded to smithereens. The destruction of the distinctive minaret of its most important mosque is the subject of a contribution from Terence Smith elsewhere in this issue of *British Brick Society Information* (pages 40-45).

Destruction of brick and stone is not confined to the disputed lands of the Near East. Another instance of the vindictive destruction of history is the conflict in Yemen. It was no more than a fleeting glance of the mud towers of Sana'a at the beginning of the first programme of the Autumn 2016 series of Channel 4's 'Unreported World', broadcast on Friday 23 September 2016, but even this showed a brick wall clipped by some form of shell. (For the brick houses of Sana'a see the entry in 'Brick at Risk: Asia and Islamic Africa', this issue below, pages 6-7.) The programme was about the war, the blockade, the impending famine which had become all too real within six months, and the general displacement of population resulting from the constant air strikes by the Saudi-led coalition. Twelve months later, the country faced a new horror: the worst cholera epidemic seen anywhere in the world in the decades since World War II. As of Thursday 20 July 2017, reported deaths from an entirely preventable disease had risen to over 360,000 in a country where the only drinking water is dirty water. But the cholera and the famine and this particular war make the western news media only fleetingly. Even among the serious newspapers, reporting of Yemen's tragedy is fleeting compared with the media's interest in oil-rich Iraq. Before the weekend was out, on television news the ugliness of war had been replaced by the so-called 'triumphs' of professional sport.

Few understand the causes of this conflict in south-west Asia and most are not sure whether unwanted regime change or resistance to that regime change is ultimately to blame. The war is also a proxy war between the long-established regional power, Iran, and the region's aspirant power, Saudi Arabia. However, the result of the war, which may largely be due to the meddling of the two regional powers, is not in doubt: increased levels of poverty and deprivation giving rise to malnutrition and disease in what is already Asia's poorest country.

DAVID H. KENNETT

Editor, *British Brick Society Information*,

26 February 2017, 15 June 2017, 18 March 2018 and 3 April 2018

## PUBLICATION DATES FOR FUTUES ISSUES OF *British Brick Society Information*

In view of the centenary of the end of the Great War on 11 November 2018, publication of *British Brick Society Information*, **139**, November 2018, will be delayed in the autumn. It will contain accounts of war memorials in brick and terracotta. There is still some space within it for additional contributions.

Publication of *BBS Information*, **138**, May 2018, was brought forward to accommodate distribution of the papers for the society's Annual General Meeting on Saturday 19 May 2018. The committee agreed that as there was an issue ready for publication, this should be done earlier than might have occurred rather than have to send the Annual General Meeting papers out separately.

Notification of contributions for *British Brick Society Information*, **140**, to be issued sometime in the first four months of 2019 should be given to the editor by 25 December 2018 and final texts made available by Monday 20 February 2019 at the latest.

DHK

## Brick at Risk: Asia and Islamic Africa

These notes collect various news items from between May 2016 and the early months of 2018 which draw attention to brick buildings in Asia and the Islamic countries of Africa which are at risk from neglect, war, famine, theft, or any other cause. The 'Editorial: Cry the Beloved Country' which appears in this issue of *British Brick Society Information* highlights the dangers of war in the Near East and across Yemen; the latter including what may well be the oldest inhabited brick buildings in the world. The buildings noted in these pages are presented in approximate order of original construction.

D.H. KENNETT

### HOUSES, MOSQUES, AND MAUSOLEA IN MALI

The Old Town of Djenné, Mali, contains some 2,000 mud brick houses with decorative façades that date back to the third century BC. Due to an intermittent but recurring low-level military conflict, which can, of course, escalate into far more serious violence, and because of climate change, the inhabitants of this land-locked west African country face growing insecurity and a lack of resources to maintain their houses. A constant problem has been surface erosion to these mud brick houses but the inhabitants of Mali and other countries in the Western Sudan have traditional strategies to overcome this.

The pre-Islamic mud brick houses have been refaced every two, occasionally every three, years, and repainted and redecorated on the exterior with each refacing. The inhabitants are well used to this cycle of repair and maintenance for their houses and have applied it also to their mosques, using the paired wooden sticks embedded in the walls as scaffolding.

In July 2016, inspectors for the UNESCO World Heritage List found the houses in Djenné were beginning to deteriorate (*The Guardian*, 15 July 2016).

For illustrations of the houses and mosques of Djenné, Mali, and other places in that country and others in west Africa, see James Morris (photographer), with essay by Suzanne Preston Blier, *Batabu: Adobe Architecture of West Africa*, New York: Princeton Archaeological Press, 2004, which was the catalogue of an exhibition held at Aberystwyth Arts Centre, University of Aberystwyth, in 2004 and 2005. See also Chapter 9, 'The Dogon of Mali' in Peter Blundell Jones, *Architecture and Ritual How Buildings Shape Society*, London: Bloomsbury, 2016, pages 187-211.

The minarets of Mali's mosques are briefly considered with illustrations in J.M. Bloom, *The Minaret*, Edinburgh: Edinburgh University Press, 2013, pages 331-336.

Of considerable relevance to Mali, the International Criminal Court in The Hague, the Netherlands, has accepted the guilty pleas of Ahmad al-Mahadi to the desecration of mud brick shrines and other buildings in Timbuktu in 2012 and to being involved in the destruction of approximately 4,000 manuscripts dating from the twelfth to sixteenth centuries, a period when the city on the River Niger was a centre of Islamic learning. Specifically, he was directing attacks on nine of Timbuktu's mausolea and the ancient door of the Sidi Yahia mosque, a door which local legend affirms to be remain closed until the Last Judgment. The al-Mahadi case is the first time a person has been charged with cultural desecration as a war crime (*The Guardian*, 22 August 2016). On 27 September 2016, Ahmed al-Faqi al-Mahadi was sent to jail by the International Criminal Court for nine years. (*The Guardian*, 28 September 2016).

### SANA'A, YEMEN: HOUSES BUILT OF FIRED BRICK

Yemen is a society whose roots go back long before the Queen of Sheba visited the court of King Solomon (c.970-931 BC) in Jerusalem (I Kings 10:1-13; II Chronicles 9:1-9). As a society, ancient Yemen had evolved ways of coping with its harsh natural environment: desert with little beyond scrubland on which to attempt to grow grains, vegetables, and legumes is often likely to end in failure. Yemen was, as the biblical accounts report, a land rich in rare spices and wild animals capable of being exploited. In its position on the edge of the Indian Ocean between Asia and Africa and with Saba, near the modern oasis of Marib as its principal centre, the kingdom became a great trading centre: Saba was a major stopping place on the overland trade route from the sea to Israel and Damascus.

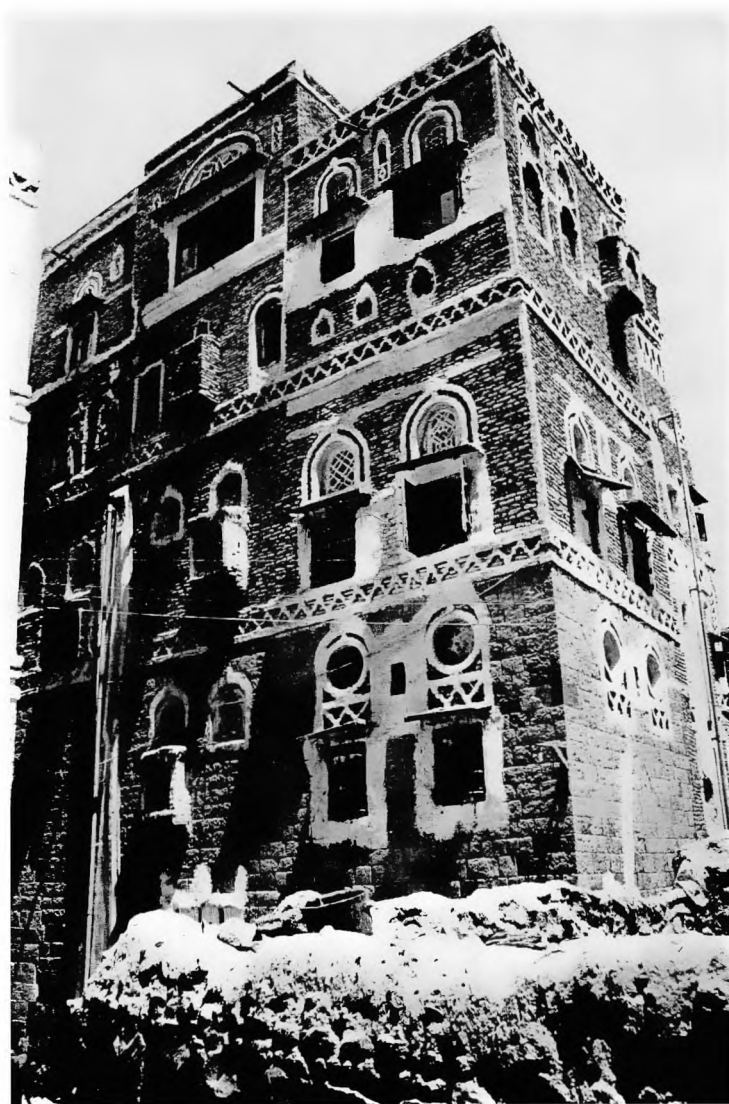


Fig.1 One of the many tall houses in Sana'a, the capital of Yemen. The lowest stages are of stone with the upper parts of brick. Many of the openings, for air, are demarcated with gypsum.

This is a society where the problem of how to build an urban settlement in poor natural circumstances without encroaching on the better-quality land had been “solved” by building high in mud brick, covering the brick in white gypsum and making the “skyscrapers” beautiful by using the plaster to create distinctive patterns on the surfaces of buildings.

Yemen’s capital city, Sana’a was old when the Queen of Sheba was young. A fortified city, Sana’a has no fewer than six thousand brick-built, high-rise houses: heights vary from four to nine storeys. But in adjacent buildings the storey heights may start off equal but by about the fourth or fifth storey floor levels do not quite match up and by the seventh or eighth storey they may be up to a metre out. The houses in Sana’a have the “windows” edged with gypsum: the “windows” do not have glass but are openings for air and light. Those purely for air are elaborate patterns of thin bars of brick, usually but not always covered with gypsum, which keep the rooms within cool. As the writer can testify from visiting Dallas and Fort Worth, in a non-humid but very hot climate, the desert air is tolerable once one has become used to it.

Many of the present houses in Sana’a were already standing and were probably at least one hundred years young when the Ottoman Turks defeated the Byzantine army at Manzikert in central Anatolia on 26 August 1071 or when William of Normandy annexed England to his duchy following the Battle of Hastings on 14 October 1066.

For Sana’a see W. Hall, ed., *Brick*, London and New York; Phaidon, 2015, page 196.





Fig.2 Two of the temples at Bagan, Myanmar.

## THE TEMPLES OF BAGAN, MYANMAR

A powerful earthquake, measuring 6.8 on the Richter scale, hit the temple city of Bagan (also called Pagan), Myanmar (formerly Burma), on Wednesday 24 August 2016. The earthquake was felt in Bangkok, Thailand, 620 miles (1000 km) to the south, and in Kolkata, India, 400 miles (640 km) to the east, where the underground railway was closed to prevent loss of life from aftershocks. A local aid worker for Save the Children in Pakokku, 43 miles (68 km) from the epicentre reported the earthquake as ‘quite heavy, shaking for ten seconds ... and the strongest ... ever felt by staff who have lived [there] all their lives’ (*The Guardian*, 25 August 2016).

A Canadian living in Japan has posted footage of a badly damaged temple at Bagan, one which used to have a top on it and now the whole front has gone. Few initial reports of the damage were recorded in the weeks after the earthquake happened. However, as the dust from damage settled, it became apparent that the famous Sulmani Pagoda had been partly damaged and that the number of stupas which had been damaged rose from a first calculation of 66 to 200 and eventually have been assessed as 453, which is almost a fifth of those at Bagan. But the damage was not as serious as had been at first calculated. Most of the rubble came from relatively recent and unsympathetic repairs effected by orders of the military rulers of the country in the twentieth century and not from the original temple buildings; they had been resistant to many earthquakes before that of 2016 and continued to be unharmed.

Despite its antiquity and importance, Bagan has lacked UNESCO World Heritage status. The 2016 earthquake has given the site the possibility of professional repairs which will enhance the chances of the whole site, with approximately 2,500 brick-built temples, gaining UNESCO World Heritage status in 2019. Following intervention by State Counsellor Aung San Suu Kyi, military-led repairs have been halted. Refurbishment of all 453 damaged stupas will cost over £9 million. (*East*, 004, Spring 2017).



Getting perspective  
More than 2,000 ancient  
pagodas remain in Bagan



Fig.3 The temples of Bagan, Myanmar: general view.

For further photographs including textual material on the 2,500 temples and pagodas at Bagan see J. Campbell, with photographs by W. Pryce, *Brick: A World History*, London: Thames and Hudson, 2003, pages 82-87. 'The forgotten temples of Pagan', in W. Hall, ed., *Brick*, London: Phaidon, 2015, pages 100-101, with caption on page 102, is purely a general photograph of the site.

## THE GREAT WALL OF CHINA

The Great Wall of China, as we know it today, is essentially that erected for the emperors of the Ming dynasty (r.1368-1644). The wall stretches from Laolongtou (the Old Dragon's Head) extending into the Bohai Sea at Shanhaiguan, Hebei Province, to the great castle at Jiayuguan, Gansu Province, a distance in excess of 4,800 miles (7,700 kilometres) with multiple walls thought to extend total wall construction to about 13,000 miles (21,000 kilometres). Not all of this is now extant: some is buried beneath modern infrastructure such as the Panjaikou Reservoir at the Xifengkou Pass and other parts were blown up during the Chinese Cultural Revolution of 1966 and the bricks used for road building. At this time, peasants were encouraged to raid the wall for bricks with which to build farmhouses: for the desperately poor a new house meant more than the preservation of the historic structure.

Happily, more enlightened policies are in place in the twenty-first century and maintenance and restoration programmes under Deng Xiaopeng's slogan, 'Let us love China and restore our Great Wall', of 1984 have been maintained for more than thirty years.

However, news reports in July 2016 (highlighted *The Guardian*, 29 July 2016) suggest that despite strict laws in the Chinese penal code about brick theft, far more rigorous policing is required to prevent damage to the wall which is quite literally disappearing brick by brick. Due to earlier attitudes, brick theft by people living near the walls is endemic; some bricks are used as construction materials, but other bricks are sold to unsuspecting tourists, who do not know that they have been stolen from the very monument they have come to see. The damage from brick theft is most prevalent in the area north of Beijing, the part of the wall most usually visited by tourists, not least at the highly restored part at Mount Badaling. Chinese officials responsible for wall maintenance complain that they are spending their allocated state grants on repairing the wall not preserving it.

A different threat has also been reported. The headline read 'Great Wall suffers "crude and basic" restoration works' (*The Guardian*, 23 September 2016); the article described how five miles of unrestored wall at Xiaohedou, known as 'the most beautiful, wild Great Wall' had been desecrated. Ill-informed work had included the destruction of guard towers and defensive works and the flattening of the wall to give it the appearance of 'an elevated bike path'. Part of the attraction of the Great Wall is the crenellations, the steps, and

the guard towers. Material use was inconsistent: sand, lime mortar, and concrete had all been poured on top of the flattened sections. The photograph published with the article shows the flattening.

Brick theft and poor-quality restoration are not the only threats to the Great Wall of China.

Wind and rain produce erosion, particularly in the portions built of rammed earth in the western sections facing the Gobi Desert and the deserts of Qinghai Province. This also occurs in the more isolated sections of brick wall.

For accounts of the Great Wall of China see S. Turnbull, *The Great Wall of China, 221 BC-AD 1644*, Botley, Oxford, and New York: Osprey Publishing, 2007. Aspects of brick construction used at the Great Wall of China are noted J. Campbell, with photographs by W. Pryce, *Brick: A World History*, London: Thames and Hudson, 2003, pages 158-159.

Kevin Frayer (photographer), 'Eyewitness: Great Wall of China', *The Guardian*, 25 November 2015, is a centrefold double-page photograph of the largest brick structure in the world shows just how formidable the barrier was and is and also demonstrates the engineering achievement in conquering the terrain it was required to cross.



Fig.4 The Great Wall of China, subject in places to brick thefts.

## THE MUD BRICK HOUSES OF SHIBAM, YEMEN

In contrast to the great age of the houses in Sana'a, discussed above (pp.6-7) the houses in the walled city of Shibam, in the centre of Yemen, are a mere half millennium in age. A great deluge destroyed the old city of Shibam in 1532. The new city was constructed on a rocky plateau within a walled area, the city walls being protection from flash flooding which can devastate the surrounding plain.

Likewise, again in contrast to Sana'a, the houses in Shibam are of mud brick not fired brick. At seven and eight storeys in height, they are the tallest structures of this material in the world. The housing is as high as the white, gypsum-covered minaret of the local mosque. Some houses have been destroyed as a consequence of torrential rain: a good example of this is within the south-west corner of the city. This is now a three-storeys high pile of mud but the outer wall of the structure is still recognisable.

One feature of Shibam is the paucity of houses built outside the walls. There are a few isolated ones in the scrubland to the north and piles of red earth indicating others which have been destroyed by flooding. The walls provide a backdrop to the only road around the city: motor vehicles are more or less banned within the walls. On the other side of the cars and lorries are a few buildings, themselves protected by a further road with another wall beyond it before the scrubland and the desert begins.

For Shibam see W. Hall, ed., *Brick*, London and New York; Phaidon, 2015, pages 148-149 with caption on page 150.

## CHAUBURJI GATEHOUSE, LAHORE, PAKISTAN

The city authorities in Lahore, backed by the national government of Pakistan, wish to construct a metro system part of which would be built on elevated tracks on concrete pillars. On 19 August 2016, objectors to the scheme secured an order from the Punjab high court in Lahore which forbids all construction work within 60 metres of no fewer than eleven protected historic sites of the Mughal era. These include two seventeenth-century sites, the Shalimar Gardens, a UNESCO world heritage site, and the Chauburji Gatehouse with its four towers. The General Post Office, built to commemorate the Golden Jubilee of Queen Victoria in 1887, is also threatened.

The Chauburji Gatehouse was built in AD 1646 (1056 AH) was the entrance to the now lost garden of the Mughal princess, Zeb-un-Nisa, also known as Zebinda Begum, which is recorded in a now fragmentary Persian inscription in the Arabic script in blue set on white porcelain:

The garden, in the pattern of the garden of Paradise, has been founded  
(missing line) ...

The garden has been bestowed on Mian Bai

By the bounty of Zebinda Begum, the Lady of the Age.

The inscription records that Sahib-e-Zebinda (one endowed with elegance), Begum-e-Dauran (Lady of the Ages) bestowed the garden on her favourite female attendant, Main Bai Fakhrunnisa (Pride of Women). The Begum (princess) was the daughter of the Mughal emperor, Aurangzeb.

The gatehouse is built of red brick and has an octagonal, minaret-like tower at each corner. The name, Chauburji, is Urdu and descriptive of the building's main feature: 'Chau' meaning four, and 'burji' meaning tower. The towers expand at the top; this feature is not present on any other tower in the Indian sub-continent. Both the towers and street frontage are richly decorated in tilework; the sides, however, are plain brickwork. The main frontage of the two storey building is tripartite, with a central, four-centred arch reaching up through both floors, and deep-set arches on either side. On the first floor of the central portion within the deeply recessed arch are three openings.

The building was damaged during the 1843 earthquake in the Punjab when the north-western minaret collapsed and cracks appeared in the central arch. Restoration to as near as possible to its original appearance was carried out by the Department of Archaeology of Pakistan in the late 1960s.

The General Post Office is set within extensive gardens, also threatened by the proposals for the construction of the metro. It has a ground floor in rusticated red sandstone blocks but the first floor is red brick as are the upper parts of the octagonal corner towers. The more substantial central tower, also octagonal, and with massive buttresses, is largely of rusticated red sandstone blocks although there is some brickwork in the area below the storey with four clock faces.

The opposition contends that the 17-mile-long Orange Line should be built in tunnels so as to protect the historic sites. Tunnelling would also give greater protection to the many thousands threatened with eviction and loss of their livelihoods and neighbourhoods.

## THE BOTANIC GARDENS, KOLKATA, INDIA

*Country Life*, 10 August 2016, page 30, has a plea from Athena, Cultural Crusader, for the restoration of the Botanic Gardens created in Calcutta (now Kolkata) by Col Robert Kyd in 1787 and enhanced by his successor from 1783, William Roxburgh. Roxburgh and his successors created a world-class research institution in the oldest botanical gardens in India. In particular's Roxburgh's house of stucco-covered brick and the adjacent research buildings are being left to decay, along with the 300-acre gardens. The first experiments in growing tea in India were made in the gardens here.

Although the UK government has a fund, the Cultural Protection Fund, it is earmarked for saving the cultural heritage of the war-torn countries of the Near East. Other funds — the Prosperity Fund and the GREAT UK Challenge Fund — Athena argues could, and should, be available to save Britain's colonial heritage. Britain has expertise in the restoration and management of historic buildings and landscapes. Athena also argues that unlike other European former colonial powers — Denmark, France, the Netherlands, and Spain — this expertise has not been shared by the UK with the current administrations of lands it once administered. One can ask what is the Commonwealth for?



## YANGON, MYANMAR: DECAY AMONG BUILDINGS OF ITS COLONIAL ERA

Yangon, Burma, a city better known in the west by its former name, Rangoon, is south-east Asia's only surviving colonial capital. Yangon is undergoing a transformation to the modern world from a forgotten, decaying city left frozen at the time when the British left in 1948. In his article 'Just another day in the office' (*The Guardian Weekend*, 21 May 2016, pp.56-62), with the subtitle, 'Lawyers work in ruins while luxury hotels get the green light. Who will benefit from Myanmar's new gold rush?', Oliver Wainwright asked some fundamental questions about the rapid redevelopment of Yangon.

Important views of the most sacred site in Yangon, the brick-built Shwedagon Pagoda, which is covered with gold, are meant to be protected — on the lines of the protection afforded to sightlines to St Paul's Cathedral — but the Burmese legislation is weak and lax in its implementation. It was modelled on but is far weaker than the preservation legislation introduced in India by Lord Curzon as Viceroy in 1912.

Restoration in Yangon suffers from two problems. The first is a rush to modernise and to build new, multi-purpose, high-rise structures, which may block views of the sacred pagoda. The second occurs when attempts are made to recycle materials; many local people fear evil spirits may lurk in the wood, brick, and glass being reused. A Canadian government project to renovate a block on Merchant Road enabled the residents to stay in their homes, the building to be refurbished, and 250 local craftspeople to be trained to international conservation standards.

The red brick former headquarters building of the former Burma Railway Company was built in the 1870s but left to decay during the period of military dictatorship which ended only in 2010 (though the army still has a great deal of political power in the country); structurally sound, the railway building is scheduled to become a shopping mall. However, the symbols of secular power such as the Ministers' Building, where General Aung San and several of his colleagues were murdered on 19 July 1947, the Supreme Court building, and the Yangon divisional court building have fared less well. However, a photograph (p.59) of the stairwell of the Ministers' Building shows that the decorative ironwork of the stairs is in good shape but another photograph (p.61) illustrates the stair ascending the divisional court is in a far less satisfactory state of preservation.

The chapter entitled 'In the Land of Gold and Rubies: Colonial Architecture' in L. Karnath, *Architecture in Burma*, Ostfildern, Germany: Hatje Cantz, 2013, pages 128-191, provides a fuller account with many colour photographs of the buildings constructed in Yangon during the century of British colonial rule in Burma (1852-1948).

### Book Notice

Sharon Rotbard, *White City Black City: Architecture and War in Tel Aviv and Jaffa*,  
London: Pluto Press, 2015,  
xii + 244 pages, many unnumbered photographs and maps,  
ISBN 978-0-7453-3511-7, paperback, price £14.99.

Few are aware that silicate brick has been made in Tel Aviv-Jaffa continuously since 1922, certainly not the present writer until he read Rotbard's book, which is essentially a work of comparative sociology. But, Rotbard argues, in the twentieth and twenty-first centuries AD, Tel Aviv, the white city, has sought to obliterate its largely Arab neighbour, Jaffa, the black city. Brick and its manufacture, thus, plays only a minor role in Rotbard's argument. This book, however, is worthy of attention not only because of its central argument but also for the contrasts in building materials between the two halves of the modern city of Tel Aviv-Jaffa.

DHK

# Searching for the Tower of Babel: Ur, Eridu, Babylon, Rome

David H. Kennett

'My name is Ozymandias, king of kings:  
Look upon my works, ye Mighty, and despair!  
Nothing beside remains. Round the decay  
Of that colossal wreck, boundless and bare  
The lone and level sands stretch far away.

From 'Ozymandias'

PERCY BYSSHE SHELLEY (1792-1822)

## POETRY, MYTH, AND THE BIBLE

The Tower of Babel is analogous to the remains of the statue of Ozymandias, "Two vast and trunkless legs of stone" and "half sunk, a shattered visage", all that survives from the monument to some tyrant, a prehistoric version of the head and one foot of the giant statue of Constantine (r.306-333) which once graced the Forum of Rome. Shelley's description of the "visage" with its "frown / And wrinkled lip, and sneer of cold command" well fits the cold marble of the face of Constantine.

The Tower of Babel resembles the statue of Ozymandias in being both mythical and real. Myth enters the equation because no one really knows whether there was a real tower, although there are at least three good candidates for the site in Mesopotamia (modern Iraq): Ur, Eridu, and Babylon. Other cities, less well-known than these three could have housed a giant tower whose remains have yet to be discovered. Real because each of Ur, Eridu, and Babylon are known to have had such a tower and because many Dutch and Flemish painters chose to depict the tower from their observations of the Colosseum in Rome, not least Pieter Bruegel the Elder.

Set in their prehistoric past, the Tower of Babel is also part of an attempt by the ancient Hebrews to explain the diversity of languages they had encountered in their migration in the third millennium BC from Ur of the Chaldees to the promised land in Palestine/Israel. It recalls more than one folk memory of building a great tower in previous generations long ago in a previous homeland or recollection of their enslavement to build a great tower to a foreign god during the Babylonian captivity. The passage spoke of their confusion and later they wrote down their confusion about the complexity of languages they had met and at the same time recalled the great tower in their original homeland the passage in *The Bible* we know as Genesis 11:1-9:

Now the whole earth had one language and few words. And as men migrated from the east, they found a plain in the land of Shinar and settled there. And they said one to another, "Come let us make bricks and burn them thoroughly." And they had brick for stone, and bitumen for mortar. Then they said, "Come let us build ourselves a city, and a tower with its top in the heavens, and let us make a name for ourselves, lest we be scattered abroad on the face of the earth." And the Lord came down to see the city and the tower, which the sons of men had built. And the Lord said, "Behold, they are one people and they have all one language; and this is the beginning of what they will do; and nothing that they propose to do will now be impossible for them. Come, let us go down, and there confused their language, that they may not understand one another's speech." So the Lord scattered them abroad from there over the face of all the earth, and they left off building the city. Therefore its name was called Babel, because the Lord confused the language of all the earth; and from there the Lord scattered them abroad over the face of the earth. [RSV]

The Hebrews created a poetic image to recall their experiences in encountering and continuing to encounter those who spoke a language not their native tongue, whether those whom the tribe met were friend or foe, affable neighbour or vicious conqueror: the words became part of the final text, already committed to memory by the Hebrews during their captivity in Babylon and part of their attempt to distinguish themselves from the Babylonians.



Fig.1 The Ziggurat of Ur: the restored lowest stage. The tribesman on the right is guarding his animals, not warding off western troops.

In the first chapter of his recent book, *Fallen Glory: The Lives and Deaths of Twenty Lost Buildings from the Tower of Babel to the Twin Towers*,<sup>1</sup> James Crawford considers three early historic locations in Mesopotamia (modern Iraq) as a potential site for the Tower of Babel,<sup>2</sup> each of which was built of brick: Ur, Eridu, and Babylon. Rome in the sixteenth century, another set of ruins considered by Crawford,<sup>3</sup> can also be examined as Pieter Brueghel the Elder twice painted the Colosseum as *The Tower of Babel* (see below).

## UR, THE CITY OF ABRAHAM

Using the surviving base of the Ur ziggurat (fig.1) as evidence of a much taller structure, it is implicit that the Genesis account includes several early traditions expressed as poetic prose repeated many times before being written down: until committed to paper, vellum, or papyrus, the transmission of culture was based on repeated retelling of the story of the tribe, whether in the ancient Near East<sup>4</sup> or Ireland or Scandinavia or England.<sup>5</sup> Thus, the younger generation learnt from its elders and were charged to pass on the history of the tribe. The city of Ur was at its zenith in the third millennium BC; it was destroyed around the year 2000 BC following a revolt from two of the far-flung provinces from which it drew tribute, Elam and Shimastyles, and although the city of Ur-Nammu (r.2112-2094) and his son, Shulgi (r.2095-2046), was rebuilt, its power over its neighbours had seeped away. The decline of Ur was quickened by the eastward movement of the Euphrates River and climate change in the second millennium BC. Ur is now some 10 miles (16 km) away from the main course of the river, which remains navigable. The course of one branch of the Euphrates can be seen at the brick-built bridge at the entrance to the Sumerian city of Girsu (fl. c.2900 BC – 200 AD).<sup>6</sup>

A stela showing Ur-Nammu carrying builder's tools and bricks (figs.2 and 3) has been found at Ur and his proclamations on the building of the ziggurat and its construction have survived.<sup>7</sup>





Fig.2 (left) Broken stela from Ur, with upper part showing Ur-Nammu, the ruler of Ur, offering the fruits of the earth to the god, Nannar, the chief deity of Ur. Lower portion shows a procession approaching the god, with Ur-Nammu carrying builder's tools in the centre, preceded by his grandson Enlil and followed by a cupbearer.



Fig.3 (right) Drawing of the bearded Ur-Nammu carrying builder's tools.

A much later cylinder of the Babylonian king Nabonidus (r.555-539 BC), who resided in the south of his kingdom, records the state of the ziggurat in the third quarter of the sixth century BC. In translation, the opening two sections read:

I am Nabonidus, king of Babylon, patron of Esagila and Ezida, devotee of the great gods. E-lugal-galga-sisa, the ziggurat of E-gish-nu-gal in Ur, which Ur-Nammu, a former king, built but did not finish it [and] his son Shulgi finished the building. On the inscriptions of Ur-Nammu and Shulgi I read that Ur-Nammu built that ziggurat but did not finish it [and] his son Shulgi finished its building.

Now that ziggurat has become old, and I undertook the construction of that ziggurat on the foundations which Ur-Nammu and his son Shulgi built following the original plan with bitumen and baked brick. I rebuilt it for Sin, the lord of the gods of heaven and the underworld, the god of gods, who lives in the great heavens, the lord of E-gish-nu-gal in Ur, my lord.<sup>8</sup>

Two paragraphs of devotional prayers on follow Nabonidus' dedication cylinder. Nabonidus' comments make it clear that decay had set in at Ur long before the sixth century BC. Nabonidus was attempting the impossible in trying to restore the ziggurat. In the twentieth century, the ruler of Iraq, Saddam Hussein, attempted another restoration and partly succeeded: what is visible today is the work of his government.

The surviving portion of the ziggurat of Ur is 200 feet (61 metres) long, 147 feet 6 inches (45 metres) wide, and stand to a height of 49 feet 2 inches (15 metres). At the original top of the ziggurat, estimated to have been about 98 feet 4 inches (30 metres) high, stood the shrine to Nanmar, the God of the Moon. The exterior of the surviving portion is built of a yellow-coloured brick. On the east side, there are three staircases, each of 100 steps, which converge at a single point below the surviving flat top.



Fig.4 Gustave Dore, *The Confusion of Tongues*, an imaginative reconstruction of the Tower of Babel with the tower disappearing into the sky. It has been suggested as a reconstruction of the tower at Eridu.

#### ERIDU: CITY OF THE UNFINISHED ZIGGURAT

A second candidate for the location of the Tower of Babel is a group of seven mounds at Eridu, some 12 miles (8 km) south of Ur, which are the remains of the unfinished ziggurat built by Amar-Sin (r.2045-2037), the son of Shulgi. Being unfinished, the Eridu tower might well have both frightened and amazed the post-imperial inhabitants of the southern flood plain of the Euphrates River. Eridu is also the foundation city of Sumerian myth; the city built by the god Marduk, who dwelt amongst the people and had to be appeased. Below the present remains are seventeen predecessors to the surviving lowest stage of the Amar-Sin's unfinished multi-storeyed ziggurat. The earliest of these layers dates to around 5000 BC and other buried structures of sun-dried brick have dates up to around 3800 BC. These were discovered in the extensive excavations between 1946 and 1949 of the Sumerian city, directed by Faud Safar, of the Directorate of Iraqi Antiquities. In the excavations, sun-dried bricks were found with the names of the kings of Ur.

A tablet from Eridu, dating to *circa* 1600 BC, records the foundation of mankind at the city founded by the god Marduk but this creation myth is of a people dependent upon and designed to serve Marduk. This myth is a far cry from the biblical concept of God creating heaven and earth to be tended by mankind. An engraving by Gustave Doré, 'The Confusion of Tongues' (fig.4) appears to show the tower disappearing into the clouds with the populace cowering in awe before it.

#### BABYLON AND THE TEMPLE OF ETEMENANKI

The third alternative hypothesis is that the idea of the Tower of Babel derives from the Temple of Etemenanki in Babylon, completed for Nebuchadnezzar II (r.604-562) but begun by his father, Nabopolassar (r. c.626-604). The temple is now a great, water-filled square ditch where the fired bricks which had been used on the exterior walls of the ziggurat were dug out in the nineteenth and twentieth centuries for re-use by the local peoples.<sup>9</sup> The temple was on the summit of a ziggurat and, as with all such structures, approached by a long stair, hence the extension to the modern water-filled ditch. The case for the Temple of Etemenanki — the House of the Foundation of Heaven and the Underworld — is that the temple was built on the summit of the ziggurat<sup>10</sup> to the god Marduk, who occurs across the Near East from Eridu to Nineveh. In Babylon, an earlier temple had been

destroyed by the Assyrians under Sennacherib in 689 BC. This temple, for which no exact building date has been assigned, is mentioned in the Babylonian Creation Epic, a poem of the second millennium BC. It was described as *ziggurat apsi elite*, 'the upper ziggurat of the Apsû'.

After its destruction in the early seventh century, the reconstruction of the temple took over a century; it is known that the exiled and captive Jews were employed in the final stages of its building. Nebuchadnezzar in 587 BC, after their defeat, had taken the remnant of Israel off to Babylon and enslaved the people.

Nebuchadnezzar decreed that the rebuilt Temple of Etemenanki was to be covered in blue tiles, an early instance of work that is seen on mosques throughout the Near East, Iran, and central Asia. Nebuchadnezzar is reputed to have pronounced on his achievement in rebuilding and completing the temple. In translation his words read:

The tower, the eternal house, which I founded and built. I have completed its magnificence with silver, gold, other metals, stone, enamelled bricks, fir, and pine. The first which is the house of the earth's base, the most ancient monument of Babylon, I built and finished it. I have highly exalted its head with bricks covered with copper. We say for the other, that is, this edifice, the house of the seven lights of the earth, the most ancient monument of Borsippa. A former king built it, (they reckon 42 ages) but he did not complete its head. Since a remote time, people had abandoned it, without order expressing their words. Since that time the earthquake and the thunder had dispersed the sun-dried clay. The bricks of the casing had been split, and the earth of the interior had been scattered in heaps. Marodach [Marduk], the great god, excited my mind to repair this building. I did not change the site nor did I take away the foundation. In a fortunate month, on an auspicious day, I undertook to build porticoes around the crude brick masses, and the casing of burnt bricks. I adapted the circuits, I put the inscription of my name in the Kitir of the portico. I set my hand to finish it. And to exalt its head. As it had been done in ancient days, so I exalted its summit.<sup>11</sup>

Another inscription, reputedly discovered in Robert Koldewey's 1917 excavation but probably of an uncertain provenance, in translation reads:

Etemenanki, Ziggurat Babibili [Ziggurat of Babylon] I made it, the wonder of the people of the world, I raised its top to heaven, made doors for the gates, and I covered it with bitumen and bricks.<sup>12</sup>

This could be a garbled record of the stele commemorating Nebuchadnezzar's completion of the Temple of Etemenanki, originally atop a great ziggurat in Babylon (fig.5). It was found in the early twentieth century, broken into three pieces; however, two co-joining pieces have been rediscovered in the private collection of a Norwegian businessman, Martin Schøyen. The stele is 18.5 inches (470 mm) high and 9.8 inches (250 mm) wide. Carving on the stele shows a building of seven tiers, each one narrower than the one below it, with the temple on the uppermost tier and much taller than the four immediately below it. Tier one is the equivalent of six floors, tier two equates to four floors, and tiers three to six are a single floor. The temple is the equivalent of three floors in height. The south side is approached by a grand flight of stairs which ascend to the base of the third tier: tiers three, five, and seven are shown with doors facing the grand stair. The tablet has an inscription for which the Assyriologist Prof Andrew George provides the following translation:

NEBUCHADNEZZAR, KING OF BABYLON AM I  
IN ORDER TO COMPLETE E-TEMEN-ANKI AND E-UR-ME-IMIN-ANKI  
I MOBILISED ALL COUNTRIES EVERYWHERE,  
EACH AND EVERY RULER WHO HAD BEEN RAISED TO PROMINENCE  
OVER ALL THE PEOPLES OF THE WORLD  
LOVED BY MARDUK, FROM THE UPPER SEA TO THE LOWER SEA,  
THE DISTANT NATIONS, THE TEEMING PEOPLE OF THE WORLD,  
KINGS OF REMOTE MOUNTAINS AND FAR-FLUNG ISLANDS  
THE BASE I FILLED IN TO MAKE A HIGH TERRACE.  
I BUILT THEIR STRUCTURES WITH BITUMEN AND FIRED BRICK THROUGHOUT.  
I COMPLETED IT RAISING ITS TOP TO THE HEAVEN, MAKING IT GLEAM BRIGHT IN THE SUN<sup>13</sup>





Fig.5 The stela of Nebuchadnezzar, now in the Schøyen Collection, Norway.  
Copyright: Schøyen Collection.

Several aspects of the inscription require explanation. Nebuchadnezzar ruled a vast empire stretching from the Mediterranean to Caspian Sea and the Persian Gulf; the last two being the Upper Sea and the Lower Sea respectively. He clearly utilised the manpower of his empire to provide the labour to erect the ziggurat and the temple on its summit. Some would associate parts of the Genesis account with the Temple of Etemananki, not least comments like 'Come let us make bricks and burn them thoroughly' and producing a city with 'a tower stretching up to heaven'. In this interpretation, the oral tradition of the Jews in recounting the journey from Ur to the Promised Land of Canaan, the ziggurat of Ur, which they had left behind in the mid third millennium BC, became confused with their labour in building the Temple of Etemananki in Babylon in the sixth century BC, two thousand years later. The Genesis account may therefore incorporate allusions to both events. The babble of different languages found among the workers at the Temple of Etemenanki became the Tower of Babel, an incomprehensible noise.

A clay tablet with a cuneiform inscription which is dated to 229 BC has been found at Uruk, Iraq: it gives the height as seven stocks — a stock was the equivalent of 13 metres (42 ft 7½ in) — thus making the

ziggurat 91 metres (29 ft 10 in) high. The base was a square with sides of 91 metres (29 ft 10 in). The dimensions of the base, recovered in the excavations in 1913 of Robert Johann Koldewey (*d.* 1924), match these; Koldewey worked at Babylon in the first two decades of the twentieth century, having first visited the site in March 1899 and identified Etemenanki in November 1900.

The Babylonian empire fell with the defeat of the Babylonians in 539 BC by the Persian king Cyrus the Great (c.600-530 BC). A century later, the Greek historian Herodotus wrote an account of Babylon:

Babylon's outer wall is the main defence of the city. There is, however, a second inner wall, of less thickness than the first, but very little inferior to it in strength. The centre of each division of the town was occupied by a fortress. In the one stood the palace of the kings, surrounded by a wall of great strength and size: in the other was the sacred precinct of Zeus Belos, a square enclosure, two furlongs [440 feet, 402 metres] each way, with gates of solid brass, which was also remaining in my time. In the middle of the precinct there was a tower of solid masonry, a furlong [220 feet, 201 metres] in length and breadth, upon which was raised a second tower, and on that a third, and so on up to eight. The ascent to the top is on the outside, by a path which winds round all the towers. When one is about half way up, one finds a resting place and seats, where persons can sit for some time on their way to the summit. On the topmost tower there is a spacious temple, and inside the temple stands a couch of unusual size, richly adorned, with a golden table by its side. There is no statue of any kind set up on the place, nor is the chamber occupied of by anyone but a single native woman, who, as the Chaldeans, the priests of this god, affirm is chosen for himself by the deity out of all the women of the land.<sup>14</sup>

In this account the supreme god has been Hellenised to Zeus Belos, referring to the Akkadian god Bel, a name meaning 'lord' or 'master'; he is the equivalent of the biblical 'Baal'. He has also been seen as the Greek name of Marduk.

The Temple of Etemenanki survived until when the Macedonian conqueror of much of the Near East and beyond, Alexander the Great (356-323), captured Babylon in 331 BC, overcoming the Persian, Darius III. Alexander ordered its repair but when he returned to the city eight years later in 323 BC, he found that nothing had been accomplished. Demolition was then ordered with the idea of rebuilding it but Alexander's death there on 10/11 June 323 and the subsequent disputes leading to the fragmentation of his great empire stopped any form of reconstruction. Although over the next half century, local post-Alexandrian chronicles record attempts at reconstruction, the level of the existing debris always prevented work proceeding. Antiochus I Soter (c.323-261 BC) as crown prince to his father, Seleucus I Nicator (359-281 BC), from 294 to 281, ordered the rebuilding of the Temple of Etemenanki, but when he was making sacrifice to the god at the first stage of the projected reconstruction, he stumbled and fell. In an angry rage, despairingly he ordered his elephant drivers to trample the last remains of the once great ziggurat underfoot, destroying all trace of the tower.<sup>15</sup>

Thereafter, ancient chronicles are silent about the Temple of Etemenanki at Babylon.

In 305, Seleucus I had founded a new city, Seleucia-on-Tigris, as the capital of the Hellenised Seleucid empire: Seleucus had been one of Alexander's generals. The founding of the new city led to the deliberate depopulation and further decline of Babylon. It was on the west bank of the Tigris opposite Ctesiphon. Seleucia, itself, was destroyed in AD 165.

As a brief coda, it is worth noting that it was in a palace near the ziggurat and its crowning temple that a great feast was given by Belshazzar, grandson of Nebuchadnezzar, deputising as ruler for his absent father, Nabonidus (r.555-539); here the words 'MENE, MENE, TEKEL, UPHARSIN' mysteriously appear on the wall behind the prince who was feasting off the sacred vessels of the Jewish Temple. As recorded in Daniel 5:1-4, the prophet foretells the destruction of the Babylonian empire by the Persians. Many, including James Crawford,<sup>16</sup> have been dismissive of the story in Daniel, claiming it was written much later than the event and whilst this may be true of other parts of this Old Testament book, the Aramaic used in these verses and in those referring to Shadrach, Meshach, and Abednego in the fiery furnace (Daniel 3:13-30)<sup>17</sup> and those giving the story of Daniel in the Lions' den (Daniel 6:10-23) are generally considered to be of a form, current in the second half of the sixth century BC.<sup>18</sup>

Artistically, *Belshazzar's Feast* was commemorated in the seventeenth century by Rembrandt and in a very different vein in the nineteenth century by John Martin.<sup>19</sup> In 1831, John Martin produced a mezzotint of *The Fall of Babylon*, which includes in the background a multi-storey ziggurat.<sup>20</sup>

## ROME: DECAY AND SURVIVAL

All empires ultimately fail: Babylon had succumbed to the Persian armies of Cyrus the Great in 539 BC and although surviving as a major centre for several centuries, it was never important again. Parts of many imperial cities were destroyed by those who conquered them but after its fall to the barbarians in AD 410, large parts of Rome were left to decay, a decay hastened by a major earthquake almost a millennium later in AD 1349.<sup>21</sup> Part of the outer, marble wall of the Colosseum was destroyed in that earthquake; this was the portion built into the bed of a former course of the Tiber. Behind the stone façade lies a great deal of brick construction in the Colosseum, including the tiered seating and the subterranean accommodation for gladiators, prisoners, and animals.<sup>22</sup>

The Colosseum was depicted as *The Tower of Babel* by Pieter Bruegel the Elder in two surviving paintings, one relatively small and dated to 1563 and the other much larger done between 1564 and 1568.<sup>23</sup> The residual outer walls of the Colosseum may be good quality marble, however, as noted in the previous paragraph, the majority of the intricate structure itself is brick. A decade-long clean of the marble of the Colosseum was completed in March 2016 along with the restoration and repointing of the brickwork. The condition of the Colosseum at the time when Brueghel was working was illustrated by a series of prints published by Hieronymus Cock in 1551 in *Praecipua Aliquot Romanae Antiquitatis Ruinarum Monimenta Vivis Prospectibus*, a series of twenty-four plates also known as *The Large Book of Ruins*, for which preliminary drawings also exist, the latter including three of the Colosseum.<sup>24</sup> The Colosseum was painted by no fewer than fourteen other Dutch and Flemish painters active in the period when Elizabeth was on the throne of England (1558-1603); they produced at least 45 surviving paintings of the Colosseum.

At the time as Bruegel was working, the Forum at Rome was seen as 'The Rise, Decline and Fall of the Cow Pasture'. Records of its physical state in the fourteenth, fifteenth and sixteenth centuries are both written and visual. The former is a work by a mid-fifteenth-century cleric, Poggio Bracciolone, *De varietate fortuna — On the Vicissitudes of Fortune*.<sup>25</sup>

Evocative renderings of the state of the Forum in the fifteenth and sixteenth centuries, contemporary with Braccioloni's text show the Forum as 'Cow Pasture'. One of the drawings in the *Codex Escorialensis*, a late-fifteenth-century compilation with sketches of ancient Rome as it then was, shows a herd of cattle being driven under the Arch of Constantine to the *Campo Vaccino*.<sup>26</sup> Half a century later, in the 1530s, a Fleming, Marten van Heemskerck, produced a several drawings of Rome;<sup>27</sup> like the *Codex Escorialensis* and the drawings by Piranesi these show the level of the build-up of earth over where had been the centre of the Roman world. In one Piranesi drawing,<sup>28</sup> as examined with the aid of a magnifying glass, an indistinct group of cows can be discerned taking a drink at a fountain near the two surviving Corinthian columns of the Temple of Castor and Pollux.

Rome illustrates how individual buildings can survive in a sea of decay and destruction: temples to the Roman gods became Christian churches, notably the Pantheon; similarly, Christian churches in Byzantium became mosques and the brick-built mosques found in the cities, towns, and villages of eastern Spain were adapted to become Christian churches and their minarets re-used as church towers.

Whilst a very early draft of this article was being written, BBC4 repeated 'Rome's Invisible City', the trawl by Alexander Armstrong and Michael Scott through subterranean Rome. It was a fascinating insight into Roman building materials, in which tufa and Roman concrete stood out but the background to the above ground visual images was often brick, even at the Baths of Caracalla. Below ground, in sewers and aqueducts, the building materials were tufa and Roman concrete: Roman concrete sets within 36 hours even when immersed in a case under water. The subterranean levels of the Colosseum and the baths were brick. The Cloaca Maxima, the great sewer built *circa* 600 BC of tufa and Roman concrete which runs beneath the Forum of Rome is still functioning: classical Rome in heyday had more than one million inhabitants, the modern city has a population of about three million.



Roman power destroyed the Temple in Jerusalem in AD 70;<sup>29</sup> the razed site was left open for several centuries before the third Abrahamic religion, Islam, took it over to build the city's first mosque, a wooden structure, on the place from where the Prophet had been taken up into Heaven; this was later replaced that by the richly-tiled Al-Aqsa Mosque and the Dome of the Rock we see today. As a Jewish site, the Temple Mount is the reputed site of where Abraham went to sacrifice his son Isaac but did not, recorded in Genesis 22:1-14. The Wailing Wall, the sole surviving part of Solomon's Temple and that built by Herod, is stone. Following the defeat of the uprising of the Israelites in 578 BC by Nebuchadnezzar, the Babylonian conqueror both razed the Temple and exiled the Jews to Babylon, where they were probably employed to raise the Temple of Etemenanki and the great ziggurat on which it stood.

## POETRY AND WAR: THE DESTRUCTION OF MONUMENTS TO PAST REGIMES

As the first draft of this paper was being prepared late in 2015, I was vividly reminded of the intimate connection, one perhaps not directly implied by James Crawford, in the second phrase of his sub-title, *from the Tower of Babel to the Twin Towers*, when I listened to the free verse of Lynne Hill, twenty-first-century war poet,<sup>30</sup> as searing as anything written by Edward Thomas or Wilfrid Owen. Pictures, included by Crawford and Wilkinson respectively, with captions such as '21 October 2009 A US Army Black Hawk takes off from Tallil Air Base in Iraq to fly past the ruins of the remaining tier of the Ziggurat of Ur as reconstructed by Saddam Hussain'<sup>31</sup> and 'American soldiers climb Saddam Hussain restored ziggurat at Ur'<sup>32</sup> complete with a helicopter flying over the ziggurat demonstrate the precariousness of peace and the folly of war with the same power expressed in the poet's words.

In this context, it is irrelevant whether Babylon or Ur was the site for the inspiration of the Tower of Babel. The invading military forces in the Second Oil War (2003-2011) damaged both places both by where the US air bases were placed — adjacent to the ziggurat of Ur and as Camp Alpha directly on the remains of Babylon.<sup>33</sup> —and by the damage inflicted upon them. The site of Babylon had already been damaged by oil gushing out at Baba Gurgur; the terror of 'Shock and Awe: Baghdad in 2003'<sup>34</sup> only made the damage much worse.

The Second Oil War<sup>35</sup> was the somewhat over-hasty and certainly ill-considered response of the US president George Bush II to the planes crashing into the World Trade Center in New York, the destruction of the Twin Towers on 11 September 2001. The events of 9/11 have been commemorated as 'No Day Shall Erase You From the Memory of Time',<sup>36</sup> a quotation from Virgil, *Aeneid*, IX, 447: '*nulla dies umquam memori vos eximet aeo*'.<sup>37</sup> In English these are the words which preface the names on the memorial at Ground Zero but one must express total agreement with James Crawford that the quotation about the deaths of two fool-hardy young men, Nisus and Euryalus, is far more appropriate to 'the hijackers of September 11 than the victims' of what may prove to have been the defining event of the twenty-first century.<sup>38</sup>

The political and military vacuum which followed the social and political failure incumbent in the lack of planning for the aftermath of the Second Oil War induced the destruction of more monuments in the Near East: the systematic destruction of ancient Nineveh, the blowing up of the temples of Palmyra, the demolition of the historic St Elijah's monastery in Mosul, and the reduction to rubble of the minaret of the great mosque in Mosul, now just a pile of bricks rather than the leaning column of decorative brickwork it once was.<sup>39</sup>

The effect of the pulling down of the bronze statue of Saddam Hussain by the Iraqis themselves and the symbolic beating of it with their shoes shows that once he has been defeated the reputation of any so-called strong man formerly in power can be reduced to the same state as that of Ozymandias.<sup>40</sup>

## NOTES AND REFERENCES

1. This paper began life as a review article centred on James Crawford, *Fallen Glory: The Lives and Deaths of Twenty Lost Buildings from the Tower of Babel to the Twin Towers*, London: Old Street Publishing, 2015, re-issued, paperback, London: Old Street Publishing, 2016, with additional chapter on the destruction of Palmyra; supplemented by comments on Tom Wilkinson, *Bricks and Mortals: Ten Great Buildings and the People they made*, London: Bloomsbury, 2014, re-issued, paperback, London: Bloomsbury, 2015.
2. Crawford, 2015/2016, pp.7-38.
3. Crawford, 2015/2016, pp.149-172, and first unnumbered colour plate reproducing the Bruegel of 1563.

4. Near East: modern political commentators and newspapers follow the terminology of the World Bank's 'North Africa and Middle East Program', instigated in 1954, which covers countries north of the Sahara Desert and the Indian Ocean from Morocco to Afghanistan, to describe events in the lands between the Mediterranean and the Persian Gulf. But 'Middle East' is an inappropriate term for discussion of the Ancient World and some, including the writer, would contend for world affairs certainly before the 1960s; one may also question its over-use concerning current events. To this writer, the Near East means the lands east of the Zagros Mountains, north of the Arabian Desert, west of the River Nile and the Mediterranean coast, and south of the River Orontes (the river which divides Syria from Turkey). By the same token, the Middle East is the lands between the Euphrates-Tigris basin (or the Zagros Mountains) and the Indus basin, namely Iran (before 1935 Persia), Afghanistan, and Pakistan. See also the comment at the end of the author's preface in P. Frankopen, *The Silk Roads: A New History of the World*, London: Bloomsbury, 2015, p.xix. Sadly, Frankopen does not elaborate on this. The French, of course, will have no truck with the nomenclature imposed on the world by the USA. Even when they are published in English, conferences organised by L'Institut Français du Proche-Orient, Beirut, Lebanon, refer to the Near East. ('Proche-Orient' translates as 'Nearest East'.)
5. One can cite *The Gilgamesh Epic*, the *Annals of the Four Masters*, Viking and Icelandic sagas, and *The Anglo-Saxon Chronicle* as examples respectively of the practice in the Near East, Ireland, Scandinavia, and England.
6. P. Beaumont, 'British Museum trains female archaeologists to restore Iraqi heritage', *The Guardian*, 2 April 2018, p.26 with colour photograph of the bridge from above.
7. For a reproduction of the drawing of Ur-Nammu carrying building materials and tools see H. Crawford, *Ur: The City of the Moon God*, London: Bloomsbury, 2015, p.88.
8. <http://www.mesopotamia.co.uk/ziggurats/explore/cylinder.html> [accessed 2 April 2018]
9. A. George, 'The Truth about Etemenanki, the Ziggurat of Babylon', in I.L. Finkel and M.J. Seymour, eds, *Babylon: Myth and Reality*, London: British Museum Press, 2008, pp.124-130, with other photographs on pp. 21 and 48.
10. Wilkinson, 2014/2105, pp.19-44.
11. 'Etemenanki', <http://wikipedia.org/wiki/Etemenanki/the-tower-of-babel> [accessed 20 March 2018]
12. Quoted 'Etemenanki' (as n.11).
13. 'A Balbale to Enlil for Ur-Namma', <http://mesopotamiangods.com/a-balbale-to-enlil-for-ur-namma-ur-namma-g-translation> [accessed 3 April 2018]
14. Quoted in translation, 'Etemenanki' (as no.11).
15. 'Etemenanki', (as n.11) from where some unreferenced items in the previous eight paragraphs have been taken.
16. Crawford, 2015/2016, p.21.
17. For artistic representation in the plasterwork of the three Jews in the fiery furnace as depicted above the fireplace in the Shadrach Room of Stockton House, Wiltshire, see C. Aslet, 'Subtly Improving on the Elizabethans: Stockton House, Wiltshire', *Country Life*, 24 January 2018, pp.42-47, where figure 3 shows the plasterwork of the fireplace. An ornamental fireback showing Daniel in the Lions' Den which was in the fireplace is no longer at the house.
18. I thank the Rev S. Bourne, the Rev Dr A.M. Colby, Mrs P. Conway, and Prof T. Winniffrith for discussion on the dating of the Aramaic used in The Book of Daniel.
19. For recent discussion of artistic representations of the Tower of Babel see M.J. Seymour, 'The Tower of Babel in Art' in Finkel and Seymour, eds, 2008, pp.132-141.
20. Martin's mezzotint is reproduced Wilkinson, 2014/2015, p.39.
21. A. Nur with D. Burgess, *Apocalypse: Earthquakes, Archaeology, and the Wrath of God*, Princeton and Oxford: Princeton University Press, 2008, pp.111-113 and 119, with figs.4.14 and 4.18. The collapsed portion of the stone outer wall was built on weak foundations in a dried-up river bed from an old course of the River Tiber.
22. For a modern, large-scale, colour photograph of the mainly brick interior of the Colosseum see *The Guardian*, 15 October 2010 (copy in author's collection).
23. Crawford, 2015/2016, p.165. See Seymour, 2008, p.136 with figs.116 and 117; with R.-M. and R. Hagen, *Pieter Bruegel the Elder, c.1525-1569: Peasants, Fools and Demons*, Köln, London, Los Angeles: Taschen, 2007, pp.17-21 with illustrations; and W.S. Gibson, *Bruegel*, London: Thames and Hudson, 1977, pp.93, 96-97, 122, 199, with illustrations 58, 65, and 66. The small pictures is in the Marten Boymans Museum, Rotterdam; the larger one in the Kunsthistorisches Museum, Vienna. The latter was a commission from the newly-elected Holy Roman Emperor, Rudolf II.
24. For Hieronymus Cock see the essays and illustrations in J. van Grieken, G. Luijten, and J. van der Stock, eds, *Hieronymus Cock: The Renaissance in Print*, new Haven and London: Yale University Press, 2013. Particularly valuable are figures 26, 40, and 45 of the introduction and the series of prints from *The Large Book of Ruins* reproduced figs 9.2 and 9.8 and three preliminary drawings reproduced under fig.10 in the catalogue of an exhibition held in Leuven and Paris in 2013. I wish to thank Warwickshire County Library for arranging loan of this volume from the Library of the University of Manchester.
25. Crawford, 2015/2016, pp.149-172; Crawford is good at explaining the decay of the Forum at Rome.

26. For fifteenth-century illustrations of Rome, see D. Karmon, *The Ruin of the Eternal City: Antiquity and Preservation in Renaissance Rome*, Oxford and New York: Oxford University Press, 2011; *ibid.*, fig.4.6 for view of the Arch of Constantine and the Colosseum with cattle being driven through the arch from the *Codex Escorialensis*. The volume includes other views from the *Codex* of the Colosseum, as well as views of the Forum of Nerva, the Ponte Santa Maria and a Rome panorama. Karmon's volume is not noticed among Crawford's notes nor his bibliographical note.
27. Drawings by Marten van Heemskerck reproduced in Karmon, 2011, show the Arch of Constantine, the Arch of Titus, the Colosseum, the new St Peter's Basilica, the Pantheon, and a panorama of Rome. See also the volume's paper cover for illustrations of animals being driven through the Forum at Rome. The drawings of van Heemskerck are also reproduced in P.M. Lukehart, ed., *The Accademia Seminars: The Accademia di San Luca in Rome, c.1590-1635*, New Haven and London: Yale University Press for the National Gallery of Art, Washington DC, 2009.
28. Crawford, 2015/2016, p.165. Crawford's endpapers portray the *Campo Vaccino* in Piranesi's view of the Roman Forum with the half-buried Arch of Septimius Severus in the foreground. In this context, colour plates showing the meeting of Hitler and Mussolini in 1938 and Napoleon Bonaparte's entry into Rome reproduced by Crawford are irrelevant.
29. Crawford, 2015/2016, pp.117-165 considers the destruction of Jerusalem using 'The Jerusalem Syndrome' as his title. The phrase 'the Jerusalem syndrome' was coined by the Jerusalem psychiatrist Heinz Herman in the 1930s to denote people who exhibit a strong tendency to hysterical behaviour combined with religious energy in an atmosphere feverish with recreated anticipation. I know knowledge of this to G. Fraser, 'God save us from all the dangers of this intense religious fervour', *The Guardian*, 14 April 2017 (Good Friday). This writer is not cognisant of the original reference.
30. 'Lynne Hill: War Veteran and Poet', broadcast in the poetry slot, Radio 4, Sunday 29 November 2015 at 16.30, repeated Saturday 5 December 2015 at 23.30. The poetry was even more powerful the second time.
31. Crawford, 2015/2016, first unnumbered plate, opp. p.186, lower photograph.
32. Wilkinson, 2014/2015, p.42.
33. J.E. Curtis, 'The Site of Babylon Today', in Finkel and Seymour, 2008, pp.213-220, with colour photographs of what the generals would regard as "collateral damage" to the archaeology.
34. Wilkinson, 2014/2015, pp.20 and 40 respectively.
35. The term 'Oil War' is implied by a remark made by the late King Hussain of Jordan in late 1990: "Now we are fighting about oil, wait until we are fighting about water"; his comment concerned the conflict fought to restore the Emir of Kuwait, disguised under the euphemism 'The Gulf War', but which it is more honest to call 'The First Oil War'.
36. Crawford, 2015/2016, pp.491-517, uses the quotation as the title for his chapter on the destruction of the World Trade Center.
37. Crawford does not give the complete reference; the writer traced the Latin through the Cambridge Schools Latin Project, see <http://www.cambridgescp.com> and <http://www.thelatinlibrary.com/vergil/aen9.shtml>. [accessed March 2016]. See Crawford, 2015/2016, p.515.
38. Crawford, 2015/2016, p.515. The defining event of the twentieth century was, of course, the Great War (1914-1918). *British Brick Society Information*, 140, November 2018, will include items on monuments to the deceased of that conflict built or made using brick and/or terracotta. Built implies a standing structure, made is used for those affixed to a wall.
39. R. Ettinghausen, O. Grabar, and M. Jenkins-Madina, *Islamic Art and Architecture 650-1250*, New Haven and London: Yale University Press, 2001, pp.217-218, with fig.350; T.P. Smith, 'Down with It, Down with It, Even to the Ground: Destruction of an iconic brick minaret in Al Mawşil (Mosul), Iraq', this issue of *BBS Information*, pp.00-00.
40. With the exception of one inter-library loan, the publications cited in this article are those in the modest collection of books on the Near East and Italy in the author's personal library. Both are areas of the world on whose brickwork the writer would claim only limited expertise.

### *Received for Review*

Harriet Crawford, *Ur: The City of the Moon God*,  
 London: Bloomsbury Academic, 2015,  
 viii + 146 pages, 23 line illustrations, 2 maps,  
 ISBN 978-1-47252-419-5, paperback, price £19.99.

In its imperial age in the twenty-first century BC, the Mesopotamian city of Ur sought to subjugate but not obliterate its neighbours. Ur has always been seen as one of the earliest places where brick was used on a large scale.



## From East Anglia to Ephesus: Roman Tiles as Bonding Courses in Walls



Fig. 1 Roman walling at Ephesus, Turkey, with brick and tile used as bonding material. This is on the right-hand edge of the photograph with the stage of the theatre in the background.

Terence Smith's note, 'Roman Roofing *Tegulae*: an alternative use', *British Brick Society Information*, 133, pages 12-13, notes a practice common across the Roman Empire as may be seen in the walls on the right-hand edge of the photograph of the Roman remains at Ephesus, Turkey (fig.1).

In Britain, at the Saxon Shore fort at Burgh Castle, Norfolk, which members of the society visited in April 1990, the same practice of using *tegulae* as the bonding material in a thick wall can be seen. Here both bricks and *tegulae* were used as bonding materials, at about intervals of 3 feet (approximately 1 metre). This could indicate the end of a day's work for a work gang or, given its regularity, a standard practice irrespective of whether the tiles and/or bricks were laid at the beginning of a day's work, during the day's work or the end of the working day. Terence Smith has suggested to me that they may have been added at greater time intervals, allowing the rubble-work beneath to settle before continuing.

Among the Saxon Shore forts, the technique is found also at Richborough, Kent, and Porchester, Hants.

Members of the British Brick Society might wish to report other examples of tiles being used as bonding at other sites across the Roman Empire, notably on the walls of Thessalonki, Greece.

In contrast, the third-century Roman walls of Chichester show no such bonding.

D.H. KENNETT

# Banteay Srei Temple, Angkor, Cambodia: A Temple using Brick and Laterite

Anthony Preston

## INTRODUCTION

The small temple complex of Banteay Srei, was mainly constructed from a hard, pink sandstone (quartz arenite), with brick and laterite used only for the enclosure walls and some structural elements. It was built during the second half of the tenth century, in the reign of King Rajendriavarman II (r.944-968); in fact, a year before he died. With the help of his brother it was commissioned and built by the Brahmin 'Raja Guru Yajñavaraha', one of the king's counsellors, and also the spiritual instructor to the future king Jayavarman V (958-1001), who was under fifteen when his father died. The temple's actual name was '*Tribhuvana Maheçvara*', meaning the 'Great Lord of the Three Fold World' and taken from its central '*linga*', the stylised image of a phallus, which represents the essence of the god '*Shiva*'; in Sanskrit the word means 'distinguishing symbol'. Inscriptions on door lintels inform us the temple was consecrated on 22 April 967.

As the temple had not been commissioned by a Khmer king it is the only one in the Angkor complex not to be a royal temple. The land on the banks of the upper Siem Reap river, on which the temple was to stand, had been granted to Brahmin Yajñavarha by the king and once the temple, commissioned by Yajñavarha and his younger brother, had been completed a small settlement became established called Isvarapura.

The temple was subject to further expansion and rebuilding work in the eleventh century. At some point it came under the control of the king and had its original dedication changed; an inscription of the early twelfth century records it being rededicated to Shiva. The original temple name, '*Isvarapura*' in Cambodian means the 'city of Shiva'. At this time, it has also been established from the inscriptions carved on the door piers of the temple, that it had been given to the priest Divarakapandita and dedicated to Shiva. It remained in use at least until the fourteenth century.

The 'new' name, Banteay Srei, means 'Citadel of the women' or 'Citadel of Beauty' and perhaps refers to the delicacy of the decorations. Being possibly the smallest temple in the vicinity of Angkor, the main centre of which is 20 kilometres south, its miniature scale results in it often being referred to as 'the jewel of Khmer Art'.

## DISCOVERY AND RECONSTRUCTION

Banteay Srei was 'rediscovered' by the French in 1914 by Lieutenant Georges-Jean Marec (1891-1914) only a few months before he was killed in fighting in France in the Great War, but the site was not cleared until 1924. Site clearance was directed by Henri Parmentier (1871-1949) and Victor Goloubew (1878-1945) for the École Française d'Extrême-Orient (EFO), Hanoi, after Andre Malraux (1901-1976), at the time a relatively young French author, was caught in 1923 stealing artefacts from the complex, which were eventually returned. Both Parmentier and Goloubew were distinguished scholars of Khmer art, Parmentier publishing two volumes on *L'art khmèr primitif* in 1927 and one on *L'art khmèr classique* in 1929 as well as an article 'Complément à l'art khmèr primitif' in the 1936 issue of *Bulletin d'École française d'Extrême-Orient*, and a guide to Angkor, the last edition of which was published posthumously; Goloubew, who had been a professional violinist and was something of a polymath, had examined Herodotus' connections between south-east Asia and the Scythians. Work at Banteay Srei stimulated significant interest, with restoration for the École Française d'Extrême-Orient taking place between 1931 and 1936 by a French architect and conservation specialist named Henri Marchal (1876-1970). Its restoration work was notable for the first significant use at Angkor of the technique called '*anastylosis*', a method adopted by Marchal after he had been sent to study the Dutch work undertaken within the temple in Borobudur in the Dutch East Indies. 'Anastylosis' coming from the Ancient Greek – to erect again, an archaeological term for a reconstruction technique whereby a structure is restored to the greatest degree possible using the original architectural elements; a process I observed currently taking place at Ta Prohm, famous for the strangler figs and silk-cotton trees growing through the stonework near Angkor Thom and Angkor Wat, Cambodia.





Fig.1 Brick walls to Enclosure I, with brick-built shrine to left and central shrine library on right.

## BUILDING MATERIALS

As noted in the first paragraph, the temple at Banteay Srei was built using a hard, pink sandstone, quartz arenite; brick and laterite were secondary materials. The pink (now dark red) and yellow quartz arenite sandstone temple is the only temple in the Angkor complex to be constructed from these coloured sandstones; quartz arenite being the considered the most mature sedimentary rocks, arenite being the Latin name for rock with sand-like grains.

It is important to note that the sandstone used at Banteay Srei is of a much higher quality and harder than the grey sandstone used in the Angkor Wat and Bayon temples. This hardness accounts for the quality and longevity of the carvings of the small temple. Every available surface is covered in elaborate carvings, in the main, apsaras, celestial nymphs, lotus plants and strange animals and Gods, like *Indra*, God of Rain and the King of Paradise, seen at the first entrance riding on *Aravata*, the three-headed elephant, below this is *Kala*, a monster guardian over the temple doorway. We also see *Nagas*, a multi headed serpent, coming from the mouth of *Makara*, a mythical Hindu sea creature combining a snake's body, a lion's head and at times with an elephant's trunk; in Ta Prom, a late-twelfth-century complex, there is a small carving of a dinosaur on a stone door frame, which looks like a *Stegosaurus*.

Laterite, consisting of residual deposits, is laid down under the particular climatic conditions normally found in tropical and subtropical regions. Being formed from the weathering of these rocks consisting primarily of hydrated iron oxides with silica the rock can be soft when dug but hardens on exposure to the atmosphere.

Brick, as several of the photographs confirm, is very much a minor material at Banteay Srei.

## DESCRIPTION

Although this temple is small, including the doorways as my head confirms, Khmer monumental temples shared very similar layout and plans. The temple has two libraries and two shrines within the innermost and most important enclosure area, the temple complex, Enclosure I (figs.1 and 2) measures 24 metres by 24 metres with the outer galleries in Enclosure II (figs.3 and 4), which is 38 metres by 24 metres, which are both located on an island surrounded by a moat, that is within the third, outermost enclosure, Enclosure III (fig.5) much larger at 185 metres by 215 metres. There are three causeways, two crossing the moat providing access and exit to Enclosures I and II and the third 'main' and longest causeway, approaching Enclosure III (fig.6).





Fig.2 External laterite wall for Enclosure I showing central shrine with Mandapa in front and library to left.

In extant the whole complex is only about 385 metres long, including the entrance, the '*Eastern Gopura*' (entrance 'pavilion') to the '*Western Exit Gopura III*'.

At the fourth gopura, there is another wall of brick. This brick wall, which is more than 2 metres high, has suffered considerable damage. It encloses a space measuring 24 metres by 24 metres and as the VIP compound is separate from the public compound (the third wall). Originally the public would not enter the central shrine. The central tower was the compound of the royal family and high priests only. Inside this square compound were two library buildings built of laterite mixed with pink sandstone. Its real doors face west. Libraries of Khmer temples must appear in pairs, one on the north and the other on the southern side. These were to house the holy books and the place to pray.

The three temple towers represent the Trinity of Hindu gods. The one located in the middle is dedicated to Lord Shiva. As is typical of smaller Khmer shrines, the holy shrines at Banteay Srei have only one real door on the east side, the other three being blind.

On the door frames of the first entrance structure at Banteay Srei there are octagonal balusters with delicate details. The octagonal itself is significant of the eight direction of the universe. All the carvings in the temple are carved within the sandstone itself and are not plaster reliefs. This entrance, the '*East Gopura*', originally had a wooden roof, used in the earlier period of Angkor in the ninth to tenth century; the Khmer monumental temples always used timber roof construction instead of sandstone.

Like most Khmer temples, Banteay Srei is orientated towards the east. The temple is approached through the East Gopura, which in this temple is small but is the largest of this complex; the others get smaller as you approach the main temple. This is all that remains of what would have been an outer wall some 500 metres square consisting of a raised embankment and timber palisade. It was in this Gopura that a *stele* (tablet) was found which enabled the dating of the temple by means the carvings of planetary observations. A causeway some 67 metres long takes you to the outermost, 'third enclosure', which is bounded on four sides by laterite walls about 185 metres by 215 metres and encloses the moat encompassing the two inner temple areas.

Along this causeway, there are the remains of two main 'halls' or 'galleries' north and south which have stone balusters, circular-sectioned pillars, on the inner sides, with laterite walls externally. Although there is considerable damage and most of the structures are not evident, their pediments, balusters and lintels are still in





Fig.3 The moat surrounding Enclosure II with laterite wall and central shrine.

excellent shape with very exquisite carvings cut into the pink sandstone. The 'hall' on the north side has a pediment depicting Vishnu in the form of a lion, with the longer hall on the southern side having a pediment depicting an image of Shiva and his wife, Uma, riding on a bull (*Nandi*). There are two further shorter halls adjacent, either side of the southern hall.

According to inscriptions on the lintels it has been established that originally these halls were used as a resting area for the pilgrims and held sacred Hindu statues. It is thought that these halls were provided with tiled roofs.

Along each side of the laterite paved causeway were 34 sandstone boundary stones symbolising lanterns which in turn symbolised flame (fig.6).

Gopura III, the entrance to the temple complex through the laterite wall had carved lions on each side and there is a pedestal for a *linga* with inscriptions on the inner door frames. Leading from the entry tower, the entrance





Fig.4 Inner moat surrounding Enclosure II, with laterite wall to left. Photograph taken from inside Enclosure III, with causeway beyond right-hand edge of photograph. Central shrine within laterite wall of Enclosure II.



Fig.5 Laterite wall to Enclosure III





**Fig.6** Main causeway with some of the 32 boundary stones in lantern shape.





Fig.7 Central Shrine with mandapa in front on the right; both on raised platform





Fig.8 (top) The Mandapa with library to right and the north tower of the central shrine at the back.  
 Fig.9 (below) Dragon carving on one of the buildings.





Fig.10 A close-up of the front of the Mandapa in front of the central shrine.





Fig.11 Central shrine with external laterite wall.

to the third Gopura, is the first of the two inner causeways. To have two causeways in a Khmer temple complex is significant in that they represent the rainbow bridges of connection from the underworld to our world, the first inner east causeway, and from our world to heavens, the second, west causeway.

The small western causeway leads to Gopura II, which is unique in character, because the decoration motifs are quite different from other temples.

The second Gopura provides the entrance to Enclosure II with a further enclosing laterite wall measuring about 38 metres by 42 metres and Gopura I and thus the temple proper, Enclosure I. On the doorframes of the second entrance there are inscriptions written by the builder, which tell us the date of the temple and the king and his religion at foundation and explains the ritual ceremonies.

Within Enclosure II are six laterite 'Long Galleries', two about 25 metres long, one on the north side and one on the south; however, the four galleries situated east and west are shorter, being about 10 metres long. Although all are in a dilapidated condition, it is thought they were roofed with tiles. It is assumed this is where pilgrims could sit and participate in the service.

The innermost temple enclosure is not and never has been accessible to the public; it and appears to be the only one actually square, the others being slightly longer on the south and north sides. This enclosure had been surrounded by a collapsed brick wall, 2 metres high, not yet repaired when I was there in January 2015.

It is the scale of the structures within this inner temple that makes one believe it was impossible for adults to use them for worship, as they are so small. I can only assume they were designed to make any worshiper submissive by constantly bowing.



Within this temple enclosure there are two Khmer temple library buildings built from brick, laterite and sandstone, which held holy text books as well as being places to pray. These must appear in pairs, one on each side, north and south of the temple complex. The south library's pediments both feature Shiva: to the east Ravana shakes Mount Kailash, with Shiva on the summit; the west pediment has the god of love, Kama, shooting an arrow at him.

As in typical small shrines of the Khmer temple, the holy shrines of Banteay Srei has only one real door on the east, the other three doors are blind ones. The sanctuary is entered from the east through a doorway only 1.08 metres (3 ft 3¾ in) high. Inside is an entrance chamber (*Mandapa*) with a corbelled brick roof and a short



Fig.12 Library on right with brick wall in foreground; central shrine on raised platform, on left, with Mandapa.

central corridor (*antarala*), leading through to the three towers of the central shrine (*garbhagrha*) representing the Trinity of Hindu, the central tower, representing Shiva, being the tallest at 9.8 metres high, and was for the use of the royal family and high priests only. Because of its size and it not being a 'Royal' temple I assume it was only symbolic. The northern shrine was dedicated to Vishnu while the southern tower shrine was dedicated to Brahma. A raised T-shaped terrace about 900 mm high carries the three sanctuary towers and six stairways



lead up to a platform. The stairways were each guarded by two kneeling statues of human figures with animal heads; most of those now in place are replicas, the originals having been stolen or removed to museums.

The area outside the inner wall called Enclosure II also houses 'Long galleries', two longer ones on the north and south sides while four shorter 'Long galleries' are to the east and west sides flanking the east and west gopuras. It is not certain what the galleries were for but they may have been for visiting priests or pilgrims.

The mythical three-dimension guardians, monkeys, are copies of originals housed in the national Museum, where photographs cannot be taken.

Most Khmer temples are orientated towards the east — I believe the Egyptian king Akhenaten (r. 1352-1335 BC) was the first to introduce a monotheistic cult *circa* 1340 BC and aligned his temples east-west — which is common today for most English churches, but not all: St Peter, Selsey, West Sussex, is north-south.

This inner enclosure is the most extravagantly decorated and most successfully restored part of the temple but entry has been closed to the public since 2005.

What was the west gopura, immediately to the west of the central shrine, has been modified to create a shrine in brick. It contained a statue of Lord Shiva with Uma (Shiva's consort) sitting on his left thigh and was dedicated to the parents of the builder of the temple. The statue is now in the National Museum at Phnom Penh. This I have seen but was not allowed to photograph.

Some have suggested that the temple at Banteay Srei as being closer in structural engineering and embellishment to Indian models than to some of the other sanctuary buildings at Angkor. An uncommon component of the dazzling adornment was the utilization of a hard, pink sandstone (quartz arenite) which empowered the "procedure of sandalwood cutting with even an Indian fragrance to it".

The temple remained in use until the fourteenth century. The restoration work is being continued by Swiss teams following the work undertaken by the French.

## Book Notice

Tom Wilkinson, *Bricks and Mortals: Ten Great Buildings and the People They Made*, London: Bloomsbury, 2014, re-issued in paperback, 2015  
viii + 432 pages, 57 unnumbered black-and-white illustrations,  
ISBN, hardback 978-104088-4366-6, paperback 978-1-4088-4367-3  
Price, hardback £25-00, paperback £10-99.

Rather late as a book notice but nevertheless a work that for brick enthusiasts is important to note. As the title implied, essays on ten buildings, illustrating ten aspects of architecture, provide a novel way of introducing the subject. Five brick buildings are discussed. 'The Tower of Babel, Babylon (c.650 BC), Architecture and Power' (pp.19-44) is an excellent account of the Temple of Etanamaki. Nero's 'The Golden House, Rome (AD 64-8), Architecture and Morality' (pp.45-82) shows the dangers of architectural megalomania. In the chapter on the 'Djinguerber Mosque, Timbuktu (1327) Architecture and Memory' (pp.83-108) one is reminded of the importance of things external while at the forefront of the chapter on 'Palazzo Rucellai, Florence (1450) Architecture and Business' (pp.109-139) are things temporal. The account of 'Festival Theatre, Bayreuth, Germany (1876) Architecture and Entertainment' (pp.169-201) shows that one can appreciate (or not) the inventiveness of Wagner's music and seeks to ignore the later anti-historical uses made of it.

Three of the book's chapters concern buildings principally of concrete. At 'Highland Park Car Factory, Detroit, USA (1909-10), Architecture and Work' (pp.203-239), brick was used as infill to the concrete frame. The assault on the stark white purity of Eileen Gray's Riviera hideaway, 'E.1027, (1926-9) Architecture and Sex' (pp.241-271), by Charles-Edouard Janneret, the man who abrogated to himself the definite article as Le Corbusier, with his ugly incursions of paint, executed by him stark naked (p.252), demonstrate a level of jealousy and disregard that is, quite frankly, obnoxious.

In contrast, 'Finsbury Health Centre, London (1936) Architecture and Health' (pp.273-298), a building which continues to do much good for the world, even if, today, that building is, sadly, showing its age. Better maintenance would have served the building so much more as would the concept that good health is for all regardless of income or social position. Architecturally and a decade before the National Health Service, the building advanced the importance of providing high quality health care free at the point of need.

D.H. KENNETT

# Beyond the Jaxartes: Three Brick Minarets from Central Asia

David H. Kennett

The Silk Road across Central Asia traverses an area perhaps little known to members of the British Brick Society. In both Xinjiang, the largest province in China and forming its bulging western edge, and in Kyrgyzstan the inhabitants are Muslims. This article illustrates three minarets: that at the Emin Hoja mosque at Turfan or Turpan, Xinjiang Province, China, where the tower is also known as the Sugong tower in the Sugongta mosque, and two in Kyrgyzstan: at Burana, also known as Balasagun, and Uzgen, both former capitals of the Kharakhanid empire.

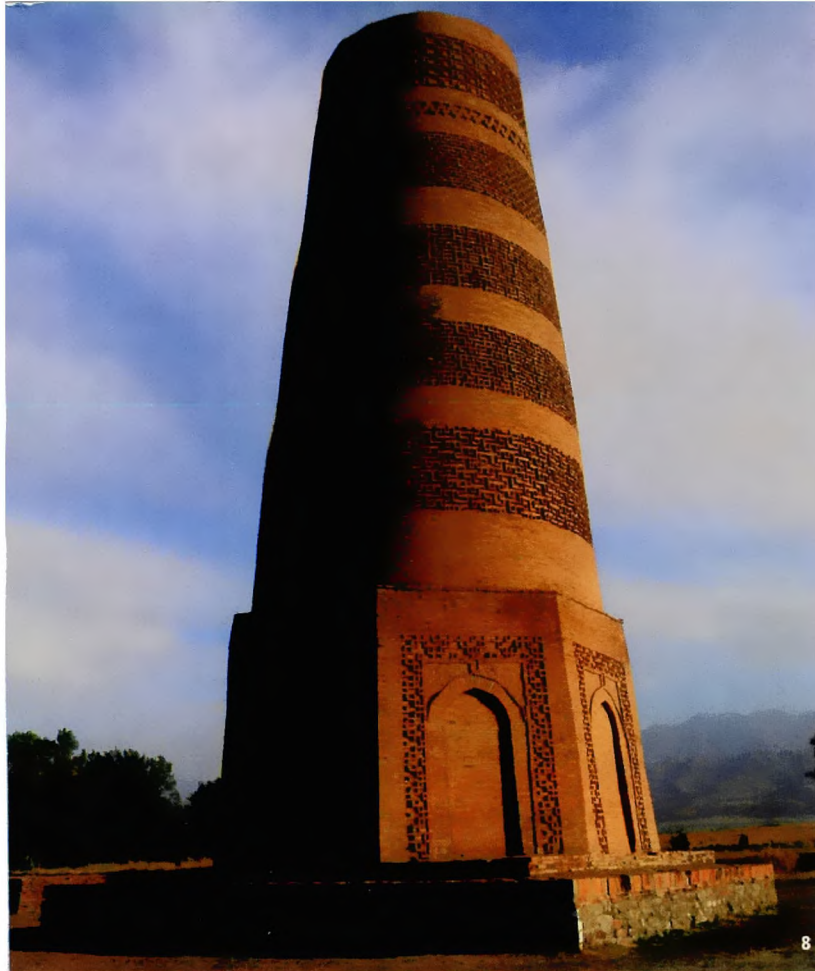


Fig.1 The truncated remains of the eleventh-century minaret of the mosque at Burana, Kyrgyzstan, was built of fired brick and has elaborate bands of highly decorative brickwork.

In the west, in Kyrgyzstan, where Burana, anciently Balasagun, the capital of the Karakhanid state from 955 to 1130. The town has few reminders of its former importance: prominent are the city walls and its fortress. From the religious sites only the Burana Tower (fig.1), an eleventh-century minaret without the buildings of its adjacent worship area. There is a square plinth with a single, shallow step above which is the octagonal lower part of the minaret, which tapers as it rises. The blocked arched doorways are enclosed within two vertical and one horizontal bands of decorative brickwork. The fired brick of the circular upper part is laid in elaborate bands alternately plain and patterned. Each of the six patterned bands is different.





Fig.2 (left) The minaret at Uzgen, Kyrgyzstan, in about 1905.

Fig.3 (right) The minaret at Uzgen, Kyrgyzstan, as restored in the late twentieth century by a German-Kyrgyz team.

Another minaret in Kyrgyzstan is the restored one at Uzgen, the capital of the Kharakhanid state in the twelfth century. The minaret, probably dating to the eleventh century was rebuilt by a joint German-Kyrgyz team in the late twentieth century. Figure 2 shows it as seen in about 1905; figure 3 shows it as rebuilt with the five bands of decorative brickwork using the rhombus and the rosette as distinctive elements.

Whilst both the Kyrgyz minarets are as old as the eleventh century, the Emin Hoja mosque at Turfan, in western China, building of which began in 1777 and was completed in the following year, has mud brick walls but its tapering minaret was constructed of fired brick laid to form decorative patterns on the conical walls (fig.4). These decorative bands are of unequal widths. With a height of 44 metres (146 feet), this is the tallest minaret in China. At its base the external diameter is 14 metres (45 ft 4 in), this conical structure narrows to 2.8 metres (9 feet) at the domed top.

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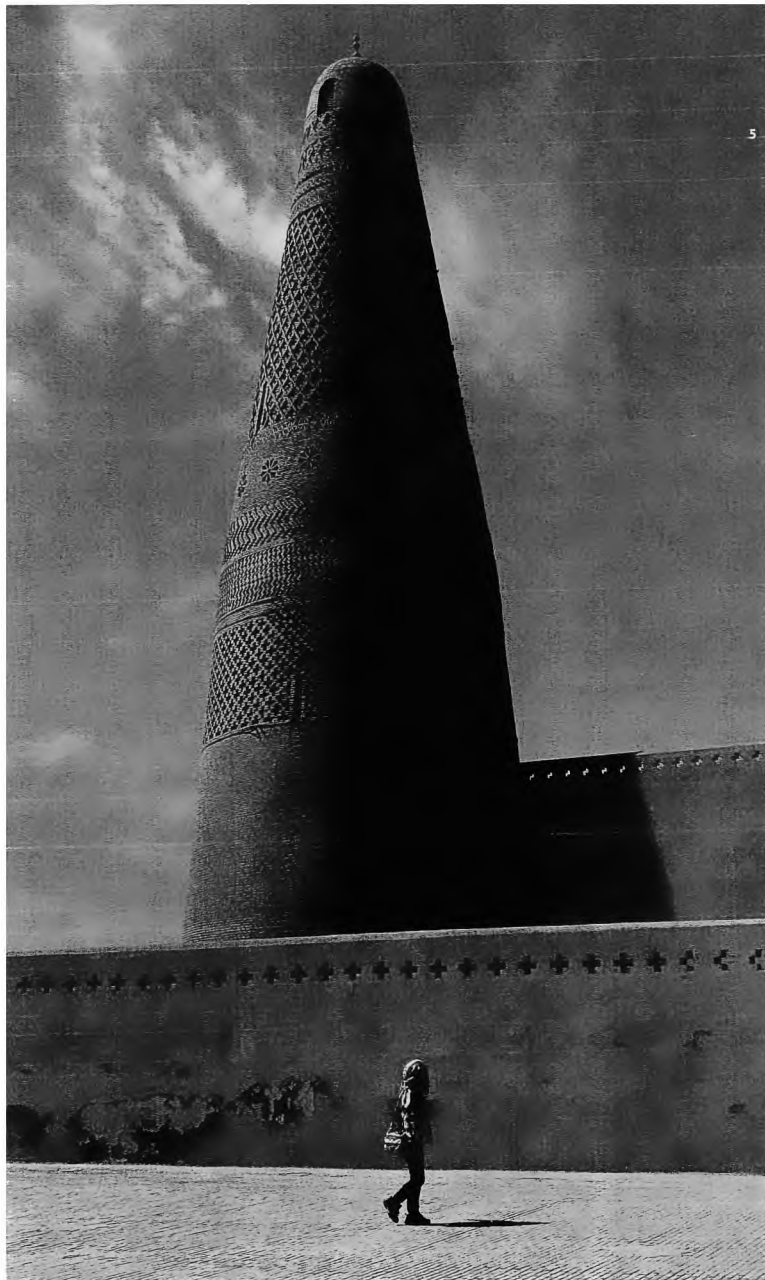


Fig.4 The minaret of the Emin Hoja mosque, Turfan, Xinjiang Province, China, was built in 1777. The minaret is built of fired brick but the walls of the mosque, like the older houses in the town, were constructed of mud brick.

#### NOTES AND REFERENCES

1. D. Jones, 'Along the Silk Road', *Minerva*, **26**, 1, January/February 2015, p.38; J. Tucker, *The Silk Road Art and History*, London: Philip Wilson Publishers, 2003, p.279 and fig.357.
2. Tucker, 2003, p.275 with figs.352 and 353.
3. Jones, 2015, p.36; N. S. Steinhardt, *China's Early Mosques*, Edinburgh: Edinburgh University Press, 2015, pp.260-263 with fig.9.3 and, J.M. Bloom, *The Minaret*, Edinburgh: Edinburgh University Press, 2013, p.289.
4. The brick minarets of central Asia, to include those in Bukhara and Samarkand, are the subject of an article in preparation for a future issue of *British Brick Society Information*.

# Down with It, Down with It, Even to the Ground:<sup>1</sup> Destruction of an iconic brick minaret in Al Mawşil (Mosul), Iraq

Terence Paul Smith

*The town destroyed, ther was no thyng left.*<sup>2</sup>

*... an' de walls cam' tumblin' down.*<sup>3</sup>

On Thursday 22 June 2017 I awoke to news, on Radio 4's *Today* programme, of the destruction of the Great Mosque of Nur al-Din (or al-Nuri) at Mosul (Al Mawşil) on the River Tigris in northern Iraq.<sup>4</sup> The *London Evening News* included a brief report and a small photograph of what little remained. The following day, the more serious newspapers carried further details and photographs. The so-called *Islamic State* (ISIS: Islamic State of Iraq and Syria [or al-Sham: the Levant]) — also called *Daesh* from the Arabic acronym for the group — blamed a US airstrike, but the video evidence apparently shows that the destruction was a deliberate act by ISIS itself.<sup>5</sup>

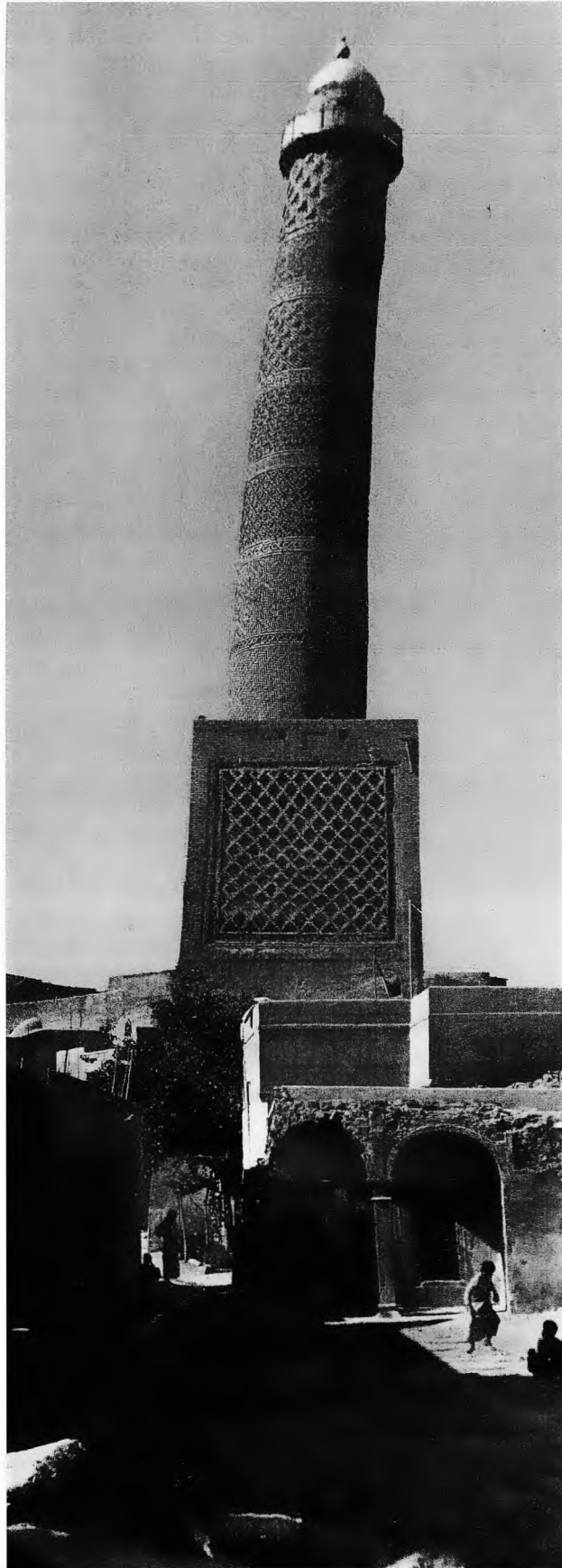
It is a sad and significant loss in a much troubled and devastated country where it is not predominantly those who sowed the wind who are reaping the whirlwind.<sup>6</sup> The destruction was a particularly petulant act — what *apropos* a different conflict, Laurence Binyon called 'an ecstasy of hate', 'the lust of destruction, the frenzy of spite'<sup>7</sup> — for it was from the *minbar* of that very mosque that the 'Caliphate' was declared by Abu Bakr al-Baghdadi on Friday 4 July 2014.<sup>8</sup> The date chosen for the destruction was cynically significant, being the holiest in the Muslim calendar: 21 June 2017 was *Laylat al-Qadr* (The Night of Power) when Muhammad is believed to have received the first of his revelations from Allah, through the angel Gabriel (Arabic *Jibril*), in a cave outside *Makkah* (Mecca): the twenty-seventh day of *Ramadan* — the (lunar) month of fasting (*sawm*) — it occurs just four days before *Id al-Fiṭr* (The Feast of Fast-Breaking) on the first day of the succeeding month, *Shawwal*. According to the Qur'an, *Laylat al-Qadr* 'is better than a thousand months' (Qur'an 97.3).<sup>9</sup> It is bitterly ironic that this *sura* ends with the words, 'Peace is it that Night, till the break of dawn'.<sup>10</sup>

The Nur al-Din Mosque dated from 1170-72, replacing one of 1148 built by Sayf al-Din Ghazi. From Mosul, between 1146 and 1149, the latter ruled the northern portion of what is now Iraq.<sup>11</sup> Nur al-Din Mahmud was Sayf's younger brother and from 1146 to 1174 initially ruled a state corresponding to modern Syria from his capital, Aleppo, but as his reign progressed took suzerainty over a much wider territory, including his brother's lands. The Nur al-Din Mosque had already been largely destroyed in the mid-twentieth century; most of what was lost in 2017 was a fairly recent but striking structure of stone but with brick minarets echoing that of the twelfth century.<sup>12</sup> The latter survived the earlier destruction but has now been lost. About 150 feet (45 m) tall with an approximate diameter of 19 feet (5.7 m) and built of brick, it was a cylindrical structure on a slightly tapering, square base and with a distinct curve as it rose, earning it the nickname *al-Hadba* (the Hunchback; fig.1) and was thus one of those architectural curiosities, such as the leaning tower of Pisa and the twisted spire of St Mary and All Saints at Chesterfield, Derbys., to which the overused term 'iconic' does genuinely apply.<sup>13</sup> Wind-pressure has been blamed for the bend, although *some* Muslims saw it as the minaret bowing in homage to Allah.

The brickwork was typical of the region. Figure 2 shows the base decorated with geometrical panels within rectangular frames and the shaft comprising seven wide alternating with seven narrow zones, all showing different geometrical patterns in brick.<sup>14</sup> Brick lent itself well to creating rectilinear patterns and even the squared-up Arabic script known as Kufic, and in regions where brick was the principal building material it was frequently used in these ways.<sup>15</sup>

All that survives of the minaret is the square base (fig.3), a pitiful stump and a melancholy reminder of a once striking structure. Apart from the minaret, all that remained of the twelfth-century mosque were an inscribed slab, some stucco decoration, and two *mihrabs*.<sup>16</sup> The latter did not include figurative representations, which might have given 'reason' for destruction — amongst strict Muslims — even though the Mosul district is one in which figurative sculpture (in stone) does sometimes appear on *mihrabs*.<sup>17</sup> Although there is no explicit

Fig.1 (opposite) The minaret of the Nur al-Din Mosque, Mosul, Iraq. The curve of the minaret is clearly visible in this photograph.





ban on such depictions in the Qur'an, and there is an abundance of Islamic figurative art, even including depictions of Muhammad himself (sometimes with his face blanked out), Muslim scholars have often been hostile to such art, thus encouraging the development of geometrical ornament (including arabesques) and decorative calligraphy.<sup>18</sup> The thought behind the suspicion of representative art, whether of humans, animals, or even plants, is that it offers a challenge to Allah's prerogative as sole creator. It goes back to the second of the Ten Commandments, Moses, like many Old Testament figures and Jesus, being a prophet in Islam.<sup>19</sup> (On the same basis, figurative art is eschewed in synagogues, and some Protestant Christians — but not Lutherans and not *all* Anglicans — replace the crucifix with a plain cross.)

ISIS has now been expelled from Mosul. But will anyone dare to say, as President George W. Bush declaimed on 31 April 2003, 'Mission accomplished'? In central Mosul, at least, what remains, in the words of a poem already quoted, are 'Disjuncted fragments of magnificence! / ... wrecked tower and purpled wall / (Fire has been here!)'; and the poet aptly imagines an old man 'Searching a strange world for he knows not what / Among haphazard stone and crumbled brick'.<sup>20</sup> The poem concludes on a note of hope I cannot share. To cite relevant literature, life is, so I believe, less like Sinbad the Porter, whose story ends with a reward of gold and 'with thanks and blessings', and more like poor Abu Hasan and his long-remembered fart!<sup>21</sup> Islamist extremist groups — under whatever name: Boko Haram (in Nigeria), ISIS, al-Qaeda, Taliban (in Afghanistan) — have a disturbing Hydra-like potential for regeneration and proliferation.<sup>22</sup> As the journalist Patrick Coburn — or perhaps the sub-editor responsible for the headline — put it, *apropos* Mosul, 'Iraqi forces have won a battle — not a war'.<sup>23</sup>



Fig.2 (left) The minaret of the Nur al-Din Mosque, Mosul, Iraq. The brick patterning on the square base is clearly visible.



Fig.3 (right) The remaining stump of the Nur al-Din minaret, with damage even to its edges.

Mosul once earned the accolade 'The Pearl of the North', not only because of its striking architecture, including the Nur al-Din Mosque, but also because of its tolerance: to Muslims of different sects, principally Sunni and Shi'a, to Muslim Kurds, and to 'people of the book' (*ahl al-kitab*): Jews and Christians. It is unclear when, if ever, the sobriquet will again become appropriate. But it will take more than brick and stone.

The latter, however, present a perplexity: specifically, what is to be done about the destroyed mosque? Should it be rebuilt as it appeared in early June 2017? It would have a *faux* quality, like the rebuilt Cloth Hall in Ypres (Ieper) after World War I or central Warsaw after World War II. And that distinctive minaret offers a

particular quandary: should it be reconstructed vertical — as, presumably, the designer intended and as the later copies at the mosque were built — or with that accidental bend? The former would not be accurate, but the latter might seem tricky: a *gimmick*. Perhaps the best solution might be that adopted at Coventry Cathedral after World War II, with a new building (1956-62) by Sir Basil Spence (1907-1976) alongside the devastated remnants of its bombed medieval predecessor as a reminder of what war can do.<sup>24</sup> But one might hope for something less whimsical than Coventry Cathedral. But any solution will depend on firm and secure government in Iraq and on the attitudes of its neighbours, including hostile Iran, increasingly despotic Turkey, and (at time of writing) war-torn Syria. Meanwhile, central Mosul remains a pile of rubble: the result of a disastrous conflict.

‘But what good came of it at last?’ asks little Peterkin of a very different battle in a poem by Robert Southey (1774-1843); ‘Why that I cannot tell,’ comes the reply, ‘But ’twas a famous victory’!<sup>25</sup> The irony of that last phrase is reflected in the epigraphs chosen for this contribution.<sup>26</sup> One might have added the opening of the biblical Lamentations.<sup>27</sup>

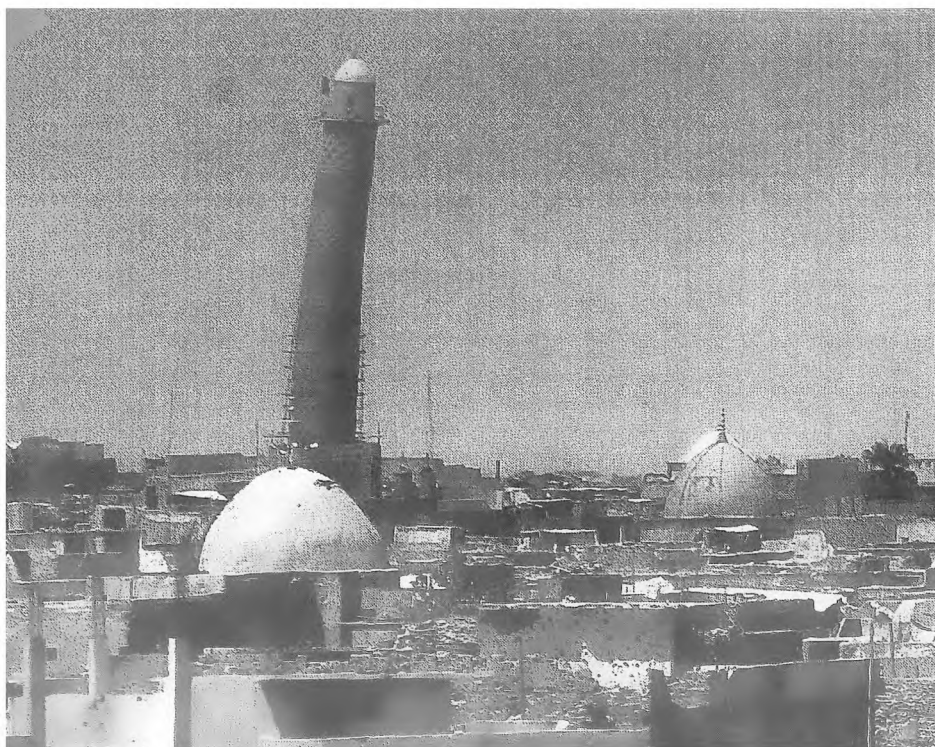


Fig.4 The Nur al-Din Mosque, Mosul, Iraq, before its destruction.

## NOTES AND REFERENCES

1. The title of this contribution is taken from the version of Psalm 137.7 in the Book of Common Prayer (1662).
2. Geoffrey Chaucer, *The Canterbury Tales*, ‘The Knight’s Tale’, l.2016.
3. ‘Joshua Fit de Battle of Jericho’, African-American (‘negro’) spiritual. In fact, in Joshua 6 no battle is ‘fit’; see also n.26, *infra*.
4. ‘Mosque’ entered English from French *mosquée* via Italian *moschea*, from Arabic *masjid* = ‘place of prostration’ (not necessarily a building). I have used ‘mosque’ here not only because it will be more familiar than *masjid* to most readers but also because many English-speaking Muslims are happy to use it: e.g. the Afghan-born Fatima Gailani, *The Mosques of London*, Henstridge, Somerset: Elm Grove Books, 2000.
5. Confusion can be caused by the fact that the US government prefers the acronym ISIL (L = Levant); some others use *Daesh*, but variously spelled and pronounced. On ISIS/ISIL see J. Warrick, *Black Flags: The Rise of ISIS*, London: Bantam Press, 2015, pp.386-7, and *passim*. The term ‘Caliphate’ is also used. ‘Caliph’ is from Arabic *khalīfa*, designating ‘successor’ or ‘deputy’ to the Prophet Muhammad (c.570-632), the first being his father-in-law Abu Bakr (d.634). The Caliphate was abolished by Turkey in 1924, under the secularising Kemal Atatürk (1881-1938).



6. The rights and wrongs of the 2003 US- and UK-led invasion of Iraq are controversial and here is not the place to take sides. But it is, I think, indisputable that there was a singular lack of planning for a post-Saddam Iraq. It 'was no longer a victory. It was a freaking nightmare': Nada Bakos, CIA operative, quoted in Warrick, 2015, p.166: 'freaking', I assume, is her proxy for a less delicate epithet.
7. 'The Burning of the Leaves: Five Poems', IV, l.43, V, l.9, in P. O'Prey, ed., *Poems of Two Wars: Laurence Binyon* (1869-1945), London: Dare-Gale Press, 2016, p.93; the context is World War II.
8. Warwick, 2015, p.414 with unnumbered pl.19 between pp.240,241; Abu Bakr al-Baghdadi was the assumed name of Ibrahim Awad al-Badri, the final element meaning 'the one from Baghdad' — which he wasn't! But it reflects the fact that for more than five centuries Baghdad was the centre of the Caliphate. The first element of the adopted name simply purloined that of the first caliph: see n.5 *supra*. The sheer hubris might be funny if it did not have such detestable consequences. *Minbar* is commonly translated 'pulpit', but it is very different from a Christian pulpit, being a stepped structure from which the *imam* (prayer-leader; Islam does not have priests) delivers a sermon during Friday communal prayers, though the top step is not used, being reserved for the Prophet Muhammad should he return.
9. There are numerous English versions of the Qur'an, though in Muslim belief it exists only in Arabic. I have used a classic 1934 version by A.Y. 'Ali, reissued Ware: Wordsworth Editions, 2000, and a more recent version by T. Khalidi, London: Penguin Books, 2008. The Qur'an is divided into 114 chapters (*suras*), each divided into verses (literally 'signs'). This ref. 'Ali, 2000, p.545, Khalidi, 2008, p.516; both render the same way. I may add that my experience echoes that of Thomas Carlyle (1795-1881): 'Nothing but a sense of duty could carry any European through the Koran [Qur'an]': 'The Hero as Prophet: Mahomet [*sic*]: Islam', 1840, in D.R. Sorensen and B.E. Kinser, eds, *On Heroes, Hero-Worship, and the Heroic in History*, New Haven and London: Yale University Press, 2013, p.13. But the Arabic, apparently, has a particular beauty lost in English. And to be fair, it takes a sense of duty to read one's way through Carlyle!
10. Khalidi, 2008, p.516; 'Ali, 2000, p.545 renders 'Peace ... This until the rise of the morn!'
11. These details of the Turkish Zangid dynasty together with regnal dates of Nur al-Din and Sayf al-Din are from M. Carey *et al.*, *An Illustrated History of Islamic Architecture*, Wigston, Leics.: Southwater, 2012, p.64.
12. *The Times*, 23 June 2017, carried a large colour photograph of the mosque with the top of the medieval minaret visible behind it. Of the four newspapers I examined (I bought three), this was the only one to do so. Its coverage was also the fullest, followed by *The Guardian*, the *i*, and *The Daily Telegraph*.
13. The minaret is the tower from which the *muezzin* (more properly *mu'adhdhin*) calls Muslims to prayer five times a day. Nowadays most include loudspeakers, saving five diurnal climbs up and down the tower. Indeed, some modern mosques in Britain and elsewhere lack minarets or have token examples, as at the yellow brick Masjid-e-Omar, Walthamstow, London E17 (G. Potter & Associates, 2003-4), with its diminutive minaret from which none but a Lilliputian *muezzin* could deliver the call! Loudspeakers or not, the call can be haunting, as I witnessed in Jerusalem (to Muslims: *al-Quds*, 'The Holy [City]') many years ago.
14. Brief descriptions of the minaret in H. Philon, 'Iraq', in G. Michell, ed., *Architecture of the Islamic World: its History and Social Meaning*, London: Thames and Hudson, 1978, p.249; R. Ettinghausen, O. Grabar, and M. Jenkins-Madina, *Islamic Art and Architecture, 650-1250*, New Haven and London: Yale University Press, 2001, pp.217-218; and J.M. Bloom, *The Minaret*, Edinburgh: Edinburgh University Press, 2013, pp.252-3.
15. For fine examples of early Islamic brickwork patterning: J.W.P. Campbell and W. Pryce, *Brick: a World History*, London: Thames and Hudson, 2003, pp.73-77, 114, 115, 148-157.
16. A *mihrab* is a niche in one wall of a mosque, indicating the *qiblah*, the direction towards the *Ka'ba* (the cubical shrine: *ka'ba* = 'cube') in *Makkah*, which worshippers face during prayers.
17. D.T. Rice, *Islamic Art*, revised edn, London: Thames and Hudson, 1975, pp.98-99, where fig.95 shows a *mihrab* with carvings of several bearded heads.
18. M.S. Gordon, *Understanding Islam*, London: Duncan Baird Publishers, 2002, pp.28-29; B. Brend, *Islamic Art*, Cambridge MA: Harvard University Press, 1991, pp.18-19. For numerous examples of representational art see this work and Rice, 1975, *passim*.
19. In Islam, Jesus ('*Isā*') is the greatest of the pre-Muhammad prophets. Born of the Virgin Mary, as in Christianity (Qur'an 19.16-27), he only *appeared* to be crucified: e.g. Qur'an 4.156-7, echoing some early Christian Gnostic/Docetic views. And that Jesus was divine (God incarnate) is, to all Muslims, blasphemy: e.g. Qur'an 5.17; and cf. N. Smart, *The Religious Experience of Mankind*, revised pbk edn, Glasgow: Collins, 1971, pp.489-490.
20. O'Prey/Binyon, 2016, III, ll.10,12, 26-27.
21. N.J. Dawood, trans., *Tales from the Thousand and One Nights*, Harmondsworth: Penguin Books, 1955, pp.161-2 (conclusion of 'Sinbad the Sailor and Sinbad the Porter'), 163-4 ('The Historic Fart').
22. Such groups — their origins in Wahhabism, the puritanical movement inaugurated in 1744 by Muhammad ibn 'Abd al-Wahhabi (1703-1792) in Saudi Arabia — are often (self-)styled 'fundamentalist', though some youngsters, enticed by internet propaganda and travelling to the Middle East with the flimsiest of introductory pamphlets, know less about Islam than my former GCSE, let alone A-level, pupils. As for the UK, one may contrast the loathsome 'Jihadi John' (actually the Kuwaiti Londoner Mohammed Emwazi, responsible for several 'beheadings' — though 'head severings' more appropriately describes those slow torturous atrocities) with the young man who called out, during an attack in London's Underground, 'You ain't no Muslim, bro!'. The irony, indeed the pathos, is that centuries before the rise of

Islamism and long before the 'Scientific Revolution' in the West, Muslim Arabs were active in furthering scientific and mathematical progress: hence all those terms beginning with the Arabic definite article *al*: alcohol, algebra, algorithm, alidade, alkali, almanac, and even alchemy, forerunner of chemistry, (but not all: 'algnesia', for example, is from Greek). See D.R. Hill, *Islamic Science and Engineering*, Edinburgh: Edinburgh University Press, 1993; J. Al-Khalili, *Pathfinders: The Golden Age of Arabic Science*, London: Allen Lane, 2010; and E. Masood, *Science and Islam: A History*, 2nd edn, London: Icon Books, 2017. And we all benefit from Arabic, as opposed to Roman, numerals: contrast the dates in the final paragraph of my text with MDCCLXXIV-MDCCCXLIII!

23. The *i*, 10 July 2017, p.23; at p.17 was a harrowing photograph of the devastation wrought, accompanying a perceptive article by Ian Birrell, written in Mosul. *Private Eye*, 1448, 14-27 July 2017, p.27 had its characteristic take on the issue: 'Iraq Celebrates as Rubble Liberated'. Cf. S. Mayer, 'The Caliphate Crumbles', *New Statesman*, 14-20 July 2017, pp.26-29, with haunting photograph of displaced citizens against the ruins of the Nur-al Din Mosque at p.27.

24. As John Milton (1608-1674) put it: 'what can war but endless war still breed?': 'On the Lord Fairfax, at the Siege of Colchester' (1648), l.10; available in numerous editions; one may add that the sonnet is not critical of the Parliamentary General (1612-1671), being indeed a paean to him.

25. R. Southey, 'The Battle of Blenheim [1704]' (1798), in e.g. J. Stallworthy, ed., *The New Oxford Book of War Poetry*, Oxford: Oxford University Press, 2014, pp.67-69, this ref. stanza XI, ll.3-6. There is a remarkable echo, with particular relevance to our present theme, in a work by one of our foremost writers for children, Sir Michael Morpurgo, *Running Wild*, London: HarperCollins Children's Books, 2009, p.25: nine-year-old Will's soldier father has been killed in the Iraq War: "'But what was the war for?" [he asks Mum] / She didn't answer.'

26. The source of the second of them — Joshua 6, and notably verse 21 — is a reminder of what can be perpetrated by those convinced they have God on their side. Perhaps it requires a faith I do not possess to discern a significant difference between what (reportedly) happened at Jericho and what (certainly) occurred at Mosul. The historicity of Joshua 6, incidentally, is by no means assured: for a thoughtful 'popular' account: M. Magnusson, *The Archaeology of the Bible Lands*, London: The Bodley Head and BBC, 1977, pp.91-97. Islam's related problem is with the concept of *jihad*, often translated 'holy war'. Reformist Muslim scholars stress that the word means 'effort, struggle', principally against one's own inclinations or the blandishments of the Devil (*Iblis*) or other malevolent *jinn* (spirits) but which can, in certain circumstances, include war (*qitāl*): e.g. T. Ramadan, *Islam: The Essentials*, London: Pelican, 2017, pp.156-164. But the exclusively bellicose understanding has a long pedigree, with support from several Qur'anic verses, making it easier for Islamist extremists to advance their cause: see, e.g. B. Lewis, *The Crisis of Islam: Holy War and Unholy Terror*, London: Weidenfeld & Nicolson, 2003, pp.23-36, and *passim*. One may add that Islam has a *just war* doctrine regarding, say, non-combatants and prisoners of war, which Islamist fanatics regularly flout with sickening acts, deprecated by many Muslims, in the West and elsewhere.

27. Lamentations I.1, attributed (probably incorrectly) to Jeremiah. It is perhaps best appreciated in the plaintive setting of the Vulgate text by Thomas Tallis (c.1505-1585): *Quomodo sedet sola civitas plena populo ...*: 'How desolate sits the city, once so full of people ...'. (My rendering of the Latin; various translations direct from the Hebrew are, of course, available.)



# Paid in Bricks: Settling Arrears of Wages at a Brickfield in China

Mike Kingman



Fig.1 A worker in a Chinese brickfield checking bricks.

On 22 January 2018, a report from Kerry Allen posted on the BBC news website ([bbc.co.uk/news/blogs-news-from-elsewhere-42779898](http://bbc.co.uk/news/blogs-news-from-elsewhere-42779898)) carried an account of a novel way to reimburse unpaid wages at an unnamed brickfield in Nanchang, Jiangxi province, in south-east China which is thought to be of interest to members of the British Brick Society.

The employees of this unnamed brickworks were collectively owed around 90,000 yuan (£10,080, \$14,050). To top up their unpaid wages they were paid in bricks. Collectively the thirty workers agreed to accept 290,000 bricks in exchange for 80,000 yuan (£9,450, \$12,850) of the earnings they were owed. After the local labour department intervened and with the help of the courts, the employees agreed to receive the brick from the factory in exchange for the unpaid wages. The employer is still trying to work out how to pay the remaining 10,000 yuan (£1,561, \$1,200) they are owed.

Most of the workers who were owed the money were migrants from the mountainous parts of Yunnan province in south-west China. They had no choice but to 'live by candlelight, with wood fire heating'. The story provoked a lively debate on Chinese social media, with one respondent's concern being expressed as to 'Why is it always rural migrants that are paid in arrears?'

Other respondents made jokes about the housing bubble in present-day China, saying that the situation had become so bad that bricks constitute a decent substitute for finances.

Disputes between migrant workers and their employers are common in the winter months, particularly in the period before the Chinese New Year. In 2018 the Year of the Dog, the eleventh sign of the Chinese Zodiac, began on 16 February.

In the last five years, the All-China Federation of Trade Unions reports that in the last five years it has assisted more than five million migrant workers in China receive 30bn yuan (£3.36bn, \$4.5bn) in unpaid wages.

## Brick in India: Udaipur, Rajasthan, 2003

Susan Roundtree

The group of photographs of brickfields in India included here were taken when I visited Sikcolony, approximately 3 kilometres (2 miles) outside Udaipur in Rajasthan in 2003. We passed the brickfields whilst on the train from Jaipur to Udaipur and subsequently arranged for a driver to take us there and to act as translator. The Kumbhar caste community were making the bricks. It was a fascinating place — a large area but divided up into plots with different companies making and stamping their own bricks. We got talking to one brickmaker who explained the process via our interpreter. We took photographs of the processes of moulding, drying, and firing in the clamp kilns. The clay used was being taken directly from the site and appeared to need no particular preparation prior to moulding. It was fantastic to see all these traditional methods of brickmaking in action as previously I had only read about them in historical accounts of brickmaking in Ireland. The brickmaker told us that this was the traditional way of making bricks in India. The brickmaking operations we had seen nearer to Delhi with chimneys and permanent kilns he described as the modern system.



Fig.1 One of the brickmakers at Sikcolony with two of his children.





Fig.2 (upper) The author in conversation with one of the brickmakers.  
 Fig.3 (lower) General view of the brickfields.





Fig.4 (upper) Timber brick moulds.  
Fig.5 (lower) The moulding process.





Fig.6 (upper) Initial drying: green bricks laid on the ground.  
 Fig.7 (lower) Second stage of the drying process.





Fig.8 Firing in clamp kilns.

#### A NEW INDICATION OF SLAVERY ON THE BRICKFIELDS OF PAKISTAN, INDIA, AND NEPAL

As this issue of *British Brick Society Information* was being put to bed, a news report with an accompanying photograph in *The Guardian*, 19 March 2018, suggested a new way of pinpointing the incidence of bonded labour in the large-scale brickfields of Pakistan, India, and Nepal, using satellite images of the kilns. Because of their size and often distinctive shape of an oblong with rounded ends and a central chimney, the brick kilns of large-scale brickfields of the brick-belt of Pakistan, India, and Nepal stand out as red or orange-red among the green fields surrounding them with the white huts of the workers adjacent to the kilns. The photograph showed the kiln shape in orange-red very distinctly and the white of the roofs of the accommodation provided for the brickworkers.

The brickfield workers live in the shabby conditions of the huts, working long hours for little pay and in poor conditions. Often whole families work at the kilns, with women workers vulnerable to sexual exploitation and rape. The promises of good jobs for all the family, when wages have been paid in advance, turn the workers and their families into bonded labour, a state of enslavement no better and probably worse than what was prevalent in the cotton and tobacco fields of the southern states of the USA before 1865 and except for their nominal but not civic freedom little better for a century after President Lincoln's declaration.

DHK



## The British Brick Society and the General Data Protection Regulation

As required by the new regulations, the British Brick Society is preparing for the new **EU General Data Protection Regulation** which comes into force on 25 May 2018 and replaces the existing Data Protection Act.

The new regulation requires that we ask for your **specific permission** to contact you or to update you on the activities of the British Brick Society. A letter concerning this is enclosed.

Obviously, we would like to continue to contact you and to send you both forthcoming issues of *British Brick Society Information* and information on forthcoming activities of the society but we do need your **written consent** for this.

The British Brick Society will ...

- **Hold** your data securely on a personal computer and only share it within the society
- **Use** your data to contact you by post, email, or telephone
- **Only** contact you to:
  1. Send you your copy of any issue of *British Brick Society Information*
  2. Inform you of forthcoming meetings, including the Annual General Meeting
  3. Use written and email communication in furtherance of the business of the British Brick Society
- **Only** hold your data for as long as you are a member of the British Brick Society
- **Not** share your data with any third party whether an individual, a corporate entity, or another learned society.

Please return the enclosed letter with your decision, preferably immediately on receipt of this issue of *British Brick Society Information* and certainly by Wednesday 23 May 2018 to

Dr Anthony Preston, Membership Secretary BBS,  
11 Harcourt Way, ELSEY, West Sussex PO20 0PF

### Changes of Address

If you move house, please inform the society through its Membership Secretary, Dr Anthony A. Preston at 11 Harcourt Way, Selsey, West Sussex PO20 0PF.

The society has recently been embarrassed by material being returned to various officers from the house of someone who has moved but not told the society of his/her new address.

# BRITISH BRICK SOCIETY

## MEETINGS in 2018

Saturday 19 May 2018

*Annual General Meeting*

St Albans Hertfordshire

The 2018 Annual General Meeting will be held in Verulamium Museum, St Albans, Hertfordshire. The tour following the meeting will concentrate on the St Michael's area of the city.

**Contact** Michael Oliver, [micksheila67@hotmail.com](mailto:micksheila67@hotmail.com)

Saturday 9 June 2018

*Brickworks Visit*

King's Dyke Works, near Whittlesey, Cambridgeshire

The last Fletton brickworks in England

**Contact** Mike Chapman, [pinfold@freenetname.co.uk](mailto:pinfold@freenetname.co.uk)

Saturday 14 July 2018 (*Note New Date*)

*Summer Meeting*

Stafford

Good range of brick buildings from Georgian houses to late-twentieth-century crown court and police station also including Edwardian county buildings and public library.

**Contact** David Kennett, [kennett1945@gmail.com](mailto:kennett1945@gmail.com)

Tuesday 18 September 2018

*Brickworks Visit*

H.G. Matthews Brickworks, Chesham, Buckinghamshire

Works producing hand-made bricks to traditional methods as well as machine-made bricks.

**Contact** Mike Chapman, [pinfold@freenetname.co.uk](mailto:pinfold@freenetname.co.uk)

Planning for possible visits in 2019 is in progress and dates will be announced in the next mailing: it is hoped to arrange a visit to one of Slough, or Alvechurch, Worcs., or the industrial area of Worcester on a Saturday in July 2019. A visit to Wales' capital city, Cardiff, with a focus on the Butetown and Cardiff Bay area is planned for a Saturday in 2019, not on the dates of rugby union internationals.

At the 2017 Annual General Meeting in Port Sunlight it was agreed to hold the 2019 Annual General Meeting in Ripon, North Yorkshire, on a Saturday in May 2019.

All meetings are subject to attendance at the participant's own risk. Whilst every effort is made to hold announced meetings, the British Brick Society is not responsible for unavoidable cancellation or change.

*The British Brick Society is always looking for new ideas for future meetings.*

*Suggestions of brickworks to visit are particularly welcome. Offers to organize a meeting are equally welcome. Suggestions please to Michael Chapman, Michael Oliver or David Kennett.*