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## A HISTORY OF THE NATIONAL HERITAGE COLLECTION

## **VOLUME THREE: STONEHENGE**

Sebastian Fry





CHIEF EXECUTIVE'S OFFICE

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# A HISTORY OF THE NATIONAL HERITAGE COLLECTION

## VOLUME THREE: STONEHENGE

Sebastian Fry

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#### SUMMARY

This is Volume Three in a series of eight reports, which describe the formation of the national collection of ancient monuments and historic buildings from 1882 to 1983 in the context of legislation and other available means of protecting heritage. The report sets out the story relating to the acquisition and protection of Stonehenge, drawing upon the guardianship files and Pitt-Rivers papers held by English Heritage and the National Archives. An account is given of the efforts of the first Inspector of Ancient Monuments, Lieutenant General Augustus Pitt-Rivers, to secure the protection of Stonehenge following the 1882 Ancient Monuments Act. In the early 20<sup>th</sup> century the monument was enclosed for the first time. However during the First World War it suffered damage. Stonehenge was gifted to the Nation in 1918. Thereafter the Office of Works managed a series of excavations and restorations of the monument in the 1920s and 1950s. Consideration was also given to the setting of Stonehenge. The surrounding downland was purchased and vested in the National Trust in 1929. Thereafter efforts were made to restore Stonehenge to its former wilderness, although this was at constant conflict with its role as a visitor attraction.

*Cover Image: Stonehenge as photographed by James. O. Davies in 2013.* © English Heritage Photo Library. Reference Number: DP162543.

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#### **ARCHIVE LOCATION**

A digital archive of this report, associated contents and extensive research is held on the English Heritage London Server in the file '1913 CEO Research' and sub-file 'History of the National Heritage Collection Research'.

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## INTRODUCTION

This is Volume Three in a series of eight reports, which describe the formation of the national collection of ancient monuments and historic buildings from 1882 to 1983 in the context of legislation and other available means of protecting heritage. The series was commissioned to inform the commemoration of the centenary of the 1913 Ancient Monuments Consolidation and Amendment Act. The report sets out the story relating to the acquisition and protection of Stonehenge, drawing upon the guardianship files and Pitt-Rivers papers held by English Heritage and The National Archives.

An account is given of the efforts of the first Inspector of Ancient Monuments, Lieutenant General Augustus Pitt-Rivers, to secure the protection of Stonehenge following the 1882 Ancient Monuments Act. In the early 20<sup>th</sup> century the monument was enclosed for the first time and during the First World War suffered damage. It was gifted to the Nation in 1918. Thereafter the Office of Works managed a series of excavations and restorations of the monument in the 1920s and 1950s. Consideration was also given to the setting of Stonehenge. The surrounding downland was purchased and vested in the National Trust in 1929. Thereafter efforts were made to restore Stonehenge to its former wilderness, although this was at constant conflict with its role as a visitor attraction.

For a detailed account of the Ancient Monument Acts, the work of the Inspector of Ancient Monuments and the Office of Works please refer to Volumes One, Two, Four and Five in this series.<sup>1</sup>

#### Background: The construction and later history of Stonehenge

'Silent witnesses of the Dark Ages. Such are the few remaining and tottering obelisks and fragments of the mysterious supposed Druidical Temple of Stonehenge, with the appearance of having fallen from the skies upon the great table-land known as Salisbury Plain....Truly, if there are "Sermons in Stones," these should speak with deafening voices, but it is their silence which enthrals to an aggravating degree...<sup>2</sup>

Thus was the statement in William Burrough Hill's 'Stonehenge: An Appreciation' in 1914. The monument was still then to a large extent a mystery. However archaeological study through the 20<sup>th</sup> century has enlightened many aspects of Stonehenge. Before commencing with an account of the Office of Works involvement in the site it is appropriate to provide a brief overview, description and history of the monument. This will provide a context in which to consider the later changes.

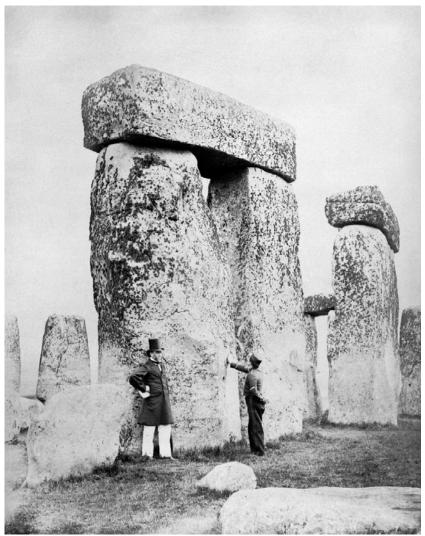


Figure 1: Colonel Sir Henry James, Ordnance Survey, stands next to one of the Stonehenge trilithons in 1867. © English Heritage Photo Library. Reference Number: NMR BB 95/50010

There are several phases in the history and construction of Stonehenge thought to cover a period from about 3000 BC to 1600 BC. The first phase saw the construction of a circular enclosure comprising a bank, outer ditch, and counterscarp built between 3000 and 2920 BC (See Figure 1 and 2). There were two certain entrances: one faced northeast and another south. That at the north-east faced the midsummer sunrise. Around the inner edge of the ditch were 56 regularly spaced pits, the Aubrey Holes, which are thought to have each held an upright post or stone. These were the location of numerous cremation burials. There may also have been timber settings in the centre but much evidence for these has been obliterated by later activity. The major construction phase came in around 2500 BC with the arrival, shaping and raising of the huge sarsens that now form the main feature, probably brought from the Marlborough Downs. At the centre five huge trilithons, each of two uprights and a lintel, were raised and around them were set 30 sarsen uprights in a circle capped with a continuous line of sarsen lintels.

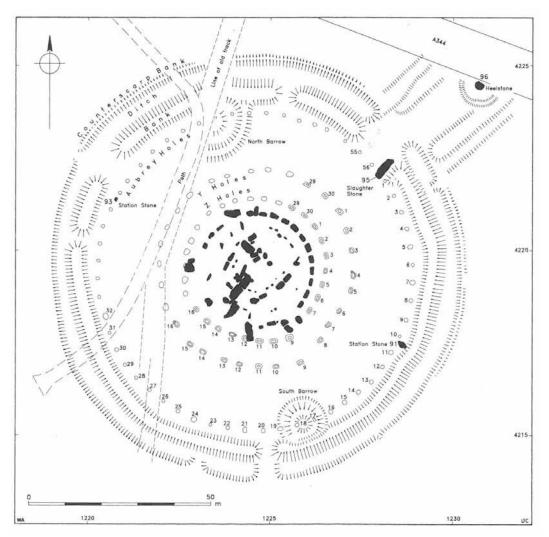


Figure 2: A plan of Stonehenge showing the main component features and the line of the former road way through the earthworks. © English Heritage

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Amongst the sarsens, a number of bluestones from the Preseli Hills in Wales were set up to form a double crescent in the centre of the enclosure. Their excavated sockets are referred to as the Q and R holes. Four small sarsens, referred to as the Station Stones, were set upright just inside the inner edge of the bank. Outside the enclosure one, or possibly two larger unworked sarsens, including the Heel Stone, were positioned. Sometime later the Heel Stone was surrounded by a ditch and three stones were raised in a line across the entrance causeway. The Slaughter Stone is the sole survivor of these. Two of the Station Stones were also surrounded by slight ditched mounds known as the North and South Barrows.

Further changes took place in around 2300 BC, when the bluestones within the monument were rearranged into the positions seen today – an outer circle and inner horseshoe. The banks and ditches of the Avenue were created, and the bluestones reappeared in various arrangements. Construction activity at the site was thus largely complete. Later, perhaps in 1600 BC, the Y and Z holes were dug outside the sarsen circle.

Stonehenge was later abandoned and then slowly dismantled over time; some stones are likely to have been robbed, others fell of their own accord. The earliest explicit historical references come in the 12<sup>th</sup> century. Henry of Huntingdon described it as one of the four 'wonders' of England in about AD 1130 whilst a few years later Geoffrey of Monmouthshire described a legend where Merlin the wizard helped to acquire the stone structure from Ireland.<sup>3</sup> Two illustrations appeared in 14<sup>th</sup> century manuscripts, one showing Merlin building the monument. In 1620 James I commissioned Inigo Jones to provide a survey. He attributed Stonehenge to the Romans as a work built in Tuscan style and dedicated to the god Coelus.<sup>4</sup> The antiguarian John Aubrey provided a valuable account of the monument in his *Monumenta Britannica* of the later 17<sup>th</sup> century. In the mid 18<sup>th</sup> century William Stukeley identified many of the surrounding features such as the Avenue and the Cursus. He thought Stonehenge was a temple constructed by ancient Druids.<sup>5</sup> William Cunnington was prescribed archaeology by his doctor as a recreational activity to improve his health. He excavated at Stonehenge at least three times before his death in 1810. A developing understanding of prehistory in the nineteenth century enabled Sir John Lubbock to place Stonehenge and the surrounding barrows in a period prior to the Bronze Age.<sup>6</sup> His tutor Charles Darwin visited in June 1887 and suggested that earthworms played a part in the gradual submergence of the fallen stones.<sup>7</sup> In 1874 and 1877 Professor Flinders Petrie surveyed the monument in detail. His numbering of the stones is still used today and occasional reference is given in this report.

#### Stonehenge and the first Ancient Monuments Act

In the late 19<sup>th</sup> century the preservation of Stonehenge received more public attention then any other ancient monument. Stonehenge had long been considered a 'national monument' of which preservation should be a 'national interest'.<sup>8</sup> It was the best known archaeological site on the Schedule of Monuments attached to the 1882 Ancient Monuments Act, alongside others such as Avebury, Maes Howe, New Grange and West Kennet long barrow.<sup>9</sup> The first ancient monuments to receive State protection in England were exclusively prehistoric, representing the interests of Sir John Lubbock (1834-1913), the MP that served as the driving force behind the first Act. <sup>10</sup> The interpretation of Stonehenge at this time is summed up in the guidebook of 1884:

'The diameter of the building is 100 feet....[and] the stones of the Temple are ninety in number...As to the probable age of Stonehenge – the opinion most generally accepted by antiquaries is that it is a relic of the Bronze Age. Dr. Thurnam placed it as late as B.C. 100; but there is some evidence that it may have been the work of much earlier races. That it was used as a temple-probably of the sun-seems at present, to be the prevailing belief.<sup>11</sup>

The 1882 Act allowed the owner of an ancient monument included in the attached Schedule to appoint the Office of Works guardians of their monument. They were thereafter bound to maintain and protect it, although it remained the property of its original owner.<sup>12</sup> The Department appointed an Inspector of Ancient Monuments, Lieutenant General Augustus Pitt-Rivers (1827-1900), to visit, report on, and oversee the protection of these archaeological sites.

Sir Edmund Antrobus (1818-1899)<sup>13</sup>, the owner of Stonehenge and MP for Wilton, had spoken outright against the Ancient Monuments Bill in the House of Commons due to its interference with private ownership.<sup>14</sup> He observed the destruction inflicted upon the surrounding barrows through the excavations of William Cunnington and considered it better protected in his own hands then those of archaeologists. It is thus not surprising that he declined to put Stonehenge in guardianship when contacted by Pitt-Rivers in 1883. Instead his reply simply criticised the Act and the Memorandum attached to it:

#### 'The first and ninth clauses of the Act seem to me to be at variance, and the memo assumes the meaning as expressed in the ninth to be of universal application – I shall not therefore feel justified in entering into an agreement with the Commissioners...<sup>35</sup>

The Antrobus family and its predecessors had taken action to protect Stonehenge since the early 19<sup>th</sup> century. In 1822 the first warden, Henry Browne, was appointed to look after the site.<sup>16</sup> By the late 19<sup>th</sup> century the wardens instructions set out that he should protect the stones and surrounding turf from damage and stop visitors lighting fires or marking their names on the monoliths. Despite this there were consistent reports of people chipping off parts of the stones as souvenirs, cutting their names in the turf or leaving rubbish behind. The warden was either unable to stop the perpetrators or damage occurred when he was not present. In 1871 one visitor stated that 'a constant chipping of stone broke the solitude of the place'.<sup>17</sup> On another occasion the owner had complained to a 'distinguished archaeologist' that his relatives had tried to carry off part of a sarsen. The reply was that he already had part of a stone and needed no more.<sup>18</sup>

Sir Edmund Antrobus consistently refused requests from archaeologists to excavate Stonehenge. In 1870 a committee of the British Association for the Advancement of Science approached him to inspect the monument and inform its preservation. Among them were Sir John Lubbock and General Pitt-Rivers. However one of the committee, Henry Cunnington, attempted to remove the soil around the bluestone lintel much to the distress of the owner.

Sir Edmund was willing to take advice but only from those he appointed himself. In 1881 the architect J.J. Cole was employed to check the stability of the monument and install timber supports to leaning stones.<sup>19</sup> The last major fall had been a trilithon of the central sarsen horseshoe in 1797. However in 1880 another stone began to fall after a long thaw in which the ground had become soft and saturated.<sup>20</sup> It was hastily propped. Drawings of the monument from 1600 onwards show it in much the same state as the 19<sup>th</sup> century. Chippindale describes it as essentially a 'wreck' given that of 162 stones implied by the design there are 68 missing and 19 surviving only as fragments.<sup>21</sup>

General Pitt-Rivers was greatly concerned over both the condition of Stonehenge and the safety of the leaning monoliths. As Inspector of Ancient Monuments he consistently received letters from members of the public. This could even equate to a share of the abuse:

'In company with two friends I have just visited Stonehenge and I never yet saw it in so filthy dilapidated & wretched a state, full of Rabbit bones and Chalk inscriptions on most of the stones, low pic-nickers at horse play...It should be deemed a <u>national</u> monument, suitably enclosed regulated & guarded, and the fallen stones re-erected as at first, where no doubt can exist as to their original situation – I declare it made us sick to see it. My friends were Scotch and abused the English for it freely.<sup>22</sup>

Pitt-Rivers forwarded much of this correspondence on to Sir Edmund Antrobus. The provisions of the 1882 Act were limited and unless it was brought into guardianship the Inspector could not intervene. It was left to learned societies and eminent archaeologists to try and secure better protection. In July 1886 another deputation of four archaeologists visited Stonehenge. They recorded and published details of the condition of every stone that could be reached. Their report on the stones ranged from 'slightly scratched', 'a little pecked' to more serious damage such as 'letters cut' or 'a large piece broken off'.<sup>23</sup> The deputation concluded that significant measures were necessary to prevent injury from 'thoughtless or mischievous tourists'. Among these recommendations were better supervision, restoration of leaning stones and the excavation of a sunken fence or ha ha

around the monument. The latter point was strongly condemned by the Society of Antiquaries.<sup>24</sup> However the report inspired Sir John Lubbock to write a letter to *The Times* newspaper strongly criticising Sir Edmund Antrobus:

'...when the owner allows a monument of national interest to fall into ruin, or, a fortiori, if he proposes to destroy it himself, the nation should have the option of purchase at a fair price.

Nothing less will suffice to secure the preservation of these heirlooms, which it is surely our duty to hand down to our children as nearly as possible in the condition in which we have ourselves inherited them from our ancestors.<sup>25</sup>

The deputation had recorded a long list of chips or scratches. However it is apparent, as later observed by Pitt-Rivers, that given the great size of the monoliths such a list was always bound to be more alarming on paper than on the stones themselves.<sup>26</sup> Furthermore, damage had occurred over several centuries and it was difficult to determine the rate of deterioration. Sir Edmund held nearly 60 years of acquaintance with the monument and knew well the colour of a freshly injured stone.<sup>27</sup> Many reports were nothing of the sort. He considered that if damage over the last ten or twenty years could be fairly estimated that it would be seen that every year more respect was shown. On 4<sup>th</sup> December 1886 the Salisbury Journal published Sir Edmund's response to his critics entitled 'FACTS. NOT FICTION, ABOUT STONEHENGE. SIR E. ANTROBUS'S REPLY TO ANTIQUARIANS'. This recounted a colourful analogy regarding damage to the monument:

'Some forty years ago my father received a communication to the effect that a shepherd was selling specimen bits of Stonehenge, wholesale. He rode up...made an examination of the monument, with the view of discovering whence the specimens had been taken. He was unable to do so, and finding the shepherd, spoke to him, telling him of the charge made. "Lord blessee," said the man, with a broad grin on his face, and in the broadest Wilts vernacular, "I wouldn't hurt the old stöans. Now, when they ploughed over the barrow (pointing to a low one in the neighbourhood) they ploughed up a lot of bits, which I s'pose, they as put up the old stöans, buried there, and I always has two or three bits in my pocket, and when one of they archilogical chaps says, 'Shepherd, can ee get I a bit of the old stöans,' 'Yes, sir,' says I, 'if so be as you'll please and not tell Sir Edmund,' and I gets half-a-crown and the old stöans aint never the worse." The connection, if it existed at all, between the specimens and the monument, was purely pre-historic'

In 1887 General Pitt-Rivers made an official inspection but his report does not survive. In July he drafted a letter to *The Times* appealing for the restoration of the fallen trilithons for Queen Victoria's Jubilee. It stated that the committee of ladies appointed to consider what should be done with money subscribed by women of the United Kingdom should help preserve Stonehenge:

"... no more suitable way could be devised for commemorating the 50<sup>th</sup> year of the Queens reign than by securing to posterity the most remarkable monument in the world, viz Stonehenge.

This stupendous memorial of an unknown age & people is slowly but surely perishing through natural causes....

More than half the outer circle and about the same proportion of the inner circle, has fallen, most of the stones from the surrounding rampart & from the avenue of approach have been removed but the remnants still continue to be one of the chief wonders of the world and of the people of all nations who visit it.<sup>28</sup>

Pitt-Rivers goes on to suggest that leaning stones should be returned to the perpendicular, the ground excavated around their bases and then surrounded by a foundation of masonry and cement. The letter was never actually sent, presumably because it was not sanctioned by the Office of Works. The following year Pitt-Rivers was invited to join another committee from the British Association, which included Sir John Lubbock among its members. However the First Commissioner, David Plunket (1838-1919), advised Pitt-Rivers that it would not be fitting as a Government Officer to be involved in a campaign against Sir Edmund Antrobus.<sup>29</sup>

Pressure remained on the Office of Works to bring about a suitable solution. In September 1889 a newspaper article appealed to archaeological and antiquarian societies to come together and lobby the Government. The following month the Society for the Protection of Ancient Buildings (SPAB) wrote to Pitt-Rivers directly.<sup>30</sup> He replied that there had been too many conflicting suggestions put to the owner. Among these were that Stonehenge should be fully restored; not restored; only one of the trilithons should be restored; the entire centre should be excavated and set in concrete; the stones should be fenced; the stones should remain unfenced; a ha ha should be dug to control access; a ha ha would damage the archaeological remains and could not be justified.<sup>31</sup> These had all served to illustrate that Sir Edmund would be criticised whatever he choose to do. He therefore retained the status-quo. Pitt-Rivers believed that the fundamental threat to the stones was rather the elements themselves. After a winter thaw the ground became soft and leaning stones were liable to fall and break. He was convinced that the proper solution was the restoration of the stones by setting them in concrete, though he acknowledged that both the owner and his heir would never allow anything of the kind.

By the late 1880s Pitt-Rivers grew despondent both with the Government and the existing Ancient Monuments Act. There had been some success in the first few years of his Inspectorship, with many owners handing their monuments into State care but thereafter numbers had dwindled. He considered that successful protection required new legislation:

'I am myself against compulsory measures as a rule, but I am of the opinion that such powers should exist, and should be applied only in rare cases in which the neglect of important Monuments amounts to a national disgrace. The existence of such powers would stimulate voluntary action on the part of owners, and conduce to the objects of the Act, without necessitating the application of them in such a way as to interfere seriously with private rights.<sup>32</sup>

In 1890 Pitt-Rivers resigned the salary of Inspector but continued the post in an honorary capacity. Nonetheless newspaper articles and letters on the lamentable condition of Stonehenge continued. By September 1893 Pitt-Rivers was called out of retirement to reinspect the monument. He found that little had changed since his last visit.<sup>33</sup> Names were still scratched on the stones and rats feeding on picnic scraps were burrowing under the monoliths. A paid photographer now supervised the monument but was not always present. Pitt-Rivers recommended that a resident policeman be appointed and a cottage be built within sight of the stones. He recognised the owner's interest and maintained that if the Government were to intervene then they would have to be prepared to fund proper works of protection, which had not been the case at other monuments:

'Sir Edmund Antrobus...has shown his interest in the monument by his wish to keep it entirely in his own hands and declining to avail himself of the Ancient Monuments Act; and I have no doubt that he is anxious to do all in his power to keep it in good repair...I should, however, strongly urge that Government should not make itself responsible for the monument, unless they are prepared to incure the necessary cost of maintaining it.<sup>34</sup>

The First Commissioner, George Shaw-Lefevre (1831-1928), forwarded on Pitt-Rivers report to Sir Edmund. He reacted in disbelief at yet another suggestion; now to build a cottage near the stones. A stern reply appears to have been the last word on the matter.

In June 1895 Pitt-Rivers received a letter from the recently formed National Trust.<sup>35</sup> They received the standard reply that nothing could be done and that the only way to prevent the stones falling was to 'agitate for a special Act'.<sup>36</sup> Their action appears to have been prompted by a letter in the Daily Chronicle stating:

'... No one need to be shocked at the idea of restoring Stonehenge; for, I would ask, in what state would our cathedrals or other ancient buildings be if they were not constantly kept in repair?<sup>37</sup>

Towards the end of the 19<sup>th</sup> century momentum grew towards better legislation. Sir Augustus Franks of the British Museum contacted General Pitt-Rivers to consult him on proposals.<sup>38</sup> He replied outlining his experience of working the Act, stating that if it had included a compulsory clause this would have been used for both Stonehenge and the Antonine Wall. Although with these powers Pitt-Rivers would also have excavated the monument:

'... if I have experience in any thing, it is in the excavation of earthworks, and it is my opinion that in two months the age of Stonehenge might be definitely fixed by an examination of the earthworks connected with it, and that in two years the excavations

made would be so completely grown over with grass, that no trace of the exploration would be seen.<sup>39</sup>

In retrospect Stonehenge was fortunate to have avoided wholesale excavation in the late 19<sup>th</sup> century, primarily due to the opposition of the Antrobus family.<sup>40</sup> In this regard it contrasted with Wor Barrow upon Pitt-Rivers' own estate, which was altogether obliterated.<sup>41</sup>

#### Stonehenge after Pitt-Rivers

On 1<sup>st</sup> April 1899 Sir Edmund Antrobus died and was succeeded by his nephew of the same name; the fourth Baronet. In August it was announced he was willing to sell Stonehenge and 1300 acres of downland to the Nation for £125,000 but wished to retain shooting and grazing rights.<sup>42</sup> The Chancellor of the Exchequer considered the price and conditions 'impossible'; the Antrobus family having paid little more for their entire estate of 5100 acres. The press speculated that Stonehenge would be bought by an advertising contractor, a showman, or an American millionaire who would ship it across the Atlantic.<sup>43</sup> In the event no purchaser came forward.

On the 31<sup>st</sup> December 1900 an upright of the outer sarsen circle fell and its lintel broke in half (Stones 22 and 122). Pitt-Rivers worst fears had been realised eight months after his death. The incident created enough outcry that many of his earlier recommendations were now implemented. A police constable was paid to oversee the site and an advisory committee, which included representatives from the Society of Antiquaries, the SPAB and the Wiltshire Archaeological and Natural History Society, was formed. They recommended that one of the inner sarsen uprights (Stone 56), which was leaning dangerously, be restored. An architect and engineer were employed and William Gowland (1842-1922) of the Society of Antiquaries was to undertake the archaeological supervision. He carried out what is recognised as the first scientific excavation of the monument, dating it to the Late Neolithic or Early Bronze Age.<sup>44</sup> The excavation from the 18<sup>th</sup> August to 25<sup>th</sup> September 1901 was undertaken meticulously and recorded in detail; the finds being plotted carefully within a three dimensional grid (Figure 3).<sup>45</sup>



Figure 3: William Gowland's excavation of Stone 56 in 1901. ©Crown Copyright.English Heritage. Reference Number: AA80/6439.

One of the advisory committee's other recommendations was to enclose Stonehenge. In May 1901 a fence was erected, which had to be taken across the earthworks on the western side to exclude the trackway from Netheravon to Lake. A proposal to make it a sunken fence was rejected on the basis of both cost and archaeological damage. Nevertheless several bodies opposed the enclosure. Among them were the National Trust, the Commons and Footpaths Preservation Society, and a band of archaeologists led by Professor Flinders Petrie (1853-1942). They drafted a legal case on the basis that the new fence cut off public rights of way. Opposition was also organised by George Shaw Lefevre, the former Commissioner of Works. A county council enquiry took place on 25<sup>th</sup> – 26<sup>th</sup> March 1901 and, after this proved unsuccessful, a High Court case was heard from 29<sup>th</sup> March to 3<sup>rd</sup> April 1905. The judge concluded that since the tracks and pathways merely led to the monument itself that they were private cul-de-sacs over which the public held no rights.<sup>46</sup> The enclosure of Stonehenge was much to the displeasure of James Fitzgerald, Acting Inspector of Ancient Monuments at the Office of Works:

'The new arrangements are to my mind painfully incongruous: the local public are indignant at being denied free access which they claim as an immemorial right... It is of course most unfortunate that the owner has not seen his way to dedicate the Monument to the public... He now gets some profit from the place by admission fees – amounting to nearly £300 per annum. One cannot but regret that in this country, unlike several Foreign States, there is no legal power to take possession of Stonehenge as a National Monument: paying the owner whatever may be the fair value of his interest in it.<sup>47</sup> In 1902 Wiltshire County Council considered purchasing the monument under the new powers of the 1900 Ancient Monuments Protection Act. This now enabled a local authority to purchase a monument or undertake guardianship but both measures were still dependant upon an owners consent.<sup>48</sup> In this case the asking price of £50,000 was still too great. An article in the *Manchester Guardian* pressed the Government to buy it:

'The action of His Majesty's Office of Works in saving the Bell Tower and a portion of the ancient city wall of Berwick from the hands of the builder naturally suggests the question why this serene way of saving historic things for the nation should not be more often employed. The only answer is that it is, after all, the Chancellor of the Exchequer who comes to the rescue. That explains sufficiently the limitations.<sup>49</sup>

Several years later Sir Edmund Antrobus (1848-1915) enquired whether the British Museum would be interested in purchasing Stonehenge. The answer was that the Trustees did not have the legal power and that the best solution would be acquisition by the Office of Works.<sup>50</sup>

The 1900 Ancient Monuments Protection Act still lacked the compulsive measures that would make it truly effective. It received harsh criticism:

'Of course, the Ancient Monuments Act is a farce, for it is made permissive and not compulsory, and very few landowners who, by some freak of fortune, have been placed in control of such a national treasure, have the nobility of mind to realise that the nation itself would be its best and truest guardian.<sup>51</sup>

Stonehenge remained in a potentially precarious position, entirely dependant upon the whim of its owner, according to Baldwin Brown (writing in 1906):

'Stonehenge is undoubtedly a "national" monument, a monument one might almost say which is the possession of the World; and yet at the same time it is so absolutely under private control that the owner might destroy it tomorrow by dynamite, and there is no power in the Crown or Parliament of the Law Courts to stay his hand<sup>52</sup>

It was not until the 1913 Ancient Monuments Consolidation and Amendment Act that it was finally afforded a greater deal of protection. This allowed the Commissioners to bring the monument into guardianship through a Preservation Order if it came within danger of damage or destruction.<sup>53</sup> In addition an Order in Council gave the Government power to prosecute any person except the owner from injuring the monument.<sup>54</sup> The latter was completed on 22<sup>nd</sup> November 1913.

#### The Great War

In the early 20<sup>th</sup> century military camps had sprung up in the surrounding landscape. The first military airfield in Britain was founded at nearby Larkhill in 1910.<sup>55</sup> Notably the first aerial photograph of an archaeological site in Britain was taken from a military reconnaissance balloon over Stonehenge in 1905.<sup>56</sup> During the First World War another airfield was built to the west of the monument, destroying the caretakers cottage, whilst a horse isolation hospital was established at nearby Fargo.<sup>57</sup> Stonehenge itself also suffered damage, particularly to the earthworks on the west side of the monument. On 1<sup>st</sup> April 1916 George Engleheart of the Wiltshire Archaeological and Natural History brought alarming news following a visit:

'... I at once noticed a fresh crack or split in one of the recumbent stones, and the custodian has little doubt that it is due to mine-explosions on the plain, near enough to shake his hut and dislodge objects from its shelves etc.

...serious and quite gratuitous damage is being done to the surrounding bank and ditch of Stonehenge, by a regular and deeply cut road being driven through it and used every hour, by foot, horse and gun....

...In coming to and from the main camp, the troops are actually making a detour to pass through the earthwork, and are destroying that entire segment of the bank.' ...It is of course difficult to get attention in this war-time, but, after all, Stonehenge is the most valuable prehistoric monument in Europe.<sup>58</sup>

Sir Lionel Earle (1866-1948), Permanent Secretary at the Office of Works, contacted Sir Reginald Brade at the War Office. He explained the damage as shown on aerial photographs.<sup>59</sup> The Commanding Officer in the district was instructed to close the former trackway, by now a major military road. However the following year an Officer at the Salisbury Mobilisation Centre reported that the nearby cursus was being ploughed up:

'Is it possible to save the Eastern portion of this fine "Cursus"? The trivial extra corn or potatoes that might be grown by taking in the Cursus seems small compared to the wiping out of an ancient cursus of renown.<sup>60</sup>

Furthermore directly to the east was an army station for practising throwing grenades. Some time earlier a War Office proposal to dig trenches across the cursus for a sewage farm had been halted after contacting the Comptroller of lands at Whitehall. The same approach was now adopted:

'Wort & Way are Government Contractors & have lately bought up tracts of land on Salisbury Plain, apparently for food production, but it is absurd that they can not carry out this doubtless useful - & profitable – enterprise without destroying parts of the most important prehistoric monument – or groups of monuments – in the Country.<sup>61</sup> The appeal proved successful. Subsequently the Office of Works appointed Lieutenant Colonel William Hawley (1851-1941) as a representative 'to protect the objects of interest on Salisbury Plain'.<sup>62</sup> Colonel Hawley had been William Gowland's assistant during the excavation of Stonehenge in 1901 and was a member of the Society of Antiquaries.

#### A gift to the Nation

The Great War led to a change in ownership. Sir Edmund Antrobus's son and heir tragically died in action in 1914, followed by the Baronet himself in February 1915.<sup>63</sup> The monument was put up for sale and purchased by Cecil Chubb (1876-1934), a Barrister and member of the Middle Temple, for £6600 on the 21<sup>st</sup> September 1915.<sup>64</sup> Chubb had grown up near Stonehenge and his wife was a major landowner and proprietor of Fisherton House, the largest private asylum in England. Upon purchasing the monument Chubb halved the admission charge for serving soldiers.<sup>65</sup> Three years later he wrote to Sir Alfred Mond (1868-1930), First Commissioner of Works, offering it to the Nation:<sup>66</sup>

Bemerton Lodge, Salisbury

15<sup>th</sup> September 1918

Dear Sir,

Stonehenge is perhaps the best known and the most interesting of our national monuments and has always appealed strongly to the British imagination.

To me, who was born close to it and during my boyhood and youth visited it at all hours of the day and night, under every conceivable condition of weather – in driving tempests of hail, rain and snow, fierce thunderstorms, glorious moonlight and beautiful sunshine, it always has had an inexpressible charm.

I became the owner of it with a deep sense of pleasure and had contemplated that it might remain a cherished possession of my family for long years to come.

It has, however, been pressed upon me that the nation would like to have it for its own and would prize it most highly.

I therefore have decided to give up this unique possession and offer it to you, His Majesty's First Commissioner of Works, as a gift to be held for the nation.

It brings in a revenue and its possession would be far from an expense. If my wife and I may express a wish though far from making it a condition of the gift, we should be glad if during the continuance of the War the income could be handed to the Red Cross Society whose work at the recent time is of such great national value – This point however must be entirely within your discretion.

*I have the honour to be Yours faithfully C.H.E Chubb*  Sir Alfred accepted with great pleasure what he described as a monument of 'unique importance'.<sup>67</sup> The news was passed on to the King who was 'interested and gratified'<sup>68</sup> and the Prime Minster David Lloyd George (1863-1945) who expressed his 'deep appreciation'<sup>69</sup>. The Deed was signed at an official presentation ceremony at Stonehenge on the 26<sup>th</sup> October 1918. Among the attendees were Office of Works staff, Commanding Officers of the nearby military camps, Sir Arthur Evans as President of the Society of Antiquaries and Sir Hercules Read of the British Museum. Cecil Chubb subsequently received a knighthood and gained the local nickname 'Viscount Stonehenge'.<sup>70</sup>

Upon taking charge of the monument the Government honoured Cecil Chubb's request to hand over wartime revenue to the Red Cross. The charge for civilians was reduced from one shilling to six pence after the armistice. However Sir Alfred Mond received a letter from the former First Commissioner George Shaw-Lefevre, appealing for charges to be dropped altogether at Stonehenge and other guardianship monuments.<sup>71</sup> The response was that the entrance fee formed one of the most effective means of protection. It meant those not truly interested, and therefore likely to scratch their names on the monoliths or otherwise damage Stonehenge, were excluded. The charges certainly didn't discourage people from visiting for numbers steadily increased though the interwar period.<sup>72</sup>

The Government set the custodians salary at 25 shillings a week but he also received free rent, grazing for his horses, and fuel.<sup>73</sup> The additional benefits were estimated to amount to £68 per annum. In 1918 the custodian's residence was a military hut. Fargo Cottage had been demolished to make way for aircraft sheds. The War Office was to erect two cottages as a replacement. It was recommended that the resident policeman now be replaced by an assistant caretaker. The present custodian had not had a single day's holiday in seven years.<sup>74</sup>



Figure 4: Stonehenge 'propped', May 1919. ©Crown Copyright.English Heritage. Reference Number: ALO 913/017/01.

#### A megalithic restoration

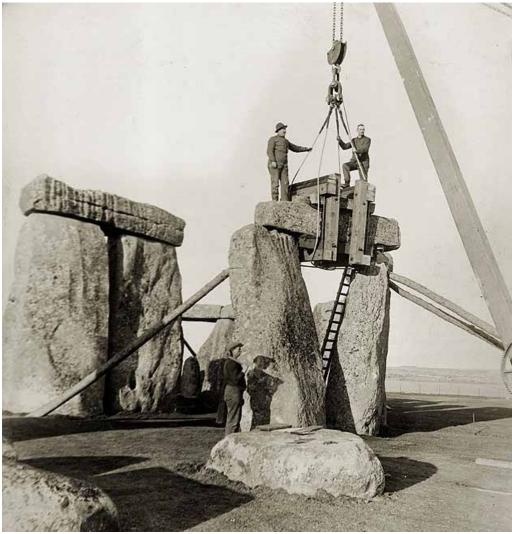
After the Great War the Office of Works carried out a very detailed structural survey of the monument.<sup>75</sup> The engineer's report extended to 101 pages, providing a detailed account of each and every stone; estimating the weight, tensile stresses, and angles at which they stood. A modest programme of restoration was planned and the approach was set out by the Inspector of Ancient Monuments, Charles Peers (1868-1952):

'The repair of a prehistoric monument is always a difficult matter, & generally speaking the only safe course is to do as little as possible. Stonehenge, however, differs from nearly all prehistoric monuments, since it is possible to be definitely certain of the position of many of the stones which are now displaced...

This is, I think, the extent of repair that should be undertaken: stones that are merely leaning, but not dangerously so, should be left as they are, & anything that could possibly be considered as "smartening up" of this venerable monument carefully avoided...<sup>76</sup>

The stones that were to be restored included several outer sarsens: Stones 1, 6, 7, 22, 29 and 30 on Flinders Petrie's numbering system. In addition the Great Trilithon that fell in 1797 was to be re-erected. However in the event there were not the funds for this last, and perhaps greater, task.

Peers approach gained the approval of the Ancient Monuments Board for England on 26<sup>th</sup> November 1919. The great restoration then began, starting with the stones that were leaning most; numbers 6 and 7 (Appendix 1). One leant inward and the other outward causing the lintel on top to be twisted out of position.<sup>77</sup> The lintel was wrapped in felt and cased in a wood frame and then lifted off the uprights (See Figures 4 and 5). The uprights were then cased up, supported on steel joists and jacked back to the vertical. A bed of reinforced concrete, three foot thick, was installed under each stone and then they were cemented in permanently. On the 17<sup>th</sup> March 1920, filmed by the animated-picture cameras of the Gaumont Cinematographic Company, the lintel was put back in position using a crane.<sup>78</sup> This first major task out the way, the Department's engineers moved on to the other stones. Three successive lintels by the axis on the north-east side were leaning out together with their supporting uprights. All were straightened in the same way.



*Figure 5: The lintel being removed from Stones 6 and 7 in November 1919. ©Crown Copyright.English Heritage. Reference Number: ALO 913/039/01.* 

The Office of Works had anticipated criticism; almost any involvement with Stonehenge brought disapproval from some party.<sup>79</sup> Therefore they began at an early stage to consult many of the foremost antiquaries. In February 1920, whilst the works were underway, George Engleheart of the Wiltshire Archaeological and Natural History complained privately to Sir Hercules Read (1857-1929) of the British Museum at the use of the concrete bedding. This was quietly passed on to the Office of Works who took immediate action. A special visit was organised on 17<sup>th</sup> February 1920 including Engleheart and other antiquaries. This set out in detail the work being done and the rationale behind every action. All of the visitors assented unanimously to what was being carried out. Sir Lionel Earle, subsequently observed:

'The monument looms so large in the world's eye that it would be very unfortunate if any real criticism were made against the methods employed, and this was why it was necessary to take the matter up immediately and dispel totally unfounded criticisms.<sup>80</sup>

#### Britain's most important excavation

Alongside the restoration of the monument went an excavation by the Society of Antiquaries. The Society had undertaken work at other sites such as Old Sarum. Charles Peers specified what was necessary in the case of Stonehenge:

"...[Restoration] work will mean a disturbance of the ground, & it is of first rate importance that nothing of the kind should be done at Stonehenge except under the superintendence of an expert antiquary. There is a great deal to be learnt...it can give us first-rate archaeological evidence on some of the most doubtful points of prehistory. ...In 1901, when the great leaning stone was set upright, the Society of Antiquaries thoroughly examined all the ground near the Stone ...

This process must be continued...so that eventually the whole area within the ditch surrounding the Stones shall be completely examined down to the level of the undisturbed chalk.

The results of such a work, which will cover a series of years, will be of the greatest value to the study of prehistoric Britain; indeed it is not too much to say that the excavation will be the most important of its kind yet undertaken in this country.<sup>81</sup>

The excavation was directed by Lieutenant Colonel William Hawley who had been the Department's liaison man during the war. It began on the 12<sup>th</sup> September 1919 and continued each year (usually from March to November) until September 1926.<sup>82</sup> During the first season Hawley had an assistant, the archaeologist Robert Newall (1884-1978), but thereafter he largely worked alone. The work commenced by digging round the base of each stone as it was restored. They each sat in a hole in the chalk wedged with sarsen mauls and packing stones. Along one side were dark stakeholes indicating that the stones had been put up from outside the circle.<sup>83</sup> Once the stones were restored Hawley began clearing the ditch on the south-east side. He wrote to Peers stating that the ditch was quite unlike anything he had dug before, very irregular and containing very few finds largely stone chips, bone, Romano-British pottery and the occasional flint flake.<sup>84</sup> Newell followed up a clue from the writings of the antiquarian John Aubrey that there had been a ring of cavities inside the banked enclosure. Probing together with a steel bar they discovered a series of straight sided and flat-bottomed roughly circular pits. These formed a circle on the inside of the bank and were found to contain cremated bones. It was a major discovery of what came to be known as the 'Aubrey holes'. Thereafter Hawley began stripping the interior of one half of the site, progressing patch by patch. Two more rings of holes were found running round the outside of the structure, which were named the 'Y' and 'Z' holes.<sup>85</sup> Apart from those discoveries Hawley struggled to interpret the site and found the evidence both fragmentary and contradictory. Later archaeologists severely criticised his work, such as Richard Atkinson (1920-1994) writing in the 1950s:

'...[Hawley's excavations] form one of the most melancholy chapters in the long history of the monument... unfortunately he was obsessed with the danger, or at least the undesirability, of forming any kind of working hypothesis or of framing any specific questions to be answered by excavation. As a consequence, he continued the mechanical and largely uncritical stripping of the site far beyond the point at which his work ceased to yield significant information. This process, coupled with...insufficient appreciation of the destructive character of excavation per se, has left for subsequent excavators a most lamentable legacy of doubt and frustration. For it is now clear that there are a number of problems connected with the history of Stonehenge which it will never be possible to solve...because the evidence has already been destroyed without record of its nature or significance.<sup>86</sup>

Hawley was hopelessly under resourced. George Engleheart wrote to Charles Peers complaining that the Colonel desperately needed help and was dead beat, having been laid up numerous times in autumn 1921.<sup>87</sup> He lived alone in a small hut on the site for seven years and only intermittently received help with the excavations. Some recent scholarship has suggested that the quality of his site record should be reviewed since it deserves greater credit.<sup>88</sup>

#### The setting of Stonehenge

The Office of Works also had to consider the setting of the ancient monument. One priority was to divert the last road running through the bank and ditch, which had caused so much damage during the First World War. This was initially met with local opposition but they were soon cajoled by the offer of free admission for local residents. The Government also faced difficulties with 'The Church of the Universal Bond', otherwise known as 'the Druids'. In June 1919 Charles Peers wrote:

'These curious persons have been allowed to carry on their 'rites' at Stonehenge for some time, and as they do no harm to the Stones, nor outrage conventional public decency, we should not I think alter the existing arrangements.

They assemble, as I understand, on Midsummer Eve, & camp out on the plain. A certain number enter Stonehenge next morning to see the Sun rise over the Friar's Heel, paying the usual entrance fee. The rest stay outside.

To keep order it has been usual to ask the Chief Constable of Wilts to provide 4 Police Constables for this occasion.<sup>89</sup>

During that solstice the custodian had so much trouble that Peers brandished the group 'lunatics' in the next memorandum.<sup>90</sup> In 1923 soldiers from the military camp at Larkhill dressed up in white bed sheets and staged a mock Druidical parody.<sup>91</sup> The following year the Office of Works received public criticism after it was leaked that the Druids had been allowed to bury ashes of their cremated dead at Stonehenge. The Government subsequently withdrew permission and the group temporarily moved its rites to Normanton Gorse.

In 1926 the nearby airstrip that had been requisitioned during the war was handed back to the owners.<sup>92</sup> The dilapidated aircraft sheds, stores and barracks duly became a pig farm. On the other side of the monument the Stonehenge Café was built and there was talk of colonies of holiday bungalows. In August 1927 a national appeal was made to restore and preserve the surroundings of Stonehenge to its former wilderness. The Prime Minister, Stanley Baldwin, lent support, the King contributed 20 guineas, and even the Druids provided ten.<sup>93</sup> At the same time Alexander Keiller (1889-1955) offered to fund and build a museum. This would be out of sight at Stonehenge Bottom. One of the designs included a single storey Neo-Egyptian building. In a letter to Peers he wrote:

*"...I am convinced that I could, so to speak "drop" my building into position in a remarkably short space of time without in any way detracting from the aesthetic or prehistoric interest or appearance of the site.*<sup>94</sup>

However Keiller faced opposition from O.G.S Crawford and B.H. Cunnington and subsequently dropped his proposal. In a letter regarding the museum he also specified measures for the better protection of the monument. This was particularly necessary after an attempt to damage the ancient structure:

'The recent dastardly attempt on the part of certain unidentified students to lever off the lintel of one of the trilithons would appear to have brought this matter to a head...a night-watchman, at least during the spring and summer months, should be provided and should be constantly on duty. One man, as we have seen, is not sufficient to withstand a concerted attack by numbers of evilly disposed or at best irresponsible individuals. Consequently he should be provided with at least one sufficiently savage dog, or preferably two. The plump spaniel at present resident at Stonehenge is but ill-suited to the purpose, and I would suggest a savage Alsatian or an impressive Great Dane...<sup>95</sup>

A night watchman was later provided. Finally in 1929 1500 acres of the surrounding downland were purchased and vested in the National Trust. The aerodrome buildings were demolished and, in due course also Stonehenge Café and two custodian's cottages (Figure 6).<sup>96</sup> The latter were replaced by a new building out of sight at the King Barrows.<sup>97</sup> An effort was also made to close the A344 Amesbury to Shrewton Road running across the avenue. However it was considered impossible without an enabling Act of Parliament and The Road Fund refused to pay the cost.<sup>98</sup>



Figure 6: The approach to Stonehenge from the east circa 1930. Note the two custodians cottages, the Stonehenge Café opposite (both later demolished) and the AA box. ©Crown Copyright.English Heritage. MPBW Photographs Collection.

Throughout the interwar period the number of visitors to Stonehenge steadily increased, hand in hand with the popularity of the charabanc and motor bus. In 1920 it amounted to about 20,000 people a year.<sup>99</sup> George Engleheart complained:

'The London Authorities can't know the difference this Char-a-banc business has made to the average number of visitors – One day when I was at the Stones eleven charabanc arrived, loaded with a mixed mob, and this sort of thing in varying intensity, goes on and will go on day after day...

Three custodians would be none too many in the thick of these arrivals, for two are needed, at the ticket window & turnstile, and one must run up to the Stones as quickly as possible, to keep order. The question is not only the main one of vandalism... visitors, unless watched, even straggle down and try to get into the offices, crowd round Hawley at his work, & so on.<sup>100</sup>

By the 1930s the monument received nearly as many visitors in a month as it had in the whole of that year. In 1935 a discrete car park was arranged to the west of the stones where the ground dropped away.<sup>101</sup> However it was little used; motorists preferring to park on the verge of the roadway.

#### The Second World War and after

Stonehenge survived the Second World War, unlike the previous conflict, unscathed. However this was not without drama. In December 1941 the Wiltshire War Agricultural Committee wrote to the Ministry of Works:

'It has been understood that an area of land in the vicinity of Stonehenge could be cultivated...In the interests of food production my Committee would be glad if you would give this matter your consideration...<sup>102</sup>

This initially caused great anxiety but concerns were soon allayed after the Inspector of Ancient Monuments, Brian O'Neal, met a representative from the agricultural committee on site. It was followed up by an official letter explaining:

'The land, in its present condition, contains very valuable historical evidence which would be destroyed, even by a single ploughing. This historical evidence is of exceptional importance owing to the close relation...to Stonehenge'.<sup>103</sup>

In the 1950s Richard Atkinson, Stuart Piggott and J.F.S Stone agreed to review Colonel Hawley's interim articles in order to provide a full and definitive report on the monument. This was supported by a limited programme of excavation. The first work took place in Easter 1950 and was confined to two Aubrey holes.<sup>104</sup> These were determined to be ritual pits usually containing cremations, which had been dug in the later Neolithic.<sup>105</sup> A sample of charcoal from one of the holes provided the first opportunity to use newly established radio-carbon dating.<sup>106</sup> In summer 1953 the Avenue was examined and two Y and Z holes excavated. That same year served as the discovery for prehistoric carvings during a photographic survey.<sup>107</sup> In 1954 a section within the interior provided the first evidence for the double bluestone crescent. These works brought the first coherent picture of the monument drawn up and published by Atkinson in 1956.

In the late 1950s, as part of the investigations, it was decided to restore the Great Trilithon and an outer sarson (Figures 7 and 8). In Spring 1958 a protective floor of timbers was laid, the stones cased in felt-padded steel cages and re-erected using a 60 ton crane (See Appendix 2).<sup>108</sup> In 1959 three more stones were straightened. All those re-erected were given concrete foundations. The last restoration work came after an upright of the sarsen outer circle fell unexpectedly in March 1963. This was restored and more stones concreted leaving just seven upright sarsens in their original chalk-cut sockets.<sup>109</sup>



Figure 7: Mr T A Bailey, senior engineer, and others examining the lintels of stones 29, 30 and 1 of the outer circle at the entrance of Stonehenge, January 1958. ©Crown Copyright.English Heritage. Reference Number: P50493



Figure 8: Re-erection of the Trilithon lintel by the 60 ton crane, the larger of two cranes used to lift the stones. The lintel is being lowered and moved into its final resting position on upright stones 57 and 58. January 1958. Reproduced by permission of English Heritage. Reference Number: P50217

There were also significant changes to the management of the site. During the 1950s underground lavatories were constructed in the car park. A post-war boom in visitor numbers<sup>110</sup> (Figure 9) meant that the interior was reduced to a muddy quagmire in wet weather and it was therefore laid with gravel in 1963.<sup>111</sup> The last major building work occurred in 1968 when the visitor facilities were rebuilt with a larger car-park, new café, bookshop, and an entrance in an underground tunnel below the road. However the history of Stonehenge will shortly move into a new era. In 2012 a project is underway to remove the current visitor facilities, close the A344 and construct a new visitor centre 1.5 miles away at Airman's Corner.<sup>112</sup> Stonehenge will finally be reconnected to the surrounding landscape and receive the setting it deserves.



Figure 9: A custodian shows visitors round Stonehenge during Professor Atkinson's archaeological and restoration work. Stones 28, 29 and 30 of the outer sarsen circle are visible in the background.

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## ENDNOTES

<sup>1</sup> The recognised authority regarding the 20<sup>th</sup> century history of Stonehenge is Dr Chris Chippindale and his publications have been fully consulted whilst writing this report (see bibliography).

- <sup>2</sup> Hill 1914, 3.
- <sup>3</sup> Darvill 2006, 36.
- <sup>4</sup> Jones 1655, 14.
- <sup>5</sup> Richards 1991, 32.
- <sup>6</sup> Chippindale 2012, 126.
- <sup>7</sup> Darvill 2006, 45.
- <sup>8</sup> Lubbock 1879, 160, 163 and 168.
- <sup>9</sup> Thomson 1963, 224.
- <sup>10</sup> Although one of the monuments; Old Sarum, was occupied in the Roman and medieval periods, its primary phase was as an Iron Age hillfort.

<sup>11</sup> 1884 'Guide to the Stones of Stonehenge' contained in Pitt-Rivers File FL01562.

<sup>12</sup> Section 2 of the Ancient Monuments Protection Act, 1882 [45 & 46 Vict. Ch. 73].

- <sup>13</sup> Black & Black 2007.
- <sup>14</sup> Chippindale 1983b, 60.
- <sup>15</sup> Letter dated 26<sup>th</sup> May 1883 from Sir Edmund Antrobus to Pitt Rivers contained in Pitt-Rivers File FL01562.
- <sup>16</sup> Chippindale 1978, 110.
- <sup>17</sup> Ibid, 10.
- <sup>18</sup> Chippindale 1983a, 61.
- <sup>19</sup> Chippindale 1978, 112.

<sup>20</sup> Letter dated 2<sup>nd</sup> July 1887 and entitled 'on restoration of fallen trilithons'. It was drafted by Pitt-Rivers for *The Times* newspaper but never sent. Contained in Pitt-Rivers File FL01562.

<sup>21</sup> Ibid, 109-110.

<sup>22</sup> Letter by a member of the public sent to Wiltshire Archaeological and Natural History Society and forwarded on to Pitt-Rivers, 24<sup>th</sup> Sept 1884. Pitt-Rivers File FL01562.

<sup>23</sup> Report of Deputation to Examine into the Present State of the Stones at Stonehenge. July 20<sup>th</sup>, 1886. The committee was formed of A. Smith, H. Medlicott, W. Cunnington and H. Cunnington. FL01562.

<sup>24</sup> Letter sent from the Society of Antiquaries to Pitt-Rivers dated August 26<sup>th</sup> 1886. FL01562.

<sup>25</sup> Letter written by Sir John Lubbock, which appeared in *The Times* newspaper 19<sup>th</sup> August 1886. FL01562.

<sup>26</sup> Letter from Pitt-Rivers to the Society for the Protection of Ancient Buildings dated 10<sup>th</sup> October 1889. FL01562.

<sup>27</sup> A letter in the Salisbury Journal 4<sup>th</sup> Dec 1886 entitled 'FACTS. NOT FICTION, ABOUT STONEHENGE. SIR E. ANTROBUS'S REPLY TO ANTIQUARIANS. FL01562.

<sup>28</sup> Letter entitled 'on restoration of fallen trilithons', 2<sup>nd</sup> July 1887. FL01562.

<sup>29</sup> Letter from Pitt-Rivers to the British Association for the Advancement of Science to Pitt Rivers dated 9<sup>th</sup> February 1888. FL01562.

<sup>30</sup> Letter dated 10<sup>th</sup> October 1889. FL01562.

<sup>31</sup> Chippindale 1978, 112.

<sup>32</sup> Letter from Pitt-Rivers to the SPAB, 11<sup>th</sup> October 1889. FL01562.

<sup>33</sup> STONEHENGE: Report on the Condition of Stonehenge by the Inspector of Ancient Monuments. Rushmore, Salisbury. October 2<sup>nd</sup>, 1893. Guardianship file AA71786/3C PT1 - TNA WORK 14/213.

<sup>34</sup> Pitt-Rivers file FL01562.

<sup>35</sup> Letters dated 1<sup>st</sup> and 17<sup>th</sup> June 1895 from Ambrose Poynter, Secretary of the National Trust. FL01562.

- <sup>36</sup> Reply from Pitt-Rivers dated 18<sup>th</sup> July 1895. FL01562.
- <sup>37</sup> Letter in the Daily Chronicle 4<sup>th</sup> June 1895 entitled 'NEGLECTED STONEHENGE'. Written by Dominick Brown of Clevedon, Somerset. FL01562.
- <sup>38</sup> Letter from Augustus Franks to Pitt-Rivers, 16<sup>th</sup> April 1896. Contained in Pitt-Rivers file FL01545.
- <sup>39</sup> Reply dated 20<sup>th</sup> April 1896. Pitt-Rivers file FL01545.
- <sup>40</sup> Chippindale 1983a, 63.
- <sup>41</sup> Thompson 1977, 106-8.
- <sup>42</sup> Chippindale 1978, 112.
- <sup>43</sup> Ibid, 113.
- <sup>44</sup> Pitts 2007, 228.
- <sup>45</sup> Cleal et al 1995, 9.
- <sup>46</sup> Chippindale 1978, 120.
- <sup>47</sup> Report on Stonehenge, November 1904. Contained in Office of Works file AA 71786/3C Part 1 – TNA WORK 14/213.
- <sup>48</sup> Section 2. Ancient Monuments Protection Act 1900 (63 & 64 Vict, Ch.34).
- <sup>49</sup> Article in the Manchester Guardian newspaper, 31<sup>st</sup> July 1905. Contained in Office of Works file AA 71786/3C Part 1 – TNA WORK 14/213.
- <sup>50</sup> Letter from the British Museum to the Office of Works dated 21<sup>st</sup> June 1913. Contained in the above.
- <sup>51</sup> Article in the Star newspaper, 25<sup>th</sup> August 1905. Contained in Office of Works file AA 71786/3C Part 1 – TNA WORK 14/213.
- <sup>52</sup> Baldwin Brown 1906, 456.
- <sup>53</sup> Section 6. Ancient Monuments Consolidation and Amendment Act 1913 (3 & 4 Geo.5, Ch.32).
- <sup>54</sup> Section 14 (4) of the above.

- <sup>55</sup> English Heritage. PastScape website Record No. 1545467, Larkhill Aerodrome: <u>http://www.pastscape.org.uk</u> (accessed 1 August 2012).
- <sup>56</sup> Richards 2004, 33.
- <sup>57</sup> Chippindale 2012, 175.
- <sup>58</sup> Letter from George Engleheart to Lord Glenconner, former MP for Salisbury. Contained in Office of Works file AA71786/23B PT1 – TNA WORK 14/214.
- <sup>59</sup> Letter to Sir Reginald Brade from Sir Lionel Earle, 4<sup>th</sup> April 1916. Contained in the above file.
- <sup>60</sup> Letter from A. Caldwell to Mr F. Stevens, 16<sup>th</sup> April 1917. Office of Works file AA71786/23B PT1 – TNA WORK 14/214.
- <sup>61</sup> Letter from the Chairman of the Ancient Monuments Board to E.H. Coles, Comptroller of lands, 23<sup>rd</sup> April 1917. Office of Works file AA71786/23B PT1 – TNA WORK 14/214.
- <sup>62</sup> Office of Works file AA71786/23B PT1 TNA WORK 14/214.
- <sup>63</sup> Black & Black 2007.
- <sup>64</sup> Letter from R.M. Montgomery to Sir Alfred Mond, First Commissioner of Works, 23<sup>rd</sup> April 1918. Contained in Office of Works file AA71786/3F.
- <sup>65</sup> Chippindale 2012, 176.
- <sup>66</sup> Office of Works file AA71786/3F.
- <sup>67</sup> Reply from Sir Alfred Mond to Cecil Chubb, 18<sup>th</sup> September 1918. Contained in the above.
- <sup>68</sup> Letter from Clive Wigram to the Secretary, 19<sup>th</sup> September 1918. Office of Works file AA71786/3F.
- <sup>69</sup> Letter from the Prime Minster's office to Sir Alfred Mond, 24<sup>th</sup> September 1918. Office of Works file AA71786/3F.
- <sup>70</sup> Chippindale 2012, 176.
- <sup>71</sup> Letter from Lord Eversley to Sir Alfred Mond, 24<sup>th</sup> October 1918. Office of Works file AA71786/3F.
- <sup>72</sup> Note on admission fees contained in Office of Works file AA71786/3F PT1.

- <sup>73</sup> Memorandum: Stonehenge. Written by Sir Frank Baines, 18<sup>th</sup> November 1918. Contained in the above file. Office of Works file AA71786/3F PT1.
- <sup>74</sup> Memorandum: Stonehenge. Written by Sir Frank Baines, 2nd November 1918. Contained in Office of Works file AM 71786/100 – TNA WORK 14/2463.

<sup>75</sup> STONEHENGE. Report on the condition of Stones, from inspection made from 14<sup>th</sup> May 1919 to 28<sup>th</sup> May 1919. Contained in Office of Works file AM 71786/01 A – TNA WORK 14/2464.

- <sup>76</sup> Memorandum: Stonehenge. Written by Charles Peers 24<sup>th</sup> January 1919. Contained in Office of Works file AA 71786/2U PT1 – TNA WORK 14/485.
- <sup>77</sup> Chippindale 2012, 179.
- <sup>78</sup> Ibid, 179.
- <sup>79</sup> Memorandum: Re Stonehenge written by Arthur Heasman, 28<sup>th</sup> January 1920. Contained in Office of Works file AA 71786/2U PT1 – TNA WORK 14/485.
- <sup>80</sup> Note 20<sup>th</sup> March 1920. Contained in the above file.
- <sup>81</sup> Memorandum: Stonehenge. Written by Charles Peers 24<sup>th</sup> January 1919. Contained in Office of Works file AA 71786/2U PT1 – TNA WORK 14/485.
- <sup>82</sup> Cleal et al 1995, 12.
- <sup>83</sup> Chippindale 2012, 181.
- <sup>84</sup> Letter from Colonel Hawley to Charles Peers, 22<sup>nd</sup> September 1921. Contained in Office of Works file AM 71786/100 – TNA WORK 14/2463.
- <sup>85</sup> Atkinson 1956, 196.
- <sup>86</sup> Atkinson 1956, 196-197.
- <sup>87</sup> Letters dated 22<sup>nd</sup> September and 25<sup>th</sup> October 1921. Contained in Office of Works file AM 71786/100 – TNA WORK 14/2463.
- <sup>88</sup> Cleal et al 1995, 13-14.
- <sup>89</sup> Memorandum written by Charles Peers on the 6<sup>th</sup> June 1919. Contained in Office of Works file AA71786/8E PT1.
- <sup>90</sup> Memorandum dated 28<sup>th</sup> June 1919. Contained in the above file.

- <sup>91</sup> Chippindale 2012, 190.
- <sup>92</sup> Chippindale 1983c, 174.
- <sup>93</sup> Chippindale 2012, 193.
- <sup>94</sup> Letter dated 22nd September 1928.
- <sup>95</sup> Letter from Alexander Keiller to Charles Peers, 22<sup>nd</sup> September 1928. Contained in Office of Works file AA71786/8E PT1.

<sup>96</sup> The demolition of the aerodrome had been anticipated ten years earlier. In a letter to Charles Peers, Colonel Hawley had written:

'On Tuesday evening Lady Glenconner most kindly sent over for me to dine with them despite my not having evening dress. In course of conversation we were talking about the aerodrome & how its existence here spoils the site. She said that if the Antiquaries & Office of Works would take the matter up she would get the Govt to support the protest & get the place removed. Lloyd George is often a visitor of theirs & Asquith is her Brother in Law so the idea looks hopeful.' (Letter dated 11<sup>th</sup> December 1919 contained in Office of Works file AM 71786/100 – TNA WORK 14/2463).

- <sup>97</sup> Chippindale 2012: 194.
- <sup>98</sup> Chippindale 1983c, 175.
- <sup>99</sup> The exact figure was 20,376, which amounted to £434 in receipts. As noted in Office of Works file AA71786/3F PT1.
- <sup>100</sup> Letter from George Engleheart to Charles Peers, 22<sup>nd</sup> September 1921. Contained in Office of Works file AM 71786/100 – TNA WORK 14/2463.
- <sup>101</sup> Chippindale 1983c, 175.
- <sup>102</sup> Letter from W. J. Price, Chief Executive of the Wiltshire War Agricultural Executive Committee, 24<sup>th</sup> December 1941. Contained in Office of Works file AM 71786/100 – TNA WORK 14/2463.
- <sup>103</sup> Reply dated 18<sup>th</sup> February 1942.
- <sup>104</sup> Atkinson 1956, 199.
- <sup>105</sup> Ibid, 169-170.
- <sup>106</sup> Chippindale 2012, 201.
- <sup>107</sup> Atkinson 1956, 199.

<sup>108</sup> Chippindale 2012, 205.

<sup>109</sup> Ibid, 205.

<sup>110</sup> Visitor numbers increased significantly: 20,000 in 1920; 124,000 in 1951; 550,000 in 1971; 687,000 in 1990; 790,000 in 2000; and 990,705 in 2009 (Chippindale 2012: 259).

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<sup>112</sup> English Heritage 2012 'Our Plans for Stonehenge' <u>http://www.english-heritage.org.uk/daysout/properties/stonehenge/our-plans/</u> (accessed 17 August 2012).

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## APPENDIX 1

Archive papers detailing the 1919-20 restoration (Copyright The National Archives)

1	
	STONEHENGE
-	Procedure to be adopted in dealing with Stones 29,30, 1,2.
	the second provide a second of the second
(1)	Stones 29,30, 1 & 2 to have templates made between same.
(2)	Stones 30 & 1 to be guyed inwards and the only ones to be moved laterally.
(3)	do. to have cradles put on same similar to stones 6 & 7 and steel joists to be fitted so as to become horizontal when the stones are put vertical.
(4)	Lintols A, B, C to be also cradled similar to Lintol E.
(5)	Crane to be dismantled from present position and re-erected opposite Stones 30 & 1.
(6)	Winches to be placed at the sides of Stones 30 & 1 and to have wire ropes well connected to same.
) (7)	Lintols A,B, & C respectively to be lifted off and carefully set aside.
(8)	The ground to be excavated for putting thebearing plate down on chalk and then placing Jacks between same and joists.
(9)	A hole on either side to be dug under the stone so as to get the wire slings under and connected up to the screw bolts in cradle.
(10)	Excavation to be completed on all sides and then the stone jacked over (by the two outside jacks) into a vertical pesition.
' (11)	Further excavation to be made and a foot of concrete placed under the stones.
0(12)	Make templates of lintols and try same on stones, adjust and level as necessary by use of Jacks.
(13)	Take template of holes and dowels for lead caps, all as on Stones 6 & 7.
(14)	Replace lintols and make final adjustments.
(15)	Cast lead caps to suit and raise lintols to put same in position.
(16)	Completed concreting similar to what was done around Stones 6 and 7 and then resoil and turr.
(17)	. Remove all cradling from lintols and stones.

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## m STONEHENGE.

Notes upon method adopted for lifting No. 7 atone back into a vertical position.

(1) A timber fracing or oradle was first placed around the stone consisting principally of 8 x 8 pitch pine bauks, the timber being laid both vertically and horizontally. The horizontal timbers clasped the vertical timbers and were held together by long steel bolts of 1" diameter. Owing to the irregular surface of the stone the inner face of the vertical timbers had eacht to be packed out with smaller pieces of wood secured by folding wedges. The surface of the stone was protected from injury by pieces of felt.

(2) Two steel joists 14 x 6 and approximately 20 ft. long were secured to the lower part of the cradle. They were placed as nearly as possible at right angles to the axis of the stone and as the inclination of the stone was approximately 12 21 the North end of each joist touched the ground while the Southern end was about 2'6" above.

(3) Angle cleats were fixed to the top of the R.S.Js/raking/at an angle of approximately 45 to the top of the cradle. These act as struts and communicate the movement from the R.S.js to the top of the stone.

(4) Underneath the ends of the R.S.J travelling screw jacks of 10-tons capacity were fixed, one jack under the end of each joist. A bed for the jacks was provided on "steel plates 4' x 4' longed upon the solid chalk. Each jack had a timber sole piece and a timber pad was provided between the top of the screw and the underside of the R.S.J.

(5) Although the cradle was perfectly tight around the stone there was a possibility that a slip might occur. To prevent this wire ropes of 1" diameter were fastened from the lower member of the timber cradle round the toe of the stone.

(6) To prevent the possibility of any sliding at the bottom of the foundation some 8 x 8 timber packings were placed against the toe of the stone up to the side of the trench.

(7) To prevent overturning of the stone wire ropes were connected to the upper part of the cradle. There were four in all placed in the direction shewn on the drawing. Special pulleys and ropes were fixed on the South side and were connected to the winch of the orane. They were for the purpose of giving extra pullto the stone when drawing it back to vertical position if it were found that the jacks either became defective through the stripping of the threads or for some other reason were unable to accomplish the work.

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(8) To prevent the possibility of the jacks overturning or slipping 8 x 8 timber bauks were provided ready at hand to place beneath the R.S.J's lifting gear.

(9) In order to record the movements a gauge rod was provided between the top of each steel sole plate and the underside of the R.S.J.

(10) The lifting operation commenced by raising  $\frac{1}{2}$ " on the side to which the stone leaned, and lowering  $\frac{1}{2}$ " on the side away from the lean.

(11) After the first movement the raising and lowering took place in 1" distances and after each inch had been measured inspection of jacks, timber packings and lashings, etc., was made.

(12) It was found necessary periodically to travel the jacks horizontally in order to compensate for the inclination which took place in the vertical screw.

(13) The following dimensions give the total movements recorded and it will be noted that the "head of the stone moved Southwards horozontally 2ft:6

(14) After the horizontal movement was completed a vertical lift of 3" was given on all jacks in order to free the beds of the stone and permit the removal of the loose chalk beneath the toe.

(15) During the movements the wire ropes connected to the winches were slackened or tightened as might be required.

(16?) At no time during the raising of the stone was there any perceptible dangerous movement nor any inclination to slip either at the top or the bottom. The jacks seem perfectly secure although precautions were taken to prevent slipping or movement by the insertion of the timber packings beneath the R.S.js.

(17) It was noticed that the wire rope passing beneath the toe of the stone became very taut during the lift and obviously was undergoing a considerable stain.

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## APPENDIX 2

Archive papers detailing the 1958-59 restoration (Copyright The National Archives) SUGCESTED FROGRAMES FOR THE RE-EDECTION OF THE TRILITRUM

#### AND OTHER STORES AT STOREFENGE - 1958

STACE 1 Preparatory Hork: 4 weeks - (24th February - 26th Harch)

Initial preparation of Site by Ministry of Works Direct Labour. Removal of turf, and erection of hutting to form Offices, Stores, Mess Room, Litchen, Dormitory and Ablutions in S.W. part of Working Area, with retrol and Gil store in isolation. Provision of Mater Service by extension from existing, electricity by Diesel Engine. Adapting Boundary Fence to form Works Access and erection of temporary fence to segregate Public from Works Area. Laying protective site covering of "Airstrip" over site generally, and sleepers in particular to ferm Stone Park. Breation of "Publicity" Platform for photographers etc. Arrival of Mobile Cranes with Trailer, from Boscombe Down, Ministry of Supply Depot & miles away. Fixing of Protective Coverings to Stones Nos, 23, 21 and 69.

#### STACE 2 Removal of Stones generally; 5 weeks - (24th March - 28th April)

The removal of Stones Hos. 42, 120 122(2 pieces) and 41 by mobile Lorain Crane, followed by the removal of Mos. 19, 22 and 158 by the large Curran Grane and Trailer. Stones Mos. 19, 42, 120 and 41 being removed to give adequate working space for movement of Granes and Trailer.

The Archaeologists to commence excavating on Mist March to release Stone No. 22 and follow on to excevate the sites of Hos. 57 and 58.

The proparation for and removal of Stones Bos. 57. 70 and 58.

Works of repair of Stone No. 122 will go on concurrently with the foregoing on the Site and in the Stone Fark wherever most convenient and with the formation of plaster casts as necessary of Nos. 57, 58 and 158 to facilitate correct alignment upon re-erection. One week has been allowed at this stage for eventualities.

STAGE 3 Re-instances of Stones: 6 weeks - (28th April - 9th June)

Preparation of holes, provision of corsetting, packing etc. Re-instatement of Stones Nos. 70, 58 and 57. (Nos. 58 and 57 in positions given by Archaeologists ), and the No. 158, Lintel Stone, to complete the re-instatement of the Trilithon. Removal of Protection and making upright Stone No. 21, and the re-instatement of Stone No. 22 in position given by Archaeologists and the placing of No. 122, Lintel Stone repaired, to complete the outer circle Trilithon. The re-instatement of Stones Nos. 41, 120, 19 and 42. Removal of Protective coverings from Stones Nos 69 and 23. Return of Granes and Trailer to Ministry of Supply.

STACE & Completion; 2 weeks - (9th June - 21st June)

Remove plant, butting etc., surplus materials, out back and make good to water zervice, make good boundary fencing and remove temporary fencing. Remove ground protection and prepare surface for and re-lay turves. Leave site perfect.

> T. A. BAILEY Senior Architect Ancient Menuments Branch

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# MONSTRY OF WORKS PRESS NOTICE

P ess Office: Reliance 7611

MOW 14

#### STONEHENCE RE-ERECTION OF TRILITHON

The Ministry of Works is preparing to re-erect a trilithon at Stonehenge. This consists of three large stones - two uprights with a lintel across the top: Nos. 57, 58 and 158 on the attached diagram. In addition, three stones in the Outer Circle (Nos. 21, 22 and 122) are to be replaced. All the stones concerned are in the western half of Stonehenge. The big trilithon fell towards the end of the 18th century; the Outer Circle stones fell in 1900. The work is expected to take from three to four months.

Stonehenge was extensively excavated about thirty years ago. Recently, a further series of small excavations has been carried out under the supervision of Professor Stuart Piggott of Edinburgh University, Mr. R.J.C. Atkinson and the late Dr. J.F.S. Stone, who also made a detailed survey of the whole monument. As a result, proposals were considered by the Society of Antiquaries including a suggestion that a number of fallen stones should be re-erected.

The recommendations by the Society of Antiquaries were considered in 1954 by the Ancient Monuments Board for England, which advises the Minister of Works on ancient monuments matters. In general, the Board endorsed the Ministry's policy of preserving the stones in their existing positions. As it is possible that the present state of Stonehenge was partially the result of deliberate destruction at some unknown date the Board considered this a strong reason for leaving the stones as they were, as indicating their history. The stones now to be re-erected are, however, known to have fallen in recent centuries, and their positions before they fell are known from photographs or drawings. The Board therefore recommended their re-erection.

The most important reason for this operation is that one of the stones (No.57) of the trilithon has on its surface one of the mysterious carvings recently detected on stones at Stonehenge, and it is important to save this carving from obliteration by the footsteps of people walking across the fallen stone.

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The stones involved weight up to 45 tons each, and their re-erection is a delicate engineering operation. It is the direct responsibility of the Ministry's erchitects in charge of ancient monuments, assisted by the Ministry's engineers. The programme of operations has been worked out in full detail, and a summary of it is attached. Archaeological supervision is being given by Professor Stuart Piggott (as recommended by the Ancient Monuments Board) and Mr. R.J.C. Atkinson. The opportunity will be taken to carry out research excavations by a team of student volunteers wherever stones are removed and the soil around and beneath stones is disturbed.

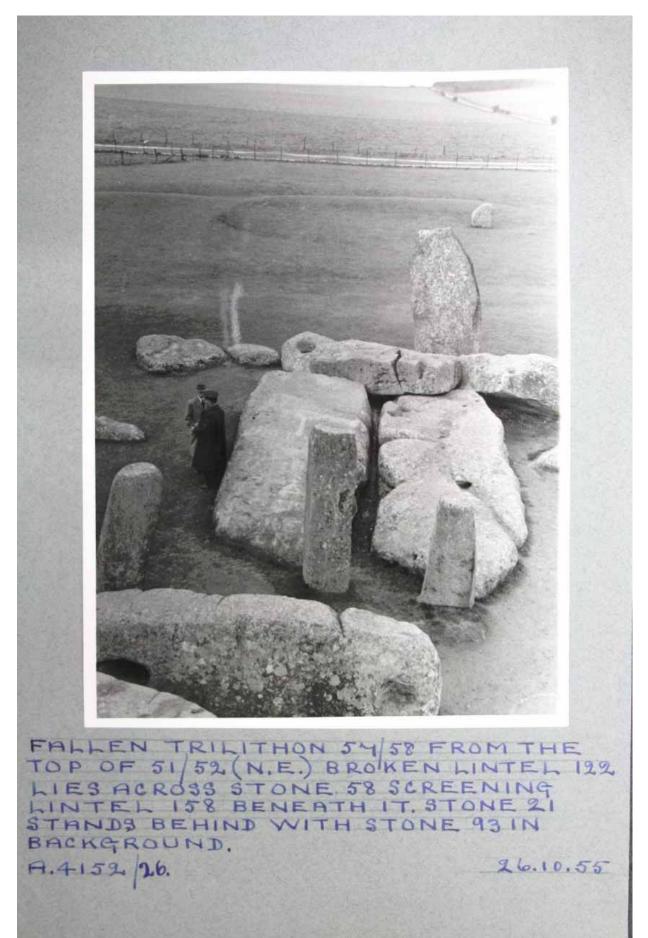
The number of visitors to Stonehenge each year is over 200,000. It is not expected that it will be necessary to close Stonehenge completely while the stones are being re-erected, but the working area will be fenced off.

25th February, 1958.

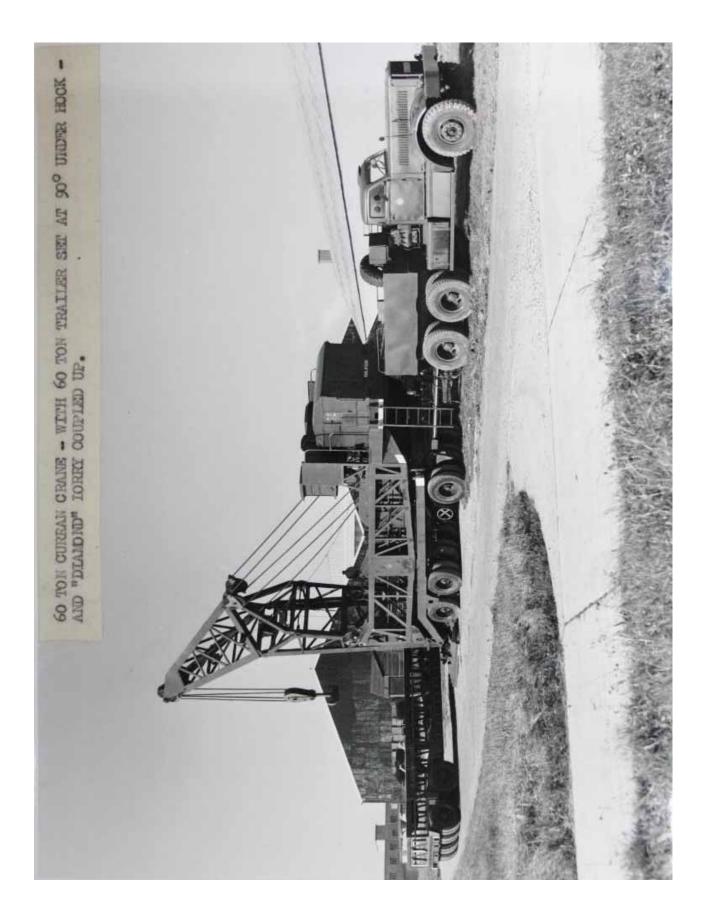
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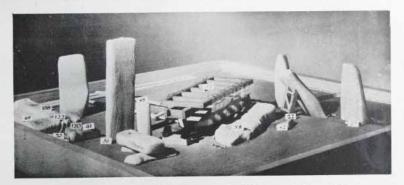


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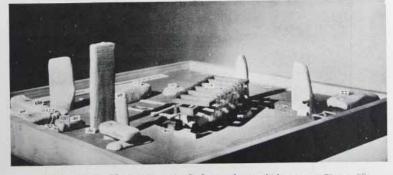




No. 1 The Fallen Trilithon as it exists today.



No. 2 Steel Lifting Frame in Position over Stone 57.



No. 3 Stone 57 moved. Steel frame in position over Stone 58.



No. 4 The re-erected Trilithon and outer circle stones.



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