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 Caroline Wilby
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Welcome

From 2006 to 2009 the site of the Old Marulan township, in the NSW Southern Highlands, was investigated as part of the environmental assessment and compliance process for the development of a new hard rock quarry near the town. This development, by Holcim (Australia) Pty Ltd, formerly CEMEX Australia Pty Limited, would result in some impact to the site of the former town, which was recognised as being a place of high state heritage significance. The archaeological works were aimed at establishing exactly what was there and how any impacts to the archaeology or the site's significance should be mitigated. As a result, archaeologists undertook survey, recording and detailed archaeological excavation on the site of Marulan. These volumes collate the information together into a single series of volumes, so that the town's contribution to Australian history can be better understood.

This is **Volume 3 - Old Marulan 2007 — Archival recording**. It presents the pictorial and graphic archival documentation required of a series of elements within the Lynwood project development area.

The other volumes in the series are:

Volume 1 Old Marulan 2007 – Overview and Summary of the Archaeological Program

Volume 2 Old Marulan 2007 – Archaeological investigations final report

Volume 4 Old Marulan 2007 - Specialist Reports

Volume 5 Old Marulan 2007 – Appendices [several parts]

Volume 6 Old Marulan 2007 – Electronic data [provided at back of Volume 1]

Some of this material has also appeared in earlier stage reports. The information previously presented formed the basis of the present volumes but in some instances this has been substantially updated and revised. The present volumes supersede all earlier volumes where there is any conflict in data or interpretation.

The investigation of Old Marulan has been a major archaeological investigation. We welcome your feedback on these volumes, the information in them and anything else that you can add. Feel free to contact me at the email address below if you would like to share views or information.

Authorship

This volume was primarily written by Denis Gojak of Banksia Heritage + Archaeology, who acted as the Excavation Director and Principal Archaeologist for the work and has been finalised by Umwelt [Australia] Pty Ltd [Umwelt] on behalf of Holcim.

Even though I take responsibility for the overall performance of the archaeological work and the conclusions presented in this report, this has relied on the support of many people through all stages of the work. These are listed below in the acknowledgements. In particular Tim Adams, Jan Wilson and John Merrell of Umwelt contributed with detailed reading and discussion of all of the results of the archaeological work. Richard Savage, of Readymix / CEMEX / Holcim, as Project Manager of the Lynwood Quarry Development at the time of the Old Marulan archaeological project represented the client and was able to provide relevant and useful contributions to the reporting at all stages of the work. Rachel Heath [Holcim Project Manager – Aggregates] oversaw the finalisation of the reporting.

A number of specialists contributed analytical reports that were essential to understanding the site, including Jeanne Harris, Martin Gibbs, Caroline Wilby, Roy Lawrie and Mike Macphail. These are reproduced in the following volumes. I have relied on their knowledge and insights to help form my own views and interpretations of the data. I would particularly like to acknowledge Jeanne Harris's contribution to the overall understanding of the site. I have relied heavily on her detailed analysis and many discussions about what it all means.

Abbreviations

AHD Australian Height Datum, expressed in metres, used to relate all elevations

above sea level.

DMR NSW Department of Main Roads, succeeded by RTA.

HC NSW Heritage Council, established under the Heritage Act 1977,

determines matters of state heritage significance.

HB Heritage Branch, now Heritage Division; part of the NSW Office of

Environment and Heritage [OEH].

MIC Minimum item count of artefacts

OM7 Old Marulan 2007 Archaeological Project

PCO Permanent conservation order issued under the NSW Heritage Act

RMS Roads and Maritime Services [formerly NSW Roads and Traffic Authority

[RTA]]

SHR State Heritage Register

SRNSW State Records of New South Wales, formerly Archives Office of NSW

TPW Transfer printed ware ceramic, such as Willow pattern

Acknowledgements

No archaeological project, however small, can be carried out from an office as modest as the one Banksia Heritage occupies, without the assistance of many other people who contributed their labour, dedication and ideas to the task. I would therefore like to acknowledge and thank the following people and organisations for their involvement in this project over a considerable period. If any names are omitted it is my oversight and I would welcome this being brought to my attention.

Holcim (Australia] Pty Ltd [Holcim] – and earlier as CEMEX Australia Pty Limited, and Readymix / Rinker Pty Ltd prior to CEMEX – are the clients for the archaeological work. Their representative and project manager for the Lynwood Quarry development since the beginning of my involvement has been Richard Savage. I would particularly like to recognise Richard's willingness to support the archaeological work and its aim of doing things properly and in the spirit of best practice, and his active participation throughout the archaeological excavation. Richard was always encouraging and ready to provide assistance to the project and the field teams.

Umwelt [Australia] Pty Ltd [Umwelt] – were the lead environmental consultants and their staff was closely involved in all stages of the archaeological work. It would not be unfair to single out Mary Jean Sutton in the initial stages of the project for her encouragement, and, during the main digging season and afterwards, Tim Adams for assistance in direction and management and in making it so very much easier to do my job without hindrance. The full roster of participants from Umwelt worked in a range of capacities. They are:

Tim Adams – Assistant Excavation Director
Jill Ford
John Merrell
Meaghan Russell
Sue Singleton [formerly Umwelt]
Mary-Jean Sutton
Julian Travaglia
Jan Wilson

Old Marulan 2007 archaeological field team

Tim Adams Jeanne Harris
Alice Beale Kathy Kengike
Justin Boney Vaimoana Kengike

Jason Brown Mirani Litster Nathan Brown James McGuiness Sharon Brown Jack McIlroy Tom Brown Rebecca Parkes Sarah Peislev Virginia Falk Alecx Falk **Daniel Rayner** Peter Falk Mary-Jean Sutton Christine Gant-Thompson Jenny Winnett **Anita Yousif** Denis Gojak

Sharyn Halls

Volunteers

Geraldine Berkemeier Daphne Gooley

Aboriginal stakeholder participants

Gundungara Aboriginal Heritage Association Incorporated Gundungarra Tribal Council Aboriginal Corporation Pejar Local Aboriginal Land Council Peter Falk Consultancy

Marulan and District Historical Society

The Marulan and District Historical Society worked closely with us in all stages of the work, being frequent visitors, caterers and thoughtful questioners of our findings. Their welcoming attitude to these strangers coming in to investigate their past made our task so much easier.

Maureen Eddy
Russell Montgomery - President
Sue Montgomery - Secretary
Lorna Parr
Rosemary Turner - Vice President
John Feltham, also lessee of the land on which we worked

Banksia Heritage + Archaeology

Angela So Jenny Winnett

Specialists

Tom Bryant, Goulburn
Martin Gibbs, Department of Historical Archaeology, University of Sydney
Jeanne Harris, Urban Analysts
Roy Lawrie, NSW Dept of Agriculture
Phillip Leighton-Daly, Goulburn
Mike Macphail, Australian National University
Caroline Wilby

Heritage Branch, Office of Environment and Heritage

Siobhan Lavelle Fiona Leslie Katrina Stankowski

Others who helped us in many ways

Russell Cooper Helen Dawson Christine McGilly

Conventions

Archaeology In this report series refers to non-indigenous 'European' archaeological evidence and artefacts, except where specifically stated. A separate Aboriginal archaeological investigation program examined the site and the surrounding region.

Features/squares/trenches/units These are all different ways of dividing up the site into analytical components. Some are 'natural', ie they exist independently of the archaeological process, while others are arbitrary. The archaeological site consists of natural layers of soil, deposits created by humans, such as introduced fills, dumps, post hole cuts and fills and structural evidence such as footings, building demolition material and constructed surfaces. These are termed units, and are numbered consecutively from [01] onwards. The convention is that they are written in square brackets and drawn within a circle in documentation. Different units can be part of the same object or thing, such as a dozen separate post holes, refuse layers and footings being part of the same building. These groupings are called features and usually represent objects or constructions that are described in functional terms that ideally are the same as those of the people who created them, such as a hut, drainage line or fence. Features are given an OMF numbering. To provide spatial control, so that all artefacts recovered could be accurately described and related to each other, hand excavation took place within squares, usually measuring 2 x 2 metres.

Gundungurra/Gandangara The spelling of this language group name varies according to different historical sources and these variations persist to the present, including in the names of organisations. Gundungurra is used in this report, except where spelled differently in quotations, to refer to the language and as a collective name for its speakers. This extends from the Nepean to Goulburn and towards Bathurst.

Heritage Office/Branch/Division The NSW Heritage Office was part of the NSW Department of Planning until it was re-established as a separate agency, which made most of the decisions concerning Marulan reported here. It was then merged again into the Department of Planning, as the Heritage Branch. It is now the Heritage Division; part of the NSW Office of Environment and Heritage. The terms are effectively interchangeable, but Heritage Branch [HB] is used as the general term.

Holcim

The Lynwood Quarry project was initiated by Readymix Pty Ltd, part of the Rinker Group. Readymix remains the name most commonly associated with the development and will probably continue so for some time. In 2007 Rinker was taken over by CEMEX Australia Pty Limited [CEMEX]. In 2009 CEMEX sold its Australian operations, with the company name changing to Holcim (Australia) Pty Ltd. Holcim is used in this report in most contexts to refer to the client and their activities through the duration of the work, including those undertaken by Readymix and CEMEX prior to the change in company name.

Marulan

Generally refers to the original town until 1870, and then the later town, but 'Old Marulan' and 'new Marulan' are used where it is not clear from the immediate context which of the towns is being discussed.

Orientation Old Marulan straddles the Hume Highway. Although this section of the road runs approximately northeast-southwest, the sides will be distinguished as the northern [Holcim development] and southern [Illawarra escarpment] sides in this report, unless required by the specific context. The eastern end of the former town is therefore that part nearest to new Marulan and the western end is nearest to Goulburn. Lots alongside the road are described as being to the east or west of each other consistently with this usage.

The archaeological excavation is based on a grid that is also oriented in the same way, with north towards the Holcim Lynwood quarry development.

The site

Generally used to mean the potential area of impact from the Holcim development works, i.e. the northern margin of the Hume Highway and the hinterland where the quarry and its infrastructure will be located, and its immediate margins. This includes an area that falls mainly inside the town allotments and SHR boundary, but also some land that falls outside.

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1.0 An overview of the volume

Development for Lynwood Quarry was granted in 2005. As part of the construction and operation of the project potential impacts to a number of potential heritage items/sites were identified. As a result these items/sites were photographically recorded in accordance with Heritage Branch guidelines *Photographic Recording of Heritage Items Using Film or Digital Capture* [2006].

This report comprises the photographic archival recording of the impacted sites.

The sites identified during the initial 2005 EIS archaeological survey and subsequently recommended for archival recording were:

- MRNH 1 Circular sheep dip
- MRNH 4 Stone line
- MRNH 5 Lynwood Homestead
- MRNH 6 Brick clamps
- MRNH 7 Clay pits
- MRNH 8 Timber-lined well
- MRNH 9 Sheep dip

MRNH 1 and MRNH 8 are located within the Old Marulan SHR boundary, but the other elements are outside.

Further examination of MRNH 4 in 2007 showed it to have been a natural feature and as such it is not further documented as part of this report series.

All of the sites, with the likely exception of MRNH 8, reflect the later rural heritage of the district, following the demise of Old Marulan. The consideration of these elements, including MRNH 8 where appropriate, forms a coherent story of the rural backdrop to Marulan as a small town and complement its own historical development. Therefore a contextual history that is broadly applicable to all of the sites is provided in this volume.

Archival recording was carried out in accordance with the current NSW Heritage Branch Standards for Archival recording of heritage items.

Two items within the SHR boundary were identified as requiring conservation works:

- MRNH 1 the circular sheep-dip was damaged by farm machinery prior to the commencement of the Lynwood Quarry development Project and this archaeological investigation. The project committed to the Heritage Branch to stabilise the structure. It has now been archivally recorded, and a specification for the stabilisation and protection during development works has been implemented [refer to Volume 1 Attachments 6 and 10 of this report series].
- MRNH 8 the timber-lined well is in the location of a maintenance road beside the southbound up-ramp of the interchange. A specification was prepared and endorsed by the Heritage Branch, detailing how the well was to be documented, then backfilled prior to construction of the interchange [refer to Volume 1 Attachments 7 and 9 of this report series]. The recording and in situ conservation of the well, through careful filling and burial, have been undertaken.

Note that although not one of the sites recommended for archival recording, photographs of OMF 46 [the Woolpack Inn cesspit] have been included in this report as a record of the cesspit prior to it being protected and buried [refer to Section 4.6]. The cesspit was the only structural element of the Woolpack Inn that fell within the Old Marulan SHR area excavated during the Old Marulan 2007 archaeological investigation.



2.0 Archival recording – statutory requirements

2.1. Heritage Branch guidelines

The NSW Heritage Branch has issued *How to prepare archival recordings of heritage items* [1998 – 3rd edition] and *Photographic Recording of Heritage Items Using Film or Digital Capture* [2006], which set out the requirements for recording items of different type and level of significance.

The guidelines suggest typical contents for an archival record. In this volume this is arranged as follows, with some additional information being available in other volumes in the Old Marulan 2007 series.

Where to find the components of the archival recording		
Title page with subject client author	This volume - Title page	
Statement on why the record was made	Section 1	
Statement of approach	Section 2	
Outline history of all elements	Section 3 – as an overview history relating to all elements	
Outline history of individual elements	Section 4 – see individual elements	
Statement of cultural significance	Section 4 – see individual elements	
Inventory of archival documents	Section 4 – see individual elements	
Base plans and measured drawings	Section 4 – see individual elements	
Photographic catalogue record	Section 4 – see individual elements	
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Photographic record	Appendix 1	

2.2. Level of recording

The Heritage Branch guidelines use the item's heritage significance to determine the level of recording.

Item no	Item	Significance	Recording undertaken	See section
MRNH 1	Circular sheep dip	Local significance - within SHR boundary	Measured drawing Digital photography	Section 4.1
MRNH 4	Stone line	Re-assessed as a natural feature – no further documentation	-	-
MRNH 5	Lynwood Homestead	Local significance - overall farm paddock layout - old farm residence [location] - meat house - pise shed - woolshed - sheep yards - archaeological remains - plantings	Measured drawing Digital photography	Section 4.2

Item no	Item	Significance	Recording undertaken	See section
		No significance - old farm residence [fabric] - fencing - new residences - farm buildings excluding those above	No recording	-
MRNH 6	Brick clamps	Local significance	Measured drawing Digital photography Sample collection	Section 4.3
MRNH 7	Clay pits	Local significance	Measured drawing Digital photography	Section 4.3
MRNH 8	Timber-lined well	State significance - within SHR boundary	Measured drawing Digital photography	Section 4.4
MRNH 9	Sheep dip	Local significance	Measured drawing Digital photography	Section 4.5

2.3. Conduct of the archival recording

The archival recording was undertaken as part of the Old Marulan archaeological project.

All features to be recorded were visited and their curtilages identified. This was checked against historical records to ensure that no further associated features should be also located and mapped. Broadly, for 'isolated' features that were located in paddocks a pedestrian survey explored an area of about 500 metres radius to ensure no further associated features were present.

With the exception of two areas at the Lynwood Homestead Site [MRNH5] where potential archaeological remains were identified during initial site recording [refer to Section 4.2.7] features were mapped 'as is', i.e. without removal of any vegetation or other material, including fill in the case of the well and sheep dips.

All features were measured and drawn to scale in the field, to ensure that recording was comprehensive and accurate.

Photography was undertaken using digital cameras [Canon EOS 400D] with a range of lenses. In general archival photographs were taken in RAW format and are saved as CR2 files [Canon proprietary RAW format] as well as JPG format thumbnail files. Average file size for the RAW images is about 11-14 MB.

All archival record photographs in this report were taken by Denis Gojak [Director, Banksia Heritage + Archaeology] with the exception of the photographs of the minor archaeological investigation works at Lynwood Homestead [refer to Section 4.2.7 and photograph numbers MH5_76 to 104] which were taken by Tim Adams [Umwelt].

The main scale used in all recordings is an extended 4 metre surveyor stadia rod, unless specified in photographic catalogue. Intervals are either black, white or red and measure 1 centimetre, with numerals at 10 centimetre intervals, and a change in marking colour and placement every metre.

2.4. Archival record reporting

This report comprises a report detailing background information, methodology, discussion of each element recorded and measured drawings.

Each entry in Section 4 of this report relates to a single site containing one or more elements. In the case of MRNH 5 Lynwood Homestead there are a number of discrete elements of significance that have been recorded, while others, including modern farm buildings, are not further recorded. The recording for MRNH 6 – Brick clamps and MRNH 7 – Clay pits are combined because they are functionally related.

Each site record includes location and descriptive information, further specific site history as required and an interpretation of the evidence. This is followed by an assessment of significance, using the NSW State Heritage Register [SHR] criteria and a brief statement of heritage significance. Finally the archival recordings – plans and photographic catalogue are detailed, including any cross-referencing of photographs to specific locations.

The photograph numbers in the photographic catalogue correspond to the site identifier of Marulan Historical with site number [MRNH#] established during the preparation of the 2005 EIS. To ensure entire photograph numbers are printed on the reverse of the photographs the MRNH site identifier has been shortened to MH. Thus for the purpose of this archival recording photograph number MH1_01 corresponds to the first photograph of MRNH1 etc.

The only exception to this photographic numbering sequence are the photographs of OMF 46 [the Woolpack Inn cesspit] which has an OMF [Old Marulan Feature] number rather than an MRNH number. The photographs of OMF 46 are numbered OM46_01 etc.

Appendix 1 comprises the photographic archival record. Photographic prints have been printed on Fujicolor Crystal Archive Paper with Fuji Frontier digital minilab and Fuji washless chemicals and are stored in archival polypropylene sleeves. The photographic report and photographic materials are stored in an archival folder.

The photographic archival record [Appendix 1] includes:

- one full set of archival 6" x 4" colour prints, numbered on the reverse and processed with archivally stable inks on archivally acceptable photographic paper, in copy of reports for Holcim and the Heritage Branch;
- one set of photocopies of full set of colour prints in copies of report for the Marulan District Historical Society and Goulburn-Mulwaree Council – Local Studies Library (for public access); and
- one DVD with copies of all of the above.



3.0 The regional historical context

3.1. The development area

The Lynwood quarry and processing plant lie 4 kilometres due west of the current township of Marulan. An access road built specifically for the quarry accesses a new interchange on the Hume Highway, several kilometres south of the town, at the Jerara Road turnoff and passes through the site of the original Marulan Township.

The location of Marulan and Lynwood is shown in Figure 3.1, and the development area in Figure 3.2.

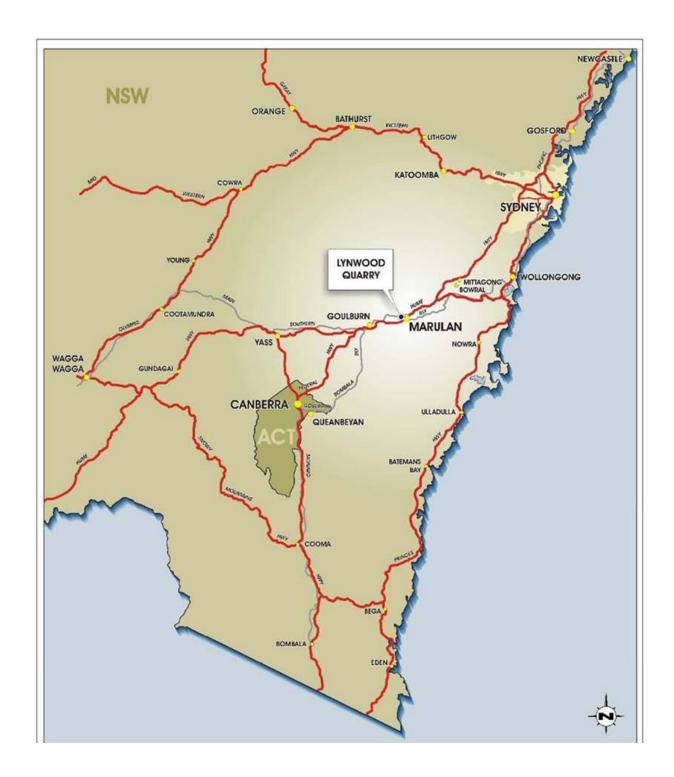


Figure 3.1 - The location of Marulan [Umwelt].

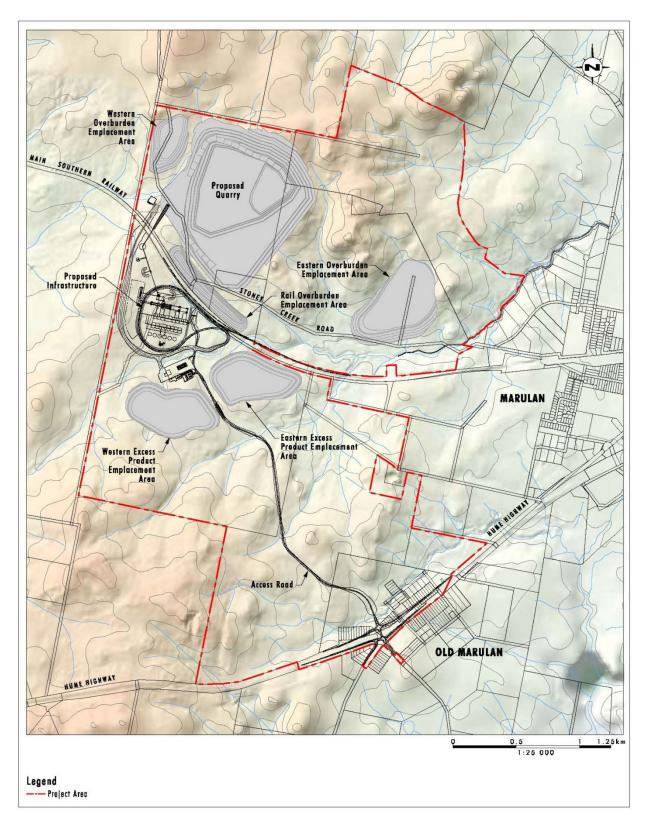


Figure 3.2 - The proposed Lynwood development [Umwelt]

Apart from the original and new Marulan towns [refer to Volume 2 of this report series for a detailed historical context of Marulan], and the railway line, the remainder of the area has been used for grazing since the arrival of the first Europeans here in the mid-1820s. All of the archival items documented in this report, with the exception of MRNH 8 [the timber lined well] and OMF 46 [the Woolpack Inn cesspit], relate to the rural history of Marulan and especially to that part post-dating the arrival of the railways.

3.2. Nineteenth century pastoralism centred on Marulan

The need to expand the colony's pastoral production was the impetus for Governor Macquarie permitting grazing to take place beyond the Nepean River and the previously quarantined Cowpastures [Perry 1963]. The New Country as it was called, to the southwest, had been probed in a series of expeditions, particularly by Throsby and Meehan, seeking an easier route to Bathurst than that across the Blue Mountains. The land they found was as good as any the western crossing offered, and Macquarie agreed, following his own tour of inspection.

The first licenses issued that allowed pastoralists to take cattle to graze beyond the frontier were issued in 1820. Initially these were general licenses, but soon were able to be more specific as to their location after initial surveys and naming of the major features of the landscape. The early history of land settlement prior to the establishment of the town of Marulan in the mid 1830s and the formation of the Great South Road is dealt with more extensively in Volume 2 of this report series, but the key dates are:

1819	Hannibal Macarthur commences grazing at Arthursleigh	
1820	Route from Sydney via later towns of Bong Bong and Sutton Forest surveyed	
1820	Macquarie approves grazing licences for the 'New Country'	
1820s	Series of grants taken up around Marulan	

The main land holders and estates established in the vicinity of Marulan are:

Land Holder	Estate
Edmund Lockyer	Lockyersleigh
George Barber	Glenrock
Hannibal Macarthur	Arthursleigh
Robert Howe	Advance Australia
Robert Futter	Lumley
David Reid	Inverary Park

Smaller grants were also made to Stuckey [or Stucky], Joseph Peters who later became the main landholder and publican at Marulan, Howell and Jamison.

Although more land was taken up during the late 1820s and into the 1830s, much of the land around Marulan was quite rugged and almost impassable in many places. That and the proximity of the vast treeless plains a bit further south meant that the land was never intensively taken up.

From the mid 1820s travel to the south was not for land in the locality but to squat upon the extensive grassland plains beyond the margins of government in the Monaro and the Murrumbidgee. The road route from the Nepean was poorly located and involved unnecessary water crossings. Surveyor-General Mitchell surveyed the route of a new road – the Great South Road – with a fixed line as far as the site of Marulan, at which point the route divided. At the time he was uncertain whether the trend of future settlement would favour the top of the coastal escarpment, with a line running through Bungonia, or inland via Goulburn. The latter proved to be the more significant route.

Marulan was established as a small town at the junction where the route branched, and initially had one pub – Joseph Peters' Woolpack Inn. Through time it grew slightly, but never became more than a transit point for travellers headed somewhere else. It maintained this role until the Main Southern Railway was built.

Early pastoralism in the Southern Highlands and beyond was predicated on a labour supply of large numbers of convicts and ticket-of-leavers and a high degree of selfsufficiency. Accounts of the early pastoral period refer to the farms as being like small villages, which was reinforced by the way that many of the landowners considered themselves to be rural gentry, with the convicts and free labour force as their subjects. By the early 1840s convict transportation to NSW had effectively ended, and the whole economic basis of farming was undermined. Now travellers through this part of NSW talked about how the older farms looked like villages that were essentially abandoned The new farmers ran much smaller establishments, although through selective stock breeding and other management practices they were able to make much better use of their land. They were assisted by a rural working class that had previously been almost non-existent. The large numbers of free workers, including many former convicts who had finished their terms or received pardons, became the nucleus of small villages like Marulan and Bungonia, and larger towns like Goulburn. They sold their services and skills to the farmers, and also created a broader commercial class, consisting of specialisations such as carrying, timber-cutting and milling, brick-making, butchery and so on that had previously been done by members of the convict workforce who may or may not have known what they were doing.

Around Marulan the early large grants were followed by smaller ones, often to the same main landholders. However, the grants did not take up all of the land as they did further south around Goulburn. Large tracts remained forested, and there was much trap rock country, consisting of rises and exposures of igneous rock. In the east the Shoalhaven and its tributaries were effectively impassable, and the Cookbundon Ranges

also formed a solid barrier to travel¹. The area between Sutton Forest and the Goulburn plains was therefore less attractive to squatters, who also had more opportunities to obtain land in the open forests of the Murrumbidgee and grasslands of the Monaro. In doing so they moved outside the settled districts and became squatters, in the original sense of occupying land without any legal rights. By the 1840s the squatters had turned into the main moneyed class within colonial society and the key pressure group for social and political reform. Although outside the story of Lynwood and Marulan's pastoral history, the power of the squatters and landed pastoralists was to figure importantly in the main historical trends of the 19th century.

The next change in the pastoral landscape came with the gradual release of smaller blocks of land in response to the enhanced migration caused by the gold rushes. In 1857 the government sought to create 61 new farms around Marulan aimed at small-holders. These are shown on a map held in the National Library of Australia, part of which is shown in Figure 3.3. Where purchasers are known from later parish maps it appears that the majority were bought either by established local land owner families or others of substantial means looking to build up their property in this area. Very little of the land is likely to have passed on to new settlers.

This land release predates the much more extensive program of offering land that is generally referred to as the Robertson Land Acts of 1861. These were intended to expand the rural economy by allowing for small landholders to select land without prior survey and to be given a period of time before they needed to pay for it. This was the intention but, as with the 1857 land release around Marulan, good land was very attractive to established land owners, who used a number of methods to by-pass the intent of the laws and to gain control of contiguous parcels of good quality land.

During the second half of the 19th century the greatest change in the region around Marulan came with the railways. Observers spoke about their impact upon the little villages like Marulan which were bypassed and died. The transport of rural produce was transformed. The route of the Main Southern Railway had been argued about since the 1840s, with Thomas Woore and Thomas Mitchell proposing very different alignments. Woore's route, which was close to the one eventually chosen, largely avoided most of the established settlements. Mitchell felt that the most effective route through the Southern Highlands had been the one that he had already chosen for his road, so his route followed the Great Southern Road closely.

The eventual route is likely to have been influenced in some part by John Morrice, local member and significant land holder to the northeast of Marulan. The railway ran through his property and he owned the land that was given over to the construction of the railhead at Mooroowoollen in 1865, and which was the genesis of the new Marulan. Mooroowoollen formed the railhead until the terminal station at Goulburn was opened in 1867.

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¹ Even so the first route surveyed by Meehan and Throsby crossed the Cookbundon Range, as the intention was to provide an alternative route to Bathurst from the south.

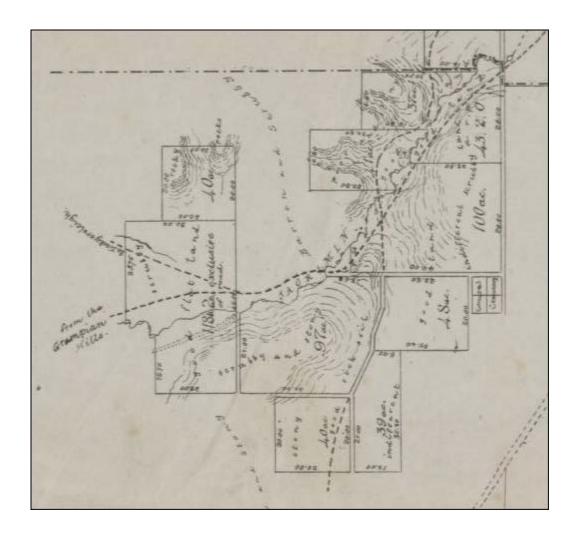


Figure 3.3 - 1857 map of rural lots for sale [National Library of Australia Map F832].

At the site of the former town of Marulan blocks were bought and consolidated, being turned back into paddocks. Following 1885 the majority of old town blocks come into the ownership of Feltham, Wells and members of the Riley family. Most of the land in the development area was owned by the Felthams immediately before its purchase by Holcim. The only substantial new use came from the establishment of lime burning in the town limits by Mr Hogg and his two sons, John and James. Hogg had lime kilns at Parramatta, using limestone from Mudgee and elsewhere and was obviously interested in another source of limestone accessible by rail. Once the railway reached Marulan Hogg lived in one of the abandoned hotels, either the Freemasons Tavern or the Golden Fleece.

By 1900 the only residents listed in Old Marulan were John and James Hogg. John was listed as a potato grower and James as a grazier. The kilns in town may have ceased operation by then, but this is not clear. There are many later references to lime burning at Marulan, but these may all refer to work at South Marulan itself, which connected directly to the Main Southern Railway with a branch railway line.

3.3. Site-specific additional historical information

The sites discussed in this volume can be grouped as follows:

Sites directly associated with Lynwood Homestead and local rural activity

- MRNH 1 Circular sheep dip
- MRNH 5 Lynwood Homestead
- MRNH 9 Sheep dip

Sites associated with the construction of the railway – original phase

- MRNH 6 Brick clamps
- MRNH 7 Clay pits

Sites associated with Old Marulan Township

MRNH 8 Timber-lined well

3.3.1. Lynwood Homestead - 1905 to present

The railway line from Mooroowoollen to Goulburn travelled in a large arc that crossed the Wollondilly River a number of times. Originally a single line, it was duplicated and made more substantial in a series of upgrades in the later 19th and early 20th centuries. It passed the future location of Lynwood homestead as it began its large southward curve. Lynwood was located on land that does not appear to have been alienated prior to 1905. It immediately adjoins the eastern edge of Howe's *Advance Australia* grant, and is bounded on the north by the railway line.

William Munday took up Lynwood in 1905. Two William Mundays are listed in 1900 at Inverell and suburban Chatswood, and one in Guyra in 1901, so our William does not necessarily seem to have been a previous local land holder. The Munday name is not mentioned for landholders or eligible voters in the previous 30 years in the district. By the 1920s it had been sold to the Thoroughgood family, who occupied it until the mid-1930s.

A plane crash is recorded as occurring in 1929, in which two men died. The exact location is not known, but the details from reports are that it took place 3 miles from Marulan station and within a few hundred yards of the railway line. This would place it close to Lynwood. When the crash took place the Thoroughgood family ran from their nearby homestead to help the men. While it cannot be confirmed it is very likely that the crash took place near the homestead.

In the 1940s Lynwood was occupied by Frederick Sieler. The Sieler family have been present at Marulan and in County Argyle since at least the 1850s and remain a major local family². Ray Loveday – a senior Sydney barrister – bought Lynwood in the 1960s as a country retreat³.

² Goulburn Evening Post 28.11.1944; p. 1

³ Radar returns: echoes from the past and present vol. 10 [2] 2005: p. 2

Lynwood Homestead [MRNH5] is discussed further in Section 4.2.

3.3.2. The Main Southern Railway construction - 1865

The construction of the railway line between Marulan and Goulburn took place from 1865 when Marulan became the rail head to the opening of the Goulburn terminus station and railway yards in 1867. The initial line was a single track, which was upgraded to a double line by 1922. In addition to the duplication the line also had a number of other track works undertaken to improve its performance, including the widening of the viaduct which was constructed for the original single line of track

On the road heading to the Lynwood Homestead are the remains of three brick clamps and the clay pits that supplied them [MRNH 6 and MRNH 7]. These probably date to the period of the extension of the railway line from Marulan to Goulburn in 1867-69, and may have been used to fire the bricks that were used in the first culverts constructed along the rail line, which is about 200 metres immediately to the south. It is known that the initial construction of the railway between Marulan and Goulburn in 1867 required contractors to manufacture bricks on site.

Other brick clamps are known from the creek immediately behind the Marulan township site and there are many small creeks running through the greater Marulan area, suggesting that there was sufficient good local clay, water and fuel to burn bricks near to where they were needed.

3.3.3. Lynwood Brick Making Site [MRNH 6 and MRNH 7]

The brick-making site, comprising three brick clamps [MRNH 6] and associated clay pits [MRNH7], is situated on land that appears to have remained unalienated until the 1850s. The clamps are located about 1.5 km east of the boundary of Robert Howe's 2560 acre grant 'Advance Australia'. Howe was the son of Robert Howe, the founder of the *Sydney Gazette* which used the motto on its masthead. To the north of Howe's grant was the main 2560 acre grant to Edmund Lockyer, which with other land in the area formed his extensive Lockyersleigh property [Figure 3.4].

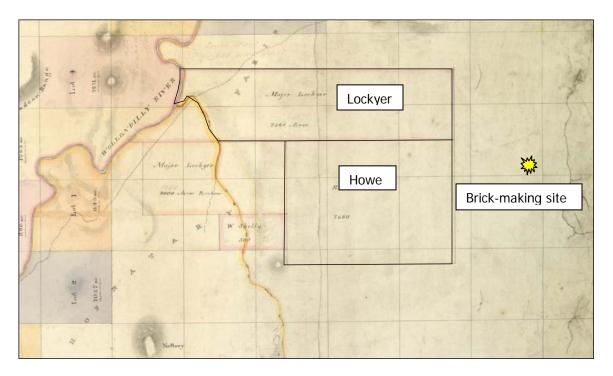


Figure 3.4 - Extract from SRNSW Map 3354, showing the grants of Howe and Lockyer, relative to the brick making site [base image SRNSW Map 3354].

The earliest detailed map depiction of this area located during the preparation of this report series comes from 1836. Surveyor Granville Stapylton mapped an alternative road route from Wingello to Towrang which effectively bypassed the town of Marulan, leading to protests from Joseph Peters, among others [Figure 3.5].

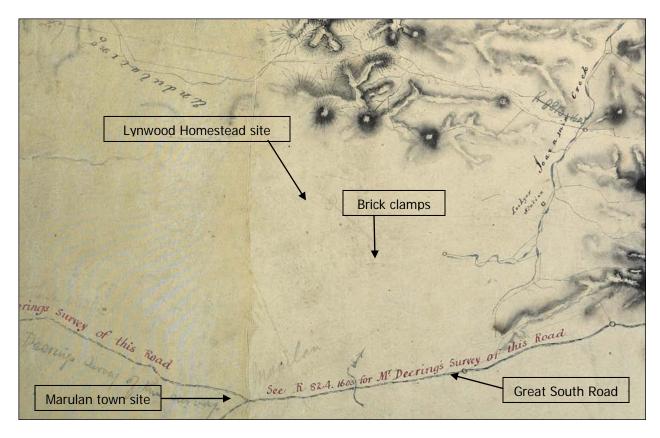


Figure 3.5 - Part of a survey plan prepared in 1836 by Surveyor Granville Stapyleton, showing the location of Old Marulan town and areas discussed in this report. [Base image – State Records NSW SR Map 5156].

Stapylton's plan shows the southern end of Jaorimin Creek [now Joarimin Creek] which was surveyed to near the site of the brick clamps MRNH 6. The only noted feature close by was a presumed building marked as 'Lockyer's station'. Interestingly this is on land that was not at that point granted, so probably refers to a temporary outstation of Lockyersleigh to manage dispersed grazing which was annually granted by license on crown land. The Woolpack Inn at Marulan would also have been under construction at this time but is not shown.

A regional map of 1857 showing farm land for sale indicates a track to the north of the brick making site [Figure 3.6]. The land was included in the proposed farming subdivision but no other improvements than tracks are recorded.

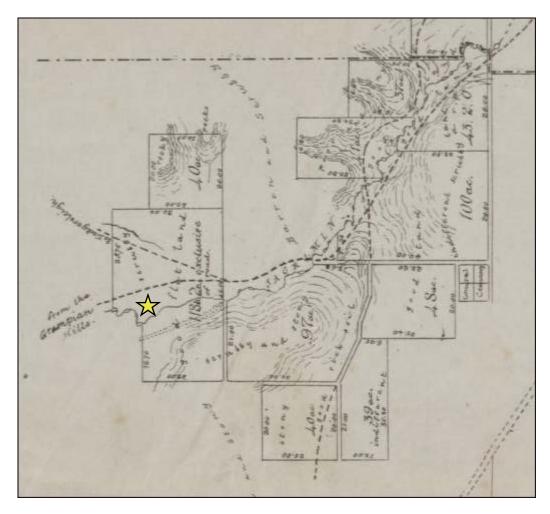


Figure 3.6 - 1857 map of rural lots for sale, showing the area of the brick making site and tracks [National Library of Australia Map F832].

The track, currently gazetted as Stony Creek Road, is shown in the 1857 map leading from Lockyersleigh and the Grampian Hills [now Rampion Hills, near Shelly's Flat]. Jaorimin Creek is also shown as having occasional ponds, recalling the common chain-of-ponds creek formation found in the Southern Highlands. As elsewhere, erosion resulting from over-grazing is believed to have resulted in this type of creek line becoming today's fast-flowing deep gully. Internal evidence on the map suggests that it was drawn following a recent survey rather than, as often happens, from much earlier mapping. As a result it is probable that both the road line and the uneroded nature of the creek reflect the actual condition of the site in 1857.

The brick making site [MRNH 6 and MRNH 7] is discussed further in Section 4.3.

3.3.4. Old Marulan Township and Timber Lined Well MRNH 8

Old Marulan was a township established in the 1830s as a stopping point on the Hume Highway. It was gradually abandoned from the mid-1860s when the Southern Railway by-passed the town and a new settlement began to develop around the rail terminus, forming the present town of Marulan. The brief flourishing of the original town for a limited period and the lack of later development prompted the NSW Government to place a permanent conservation order on the entire township site in 1981 in recognition of its high archaeological significance. When the NSW Heritage Act was amended in 1987 it became one of the founding entries on the NSW State Heritage Register [SHR].

Old Marulan was founded in the midst of a severe drought that reached its peak in 1838. As such it seems likely that water would have been an issue that was of great importance to the occupants, at least until the wetter years of the 1840s and 50s. Despite this, positive evidence of active water management being undertaken is minimal.

In the town period there is the following evidence relating to water management:

- the large stone-lined 'town dam' [MRNH 2] situated outside and to the east of the study area
- possibly the timber-lined well [MRNH8] on the southern side of the road, outside the study area, which may date to the town period
- the designation of the crown reserve as a water reserve from at least 1868
- the drainage lines which serve to control water flow and drain boggy ground; but these are likely to post-date the town.

In drought or dryer conditions the chain of ponds behind the town was unlikely to have retained much water. Being down slope of the Woolpack Inn and its stables it would probably have not remained clean for long.

The timber-lined well [MRNH8] sits in the natural collection point for drainage along the southern side of the Hume Highway and presumably the Great Southern Road before that.

The timber lined well [MRNH 8] is discussed further in Section 4.4



4.0 Archival Recording

4.1. MRNH 1 Circular sheep dip

4.1.1. Location

The circular sheep dip [MRNH 1] is located on the flood plain of the small creek that ran immediately to the north of the original township of Marulan. One contemporary source refers to it as Johanana Creek.

MRNH 1 is located near the northeastern boundary of the site, and is not within the proposed development area [Figure 4.1].

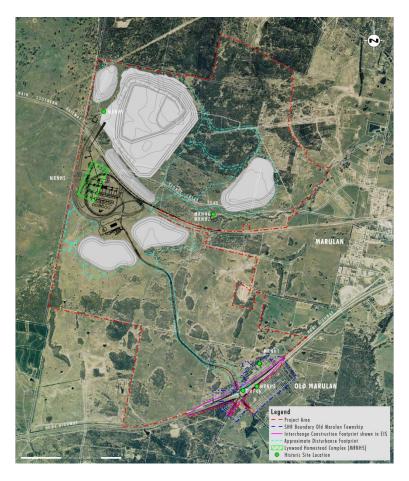


Figure 4.1 - Archaeological Sites in EIS Within the Development Area [LPI 2004, Readymix Holdings Pty Ltd].

County / Parish	Argyle / Marulan
Local Government Area	Goulburn Mulwaree
Cadastral	Lot 14 DP 196132
MGA coordinates – site centre	E 223756
	N 6152829

4.1.2. Description

In 2006 the sheep dip was identified during an ecological survey undertaken as part of the initial EIS for the Lynwood Quarry. At this stage it was intact, did not contain a significant fill deposit and was structurally sound. At some time following this the lessee of the land backfilled the sheep dip, causing some damage to the walls. This appears to have been a misguided attempt to make the site safe and to prevent agisted stock from falling into the dip. The archaeological survey for the EIS subsequently recorded the sheep dip as a heritage site.

The sheep dip consists of a squarish concrete slab measuring approximately 2.65 x 2.10 metres, which was originally surrounded by several courses of brickwork. The brick used is second hand machine-made bricks, with no evidence of Marulan-period bricks being used. The shape of the slab is most likely the result of it being formed by eye rather than accurate setting out. At ground level it appears reasonably square. The slab drains towards a channel that abuts the centre of the northern side.

The channel is approximately 0.39 to 0.45 metres wide, lined on both sides with cemented recycled bricks. The channel continues for 3.80 metres, ending in a circular washing chamber that is 1.55 to 1.90 metres in diameter. Its original depth was about 1.10 metres based on photographic evidence. The floor of the channel drops in a steep even slope to feed the sheep into the washing chamber.

The sheep dip is built immediately beside the current roadway leading from a nearby farm house along the southern side of the creek, towards the old town site. It is approximately 40 metres from the current creek bank and 35 metres from a shallow dam. Near the sheep dip site and probably associated with it are:

- a large metal cauldron
- a timber gate lying on the ground
- scatters of brick

The damage to the structure was likely caused by fill that has been poured into the channel and washing chamber, bringing them up to near ground level. The fill consists of a mixture of clean soil fill, broken brick fragments and natural stone.

Several edges of the structure have been cracked and dislodged in the damage.

4.1.3. Interpretation

MRNH 1 is an unusual surviving circular sheep dip that is located within the SHR boundary of the Marulan township site. It dates to a later period than the township, for which the Marulan town site received its SHR listing, but is considered to be part of the broader area's rural heritage.

Sheep dips are common on pastoral properties and a routine part of flock management. MRNH 1 likely dates to the early 1900s and comprises a form of sheep dip which has been replaced by other methods and designs.

The land where the dip is located has long been associated with the Feltham family who first came into the area in the 1850s.

4.1.4. Assessment of heritage significance

4.1.4.1 Criterion A

A an item is important in the course, or pattern, of NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion	
 shows evidence of a significant human activity is associated with a significant activity or historical phase maintains or shows the continuity of a historical process or activity 	connections with historically important activities or processes • provides evidence of activities or processes that are of dubious historical importance • has been so altered that it can no	
	longer provide evidence of a particular association	

Sheep dipping is a routine part of flock management. While the history of the local area relates to pastoralism, this activity has to be considered as an incidental aspect of this historical land use.

The criterion is not met.

4.1.4.2 Criterion B

B an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history

Guidelines for exclusion	
has incidental or unsubstantiated connections with historically important people or events provides evidence of people or events that are of dubious historical importance has been so altered that it can no longer provide evidence of a particular association	
C F F t I	

Association with the Feltham family is discussed below [criterion D]. The site is not associated with any significant person in local or state history.

This criterion is not met.

4.1.4.3 Criterion C

an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW

Guidelines for inclusion Guidelines for exclusion	
shows or is associated with, creative or technical innovation or achievement	 is not a major work by an important designer or artist has lost its design or technical integrity its positive visual or sensory appeal or landmark and scenic qualities have been more than temporarily degraded
• exemplifies a particular taste, style or	has only a loose association with a
technology	creative or technical achievement

The sheep dip has been damaged. Although the surviving brick component has been repaired it remains no longer complete, as yards and superstructure would have been an integral part of its operation.

This criterion is not met.

4.1.4.4 Criterion D

B an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion	
 shows evidence of a significant human occupation is associated with a significant event, person, or group of persons 	connections with historically important	

The land where the sheep dip is located has been associated with the Feltham family. The first members of the family came into the area in the 1850s. They are a locally significant family name.

This criterion is met at a local level for association with the Feltham family.

4.1.4.5 Criterion E

E an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history

Guidelines for inclusion Guidelines for exclusion	
 has the potential to yield new or further substantial scientific and/or archaeological information is an important benchmark or reference site or type 	 has little archaeological or research potential only contains information that is readily available from other resources or archaeological sites
provides evidence of past human cultures that is unavailable elsewhere	

The sheep dip, and the surrounding area which may retain evidence of yards and fencing, can provide additional information on flock management and farming practices that have not been otherwise well-documented in the case of Marulan for the early 20th century.

This criterion is met at a local level.

4.1.4.6 Criterion F

F an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history

Gui	delines for inclusion	Guidelines for exclusion
•	provides evidence of a defunct custom,	
	way of life or process	is numerous but under threat
•	demonstrates a process, custom or	
	other human activity that is in danger	
	of being lost	
•	shows unusually accurate evidence of	•
	a significant human activity	
•	is the only example of its type	
•	demonstrates designs or techniques of	:
	exceptional interest	
•	shows rare evidence of a significant	
	human activity important to a	
	community	

Although sheep dips are ubiquitous on pastoral properties, and older forms can be expected to survive reasonably well, they have not received systematic attention. It is therefore not possible to say that sheep dips of this form are abundant. The form itself has been replaced by other designs in common use.

This criterion is met, on a precautionary basis.

4.1.4.7 Criterion G

an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places

Guidelines for inclusion	Guidelines for exclusion	
 is a fine example of its type has the principal characteristics of an important class or group of items has attributes typical of a particular way of life, philosophy, custom, significant process, design, technique or activity is a significant variation to a class of items is part of a group which collectively illustrates a representative type is outstanding because of its setting, 	 is a poor example of its type does not include or has lost the range of characteristics of a type does not represent well the characteristics that make up a significant variation of a type 	
condition or sizeis outstanding because of its integrity		
or the esteem in which it is held		

The sheep dip lacks integrity. Too much of the essential superstructure is missing to allow this criterion to be met.

The criterion is not met.

4.1.4.8 Summary of assessment against the criteria

Criterion	Criterion	Comments
	met?	
Α	No	
В	No	
С	No	
D	Yes	Association with Feltham family
E	Yes	Early 20 th century flock management and farming practices
F	Yes	Form is presumed rare
G	No	

4.1.5. Statement of heritage significance

The Circular sheep dip is of local significance in demonstrating the changing technology of pastoral stock management in the 20^{th} century, and is an unusual example of sheep dip methods that is no longer in use. It has associations with the locally long established Feltham family.

4.1.6. Archival documentation

4.1.6.1 Plans

Plan number	Shows
Figure 4.2	MRNH 1 Circular Sheep Dip

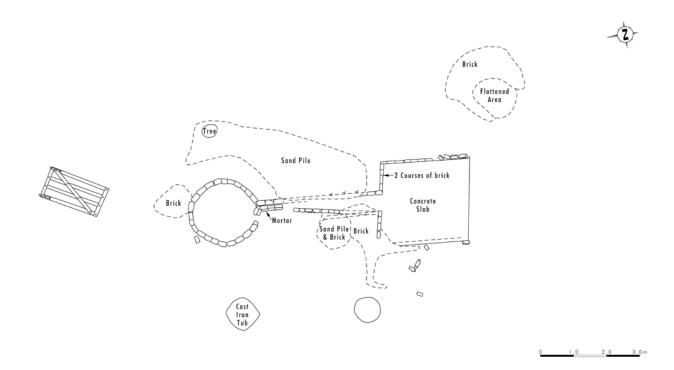


Figure 4.2 - MRNH1 Circular Sheep Dip [Denis Gojak].

4.1.6.2 Photographic Catalogue

Photo number	Shows	Direction
MH1_01	MRNH 1 – Circular sheep dip	To North
MH1_02	MRNH 1 – Circular sheep dip	To North
MH1_03	MRNH 1 – Circular sheep dip	To Southeast
MH1_04	MRNH 1 – Circular sheep dip	To Southwest
MH1_05	MRNH 1 – Circular sheep dip	To Northeast
MH1_06	MRNH 1 – Circular sheep dip	To Northeast
MH1_07	MRNH 1 – Circular sheep dip	To Northeast
MH1_08	MRNH 1 – Circular sheep dip	To Southeast
MH1_09	MRNH 1 – Circular sheep dip	To Southeast
MH1_10	MRNH 1 – Circular sheep dip	To East
MH1_11	MRNH 1 – Circular sheep dip	To Southwest
MH1_12	MRNH 1 – Circular sheep dip	To East
MH1_13	MRNH 1 – Circular sheep dip	To East
MH1_14	MRNH 1 – Circular sheep dip	To Southeast

Photo number	Shows	Direction
MH1_15	MRNH 1 – Circular sheep dip	To Southeast
MH1_16	MRNH 1 – Circular sheep dip	To South
MH1_17	MRNH 1 – Circular sheep dip	To West
MH1_18	MRNH 1 – Circular sheep dip	To South
MH1_19	MRNH 1 – Circular sheep dip	To South
MH1_20	MRNH 1 – Circular sheep dip	To North
MH1_21	MRNH 1 – Circular sheep dip	To East
MH1_22	MRNH 1 – Circular sheep dip	To North
MH1_23	MRNH 1 – Circular sheep dip	To East
MH1_24	MRNH 1 – Circular sheep dip	To East
MH1_25	MRNH 1 – Circular sheep dip	To East
MH1_26	MRNH 1 – Circular sheep dip	To East
MH1_27	MRNH 1 – Circular sheep dip	To Southeast

Refer to Appendix 1 for photographic record.

4.2. MRNH 5 - The Lynwood Homestead complex

4.2.1. Location

Lynwood Homestead is located five kilometres west of Marulan, immediately to the south of the Main Southern Railway [refer to Figure 4.1].

County / Parish	Argyle / Marulan
Local Government Area	Goulburn Mulwaree
Cadastral	Lot 2 DP 1116876
MGA coordinates – site centre	E 221643
	N 6155348

Only specific features of the Homestead complex are archivally recorded here. These are shown in Figure 4.3.



Figure 4.3 - Layout of Lynwood Homestead, and elements recorded archivally [NSW Dept of Lands 2012].

4.2.2. Description

4.2.2.1 General Description

The Lynwood homestead complex is set in undulating country near the crest of the catchment of Jaorimin Creek and the Wollondilly River. The homestead paddock forms an irregular polygon some 400 metres north to south by 150 metres east to west. It lies slightly to the east of the historic boundary of the Howe land grant [refer to Figure 3.4].

The northern, western and southern boundaries of the homestead paddock are defined by mature plantings, which incorporate the railway boundary to the north and a second residence [the 'new' farmhouse] at the southern end. The older elements lie to the north including the original farmhouse which has been extensively modified, the woolshed and associated yards and several small dams. A number of newer steel framed and clad sheds have also been constructed here. A fence divided it from a large open southern area, and beyond that is a timbered area within which sits the 'new' farmhouse, which is a 1960s residential bungalow.

Design and Plan of Homesteads 4.2.2.2

In 1947 architect Kenneth McConnel wrote a book looking at how Australian homesteads should be optimally planned⁴. It reflected and reacted to established practice and its structure forms a useful basis for examining design intent. following headings are as set out by McConnel.

Water

Homestead water came from Jaorimin Creek and roof runoff tanks.

Access

A gazetted road ran along the northern side of the railway line leading from Marulan towards Lockyersleigh. This road was certainly present in 1857. Faint landscape evidence for a road alignment between the current access road and the creek is visible near the brick making site. The construction of the railway line would have made access difficult in certain areas, and it is likely that the original route to the homestead would have been an at-grade crossing closer to the homestead. When the rail track was duplicated [by 1922] it is likely that a more formal route through the viaduct was planned to prevent further track crossing.

At the time of recording the homestead was accessed through a circuitous route that ran past the woolshed and other older buildings. The house itself was approached from the rear, strongly suggesting that an earlier route had been replaced.

Aspect and prospect and protection from winds

The location of the house near the top of a rise, with a gently sloping northeast-east aspect places it above the level of the railway line, and importantly provides a visual horizon that is not blocked by the line. This places the homestead on quite an exposed location, and as a result a large line of Monterey pines is placed along the northwest boundary of the homestead block as a windbreak.

⁴ McConnel 1947.

<u>Associated features</u>

The placement of the homestead close to the railway line creates a small paddock that is physically separated from the working area of the farm. There is no evidence of a different use for this area, but it would traditionally have been a home paddock, perhaps for a milk cow or the horse paddock and may have included vegetable gardens or orcharding.

Stables would have been necessary for transport. However, there is no evidence of any structures likely to have been the original stables within the complex.

Slope and drainage

There is a good fall towards the southeast, where there is drainage feeding into Jaorimin Creek. The later construction of the viaduct would have created some disruption to the natural flow.

4.2.2.3 The Farmhouse

The Lynwood Homestead farmhouse is a heavily modified timber-framed dwelling [bungalow] representative of the early 20th century in style.

The house has 10 interior spaces, generally coming off a centrally placed front door and hallway. It was originally built as a symmetrical farmhouse, probably with four main spaces and integrated kitchen and wet area at the rear. Spaces [1] to [4] represent the surviving evidence of this structure, although even wall cladding and possibly framing has been replaced to open up the structure.

The house is built using standard milled timber components, with a light timber frame, resting on stumps with ant-caps. It is clad externally with weatherboards and internally probably with milled pine boards. All evidence of original interior finishes has been removed. The house now is largely weatherboarded, with interior walls clad in proprietary sheeting products [not further investigated].

A major modification removed all subsidiary structures at the rear, extended the hallway and installed a new kitchen and bathroom as well as several bedroom-type spaces. This appears to have been undertaken as a single major reworking, and probably at the same time that the front of the house was most heavily modified.

The house measures 9 metres wide, the remaining original structure extends back 8 metres. The continuation of the house maintains the same width and the same central line of the hallway. There is an original fireplace on the wall of space [3], and a rainwater tank further back on the same side.

The house is surrounded on the east, south and west with garden beds edged with rounded river pebbles.

Remnants of a kitchen garden and ornamental plants survive sporadically around the house within its fence.

McConnel [1947: 3] noted that there was a strong vernacular building tradition that resulted in the creation of a distinctive homestead form by the early 1900s. However, continuation of this tradition 'is so sadly lacking in most of the bush homes built in the first part of this century. These, with few exceptions, are bawdy adaptations of current suburban bungalow architecture, offending in form and detail against the beautiful setting which nature endowed them.' This judgement captures what was built at Lynwood very well, and describes an essential transformation that took place around the turn of the century. There was a very significant shift from constructing consciously distinct farm houses to adopting forms that were essentially no different from those being built at the same time in towns and cities.

This transformation represents a number of factors. The first is that building even modest houses was no longer within the abilities of the average bush carpenter or adept amateur. Whereas in 1870 a passable homestead could still be constructed using the same materials and techniques used in 1810, there had been a dramatic change in the expectations of rural life and living standards in the succeeding decades. A new house now had to represent modern spatial layouts, which called for a variety of different room sizes, reflecting their function and the status of the occupants, and meet evolved expectations about sanitation and weatherproofing. Unlike before, the materials could not all be sourced locally, perhaps only the timber frame and cladding coming from a local mill. Bricks came from regional works, in this case probably Goulburn, even though only a few decades before excellent bricks had been made just down the creek. Joinery, fastenings, roofing and interior materials came from Sydney or even overseas.

While the perception at the time of its construction was one of modernity and sufficiency, the layout of the farm followed established practice as did some of the farm buildings more resistant to social pressure. The older farm buildings [woolshed, pise hut and meat store] show that use was made of more local materials at the same time as the farmhouse was being built.

4.2.2.4 The Woolshed [Shearing Shed]

General history

Woolsheds had more or less evolved into a version close to the modern form by the start of the 19th century. Small flocks were hand-shorn in the field, using portable hurdles to corral and control the sheep. Fleeces were traditionally washed on the hoof, with sheep being driven through creeks or dams until the fleece was at least reasonably clean.

The board – the work space where shearing was carried out – was originally at ground level, but later normally elevated, which allowed for better control of dirt in the shed, allowing waste to drop straight out, and also further controlled the movement of animals. A wool room was a separate clean work space within the shed, where the shorn fleece were classified and sorted before being baled. Filled and labelled bales were then loaded onto the back of a dray.

Light milled or bush timber frames clad with corrugated iron – now the almost universal material for woolsheds – developed from the 1850s onwards. This allowed for larger and more elaborate buildings to be constructed.

By the 1870s woolsheds had begun to organise a collective identity. Shearing accommodation, including a cook, became part of the standard conditions of work.

Blade shearing was universal until 1888. In that year the first machine blades were installed at Dunlop Station [Bourke, NSW], prompting the shearers to go on strike for three weeks. Lynwood would have used a generator until electricity came. There is no clear evidence that it was ever a blade shearing shed prior to the introduction of powered shears.

Lynwood Woolshed

The woolshed is a simple elevated five-stand shearing shed built for mechanical shearing. As a small building it is suited to the restricted flock size managed from Lynwood; the five stalls illustrating it was a modest farming operation. Although built using a mixture of modern and locally sourced materials its design was one that had developed through extensive experimentation and practice in 19th century Australia.

The woolshed is a post construction based around a 4 by 4 grid of posts located a nominal 10 feet apart that support the shearing floor and extend to the roof. The entire structure is covered with a single gabled roof, extending in a skillion on one side.

The five stands are arranged on the western side of the board, and the catching pens sit on the eastern side, separated by ramps leading down to counting pens.

The lack of shearing quarters suggests that itinerant shearers could be accommodated in town, a short distance away.

4.2.2.5 Sheep yards

A series of sheep yards extend to the north of the woolshed. The yards are a fairly modern construction; consisting largely of a single build making use of a standard form of concrete post with infill railing. The yards occupy an area of approximately 25.50 by 17 metres extending northeast from the woolshed [refer to Figure 4.4].

The sheep yards extend into a series of races allowing the separation of sheep from flocks and their feeding into the woolshed. At the northeastern end there are two yards with taller square posts; up to 1.7 metres [5'] tall 6" x 10" squared posts. These have 6 adzed and slightly flattened saplings as rails, all attached with coach bolts, making an area for the management of horses or cattle. There is a ram shed at the northern end of the sheep yard complex consisting of a small structure clad in corrugated iron.

The concrete posts are trapezoidal in section measuring 125 millimetres between opposite faces, which are 115 and 130 millimetres long. They support hardwood rails measuring 140 millimetres wide x 30 millimetres thick, bevelled at the edges and fastened to the concrete post with two coach bolts. Where posts have been broken they have been replaced mainly with short sections of railway rail cemented into place. All of the gates are made of 1.5" tubular steel welded together, with home-made hinges.



Figure 4.4 - The woolshed and sheep yards [NSW Dept of Lands 2012]

4.2.2.6 The meat house

The meat house is located alongside [to the northwest] of the woolshed [refer to Figure 4.4]. It is a rectangular plan building measuring approximately 2.75 metres x 1.85 metres [nom. $9' \times 6'$].

The meat house is constructed of weatherboard with wire mesh covered windows and door and a simple corrugated iron roof. Interior work surfaces and hooks were still present.

This structure served as a place to carry out the butchering and hanging of meat. It was likely constructed prior to the wool shed, possibly as early as the 1930s.

4.2.2.7 The Pise hut

The pise hut is located close to the woolshed [refer to Figure 4.4]. It is a rectangular plan building measuring 3.62 metres x 4.23 metres [nom. 10' x 14']. The wall height is 2.1 metres, and there is a simple gabled corrugated iron roof. The gable ends are also sheeted with corrugated iron, some of which is stamped 'Orb'. The interior dimension is 3.63 metres x 3.00 metres.

The body of the hut is made of a pise [rammed earth] mixture containing very little visible fibrous material and which is reasonably hard. It may contain a proportion of cement. It has been constructed in 11 visible lifts averaging 180 millimetres [nominal 6"]. These continue across all four walls, and incorporate a doorway and two windows, as well as a pipe. The northern face contains a piece of hessian mixed with the mud, and on the same elevation near the top left corner some mud has fallen, exposing clearly a piece of dry-pressed brick embedded in the original mixture.

The roof structure is mounted on four main bearer posts, roughly squared beams about 6 inches diameter, which are lap-jointed at the ends. Seven pairs of roof rafters, using saplings which are notched to sit on the bearers, and butting against a rounded ridge beam, support four adzed sapling purlins. These support the corrugated iron roof cladding.

The interior is bare apart from a free-standing set of shelves in one corner.

The integration of the dry-press brick indicates that the building is very unlikely to predate the establishment date for Lynwood of c.1905. This is entirely consistent with the bush carpentry displayed by the roof structure, which relies on rough shaping and skew-nailing of simple lap and butt joints with heavy nails for additional strength.

4.2.2.8 Other buildings

A newer, approximately 1960s constructed residential bungalow is present to the west of the main homestead complex [refer to Figure 4.3].

There are two open front corrugated iron clad machine sheds located to the southwest of the woolshed.

4.2.3. Interpretation

The homestead complex is located on 640 acres [approximately 260 ha] of land acquired under conditional purchase by William Mundy on October 5, 1905.

Grazing of the land may have occurred before then.

4.2.4. Assessment of heritage significance

4.2.4.1 Criterion A

Α	an item is important in the course, or pattern, of NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
	 has incidental or unsubstantiated connections with historically important activities or processes provides evidence of activities or processes that are of dubious historical importance has been so altered that it can no longer provide evidence of a particular
	association

The Lynwood Homestead complex is a small but complete collection of buildings representative of a typical 20th century pastoral property in the settled districts of NSW. It demonstrates and contributes to the ongoing rural history of the wider Marulan area.

This criterion is met at a local level.

4.2.4.2 Criterion B

B an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
 shows evidence of a significant human occupation is associated with a significant event, person, or group of persons 	 has incidental or unsubstantiated connections with historically important people or events provides evidence of people or events that are of dubious historical importance has been so altered that it can no longer provide evidence of a particular association

While the Lynwood Homestead complex does have some associative connections relating to the rural history of the wider Marulan area due to its land tenure history, it does not have any associations with known or key individuals associated with Old Marulan Town itself.

The criterion is not met.

4.2.4.3 Criterion C

an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW

Guide	Guidelines for inclusion		Guidelines for exclusion	
•	shows or is associated with, creative or technical innovation or achievement		is not a major work by an important designer or artist	
•	is the inspiration for a creative or technical innovation or achievement is aesthetically distinctive	•	has lost its design or technical integrity its positive visual or sensory appeal or landmark and scenic qualities have	
•	has landmark qualities exemplifies a particular taste, style or		been more than temporarily degraded has only a loose association with a	
	technology		creative or technical achievement	

The Lynwood Homestead complex does not generally demonstrate distinctive aesthetic qualities or technical innovations, other than those typical of such building complexes found in rural areas characterised by rural landholdings of the early 20th century.

In general, the structures are representative of a range of farm and residential buildings and other rural infrastructure dating from the early 20th century.

The criterion is not met.

4.2.4.4 Criterion D

B an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion	
shows evidence of a significant human occupation is associated with a significant event, person, or group of persons	 has incidental or unsubstantiated connections with historically important people or events provides evidence of people or events that are of dubious historical importance has been so altered that it can no longer provide evidence of a particular 	
	association	

The Lynwood Homestead complex demonstrates the pattern of settlement and development in the area from the early 20th century, and while being a typical early 20th century pastoral property within the wider regional area is likely to have contemporary social links within the strong local community and contribute to either their sense of place or identity as a community where families like the Feltham family have lived for over 150 years.

This criterion is met at a local level.

4.2.4.5 Criterion E

E an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
 has the potential to yield new or further substantial scientific and/or 	has little archaeological or research potential
archaeological informationis an important benchmark or reference site or type	only contains information that is readily available from other resources or archaeological sites
provides evidence of past human cultures that is unavailable elsewhere	 the knowledge gained would be irrelevant to research on science, human history or culture

There are unlikely to be any intact archaeological remains associated with the twentieth century development and occupation of the area. A high degree of intactness in the archaeological resource is necessary before a substantive contribution can be made to the research potential and hence, the ability of the archaeological resource to answer research questions for the site.

General evidence of rural buildings/structures (both standing and derelict), concrete slabs, yards, roads, tracks and rural fences etc. demonstrate the pattern of land use and historical development and could provide information about how the landscape was used and changed during its use as pastoral land. However, in general they have little research potential and are unlikely to provide further unknown information regarding the history and development of the area.

The criterion is not met.

4.2.4.6 Criterion F

F an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
 provides evidence of a defunct custom, 	is not rare
way of life or process	 is numerous but under threat
• demonstrates a process, custom or	
other human activity that is in danger	
of being lost	
• shows unusually accurate evidence of	
a significant human activity	
 is the only example of its type 	
 demonstrates designs or techniques of 	
exceptional interest	
• shows rare evidence of a significant	
human activity important to a	
community	

The Lynwood Homestead complex is a typical 20th century pastoral property in the settled districts of rural NSW and is not associated with an unusual or remarkable aspect of the region's history.

The criterion is not met.

4.2.4.7 Criterion G

G an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places

Guidelines for inclusion	Guidelines for exclusion
 is a fine example of its type has the principal characteristics of an important class or group of items has attributes typical of a particular way of life, philosophy, custom, significant process, design, technique or activity 	 is a poor example of its type does not include or has lost the range of characteristics of a type does not represent well the characteristics that make up a significant variation of a type

Guidelines for inclusion		Guidelines for exclusion
•	is a significant variation to a class of items is part of a group which collectively illustrates a representative type is outstanding because of its setting, condition or size	Caracimies for exclasion
•	is outstanding because of its integrity or the esteem in which it is held	

Although the Lynwood Homestead complex is a small collection of buildings it is a complete collection representative of a typical 20th century pastoral property in the settled districts of NSW.

This criterion is met at a local level.

4.2.4.8 Summary of assessment against the criteria

Criterion	Criterion met?	Comments
Α	Yes	Demonstrates and contributes to the ongoing rural history
В	No	
С	No	
D	Yes	Contemporary social links within the strong local community
E	No	
F	No	
G	Yes	Complete Homestead complex typical of a 20th century pastoral property

4.2.5. Statement of heritage significance

Lynwood Homestead is a small but complete collection of buildings representative of a typical 20th century pastoral property in the settled districts of NSW. It reflects its establishment early in the 20th century close to a town by not having any evidence of separate shearer accommodation, which is the most outstanding feature of remote sheep stations.

4.2.6. Archival documentation

4.2.6.1 Plans

Plan number	Shows
Figure 4.5	MRNH 5 – Old Farmhouse
Figure 4.6	MRNH 5 – Old Farmhouse
Figure 4.7	MRNH 5 – Woolshed and Sheep Yards
Figure 4.8	MRNH 5 – Woolshed
Figure 4.9	MRNH 5 – Meat House
Figure 4.10	MRNH 5 – Pise Hut

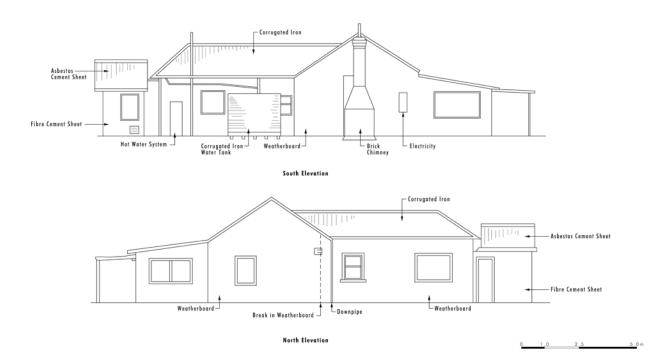


Figure 4.5 - MRNH5 - Old Farmhouse [Denis Gojak].

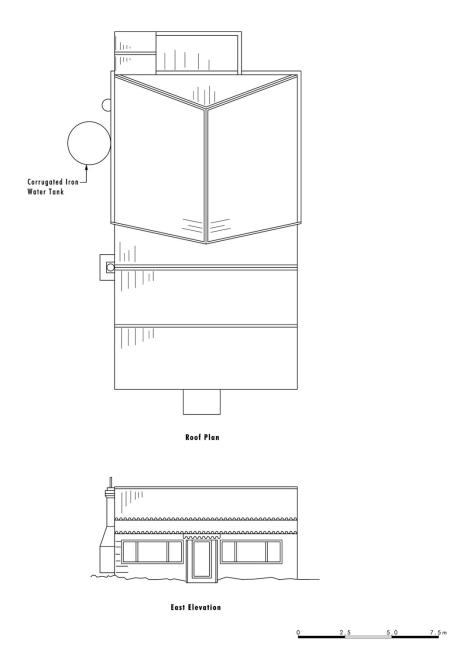


Figure 4.6 - MRNH5 - Old Farmhouse [Denis Gojak].

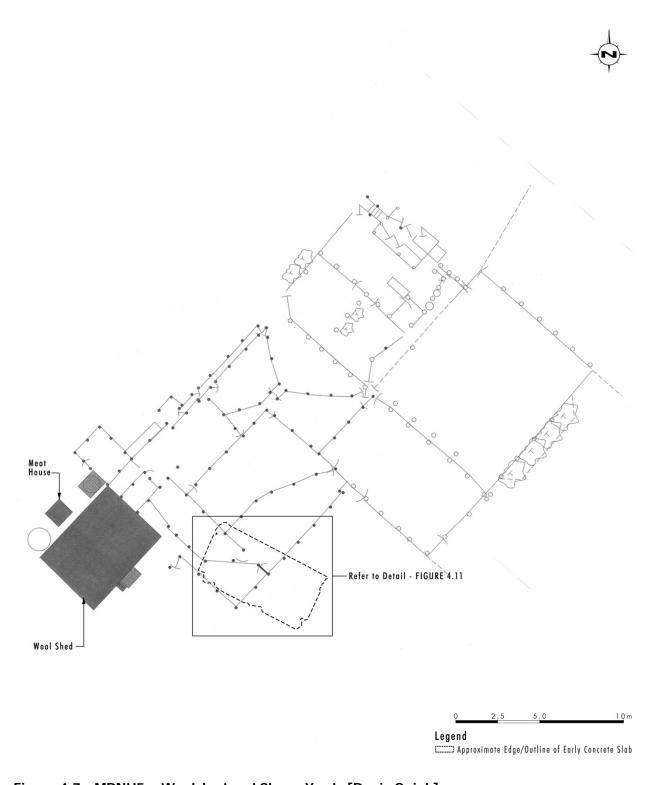


Figure 4.7 - MRNH5 - Woolshed and Sheep Yards [Denis Gojak].

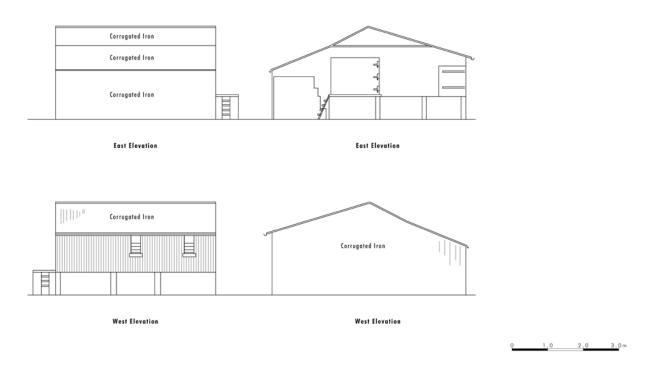


Figure 4.8 - MRNH5 - Woolshed [Denis Gojak].

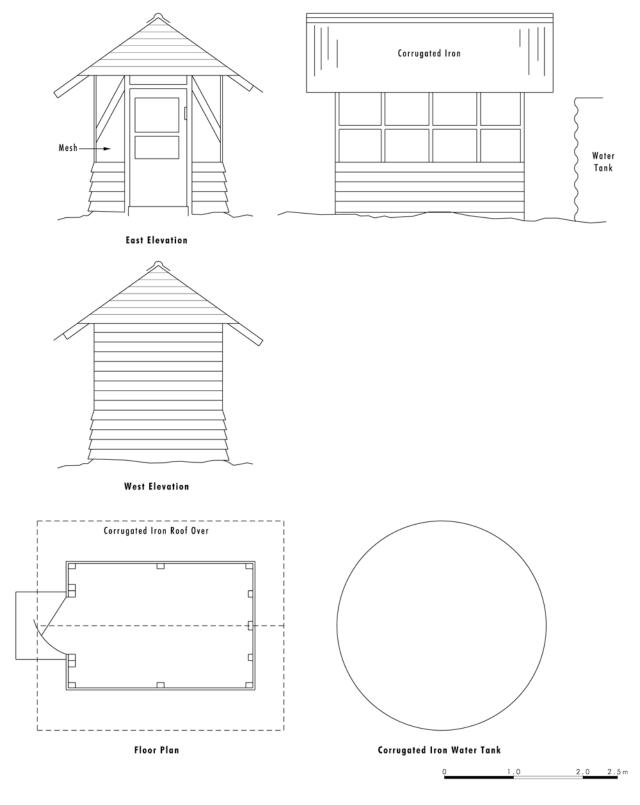


Figure 4.9 - MRNH5 - Meat House [Denis Gojak].

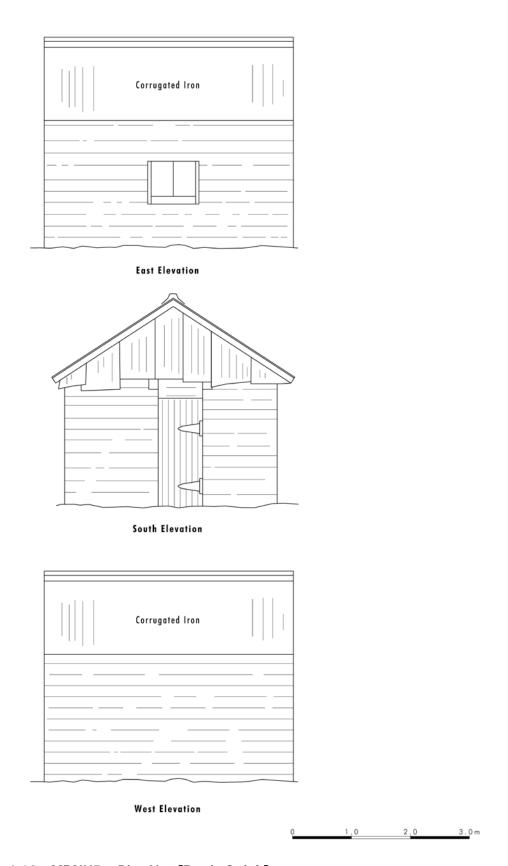


Figure 4.10 - MRNH5 - Pise Hut [Denis Gojak].

4.2.6.2 Photographic Catalogue

Feature	Photo number	Shows	Direction
Old Farmhouse	MH5_01	Old Farmhouse - exterior	Southwest
	MH5_02	View to Woolshed, Meat Hut and Pise	South
		Hut from Old Farmhouse	
	MH5_03	Old Farmhouse - exterior	Northeast
	MH5_04	Old Farmhouse - exterior	Southwest
	MH5_05	Old Farmhouse - exterior	West
	MH5_06	Sheds	West
	MH5_07	Sheds	Southwest
	MH5_08	Old Farmhouse - exterior	North
	MH5_09	Old Farmhouse - exterior	South
	MH5_10	Old Farmhouse - exterior	Northeast
	MH5_11	Old Farmhouse - exterior	Northeast
	MH5_12	Old Farmhouse - exterior	East
	MH5_13	View to Shed from Old Farmhouse	Southwest
	MH5_14	Old Farmhouse - exterior	South
Woolshed	MH5_15	Woolshed - exterior	Northeast
	MH5_16	Woolshed - exterior	Northeast
	MH5_17	Woolshed - exterior	Northwest
	MH5_18	Woolshed – interior detail	-
	MH5_19	Woolshed – interior detail	-
	MH5_20	Woolshed – interior detail	-
	MH5_21	Woolshed – interior detail	-
	MH5_22	Woolshed - exterior	Northeast
	MH5_23	Woolshed – interior	-
	MH5_24	Woolshed – interior	-
	MH5_25	Woolshed – interior	-
	MH5_26	Woolshed – interior	-
	MH5_27	Woolshed – interior	-
	MH5_28	Woolshed – interior	-
	MH5_29	Woolshed – interior	-
	MH5_30	Woolshed – interior	-
	MH5_31	Woolshed – interior	-
	MH5_32	Woolshed – interior	-
	MH5_33	Woolshed – interior	-
	MH5_34	Woolshed – interior	-
Sheepyards	MH5_35	Sheepyards	-
-	MH5_36	Sheepyards	-
	MH5_37	Sheepyards - construction detail	-
	MH5_38	Sheepyards	Southwest
	MH5_39	Sheepyards - construction detail	-
	MH5_40	Sheepyards and Meat House	Southwest
	MH5_41	Sheepyards	Southwest
	MH5_42	Sheepyards – view to Old Farmhouse	North
	MH5_43	Sheepyards – evidence of early	Northwest
		structure	
	MH5_44	Sheepyards – evidence of early structure	Northwest
	MH5_45	Sheepyards – evidence of early structure	Southwest
	MH5_46	Potential stone feature	-
<u> </u>	IVII IJ_TU	i otoritai stone reature	<u> </u>

Feature	Photo number	Shows	Direction
	MH5_47	Potential stone feature	Southeast
	MH5_48	Potential stone feature	-
	MH5_49	Sheepyards	Southwest
	MH5_50	Sheepyards	South
	MH5_51	Sheepyards	Southwest
	MH5_52	Sheepyards	Northwest
	MH5_53	Sheepyards	Southwest
	MH5_54	Sheepyards	Southwest
Pise Hut and Meat House	MH5_55	View to Woolshed, Meat House and Pise Hut from Old Farmhouse	South
	MH5_56	Woolshed, sheep yards and pise hut	Southwest
	MH5_57	Pise hut - exterior	Southwest
	MH5_58	Pise hut - exterior	Northwest
	MH5_59	Pise hut - exterior	Northeast
	MH5_60	Woolshed, Meat House and Pise Hut	Southeast
	MH5_61	Construction detail	-
	MH5_62	Construction detail	-
	MH5_63	Construction detail	-
	MH5_64	Pise hut - interior	Northwest
	MH5_65	Pise hut – interior	Southeast
	MH5_66	Pise hut – detail roof interior	-
Sheds	MH5_67	Sheds	Southwest
	MH5_68	Sheds	Southwest
	MH5_69	Sheds	Northwest
	MH5_70	Sheds	Southwest
	MH5_71	Sheds	Southwest
	MH5_72	Sheds	Southwest
	MH5_73	Sheds	South
	MH5_74	Sheds	Southeast
	MH5_75	Sheds	Southeast

Refer to Appendix 1 for photographic record.

4.2.7. Heritage Act Section 139 [4] Exception Works at Lynwood Homestead

In August 2009 Umwelt notified the Heritage Branch that it would undertake limited investigation of two areas [in accordance with the Section 139 exception endorsed in November 2006 – refer to Volume 1 Section 2.7 of this report series for details] at the Lynwood Homestead Complex [MRNH5] where potential archaeological remains had been identified during the earlier archival recording.

The investigation examined two areas where possible previous structures were identified. One area was overlain by the most recent arrangement of holding yards for the shearing shed, and consisted of a cement slab with what appeared to be a chimney butt at one end. The other area was an aggregation of stone beside the road between the shearing shed and the homestead building.

Investigation consisting of the removal of overlying grass and soil cover took place in September 2009. The investigation revealed that the structure beneath the yards was a

large concrete slab with a wall footing; which appeared to relate to an earlier arrangement of the homestead's work area.

The second possible feature was confirmed to be loose natural stone, probably cleared from elsewhere on the site.

4.2.8. Section 139 [4] Exception Works Archival documentation

4.2.8.1 Plans

Plan number	Shows
Figure 4.11	MRNH 5 – Sheep Yards detail following investigation works



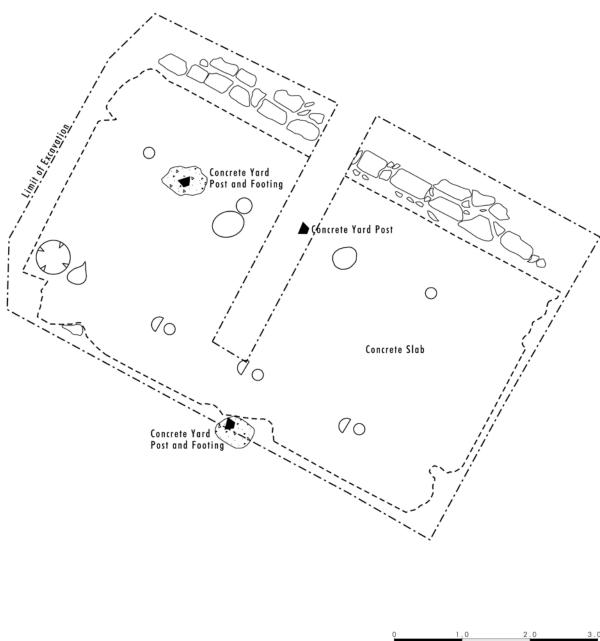


Figure 4.11 - MRNH5 - Sheep Yards Detail [Denis Gojak, Umwelt].

4.2.8.2 Photographic Catalogue

Section 139[4] Exception Works			
Photo number	Shows	Direction	Scale
MH5_76	Pre-investigation - Woolshed, Pise hut and yards	Northwest	2 metres
MH5_77	Pre-investigation – detail of investigation area	Northwest	2 metres
MH5_78	Pre-investigation – detail of investigation area	Northwest	1 metre
MH5_79	Pre-investigation – detail of investigation area	Northeast	2 metres
MH5_80	Pre-investigation – detail of investigation area	Northeast	2 metres
MH5_81	Concrete slab	Northeast	2 metres
MH5_82	Concrete slab	Northeast	2 metres
MH5_83	Concrete slab	Northeast	2 metres
MH5_84	Concrete slab	Northeast	2 metres
MH5_85	Concrete slab & wall footing, Woolshed and Pise hut	Northwest	2 metres
MH5_86	Concrete slab & wall footing	Northwest	2 metres
MH5_87	Concrete slab & wall footing	Northwest	2 metres
MH5_88	Concrete slab & wall footing	Northwest	2 metres
MH5_89	Wall footing	Northwest	2 metres
MH5_90	Concrete slab detail	Northwest	2 metres
MH5_91	Concrete slab detail	Northwest	500 millimetres
MH5_92	Concrete slab detail	Northwest	500 millimetres
MH5_93	Concrete slab & wall footing	Southeast	2 metres
MH5_94	Concrete slab & wall footing	Southeast	2 metres
MH5_95	Concrete slab & wall footing	Southeast	2 metres
MH5_96	Concrete slab & wall footing	Southeast	2 metres
MH5_97	Wall footing	Southeast	2 metres
MH5_98	Concrete slab & wall footing	South	2 metres
MH5_99	Concrete slab & wall footing	Southeast	2 metres
MH5_100	Pre-investigation – potential stone feature, Woolshed, Pise hut and Meat House	Southwest	2 metres
MH5_101	Pre-investigation – potential stone feature	Southeast	2 metres
MH5_102	Post-investigation – potential stone feature, Woolshed, Pise hut and Meat House	Southwest	2 metres
MH5_103	Post-investigation – potential stone feature	Southwest	2 metres
MH5_104	Post-investigation – potential stone feature	Southeast	2 metres

Refer to Appendix 1 for photographic record.

4.3. Brick Making Site MRNH 6 [Brick clamps] and MRNH 7 [clay pits]

4.3.1. Location

The brick making site, comprising three discrete brick clamps [MRNH 6] and three separate areas of clay extraction/clay pits [MRNH 7] is located on the northern bank of Jaorimin Creek which runs from west to east, in a substantial channel measuring up to 20 metres across and to 5 metres deep [refer to Figures 4.1, 4.12 and 4.13]. A side channel joins the creek on the southern side, forming a substantial junction about 50 metres east of the site. The site extends linearly along about 100 metres of the northern bank of the creek. The present road leading to Lynwood runs to the north.

There is little vegetation between the road and the band of trees immediately bordering the creek. On the southern side of the creek the land rises again towards the railway line. The bordering vegetation is much denser on this side, but the width of the floodplain generally narrower. On the south side there are also prominent outcrops of igneous rock. The entire survey area is covered in grasses approximately 30 centimetres high and visibility is poor.

Location details are

County / Parish	Argyle / Marulan
Local Government Area	Goulburn Mulwaree
Cadastral	Lot 1 DP 1074819
MGA coordinates – site centre	E 223140
	N 6154937



Figure 4.12 - The scars of the clay pits clearly evident along the northern bank of Jaorimin Creek. Scale bar 20 metres [NSW Dept Lands 2013].

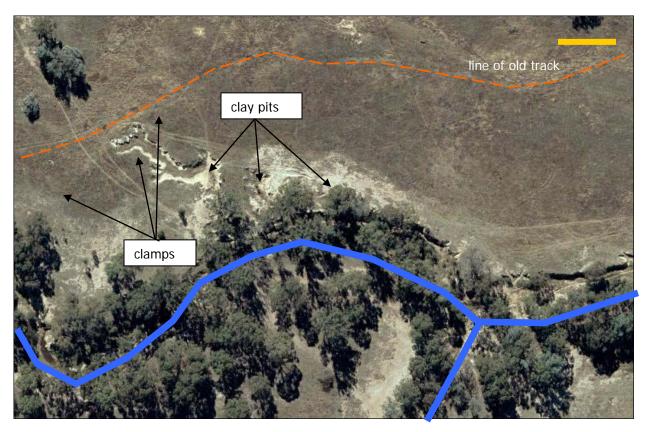


Figure 4.13 - Location of historical elements. [NSW Dept Lands 2013]

4.3.2. Description

4.3.2.1 Brick Clamps MRNH 6

There are remains of three identifiable clamps present on the site. The three clamps are all located along the same contour and about 40 to 60 metres from the creek bank. Two are located close by each other and the third at some remove, covering a total distance of about 50 metres.

The three identifiable clamps are designated MRNH 6A to MRNH 6C.

MRNH 6A is the southwestern clamp comprising a single pile of bricks and brick fragments in an elliptical scatter, mainly at the prevailing ground level with a shallow single central high point. The mound measures about 16 metres north to south by about 12 metres east to west. The visible bricks are all broken, with no intact examples observed. Brick fragments were generally 0.2 to 0.6 of whole brick size with all of the fractures appearing to be old. Most had some visible imperfection, including glazing, exploded inclusions in the clay, distortion and uneven firing. The bricks examined in situ did not appear to be systematically stacked or otherwise arrayed, although visibility was not ideal.

It is possible that this represents a refuse pile resulting from the dismantling and sorting of a brick clamp, rather than the remains of a brick clamp in the strict sense.

MRNH 6B is the central clamp comprising a low mound of bricks visible on the ground and exposed at the top of the vertical section of the clay pit. The mound is low with no particular high point. The defined extent is about 8 metres north to south by 16 metres east to west. The edge of a clay pit [MRNH 7C] is immediately adjacent to the brick clamp and comprises an active erosional edge. As such, some of the clamp may have been lost. Exposed bricks all exhibit firing irregularities, including glazing, heat-related splitting and uneven firing. There are complete bricks represented, although rarely, as most pieces are less than 0.5 complete. Some pieces are fused together. There are bricks that appear to be stacked regularly beside each other.

Based mainly on the evidence of the brick stacking and fusing of bricks it is felt that this mound comprises the basal courses of a brick clamp, representing the unsalvageable portion of a firing episode. It has been cut into by a clay pit, with the implication that clay excavation was carried out after the firing of this clamp. This seems unlikely as there is no indication that this was the best direction to win clay, and it is possible that it represents gully erosion of the clay pit face, working back westwards over time.

MRNH 6C is the northern clamp. This clamp is the most intact of the three clamp features. It is located immediately to the north of MRNH 6B. Roughly rectangular, it is a scatter of brick fragments measuring 17 metres east to west by 12 metres north to south. Along the western, northern and southern margins there is an elevated bank of bricks, about 6 courses high. These include bricks stacked in regular courses. The raised edges define a depressed central area and slightly elevated eastern boundary.

Location coordinates for the three clamps are

Site element	MGA 94 coordinates
Brick clamp MRNH 6A	E 223136
	N 6154950
Brick clamp MRNH 6B	E 223130
	N 6154936
Brick clamp MRNH 6C	E 223090
·	N 6154923

A sample of bricks was collected from MRNH 6A to record different types of misfiring. One sample shows extreme vitrification – where the fabric has melted and set with a glassy finish. The interior fracture reveals it is well-mixed puddle clay, with some peasized inclusions of denser matter. The vitrification is an indication of over-firing, which is a common issue with brick clamps. Regulating fire temperature is difficult and almost always some parts of the clamp require over-heating to prevent under-firing from occurring as well. It will be noted that one of the fractures is vitrified, indicating that the brick firstly blew apart before the heat reached maximum. This may indicate too much moisture, resulting in the release of steam under pressure. Once the corner blew off, the heat may have continued to rise causing the brick surface to vitrify.

4.3.2.2 Clay Pits MRNH 7

Three clay pits were identified; all cut in from the bank of the creek. These features are designated MRNH 7A to MRNH 7C.

Of these MRNH 7A is the most substantial being a long, approximately 60 metres, channel dug into the floodplain. There are a number of branches and expanded channels, but the typical width is 5 to 8 metres. Depth is variable, and there is evidence of both post-excavation erosion and recent ponding. The banks are generally stable but have collapsed locally in some areas. Typically the vertical section is about 0.6 metres, with an additional 0.3 metre drop to the centre drainage line.

A small artefact scatter consisting of black, light green and aqua ['soda'] glass fragments was found eroding from near the top of MRNH 7B. It appears to have been exposed by channel erosion close to the creek bank. It can be roughly dated to the late 19th century.

Location coordinates for the approximate central points of the three clay pits are

Site element	MGA 56 coordinates
Clay pit MRNH 7A	E 223131
	N 6154941
Clay pit MRNH 7B	E 223183
	N 6154925
Clay pit MRNH 7C	E 223203
	N 6154924

4.3.3. Interpretation

The clay pits and clamps indicate that bricks were made on site. As water and clay are not strongly localised in this landscape it is therefore likely that they were intended for use as close to the manufacture site as possible. The only candidate is the railway line, which at this point is about 200 metres immediately to the south. It crosses the arm of Jaorimin Creek with a small viaduct.

Although the clamps have been dismantled they conform to the form of a standard subrectangular type of brick clamp, where green bricks are stacked with timber fuel, and then fired. It is known that the initial construction of the railway between Marulan and Goulburn in 1867 required contractors to manufacture bricks on site.

The normal process for the production of bricks in clamps was:

- the excavation of clay from a source such as river-flats
- forming the clay in hand-moulds on moulding tables, sometimes under simple shelters [later mechanical presses were also used]
- the 'green' bricks were dried in stacks until the water content was sufficiently lowered
- the air-dried bricks were then stacked in a large clamp with channels for air flow
- fuel, usually local timber, was packed around the clamp
- the firing of the clamp often took several days
- the clamp was then dismantled, taking properly fired bricks and leaving mis-fires, broken bricks etc.

Because the burning of the fuel was often idiosyncratic mis-firing was common. Normally the lowest course in contact with the soil did not burn properly and was often left. Clamps were not built on the same location again as the uneven ground would hinder stacking, so the total number of clamps can be readily determined.

The remains of a former track or route can be discerned in the landscape running to the north of the creek about 30 to 50 metres from the bank. The present roadway that leads to Lynwood is graded and probably constructed as part of the most recent arrangement of paddocks in the landscape.

On the southern side of Jaorimin Creek a very sparse area of refuse was noted; consisting of a few pieces of ceramic and black bottle glass. This appears to be from camping along the creek side, and there is no evidence of substantial camping or occupancy in the area. It may or may not be associated with the brick-making activity.

The railway reserve is fenced and forms a definite southern boundary. Immediately to the north of the fence is a well-formed roadway that follows the reserve line. This appears to be of some age and may undergo periodic use. Adjacent to the road and immediately to the north of it are several features that could be interpreted as open fireplaces. Each consists of a number of rocks grouped in a circle, less than 1 metre in diameter at its outer perimeter. Nearby are the remains of artefacts such as dark green glass and ceramics. These can be most simply interpreted as worker camps for railway workers employed in the construction or maintenance of the line, as they do not take advantage of the shady creek bank less than 200 metres away to the north.

4.3.4. Assessment of heritage significance

4.3.4.1 Criterion A

A an item is important in the course, or pattern, of NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
 shows evidence of a significant human activity is associated with a significant activity or historical phase maintains or shows the continuity of a historical process or activity 	 has incidental or unsubstantiated connections with historically important activities or processes provides evidence of activities or processes that are of dubious historical importance
	 has been so altered that it can no longer provide evidence of a particular association

The brick manufacturing site is associated with the construction of the Great Southern Railway in the period 1865-1867. As outlined in Volume 2 of this report series, the arrival of the railway effectively ended the town of Marulan and had a transformative effect on the region generally in how it communicated with Sydney.

The site reflects the level of technology considered appropriate for such infrastructure construction in this period. The environmental setting interprets the placement of the site in terms of raw materials close to the needed viaduct. Some evidence of the worker presence survives at the site and close to the railway line.

The site meets Criterion A at a local level for the themes of labour and transport, both connected to the local theme of the construction of the Main Southern Railway.

4.3.4.2 Criterion B

an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
 shows evidence of a significant human occupation is associated with a significant event, person, or group of persons 	 has incidental or unsubstantiated connections with historically important people or events provides evidence of people or events that are of dubious historical importance has been so altered that it can no longer provide evidence of a particular association

The site was essentially unknown until identified during environmental assessment. While it relates historically to an important local theme, the construction of the railway and its transformation of the local area is better expressed under criterion A than as an 'event'.

This criterion is not met.

4.3.4.3 Criterion C

C

an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW

Guidelines for inclusion	Guidelines for exclusion
 shows or is associated with, creative or technical innovation or achievement is the inspiration for a creative or technical innovation or achievement is aesthetically distinctive has landmark qualities 	 is not a major work by an important designer or artist has lost its design or technical integrity its positive visual or sensory appeal or landmark and scenic qualities have been more than temporarily degraded
 exemplifies a particular taste, style or technology 	 has only a loose association with a creative or technical achievement

The site in its setting clearly demonstrates the requirements of raw materials being sourced near where they are used. While the creek is attractive, the associated archaeological elements do not add additional aesthetic importance. In terms of technology, the site elements and their setting do set out legibly the process of brick manufacture from winning the raw materials to their use in the railway.

This criterion is met.

4.3.4.4 Criterion D

D an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons

Guidelines for inclusion		Guide	elines for exclusion
•	is important for its associations with an	•	is only important to the community for
	identifiable group		amenity reasons
•	is important to a community's sense of	•	is retained only in preference to a
	place		proposed alternative

Discussions with the Marulan community over a number of years have not indicated that the site is considered to be particularly associated with them, and does not contribute to either their sense of place or identity as a community.

This criterion is not met.

4.3.4.5 Criterion E

E an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
 has the potential to yield new or further substantial scientific and/or archaeological information is an important benchmark or reference site or type 	 has little archaeological or research potential only contains information that is readily available from other resources or archaeological sites
provides evidence of past human cultures that is unavailable elsewhere	<u> </u>

Brick clamps are known archaeologically from numerous locations. All are however fragile and subject to both natural deterioration and development impact. The integrity of the site is good, with only limited natural attrition from creek erosion being observed, and a secure provenance and dating for the bricks.

Technologically the processes represented on the site are well-understood. Any further investigation would be unlikely to yield further new substantial information beyond more clearly demonstrating the manufacture process.

The site does not meet this criterion.

4.3.4.6 Criterion F

F an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history

Guio	delines for inclusion	Guide	elines for exclusion
•	provides evidence of a defunct custom,	•	is not rare
	way of life or process	•	is numerous but under threat
•	demonstrates a process, custom or		
	other human activity that is in danger		
	of being lost		
•	shows unusually accurate evidence of		
	a significant human activity		
•	is the only example of its type		
•	demonstrates designs or techniques of		
	exceptional interest		
•	shows rare evidence of a significant		
	human activity important to a		
	community		

Although brick clamps are known from around NSW and technologically the processes are well-understood, such sites are rarely separately documented. In terms of its technology, the site elements, setting and use in the railway the brick clamps and associated clay pits provide evidence of the entire process of brick manufacture.

This criterion is met.

4.3.4.7 Criterion G

G an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places

Guidelines for inclusion	Guidelines for exclusion
 is a fine example of its type has the principal characteristics of an important class or group of items has attributes typical of a particular way of life, philosophy, custom, significant process, design, technique or activity is a significant variation to a class of items is part of a group which collectively illustrates a representative type is outstanding because of its setting, condition or size is outstanding because of its integrity or the esteem in which it is held 	 is a poor example of its type does not include or has lost the range of characteristics of a type

The brick clamps and associated clay pits demonstrate all major aspects of the brick-making process from selection of raw materials to their final use as part of the Main Southern Railway.

This criterion is met.

4.3.4.8 Summary of assessment against the criteria

Criterion	Criterion met?	Comments
Α	Yes	Relates to local theme of the Main Southern Railway.
		Relates to state themes – Labour, Transport.
В	No	
С	Yes	Ability to demonstrate process of brick manufacture from site selection to finished product
D	No	
E	No	
F	Yes	Demonstrates entire process of brick-making
G	Yes	Demonstrates all major aspects of the brick-making process.

4.3.5. Statement of heritage significance

The brick manufacturing site [consisting of the three brick clamps MRNH 6A to C and three clay pits MRNH 7A to C], its environmental setting and associated archaeological traces are of local heritage significance. It represents a well-preserved site showing the full range of processes involved in the manufacture of bricks in the 1860s, from the selection of raw materials to their final use as part of the Main Southern Railway.

4.3.6. Archival documentation

The overall site plans were drawn using unrectified geographic positioning system [GPS] coordinates on the WSG84 projection. This may produce small errors in the order of several metres, but these are not considered to affect the overall veracity of the recording.

Spot heights were taken with an automatic builders' level. The zero datum used was ground level adjacent to a prominent isolated tree due west of the clamps.

4.3.6.1 Plans

Plan number	Shows
Figure 4.14	MRNH 6 brick clamps and MRNH 7 clay pits and associated features in relation to Jaorimin Creek and railway line
Figure 4.15	Detail of MRNH 6 brick clamps and MRNH 7 clay pits with spot heights

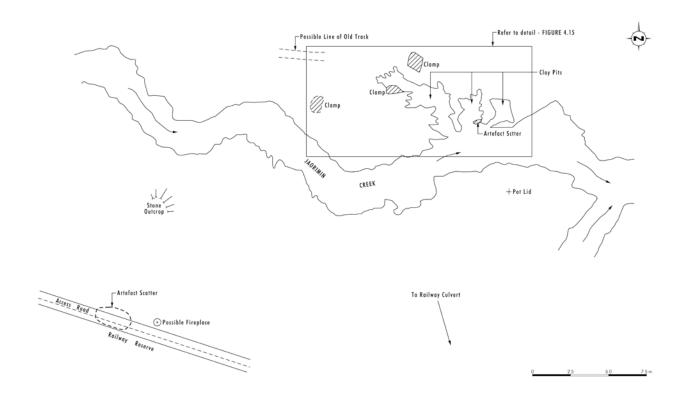


Figure 4.14 - MRNH 6 & 7 - Brick Clamps and Clay Pits [Denis Gojak].

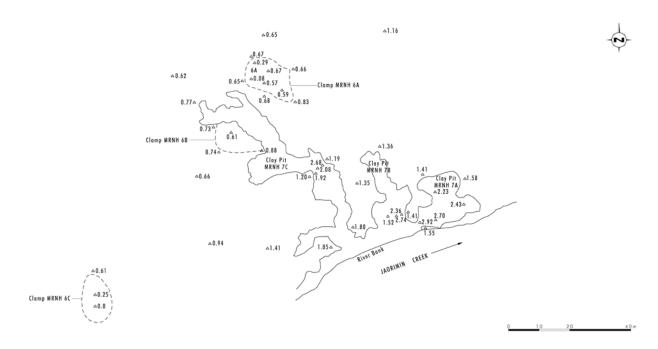


Figure 4.15 - MRNH 6 & 7 - Brick Clamps and Clay Pits Detail [Denis Gojak].

4.3.6.2 Photographic Catalogue

Photo number	Shows	Direction
MH6_01	MRNH 6A – brick clamp	East
MH6_02	MRNH 6A – view to Jaorimin Creek	
MH6_03	MRNH 6A – view to Jaorimin Creek	Southeast
MH6_04	MRNH 6A – brick fragments	
MH6_05	MRNH 6B – brick clamp	
MH6_06	MRNH 6B – brick clamp	
MH6_07	MRNH 6B – brick clamp	
MH6_08	MRNH 6B – brick clamp	North
MH6_09	MRNH 7 Jaorimin Creek- area of clay pits	
MH6_10	MRNH 7 Jaorimin Creek- area of clay pits	
MH6_11	MRNH 7 Jaorimin Creek- area of clay pits	
MH6_12	MRNH 7 Jaorimin Creek- area of clay pits	
MH6_13	MRNH 7 Jaorimin Creek- area of clay pits	
MH6_14	Metal fragment – from railway construction?	
MH6_15	Metal fragment – from railway construction?	
MH6_16	MRNH 7 Jaorimin Creek- area of clay pits	
MH6_17	MRNH 7 Jaorimin Creek- area of clay pits	
MH6_18	MRNH 7 Jaorimin Creek- area of clay pits	
MH6_19	View to rail line from MRNH6 – brick clamps	
MH6_20	MRNH 7 Jaorimin Creek- area of clay pits	
MH6_21	Fragment of ceramic	
MH6_22	Culvert beneath rail line	
MH6_23	Culvert beneath rail line	
MH6_24	Culvert beneath rail line	

Refer to Appendix 1 for photographic record.

4.4. MRNH 8 Timber-lined well

4.4.1. Location

The timber-lined well sits close to a low-point in the drainage network of the southern side of the Hume Highway, near the former junction of Zamia Street with the Great South Road [refer to Figure 4.1]. It sits forward of the former lot frontages.

The well now lies beneath a service road running along the side of the retaining wall of the interchange. It was covered in accordance with a protocol developed in consultation with the Heritage Branch [refer to Volume 1 Attachments 7 and 9 of this report series].

County / Parish	Argyle / Marulan
Local Government Area	Goulburn Mulwaree
Cadastral	Within road reserve
MGA coordinates – site centre	E 223809
	N 6152829

4.4.2. Description

The timber-lined well [MRNH8] sits in the natural collection point for drainage along the southern side of the Hume Highway. Its form and location suggests that it was a cistern rather than a well in the strict sense, which taps an aquifer. The dimensions of the structure, the use of wire nails and strengthening of the collar with concrete all indicate that it was operative in the late 19th and early 20th centuries, but it may be the latest version of an earlier town supply. The well is filled in with building demolition refuse, which was left in situ when the well was covered. The following description therefore only applies to the visible extent of the well.

The well is approximately square in plan, with internal dimensions of 1.6 x 1.8 metres. The sides are formed from eight or nine vertically-placed machine-cut hardwood boards. These are of variable width but are mainly 150 to 190 millimetres wide and 25 millimetres thick, i.e. 6" x 1" or 8" x 1" boards. They are held in place with jack posts forming an internal collar about 300 millimetres below the top. This is made from a piece of 50 millimetre wide timber that is skew-nailed into the end timbers. The superstructure of the well is a framework of two planks overlain by four boards. These appear to be later additions and are skew-nailed into the ends of several of the lining planks.

Soft roughly set concrete has been poured around the sides of the well, forming a collar. This extends out about 30 to 50 centimetres from the sides of the well. It post-dates the current lining boards where the contact can be examined.

The depth of the well is unknown. It is filled with building rubble consistent with materials used during the life and slow death of Old Marulan.

4.4.3. Interpretation

The location of the well places it next to the Golden Fleece Hotel. This was a two storey stone building built on the corner of the main road and Zamia Street in Section 6, as shown in Deering's 1868 map of the town [refer to Figure 4.16]

The Golden Fleece Hotel operated for a short time in the 1840s. The recorded licenses are issued to Jacob Halls from 4.8.1845 to 25.6.1846 and James Dwyer on 28.6.1847. Then the license was issued to Mr Wade on 22.12.1849. This pub was still operating in 1871 under licensee Edward Corrigan but was not listed nine years later in 1880.

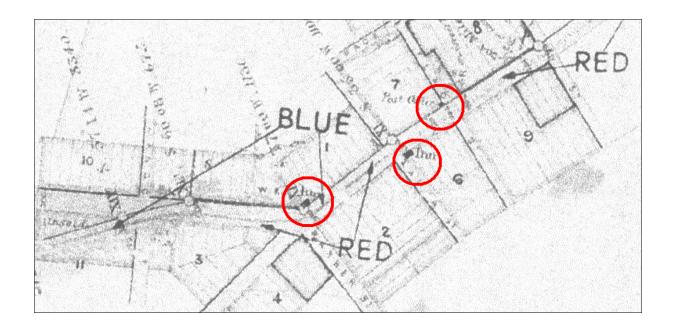


Figure 4.16 - Detail from Deering's 1868 survey of the Great South Road, showing three marked buildings - the Woolpack Inn [left circle], Golden Fleece Tavern [centre circle] and post office [right circle]. [NSW Department of Lands Map 824-1603]

Taking all this evidence together it is likely that the well was associated with the Golden Fleece Hotel. It may have been a general watering point, taking advantage of site drainage and would have made it convenient for travellers. Stock is likely to have been watered at the reserve giving access to the town creek; but this is speculative.

The square form of the well was common in 19th century construction. The panelling may only have extended until sound bedrock was reached, which could vary enormously across the site. The timber-panelling cannot with certainty be considered to be original. The milling on the boards, use of wire nails with blocky heads cannot be earlier than late 19th century in date, and are probably later again. The overlying timbers and the concrete collar are consistent with early 20th century materials.

It is quite possible that the well remained in use for travellers until the highway began to be dominated by motor cars, and was repaired in an ad hoc manner.

4.4.4. Assessment of heritage significance

4.4.4.1 Criterion A

A an item is important in the course, or pattern, of NSW's cultural or natural history

Guio	delines for inclusion	Guidelines for exclusion
•	shows evidence of a significant human activity is associated with a significant activity or historical phase maintains or shows the continuity of a historical process or activity	 has incidental or unsubstantiated connections with historically important activities or processes provides evidence of activities or processes that are of dubious historical importance has been so altered that it can no
		longer provide evidence of a particular association

The well is part of the rich archaeological resource within the Marulan SHR listing; which is considered to provide a snapshot of a representative small rural town. The well specifically reflects a number of themes – town planning, settlement, water and transport – which are key historical themes for the town as a whole.

The well meets this criterion at a state level as part of Old Marulan.

4.4.4.2 Criterion B

B an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
 shows evidence of a significant human occupation is associated with a significant event, person, or group of persons 	has incidental or unsubstantiated connections with historically important
	association

The well does not have particular associations with known or key individuals in the town. The licensees of the Golden Fleece did not play the active social role played by Joseph Peters of the Woolpack or had the career longevity of Joseph Hart, two other Marulan publicans.

The criterion is not met.

4.4.4.3 Criterion C

an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW

Guidelines for inclusion	Guidelines for exclusion
 shows or is associated with, creative or technical innovation or achievement is the inspiration for a creative or technical innovation or achievement is aesthetically distinctive has landmark qualities 	is not a major work by an important designer or artist
 exemplifies a particular taste, style or 	has only a loose association with a
technology	creative or technical achievement

The well demonstrates functional carpentry using machine-made materials.

The criterion is met at a local level.

4.4.4.4 Criterion D

B an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
 shows evidence of a significant human occupation is associated with a significant event, person, or group of persons 	 has incidental or unsubstantiated connections with historically important people or events provides evidence of people or events that are of dubious historical importance has been so altered that it can no longer provide evidence of a particular association

The well would be one of the few features of Old Marulan that survived the transition from the township, to ghost town, to a point on the road south. While this diverse community has no identity, the well represents, as do the two continually operating cemeteries, a place marker for different phases of rural life.

This criterion is met at a local level.

4.4.4.5 Criterion E

E an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
 has the potential to yield new or further substantial scientific and/or archaeological information is an important benchmark or reference site or type provides evidence of past human 	 has little archaeological or research potential only contains information that is readily available from other resources or archaeological sites
cultures that is unavailable elsewhere	irrelevant to research on science, human history or culture

The well has archaeological potential to provide more information about its own construction, the planning of water-supply and drainage in the town. Archaeological deposits may be present in the base of the well as part of the fill. Its location within Old Marulan, where it is part of a larger archaeological landscape, elevates its significance.

The criterion is met at a state level.

4.4.4.6 Criterion F

F an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
 provides evidence of a defunct custom, way of life or process demonstrates a process, custom or other human activity that is in danger of being lost shows unusually accurate evidence of a significant human activity is the only example of its type demonstrates designs or techniques of exceptional interest shows rare evidence of a significant human activity important to a community 	is not rare is numerous but under threat

No systematic information is available on roadside wells and water supply in this region. Within the town there are no other small wells known.

This criterion is met at a local level.

4.4.4.7 Criterion G

G an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places

Guidelines for inclusion	Guidelines for exclusion
 is a fine example of its type has the principal characteristics of an important class or group of items has attributes typical of a particular way of life, philosophy, custom, significant process, design, technique or activity is a significant variation to a class of items is part of a group which collectively illustrates a representative type is outstanding because of its setting, condition or size is outstanding because of its integrity 	 is a poor example of its type does not include or has lost the range of characteristics of a type
or the esteem in which it is held	

The form of the well is common for its presumed mid-19th century construction date. It has lost any original headworks or framing that it may have had. It represents one aspect of water supply in Old Marulan.

The criterion is met at a local level.

4.4.4.8 Summary of assessment against the criteria

Criterion	Criterion met?	Comments
Α	Yes	Met at STATE level as part of Old Marulan
В	No	
С	Yes	Demonstrates functional carpentry using machine-made materials
D	Yes	Survived all phases of Marulan's town and rural life - a place marker
E	Yes	Met at STATE level for its archaeological potential relating to Old Marulan
F	Yes	Rare information on roadside wells and water supply in this region
G	Yes	Represents one aspect of water supply in Marulan

4.4.5. Statement of heritage significance

The well is part of the rich archaeological landscape of the Old Marulan SHR listing and specifically reflects a number of themes – town planning, settlement, water and transport – which are key historical themes for the town as a whole. The well has archaeological potential to provide more information about its own construction, the planning of water-supply and drainage in the town. The well would be one of the few features of Old Marulan that survived the transition from the township, to ghost town, to a point on the road south.

4.4.6. Archival documentation

4.4.6.1 Plans

Plan number	Shows
Figure 4.17	MRNH 8 Timber Lined Well



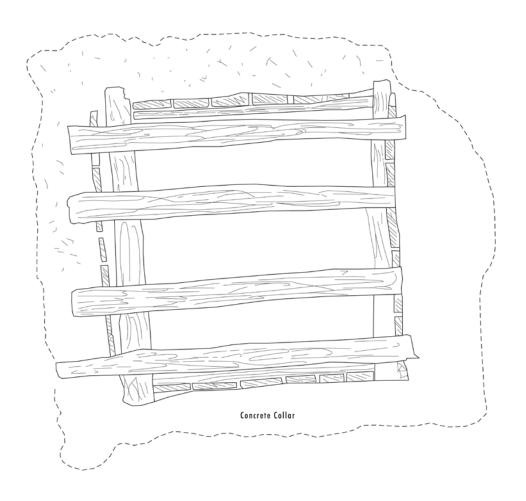




Figure 4.17 - MRNH8 - Timber Lined Well [Denis Gojak].

4.4.6.2 Photographic Catalogue

Photo number	Shows	Direction
MH8_01	MRNH 8 Timber Lined Well	Southwest
MH8_02	MRNH 8 Timber Lined Well	Southwest
MH8_03	MRNH 8 Timber Lined Well	Southwest
MH8_04	MRNH 8 Timber Lined Well	Southwest
MH8_05	MRNH 8 Timber Lined Well	Southeast
MH8_06	MRNH 8 Timber Lined Well	Northeast
MH8_07	MRNH 8 Timber Lined Well	Northwest

Refer to Appendix 1 for photographic record.

4.5. MRNH 9 Sheep dip

4.5.1. Location

This sheep dip is an isolated structure on the northern side of the railway line adjacent to a small creek

County / Parish	Argyle / Marulan
Local Government Area	Goulburn Mulwaree
Cadastral	Lot 230 DP 750029
MGA coordinates – site centre	E 221701
	N 6156122

4.5.2. Description

The structure consists of a narrow slot lined with cement, set flush at ground level. The slot measures a nominal 0.6 metres width by 5.75 metres long. Part of the structure remains invisible beneath soil and grass. One side has collapsed inwards. Its depth has not been ascertained.

There are no yards, posts or other features evident that would have been associated with the sheep dip during its operation. However, the sheep dip would have had to have operated within a complex of yards – at its simplest a holding pen for sheep and a race that channelled them inextricably towards the dip.

4.5.3. Interpretation

Identification as a sheep dip is based on comparison with known examples on other rural properties. These generally date to the early 20th century period.

There are a variety of possibilities as to why it was constructed separately to the main sheep yard facilities concentrated around the homestead. The most plausible is that it was well-placed to allow stock to be treated without the need to muster them under the railway line, which would have added at least a two kilometre detour, and then back. If located near the junction of several paddocks, these would assist in managing and separating flocks efficiently. Its location near a creek line may have been necessary for water supply, or may have reflected its importance in routine stock management at other times.

Its location falls within the 1820s Howe "Advance Australia" grant, but the materials indicate construction sometime in the early 1900s.

4.5.4. Assessment of heritage significance

4.5.4.1 Criterion A

an item is important in the course, or pattern, of NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
 shows evidence of a significant human activity is associated with a significant activity or historical phase maintains or shows the continuity of a historical process or activity 	 has incidental or unsubstantiated connections with historically important activities or processes provides evidence of activities or processes that are of dubious historical importance has been so altered that it can no longer provide evidence of a particular
	association

Sheep dipping is a routine part of flock management. While the history of the local area relates to pastoralism, this activity has to be considered as an incidental aspect of this historical land use.

The criterion is not met.

4.5.4.2 Criterion B

B an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion
shows evidence of a significant human occupation is associated with a significant event, person, or group of persons	 has incidental or unsubstantiated connections with historically important people or events provides evidence of people or events that are of dubious historical importance has been so altered that it can no longer provide evidence of a particular
	association

The site is not associated with any significant person in local or state history.

This criterion is not met.

4.5.4.3 Criterion C

an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW

Guio	delines for inclusion	Guidelines for exclusion	
•	shows or is associated with, creative or technical innovation or achievement	 is not a major work by an important designer or artist has lost its design or technical integrity its positive visual or sensory appeal or landmark and scenic qualities have been more than temporarily degraded 	
•	exemplifies a particular taste, style or	 has only a loose association with a 	
	technology	creative or technical achievement	

The sheep dip has been damaged. Although the surviving component is stable, the item is no longer complete, as yards and superstructure are an integral part of its operation.

This criterion is not met.

4.5.4.4 Criterion D

B an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion	
 shows evidence of a significant human occupation is associated with a significant event, person, or group of persons 	connections with historically important	

The site is not considered to have a strong association with any previous or contemporary particular community or group.

This criterion is not met.

4.5.4.5 Criterion E

E an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion	
 has the potential to yield new or further substantial scientific and/or archaeological information is an important benchmark or reference site or type 	 has little archaeological or research potential only contains information that is readily available from other resources or archaeological sites 	
provides evidence of past human cultures that is unavailable elsewhere	the knowledge gained would be irrelevant to research on science, human history or culture	

The sheep dip, and the surrounding area which may retain subsurface archaeological evidence of former holding and draining pens, can provide additional information on flock management and farming practices that have not been otherwise well-documented in the case of Marulan for the early 20th century.

This criterion is met at a local level.

4.5.4.6 Criterion F

an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history

Guidelines for inclusion	Guidelines for exclusion	
 provides evidence of a defunct custom, way of life or process 	is not rareis numerous but under threat	
 demonstrates a process, custom or other human activity that is in danger of being lost 		
 shows unusually accurate evidence of a significant human activity is the only example of its type 		
demonstrates designs or techniques of exceptional interest		
 shows rare evidence of a significant human activity important to a community 		

Although sheep dips are ubiquitous on pastoral properties, and older forms can be expected to survive reasonably well, they have not received systematic attention. It is therefore not possible to say that sheep dips of this form are abundant. The form itself has been replaced by other designs in common use.

This criterion is met, on a precautionary basis.

4.5.4.7 Criterion G

an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places

Guidelines for inclusion	Guidelines for exclusion	
 is a fine example of its type has the principal characteristics of an important class or group of items has attributes typical of a particular way of life, philosophy, custom, significant process, design, technique or activity is a significant variation to a class of items is part of a group which collectively illustrates a representative type is outstanding because of its setting, condition or size is outstanding because of its integrity or the esteem in which it is held 	 is a poor example of its type does not include or has lost the range of characteristics of a type 	

The sheep dip lacks integrity. Too much of the essential superstructure is missing to allow this criterion to be met.

The criterion is not met.

4.5.4.8 Summary of assessment against the criteria

Criterion	Criterion met?	Comments
Α	No	
В	No	
С	No	
D	No	
E	Yes	Early 20 th century flock management and farming practices
F	Yes	Form is presumed rare
G	No	

4.5.5. Statement of heritage significance

The sheep dip trench MRNH 9 is locally significant because of its archaeological potential. The sheep dip trench and any associated subsurface archaeological evidence of former holding and draining pens may provide information about past stock management practices at Lynwood. It is potentially a rare survival of a form that was once widely used in rural NSW.

4.5.6. Archival documentation

4.5.6.1 Plans

Plan number	Shows
Figure 4.18	MRNH 9 Sheep Dip – plan and section

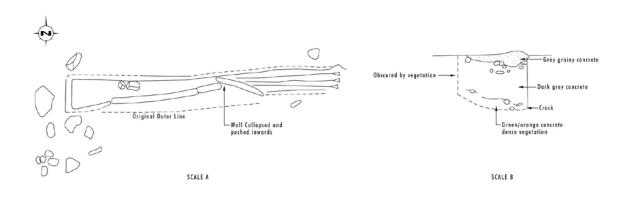




Figure 4.18 - MRNH9 - Sheep Dip [Denis Gojak].

4.5.6.2 Photographic Catalogue

Photo number	Shows	Direction
MH9_01	MRNH9 – Sheep Dip	North
MH9_02	MRNH9 – Sheep Dip	Northwest
MH9_03	MRNH9 - Sheep Dip	East

Refer to Appendix 1 for photographic record.

4.6. OMF 46 – Cesspit

4.6.1. Background

Although not one of the sites identified during the initial 2005 EIS archaeological survey and subsequently recommended for archival recording, photographs of OMF 46 cesspit have been included in this report as a record of the cesspit prior to it being protected and buried.

Cesspit OMF 46 was the only structural element of the Woolpack Inn that fell within the Old Marulan SHR area excavated during the Old Marulan 2007 archaeological investigation [refer to Figure 4.1 and Figure 4.19]. The remainder of the Woolpack Inn building was formerly located to the south of and outside the archaeological investigation area, and was likely removed during the widening of the Hume Highway in the late 1960s and 1970s. No evidence of the Woolpack Inn building was found during the excavation of the Hume Highway road reserve alongside the main 2007 archaeological investigation area [refer to Volume 2 Section 6.7.5 of this report series].



Figure 4.19 - Excavation of OMF 46 - Cesspit

The cesspit is detailed within Volume 2 Section 6.7.7 of this report series. It comprised a rectangular pit, lined with roughly squared porphyryite field stone boulders set in random courses. There was no mortar present between the stones. It was oriented roughly east to west along its long axis and appeared to be parallel to the lot boundary. The cesspit measured 2.60 by 1.78 metres, and was about 0.85 metres deep internally. The walls were about 300 millimetres thick and consisted of a single thickness of stone. The top of the cesspit was level, and there was a residual course of bricks set in mortar remaining along the top, representing the superstructure. In the east wall, at the base, there was an opening measuring 250 millimetres across by 320 millimetres high. This penetrated the wall thickness. It did not appear to continue naturally into a channel, and probably acted as a natural seep, although it would have discharged into quite dense decayed bedrock with negligible permeability [refer to Figure 4.20].



Figure 4.20 - View of the interior of the excavated cesspit

Following excavation and prior to any works associated with the construction of the transport interchange that may impact the cesspit, the cesspit was filled and protected in accordance with a methodology endorsed by the Heritage Branch [refer to Volume 1 Attachments 7 and 9 of this report series]. This consisted of lining the cesspit with geofabric and filling with clean sand. A second layer of geo fabric was laid over the filled cesspit, extending out around the exposed remains, and topped with approximately 500 millimetres of clean sand.

4.6.2. Archival documentation

4.6.2.1 Photographic Catalogue

Photo number	Shows	Direction
OM46_01	OMF 46 - Cesspit structure [Unit 31]	Northeast
OM46_02	OMF 46 - Cesspit structure [Unit 31]	Northeast
OM46_03	OMF 46 - Cesspit structure [Unit 31]	Southwest
OM46_04	OMF 46 - Cesspit structure [Unit 31]	Southwest
OM46_05	OMF 46 - Cesspit structure [Unit 31]	Northwest
OM46_06	OMF 46 - Cesspit structure [Unit 31]	Northwest
OM46_07	OMF 46 - Cesspit structure [Unit 31]	Northeast
OM46_08	OMF 46 - Cesspit structure [Unit 31]	Northeast
OM46_09	OMF 46 - Cesspit structure [Unit 31]	Northeast

Photo number	Shows	Direction
OM46_10	OMF 46 - Cesspit structure [Unit 31]	Northeast
OM46_11	OMF 46 - Cesspit structure [Unit 31]	Northeast
OM46_12	OMF 46 - Cesspit structure [Unit 31]	Southwest
OM46_13	OMF 46 - Cesspit structure [Unit 31]	Northeast
OM46_14	OMF 46 - Cesspit structure [Unit 31]	Southwest
OM46_15	OMF 46 - Cesspit structure [Unit 31]	West
OM46_16	OMF 46 - Cesspit structure [Unit 31]	Southwest
OM46_17	OMF 46 - Cesspit structure [Unit 31]	West
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OM46_34	OMF 46 - Cesspit structure [Unit 31]	Northeast
OM46_35	OMF 46 - Cesspit structure [Unit 31]	Northeast
OM46_36	OMF 46 - Cesspit structure [Unit 31]	Northeast
OM46_37	OMF 46 - Cesspit structure [Unit 31]	East
OM46_38	OMF 46 - Cesspit structure [Unit 31]	Northeast

Refer to Appendix 1 for photographic record.



5. Bibliography

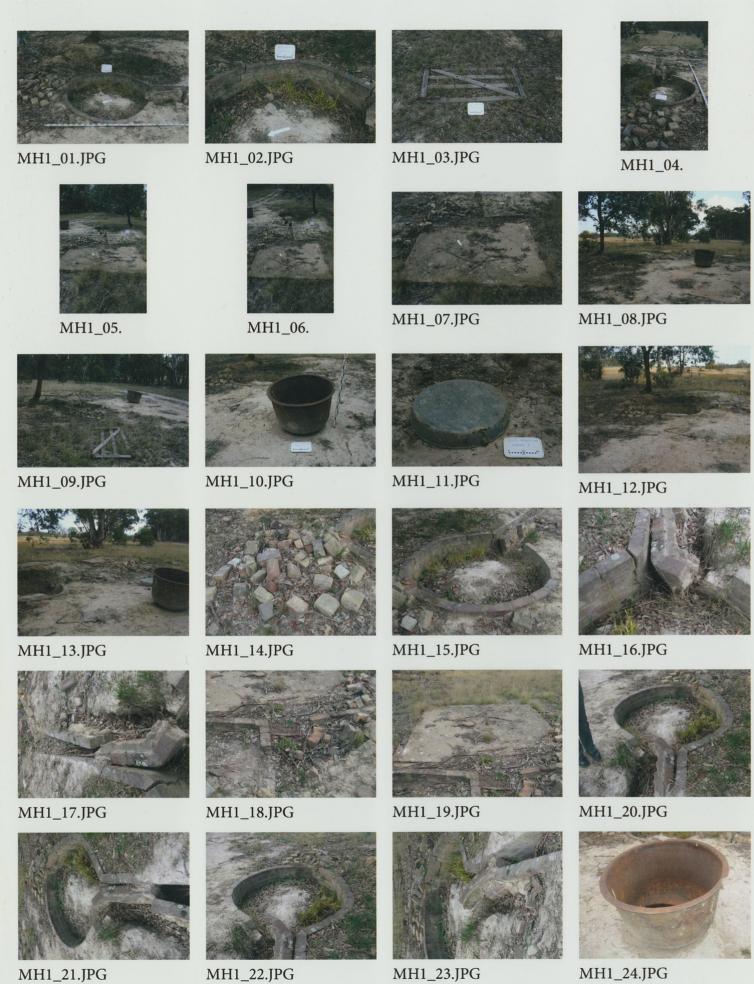
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Australia's first frontier: the spread of settlement in New south Wales 1788-1829, Melbourne University Press, Carlton.



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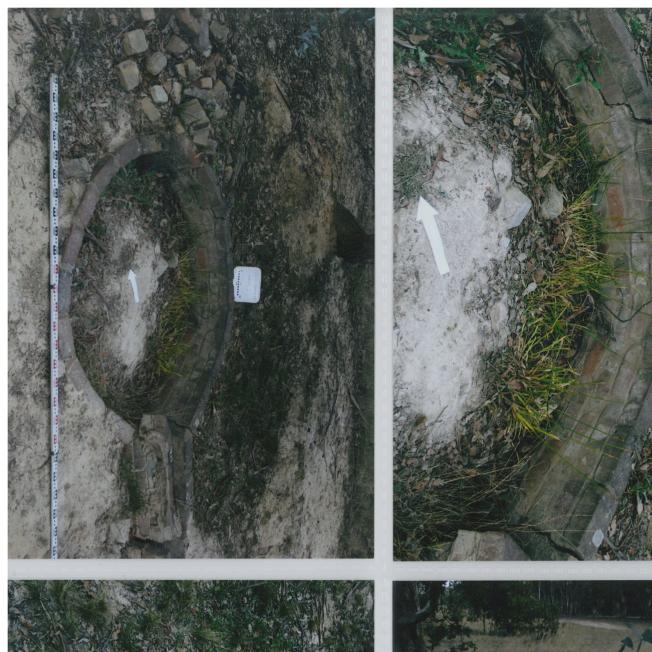


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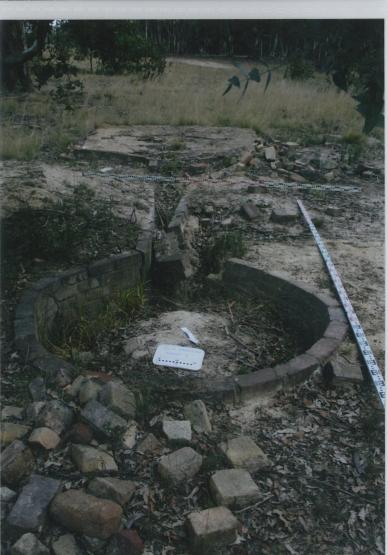


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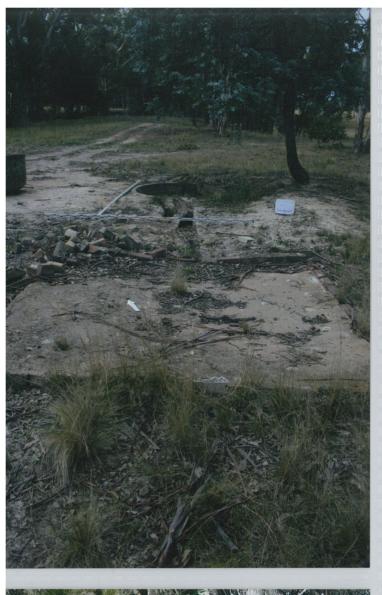


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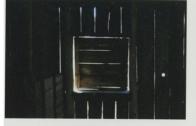




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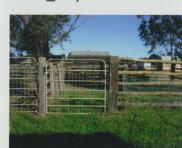
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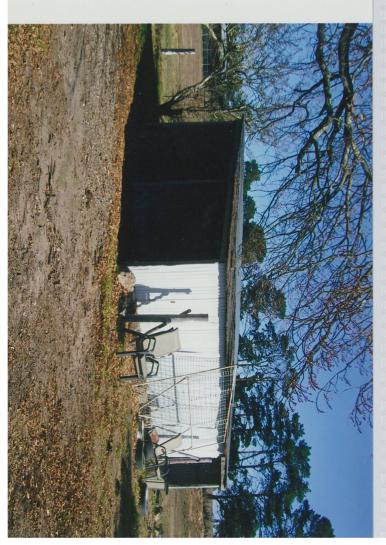
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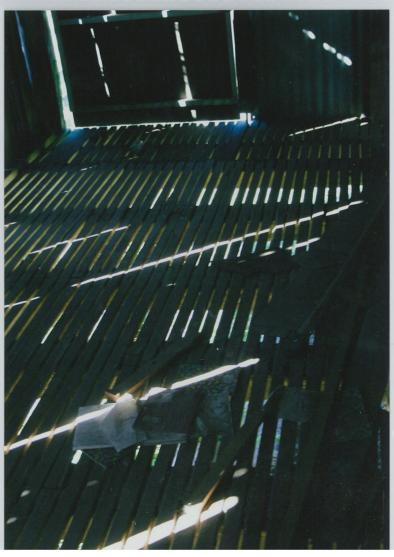
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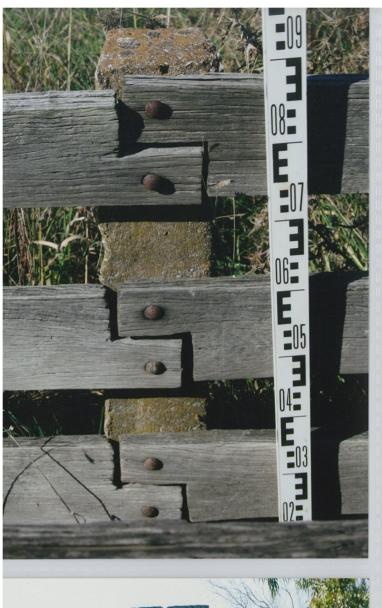
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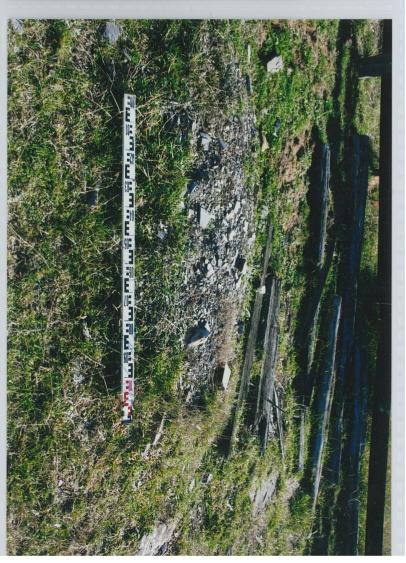
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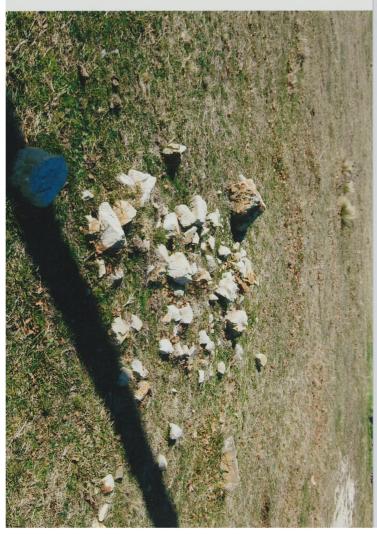
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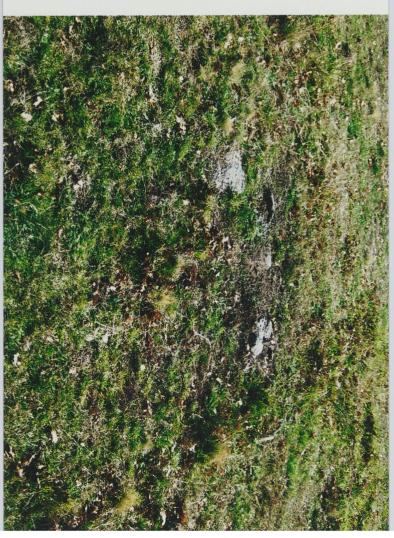
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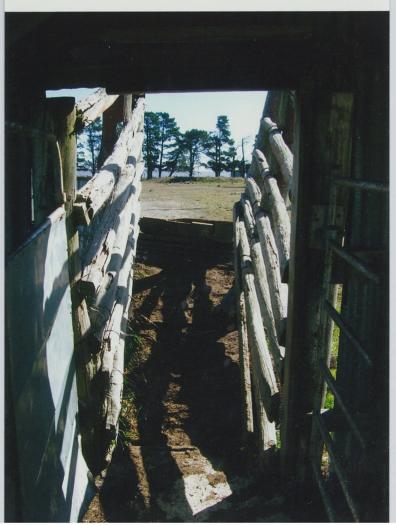
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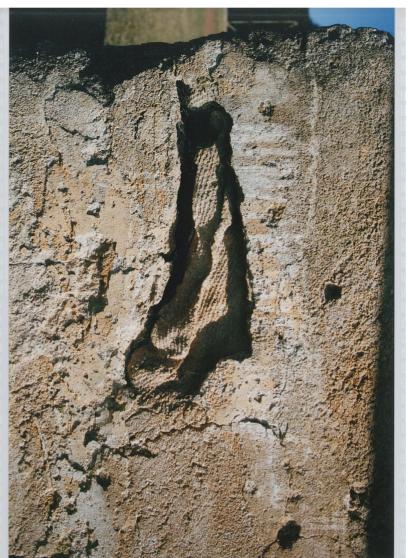
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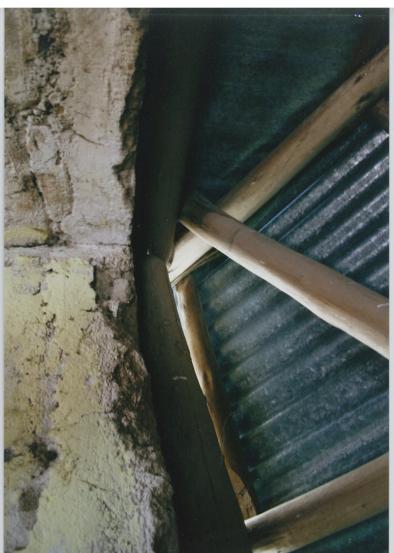
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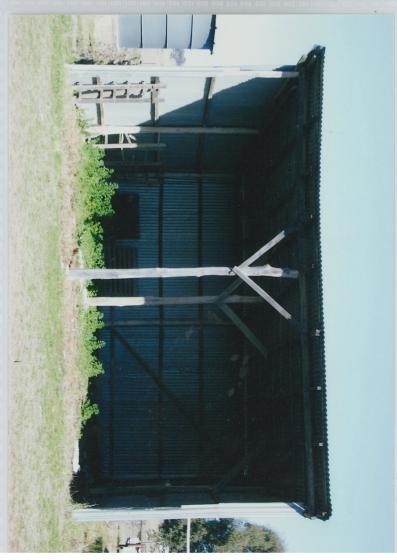
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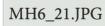
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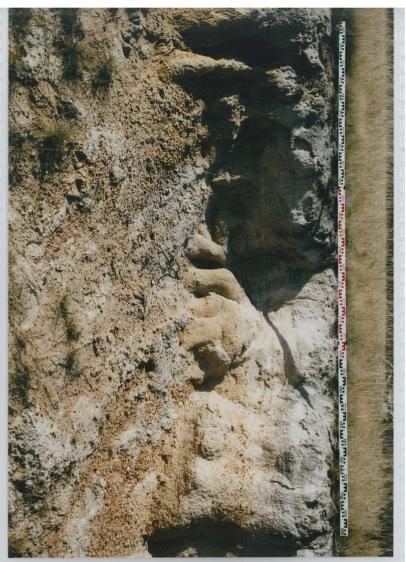
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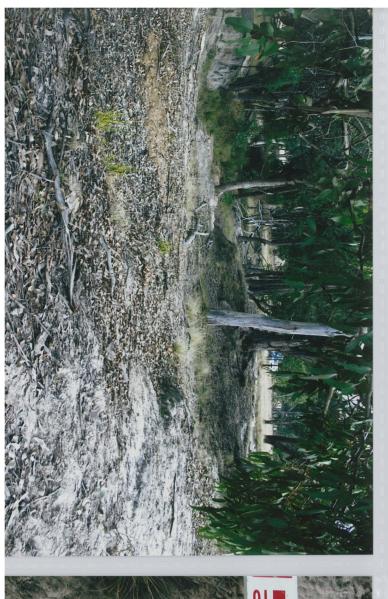
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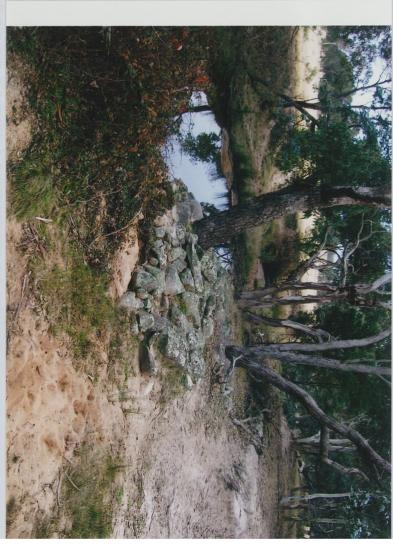
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1H6_16.JPG> A45677-017 0002 NNNN 1

(MH6_15.JPG) A45677-016 0002 NNNN 1

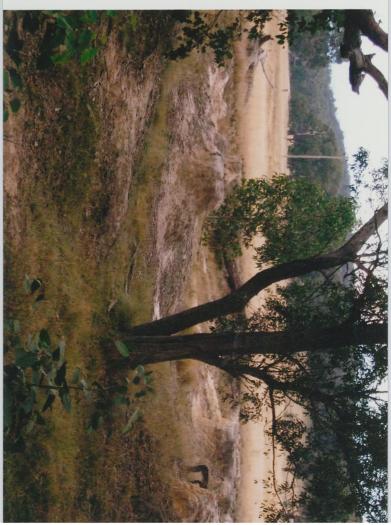
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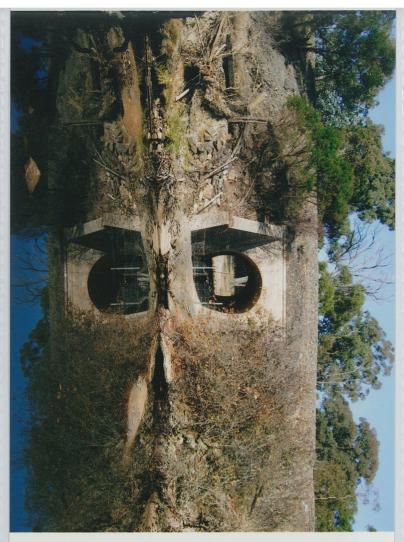
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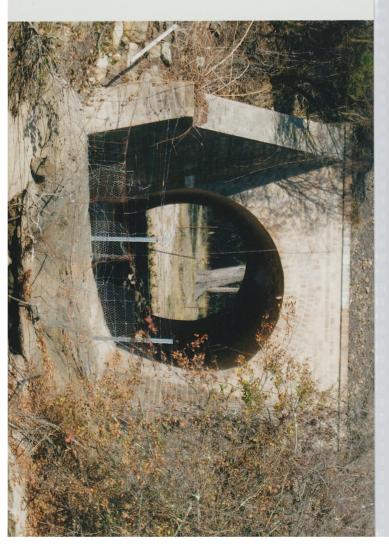
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R:0









MH6_22.JPG> A45677-023 0002 NNNN 1

(MH6_21.JPG) A45677-022 0002 NNNN 1

CR:0

MH6124.JPG> A45677-025 0002 NNNN 1

(MH6_23.JPG) A45677-024 0002 NNNN 1

CRIB

Rid

R:0

MRNH8



MH8_01.JPG



MH8_02.JPG



MH8_03.JPG



MH8_04.



MH8_05.JPG



MH8_06.JPG



MH8_07.JPG

(C1. JPG) A45678-881 8882 NNN 1 *









MH8_02,JPG> A45678-003 0002 NNNN 1

(MH8_01.JPG) A45678-002 0002 NNNN 1

R:0 C

CRIG

1H8_04.JPG> A45678-005 0002 NNNN 1

(MH8_03.JPG) A45678-004 0002 NNNN 1

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MH8_06.JPG> A45678-007 0002 NNNN 1

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KMH8_05, JPG> A45678-006 0002 NNNN 1

CR:0

(MH8_07.JPG) A45678-008 0002 NNNN 1

MRNH9



MH9_03.



MH9_01.JPG

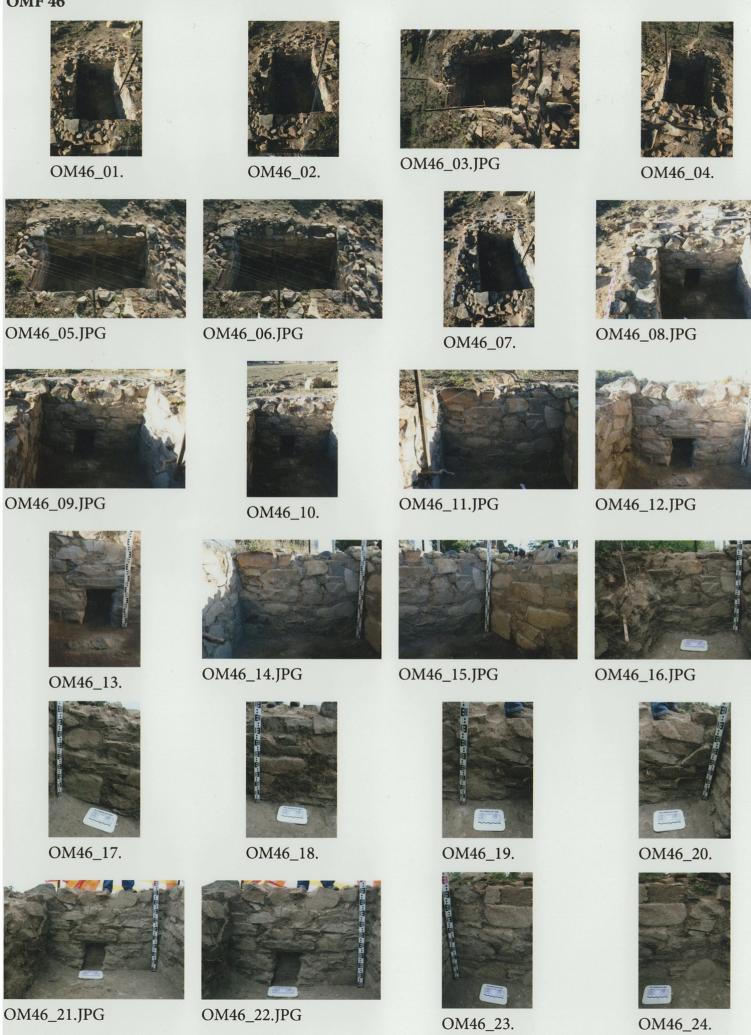


MH9_02.JPG

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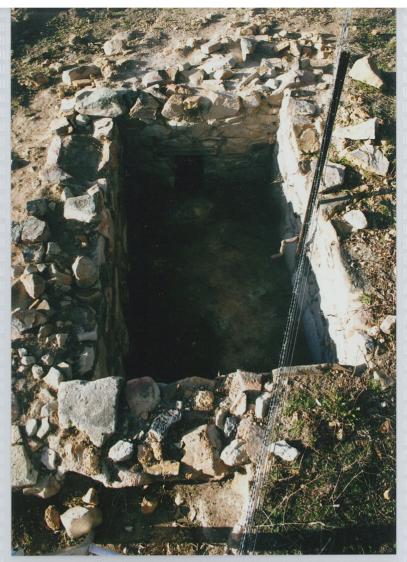
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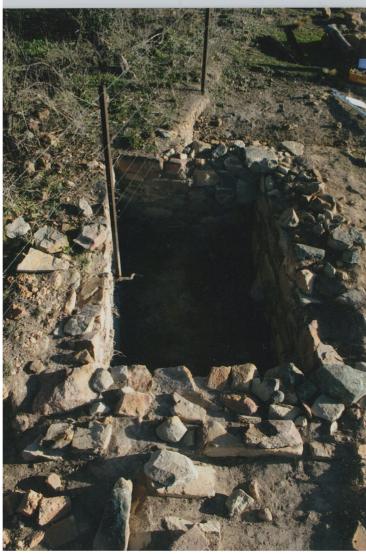
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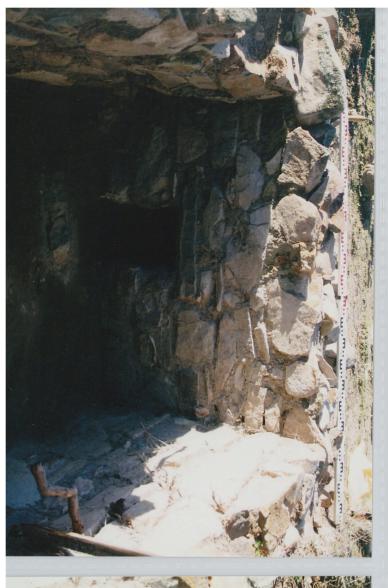


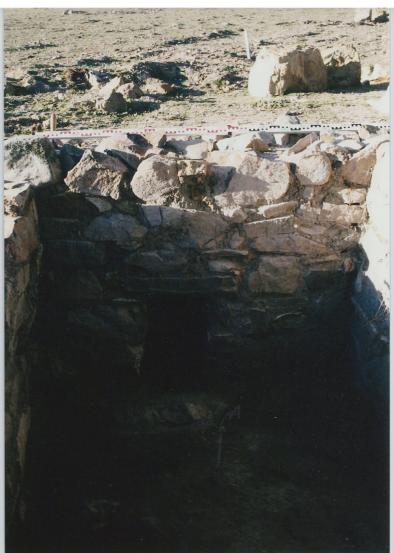




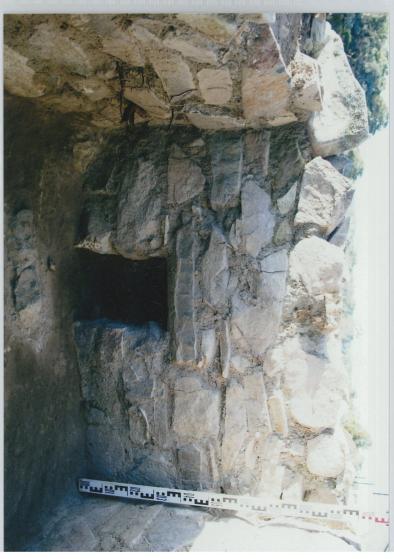


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OM46_10.JPG> A45680-012 0002 NNNN 1

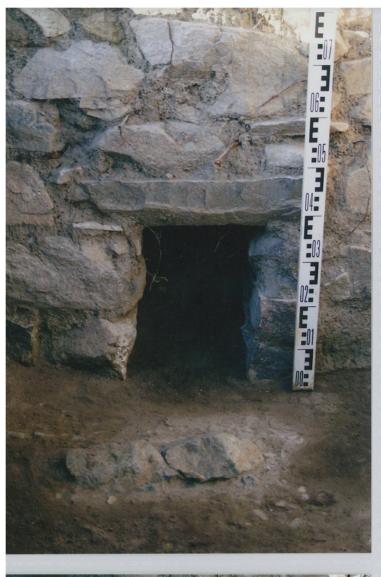
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(OM46_11.JPG) A45680-013 0002 NNNN 1

R:0



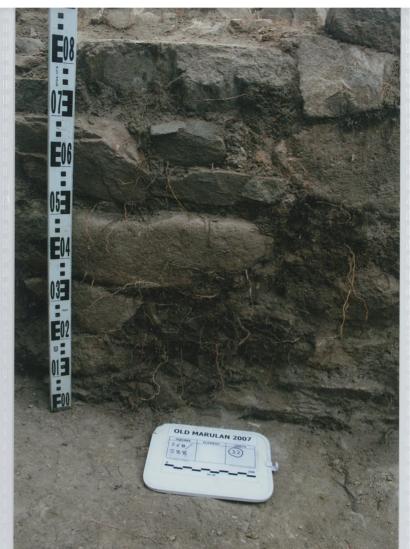




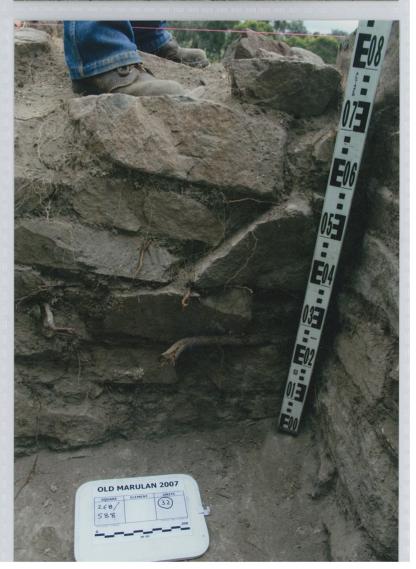


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0M46_18.JPG> A45680-020 0002 NNNN 1 *

(OM46_17.JPG) A45680-019 0002 NNNN 1 *

0M46_20.JPG> A45680-022 0002 NNNN 1 *

<OM46_19.JPG> A45680-021 0002 NNNN 1 *









0M46_22.JPG> A45680-024 0002 NNNN 1

(OM46_21.JPG) A45680-023 0002 NNNN 1

R:0 CR:0

0M46_24.JPG> A45680-026 0002 NNNN 1 *

(OM46_23.JPG) A45680-025 0002 NNNN 1 *



0M46_26.JPG> A45680-028 0002 NNNN 1

R:0

(0M46_25.JPG) A45680-027 0002 NNNN 1

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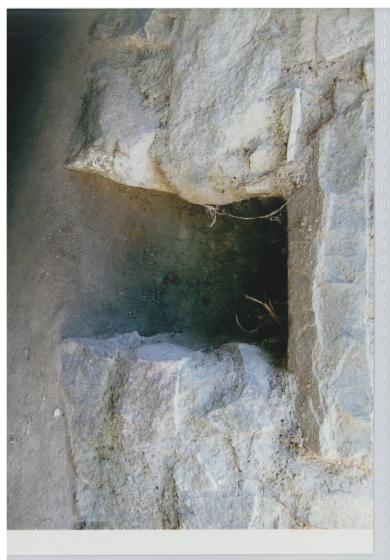


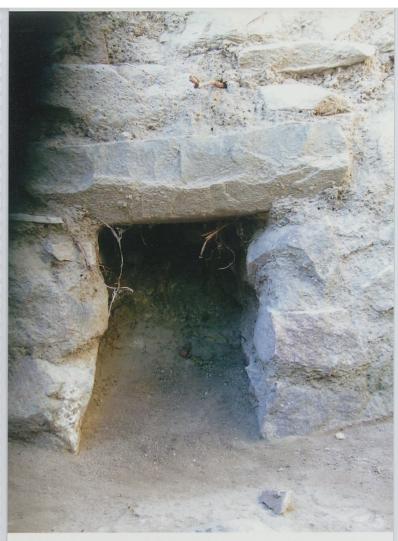


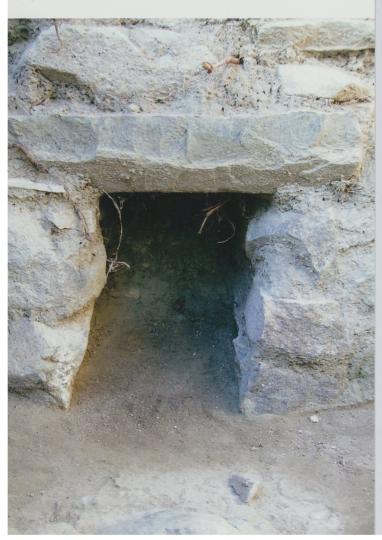




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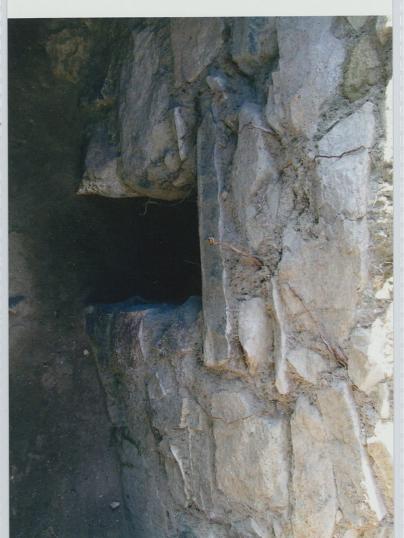


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