“From Georgian Box to a Verandahed Vernacular”:
An Investigation of Standing Structures. Vernacular Rural Dwellings
In The County of Cumberland NSW 1788-1828

Rod Mountford 1999
ARPH IV Year Honours Thesis
University of Sydney
## Contents

Acknowledgements ........................................................................... I

List of Figures ........................................................................... II

Glossary .................................................................................... III

Chapter 1 Introduction .................................................................... 1

Chapter 2 The County of Cumberland ........................................... 3
  Vernacular Architecture: Definition and the Australian Context .......... 3
  Temporal Parameters ................................................................... 4
  Spatial Parameters ...................................................................... 5
  The Environment ....................................................................... 5
  Settlement ................................................................................ 9

Chapter 3 Methodology ................................................................. 15
  Introduction ............................................................................... 15
  Documentary Evidence ............................................................... 15
    Primary Sources ....................................................................... 15
    Secondary Sources ................................................................... 15
    Non-Architectural ................................................................. 16
    Pictorial Evidence ................................................................... 17
  Physical Investigation ................................................................. 18
    Site visits ............................................................................... 18
    Investigative procedures ......................................................... 19
    Analysis of the Structures ....................................................... 20
    Investigative Criteria ............................................................... 20
    Recording Procedures ............................................................. 23

Chapter 4 The Structures Identified in this Study ............................. 24
  Investigation by District .............................................................. 24
    Parramatta ............................................................................ 24
    Liverpool ............................................................................... 30
    Campbelltown ........................................................................ 34
    Camden ................................................................................. 36
    Penrith .................................................................................. 39
    The Hawkesbury .................................................................... 47
Acknowledgements

This thesis has been partly funded by the Carlyle Greenwell Research Fund. There are many individuals and organizations that contributed to this study. I would like to thank my supervisor, Aedeen Cremin, for her help and support, and Andrew Wilson for technical advice. Professor Ian Jack of the History Department for his help and access to his archive. Dennis Gojak of the National Parkes and Wildlife Service, Mary Casey of Casey Lowe & Associates and Geoff Ashley of Godden Mackay Logan Pty Ltd. The staff of the Power Library, the Architecture Thesis Library, and the Archaeology Department.

This study would not have been possible without the co-operation and help of the owner’s of the properties investigated. I would like to thank, James Broadbent, Jackie Flowers, Hawkesbury Heritage Farm, The Historic Houses Trust, Mrs Kelly, The Livingstones, The MacIntosh family, Annette Macarthur-Onslow, National Parkes and Wildlife Service, Penrith Lakes Corporation, Robyn Sharpe, Peter Stevenson, Stewart Symonds, and the Testoni family. Also I would like to thank the following people for their help and support, Alex Goodsell, Dr Helen Proudfoot, and Jan Fenson.
LIST OF FIGURES

Figure 1: Geological Map of the Sydney Region  pg 6

Figure 2: Land grants in the County of Cumberland to 1821  pg 10

Figure 3: Map of Location of Structures  pg 6

Figure 4: Data Recording Sheet  pg 21

Figure 5: The Cottage Mulgoa  pg 74

Figure 6: The L-Plan Type of Homestead  pg 77

Figure 7: The T-Plan Type of Homestead  pg 81
## Glossary

**Batten**
Small timber roof member supporting tiles or shingles

**Bay**
Recess: projecting window space, circular or geometric in shape

**Bond**
Brick bond types

- **English**

- **Colonial**

- **Flemish**

**Boxed Eaves**
Projection of roof over the wall and lined with boards

**Casement Windows**
Windows that open outwards and are hung on vertical hinges

**Close Eaves**
A roof that ends and sits flush with the wall

**Collar Rafters**
A pair of rafters braced by a horizontal cross member

**Dog Leg Staircase**
A small half landing staircase used in small dwellings within its rise turns ninety degrees

**Double Pile**
Two storey building two rooms deep on each floor
**Fenestration**
Arrangement given to windows upon a wall and their associated ornament

**Half Hipped Roof**
Also known as a Jerkin Headed roof

**Hipped Roof**

**Jalousies**
A louvered window shutter

**Ledged and braced**
Type of door construction, a transverse board shouldered top and bottom by horizontal boards

**Mansard Roof**

**Open Couple Roof**
Type of roof construction where paired rafters have no cross members and thus an open roof space

IV
Sash Windows  Window consisting of two or more vertically sliding sashes

Single Pile Plan  Two storey dwelling one room deep on each floor

Skillion or Skilling  One-pitched roof on an addition to a building, verandahs running from the roof, are essentially skillions without walls

Stud  Vertical wooden post or member bracing both the top and bottom wall plates

tothing  Method of joining of two brick walls, much like a mortise and tenon

Vouissors  Wedged shaped stone blocks forming an arch
Chapter 1 Introduction

This thesis is an investigation of standing structures, specifically those dwellings that are examples of a rural vernacular form. The area of the study is the County of Cumberland in New South Wales, and covers the period 1788-1828.

Through the investigation of these structures, the aims of thesis is to:

1. Document and record all known rural vernacular dwellings in the study area.
2. To identify and provide a typology for these structures.
3. To propose a chronological development of these structures, in terms of identifiable phases, as an alternative to J M Freeland's three phases of early colonial architecture.
4. To identify any influences responsible for the structures form and development, in the context of the set temporal and spatial parameters.

This thesis attempts to address the aims of the study by the research undertaken and presented in the following chapters.

Chapter two provides the background for this study, firstly it provides an overview of the field of vernacular architectural studies in a world context. Secondly, it identifies the temporal and spatial parameters for the study. Thirdly, the physical environment is examined, with particular reference to geology, vegetation and rainfall. The fourth element looks at the history of settlement of the County of Cumberland, with particular reference to the six major districts and the allocation of early land grants up to 1821. This chapter is concerned with providing an insight into the history of settlement of the county in an environmental context.

The third chapter details the methodology employed in this study. An introduction to the study of vernacular architecture in Australia is discussed. The methodology of this study is detailed and starts with the investigation of the documentary evidence. A number of sources were used in this study to provide the essential data for the location and history of the structures, so as to provide a database.

The second part of this chapter deals with the physical investigation of the structures identified in the first half of the chapter. A detailed description is included and covers the site visits, and the investigative procedures employed at each site. The criteria used for recording are presented and formed the basis for my data record sheets used at each site. Finally, the actual recording procedures are explained for each site visit.

The fourth chapter contains the data gathered on all the structures investigated in the study. Because of the size of the study area, six major districts were identified. Each district and the structures contained within are presented in the form of a data sheet.
Each structure is described in terms of its style, form, and architectural elements. Also provided is environmental data collected at each site, and includes orientation, topographical location and water sources. This chapter address one of the aims of this study by documenting and recording all rural vernacular dwellings within the temporal and spatial parameters set in chapter two.

Chapter five analyses the data recorded in chapter four. It addresses the two remaining aims. Firstly, a detailed typological assessment is attempted of all the structures investigated in this study. This based on size, number of rooms and floors, and any relationship to an identifiable rural industry. Secondly, an assessment of the type of construction and materials used is provided as part of the recording and documentation process. Thirdly, the structures orientation and the selection of its site is discussed and results presented.

Chapter six is concerned with discussing the data and results obtained in both chapter four and five. Firstly, one of the aims identified earlier is proposed. This is the proposed phases of development based on the structures investigated, as an alternative to J M Freeland’s three phases in his Architecture of Australia published in 1968.

The three phases are The Transplantation Phase 1788-1810, The Adaptive Phase 1811-1820, and the Early Colonial Vernacular Phase 1821-1828+. Examples from the investigation are used to illustrate all three phases. An assessment of the environmental factors is discussed, with special relevance to rainfall, geology and vegetation and the importance of permanent water. Another important factor examined is the influence of economic factors, which when analyzed revealed two separate regions, based on a preference for either agriculture or pastoralism.

Finally the conclusion of this thesis draws the data gathered, the results and those influences discussed in chapter six together. It demonstrates that the four main aims of the thesis were addressed, and that this type of study on standing structures is a viable form of research, and has future potential in its implementation in other regions throughout Australia.
Chapter 2

Vernacular Architecture, Definition and Context

The focus of this study is directed towards those structures that exhibit qualities or attributes endemic to vernacular architecture. There are many interpretations and definitions describing this form of architecture. I submit the following two definitions because they are succinct, generic and convey the essence of what this thesis is concerned with.

Firstly, from the British practitioner E Mercer, who says “vernacular buildings are those which belong to a type that is common in a given area at a given time” (Mercer p:1).

Secondly from an Australian perspective, R Lawrence’s definition states, “no building is or is not vernacular for its own qualities but is so by virtue of those which it shares with many others, and the identification of vernacular buildings is very much a matter of relative numbers” (Lawrence p:16). Another definition by an Australian researcher on the vernacular, Miles Lewis describes the Australian context. He sees this in terms of a diverse immigrant population experimenting in their own vernacular traditions in a new environment (Lewis p:2).

Vernacular Studies in Australia

R Lawrence sums up history of this field of study in Australia, when he states, during the past three decades architects and art historians have become increasingly interested in vernacular architecture in both urban and rural settings, and have documented many buildings previously overlooked. Nonetheless, the dominant interpretation has been photographic and descriptive concentrating on the formal character or the decoration of the façade, or both (Lawrence p:18).

There have been only a few studies that addressed this issue. Miles Lewis’s Victorian Primitive marked a change in the study of vernacular architecture. The next study was by Peter Bell, it focused on the Houses of North Queensland and Mining Settlements from 1861-1920. Bell in his study had this to say about the field of vernacular architecture in Australia. He points to a lack of interest in the study of vernacular architecture on the part of historians, with work that has been done by people unschooled in the field of historical methodology (Bell p:7). Recently, a study by Roderick Lawrence of German houses and Welsh mining settlements, has ushered the field into new era of research, with the realization of the need for a multi-disciplinary approach, that is required in the study of vernacular architecture.

There have been many studies focusing on individual structures and sites in the Sydney region, but nine have attempted a study that is concerned with a distinct region or area. This study I hope, will address this situation, it is not meant to be the definitive study of rural vernacular architecture in the County of Cumberland, rather a study to see what can be learnt from investigating these structures in a regional context.
Chapter 2 The County of Cumberland

Temporal parameters

The period chosen for this study 1788-1828 represents the first forty years of European settlement. These are formative years not only in architectural terms but also in every facet of life. This period started with the residents of the colony battling to become self-sufficient in an environment that they had been led to believe would support them, without excessive effort and hardship. The adaptation to this environment was a process of trial and error, and drove the settlers westwards in the search of better land and materials. Technological innovation was slow and almost non-existent, and all their tools and implements had basically stayed the same for the last hundred years. It was not until the arrival of the steam engine in the late 1830s that any significant changes took place. Labour was cheap and available for those who had the means to exploit it. And those convicts who had managed to survive the journey to the colony, had a tangible chance of owning land and starting a new life.

Architecturally this period covers the first two phases and part of the third phase of development in the colony. J M Freeland had recognized these phases or stages in the 1960s and documented in the seminal work, *Architecture in Australia*, first published in 1968. These phases include the following;

1. The Primitives 1788-1809

2. The Age of Macquarie 1810-1821

3. Colonial 1822-1837

I have decided to end this study at 1828 for a number of reasons. The year 1828 was the year of the first census taken in the colony, by 1829 Governor Darling placed a ban on any further settlement beyond the nineteen counties. The number of structures that exist after 1828 increase dramatically. Any study after 1828 would have to limit the number of structures to be investigated, using an elimination process based on some subjective criteria, whereas a study concentrating on the period before 1828, can feasibly cover the thirty plus structures located for investigation. This period of forty years was seen to be both historically significant and logistically possible. I felt enough of Freeland’s Colonial period would be covered, so that any changes or developments that occurred in this phase would be detected.
Spatial Parameters
The County of Cumberland
Any study of vernacular architecture must have a defined area or region to investigate. This focus is illustrated by Glassie’s work in Virginia and the standard research design formulated in Britain as far back as the late 1940s with Professor Cordingley and subsequently followed by R W Brunskill. Brunskill suggested that any research and investigation of vernacular architecture should be limited to a definable geographical area preferably a smaller area like a parish, so as to be more manageable (Brunskill p: 214). Given the differences between pattern of settlement in Britain and Colonial Australia, I increased the size of the research area to include the whole County of Cumberland and not any particular district or parish, as would occur in Britain. Within the temporal parameters, the structures identified for this study are located all across the County. The boundaries of the County of Cumberland are based on natural features such as a river, starting in the north with Broken Bay and the Hawkesbury River, and uses both the Hawkesbury and Nepean Rivers as a boundary to the west. Moving south it keeps following the Nepean River as far as Cataract Reservoir then in a straight line until it reaches Bulli on the coast.

The Environment
Geology
The Cumberland Basin is of Permo-Triassic origin with tertiary intrusions and tertiary and quaternary deposits. The formations that cover this area can best be seen in the following geological map (Figure 1 p: ). The lime green areas cover the areas of Hawkesbury Sandstone, which is concentrated around Port Jackson and the Northern and Southern areas of Sydney. Overlaying the Hawkesbury Sandstone is the Wianamatta Group a predominately shale group marked in blue, which covers the majority of the Cumberland Basin. Tertiary deposits marked in brown, consist of gravel, silt and clay and are concentrated in the area between Castlereagh and Windsor and a small area near Liverpool. Finally the Quaternary alluvial deposits marked in Yellow contain sand, silt and clay and form the flats (floodplains) of the Hawkesbury and Nepean districts, the South Creek system and the Cabramatta/Fairfield flat.

Vegetation
In establishing the vegetation of Sydney before European settlement an understanding of the symbiotic relationship between rainfall and the geology of the area must be realized. Kartzoff has proposed using the following term “association” for the identification of the major species dominant in a community and the other associated species endemic to that area (Kartzoff p:9). Kartzoff’s evidence is mainly based on the existing remnants of the different associations, so the following descriptions are combination of old non-extant associations and those associations that remained in 1969. Only the major associations are examined as these had the most impact on early settlement, in terms of selection for grazing and farming.
The County of Cumberland
Location of Structures Investigated

Legend
- Structure
Geological Map of the Sydney Region
Scale 1:250,000

From M Kartzoff's Nature and a City
The Major Associations of the Sydney Basin

A. The Blackbutt and Sydney Blue Gum association
Covers the Wianamatta and Narrabeen deposits and occurs in areas of high to moderate rainfall over 1000mm per year. This association occurred mainly in the North Shore area from North Sydney to Hornsby and as far west as Pennant Hills as well as a large area from Surry Hills to Hurstville and west to East Hills (Applin p: 21). It was also present in large stands at O'Hara's Creek and Cattai Creek (Kartzoff p:37).

Both these species were used for building the Blackbutt reaches heights of 40m and was used for general hardwood purposes such as flooring and wooden blocks and later sleepers and poles (Anderson p:186). The Sydney Blue Gum grows to around 60 m and is mentioned in the Bigge Enquiry in January 1820 when Patrick Riley states that “it comes near the oak for its working & durability and is about as heavy” (Cox pg:38).

Other species which occur in this association include Ironbarks, Turpentine, Smooth Bark Apple, Red Mahogany, Red Bloodwood on sandstone or laterite. White Mahogany, Grey Gum and Sydney Peppermint in poorer localities (Kartzoff p:23).

B. Spotted Gum association
Spotted Gum in association with Grey Ironbark and Grey Box. Spotted Gum along with Grey Box, occur on the Wianamatta group near Cecil Park, Horton Park and Rossmore (Kartzoff p:31). Spotted Gum was used for making tool handles, spokes, oars, boats, fence rails and is a good bending timber but not durable in the ground (Anderson p:165).

Grey Box association
Grey Box occurs in association with Ironbarks, Forest Red Gum and Woolybutt. This area of Grey Box has been regarded as an indication of good grazing land, and all the “Box” country was taken up by the early settlers (Kartzoff p:33). This area is also on the Wianamatta deposits but does not start until the area of low rainfall is entered, a zone that has less than 889mm (35") per year (Applin p:21). It basically starts where the Blackbutt Sydney Blue Gum stops and covers a majority of western Sydney. It extends from Marayla in the north to Prospect, then south to Campbelltown and Appin, and as far west as Penrith and Mulgoa (Kartzoff p:33).

There is little understorey and would have carried a carpet of native grasses. Ironbark becomes more dominant in certain areas, mainly where the soil is shallower on hills around Riverstone and near Camden where the soils are deeper on the lower slopes. Forest Red Gum replaces Grey Box when there are flat areas that are badly drained (Kartzoff pg 33). Grey Box grows up to 30 mtrs and is a durable and very strong being used for heavy construction, wooden cogs and screws, paving blocks and is good for fuel (Anderson pg 179).

D. Smooth-barked Apple association
This occurs on the Hawkesbury Sandstone deposits taking over from the Blackbutt association except in creeks. Other species in the association include Sydney Peppermint, Red Bloodwood and Scribbly Gum. This association is one of the largest and covers a
vast area from Broken Bay down around Port Jackson and on to Sutherland and the Holsworthy Army base. This association occurs in the High, Moderate and Low rainfall zones and can tolerate an average rainfall of under 889mm (35″) and periods of drought were the monthly rainfall is below 50mm (2″) (Kartzoff p:27)

Rainfall in the County of Cumberland
The County of Cumberland can be divided into four distinct rainfall zones. These zones can be seen illustrated on the Geological Map. Rainfall information is from M.Kartzoff’s Nature and a City pages 17-18.

1. The High Rainfall Zone
Which runs parallel to the coast and forms a boundary from Berowra Waters, Carlingford, Revesby down to Darkes Forest. Mean annual rainfall is over 1016mm (40″) with areas like Roseville receiving 1117mm (44″) average annual rainfall.

2. The Moderate Rainfall Zone
Is a narrow strip running from Round Corner (near Dural) through Parramatta down to Bankstown and on to Appin in a strip ranging from 13kms to 6kms wide. The mean annual rainfall for this zone is 889mm (35″) to 1016mm (40″) with Westmead receiving an annual average rainfall of 940mm (37″) and Appin 889mm (35″).

3. The Low Rainfall Zone
This zone covers most of the Cumberland Basin west from the border of the moderate zone, west from Blacktown, Liverpool and Campbelltown. The mean annual rainfall for this zone is below 889mm (35″) with Camden receiving an average 787mm (31″) and Richmond also 787mm (31″) per year. The months of July to September are the driest with less than 50mm (2″) per month.

4. The Very Low Rainfall Zone
This zone is restricted to a small area from Penrith through to the Castlereagh State Forest to Berkshire Park. The mean annual rainfall is below 635mm (25″) with the Castlereagh State Forest receiving an average 635mm (25″) per year. From May to September are the dry months with less than 50mm (2″) of rain per month.
Chapter 2
Settlement in the County of Cumberland by District
(Please refer to Figure 2 p:10, A Map of Land Grants to 1821)

1. Parramatta

Farming started at Rose Hill near Parramatta in November 1788 under a James Smith, a free man who had arrived on the Lady Penrhyn en route from India. He proved unequal in his task and in March 1789 was replaced by Henry Dodd, Governor Phillip's personal servant and former employee. When Watkin Tench visited Rose Hill in Nov 1790, 200 acres had been cleared and 80 were under cultivation. In March 1791 Phillip announced that 213 acres were to be sown for the season. In March 1791 the first private settlement began, with two ex-seamen Robert Webb and William Reid being given 60 acres each by Phillip. Their land stretched from the banks of the river to Isabella Street in North Parramatta (McClymont p:30). In April 1791, a Government Farm near Toongabbie was opened up under Thomas Daveney. By November 1791 over 412 acres were under crop and in the next 11 months it increased to 1014 acres.

In July 1791 eight emancipist settlers were granted between 40 to 70 acre lots on the eastern side of Prospect Hill. Here the basalt soil was fertile but for some water had to be carried quite a distance. Later in the same year some fourteen First Fleet emancipists were granted land at The Ponds, an area covering present day Rydalmere and Dundas. Grants ranged from 30 to 50 acres depending on their marital status and how many children they had. In 1792 Phillip gave eight ex-marines land in the area of Ryde which became known as the Field of Mars. Only three were left in 1798, including Alexander McDonald with 160 acres around present day Ermington. By December 1792 there were seventeen settlers who had over 78 acres in cereal crops.

In April 1794 further grants saw Macarthur receive 100 acres on the north side of Duck Creek, and William Cummings also received a further 100 acres at his farm at Camellia. Portions of the Government farm at Toongabbie were granted to Thomas Daveney (100 ac) and Andrew Hume (30 ac). Further grants were issued under Grose with more settlers taking land at The Ponds and at Prospect. In late 1794 just before his departure, Grose handed out a number of grants to soldiers in the area known as the Field of Mars, some 42 grants of 25 acres. At the same time Reverend Marsden received 100 acres in the same area (McClymont p:39)

2. Liverpool

The first land grants in the area were given out in April 1798 to Bass and Flinders, and Captains George Johnson and Thomas Rowley near George's Hall. The rich alluvial land along the George's River, between Moorebank and Chipping Norton were given to Richard Clinch, James Angle and Thomas Bramwell as small cropping allotments (Keating p:9). Some of the larger grants included Thomas Moore's property Moorebank, which by 1809 had reached 6000 acres, and Captain Eber Bunker's farm with 900 acres. Charles Throsby received his grant to the south of Bunker's in the same year.
Land grants in the County of Cumberland to 1821

Blank spaces are reserves and commons

From G Aplin’s A Difficult Infant: Sydney before Macquarie
Under Paterson’s administration the area of Cabramatta-Minto, mostly flood free forestland was settled. This was a reaction to the floods at the Hawkesbury in 1809, even resettling those who had been victims of the flood in 1809. The open forest of this area was most suitable for grazing, necessitating little clearing in many places. Lack of water did inhibit settlement growth in this area and resulted in a concentration of small grants along the South Creek Valley, and near Banks-Town on the Georges River. On the banks of the Cabramatta Creek settled five Irish rebels, Michael Dwyer, John Mernagh, Arthur Devlin, Hugh Byrne and Martin Burke, all receiving 100 acre grants. Near by another former rebel Joseph Holt claimed to have cleared a total of 44 acres in one year, at his son’s property near Cabramatta Creek. (Kass p:3.16).

Larger grants were issued under Macquarie and these included the following. Charles Throsby had received an extra 400 acres from Macquarie, resulting in a total of 1,500 acres and became known as Glenfield Farm. In November 1813, a grant to John Blaxland saw the start of the Luddenham Estate, which ran from Badgery’s Creek to Wallacia, some 8000 acres. D’Arcy Wentworth was granted 2500 acres in the Greendale area in August 1818, and in November the same year, Thomas Laycock was granted 1200 acres at (Cottage Vale) Bringelley. By 1825 both Blaxland’s Luddenham Estate, and Laycock’s old grant, now owned by Australian Agricultural Company, became large pastoral enterprises with connections to properties outside the County. The Liverpool area now became the base for the larger graziers as they had most of their stock out of the County and used their homesteads and farms as head stations for the sale of cattle and sheep in the markets of Sydney. (Kass p:3.16).

By 1821 The Liverpool district contained 28.1% of land owned in New South Wales, 28% of the area cropped 27% of the horses 26.9% of the cattle 27.5% sheep. It boasted more livestock than any other part and was ahead of Parramatta as a centre of arable farming (Fletcher p:201).

3. Cambelltown

On 1 of August 1809 Paterson made out the first six grants in the Campbelltown area. These included Richard Atkins 500 acres (Denham Court), James Meehan 110 acres (Macquarie Fields), Patrick Moore 64 acres, Peter Honory 60 acres, Thomas Reynolds 50 acres, and James Chamberlaine 30 acres. By the end of 1809 a total of 34 settlers had been given grants located in the newly named district of Minto. (Liston p:7-8).

Also in 1809 Andrew Thompson was given by far the largest grant in the area at 600 acres, which he named St Andrews. A neighbor of Thompson’s also on Bunbury Curran Creek was Dr Townson, who was granted 1000 acres and called his property Varroville. In 1811 Dr William Redfern was granted 800 acres in the Minto district, naming it Campbellfield, which by 1820 had increased to 2620 acres. Alexander Riley was also granted land in the district and named his property ‘Raby’, which by 1821 had grown to 5,000 acres (Fletcher p:184). William Broughton received a grant 1000 acres on the
southern boundary of the County in 1811, increasing it by 700 acres in 1816. Another large grant by Macquarie was to William Howe, who received 3000 acres in Upper Minto near Menangle and who built ‘Glenlee’ in 1823-4.

Th focus for settlement shifted further south to the district of Airds and Appin, here Macquarie found good soil for farming, but most importantly the area was not prone to flood, as was the Hawkesbury. The average grant in this region was around 100 acres, and by July 1813 80 settlers had made contributions to build a new courthouse in Sydney (Liston p:10).

The town of Campbelltown was not officially proclaimed until 1 December 1820, when Macquarie marked the boundaries and named it in honor of his wife’s maiden name. By April 1826 there were only three substantial buildings near the site, and it was not until 1827 that land was allocated (Liston p:29).

4. Camden (The Cow Pastures)
Farming was forbidden on the west bank of the Nepean, and on its east bank, opposite the Cow Pastures, so as to avoid interference with the wild cattle. Settlers unable to obtain riverflats because of this ban. A number of settlers were diverted to South creek, where a number of large grazing farms were also situated.

Four cows and two bulls had escaped in early 1788, and were discovered seven years later there were sixty one in total, prompting Governor Hunter to name the area, The Cow Pastures, and reserving its use solely for the wild cattle. By 1811 there was between 4,000-5,000 head, but due to drought had dropped by three-quarters in 1817. The area was policed with constables and officers from December 1817 (Fletcher p:119).

In 1805 Lord Camden granted John Macarthur 5,000 acres, subsequently increased to 10,000 acres in the area of the Cow Pastures for developing his flock. Another 2,000 acres was also granted to Walter Davidson but from March 1809 was used by Macarthur as he returned to England. Smaller grants were made by Foveaux and Paterson between 1808 and 1809, and included 200 acres to James Harrex, and 1,000 acres to John Oxley at Narrellan Creek, naming it Kirkham. Macquarie filled those areas not already granted starting in July 1811 with Rowland Hassall’s grant of 400 acres called Macquarie Grove. Another thirteen small grants were given out around Elderslie, between 1811 and 1815. A decade later only two of the original owners’ remained Henrietta Fletcher and Thomas Galvin on their grants of 40 acres (Atkinson p:14).

In November Macquarie visited the area known as the Cowpastures, and visited a number of farms, which included Davidson’s grant called Mauangle. On this visit Dr William Reifn received a grant of 800 acres at Minto naming it Cambellfield. James Meehan was granted land in the area now known as Macquarie Fields, named after his farm.

5. Penrith
In 1803, Governor King sanctioned the continuance of settlement south from the Hawkesbury River along the eastern side of the Nepean. These subdivision surveys were
made by Surveyor Grimes and Meehan. The grants were slightly larger on the whole, than those made on the Hawkesbury. The smaller grants varied from between 16 to 80 hectares with a few larger ones of 400 hectares or more being given to more substantial colonists such as Thomas Jamison and his son Sir John Jamison, Simeon Lord, Phillip Parker King, Daniel Woodruff and William Neate Chapman. (Fox & Associates p: 17-18)

The first town in the district was Castlereagh on a site chosen by Macquarie on the 15 Dec 1815 one of the five towns. In the southern part of the district land grants were given out around the Mulgoa Valley starting in January 1810. The Mulgoa Valley and its water supply provided good land for grazing, these grants were quite large and went to those with capital and position. These people included the Jamisons, the Coxs's, the solicitor James Norton, Henry Fulton and clergyman Robert Cartwright. Clearing began in earnest by the government gangs, and by 1825 some 7% of land in the valley was under cultivation (Fox & Associates p:3).

All land west of the river Nepean was reserved, and could not be settled, this was due to a number of factors. Firstly the wild cattle from the cowpastures strayed far and wide and were to be left alone. Secondly the river formed a natural boundary, and the edge of settlement that covered a large area. In 1819 a Government Farm had been established at Emu Plains, effectively curtailing the larger landowners hopes of taking up this land for grazing, and providing a staging post for the expansion westwards.

6. The Hawkesbury

Major Francis Grose Phillip's successor embarked on the settlement of the Hawkesbury in January 1794 at Green Hills (Windsor). The twenty-two settlers mostly ex-convicts included the proven farmer James Ruse. The rich soil on the floodplains was ideally suited to cultivation and the yields were the best in the colony, at almost double. The grants were small mostly 30 acres although there were some larger pastoral holdings. Soon grants were spreading west towards the Nepean, although any farming was forbidden on the western banks of the river (Fletcher p:53-54).

From 1795 when settlement had spread further up river, frequent attacks occurred between the local Aboriginal people, the Dharug and the settlers. Some of the settlers and soldiers stationed at the Green Hills went out on regular trips to shoot the Aboriginal. This state of affairs continued for a number of years, until the 1810s when a peace of sorts commenced. After 1800 settlers were able to buy and rent land. By August 1800, nearly half the Hawkesbury settlers had either purchased land or were renting.

In 1801, saw the arrival of the first free settlers, who had been lured with promises of free passage and 100 acre land grants. These included William Bowman, John Tebbut, Israel Raynor, and J Dight, who chose the Richmond area. In 1803 a group of Presbyterian border Scots settled at Portland Head just down river from Thomas Armell's grant, these included, John Howe, Andrew Johnston, Thomas Stubbs, John Turnbull, Isabella Suddis and Parson James Mein.
In August 1806 a major flood devastated the region and caused massive crop and stock losses. This was a taste of things to come, many moved and relocated to higher ground, hoping to avoid future events. Bligh realizing the importance of the Hawkesbury to the Colony embarked on measures to help the disadvantaged. By 1807 the percentage of farms under 30 acres, had dropped from 65.6% to 54.4%, while those owning over 100 acres had increased from 11.4% to 17.3% (Fletcher p:114).

Further hardships occurred for the settlers of the Hawkesbury, the drought of 1813-15 had broken only for a year when in late 1816 and early 1817, floods yet again hit the region. Total losses were between 40,000 and 50,000 pounds, and Government loans helped those in need. By 1820, another two floods had ravaged the region. This effectively sealed the fate of those who could not sustain any more losses. This resulted in some settlers moving south, to try their hand in the area of Appin.
CHAPTER 3 METHODOLOGY

Introduction
The process of selecting the appropriate dwellings thought to most represent the vernacular form, included implementing the following criterion.

1. All structures known to have been designed by an architect, known or attributable, are to be excluded. This includes the large houses on estates, for example Camden Park, Denham Court and Rouse Hill.

2. The study is only to include those dwellings that were involved in a rural enterprise, which includes all agricultural and pastoral industries.

3. The investigation is to be limited to the principal dwelling or place of residence on the property. Outbuildings are not to be included.

4. All additions and alterations after 1828 are not addressed in this study.

These definitions were then employed throughout the initial phase of the study, so as to target those dwellings fulfilling the criteria of selection.

Documentary Evidence

Primary Sources
In the selection of samples for this study, various sources were utilized. Because some primary evidence was already available from secondary sources, investigation into land grants and probates was not attempted (time and access restraints also were problematic). To gain an insight into the period, the region and the early methods of construction, some original accounts of early settlement were read. These include Settlers and Convicts or Recollections of Sixteen Years Labour in the Australian Backwoods (1847) by Alexander Harris, Peter Cunningham’s Two Years In New South Wales (1827) and James Atkinson’s An Account Of The State Of Agriculture and Grazing In New South Wales (1826). Another contemporary source, also examined: was Lachlan Macquarie’s Journals of His Tours In New South Wales And Van Diemen’s Land 1810-1822.

Secondary Sources
A number of publications on early colonial buildings were referenced to obtain examples that fitted the criteria previously selected. From this a list of extant rural vernacular buildings was compiled. Further examples were identified by consulting Daphne Kingston’s book, Early Colonial Homes of the Sydney Region 1788-1838. This publication proved immensely valuable in obtaining further examples, especially those of a vernacular origin.
The next avenue of inquiry centred on the Department of Urban Affairs and Planning (DUAP) library. All regional heritage studies and their inventory's were examined, in order to corroborate the existing documentary evidence for conformation of dates and in the hope more information on the examples would come to light. These studies' reliance on previous work was all too apparent. For example, the Macarthur Region Heritage Study Inventory relies to a great extent upon the work of Helen Proudfoot and her earlier survey for the National Trust. Thus not much more additional information could be gathered from these studies, except for their location and photographic representation.

After my second field trip I learnt that one of the houses visited had already been researched, as two students from the University of Sydney’s, Faculty of Architecture had selected Gledswood Homestead as their subject matter for their dissertation. Given this potential source of information I searched the Architectural Thesis library for other studies. Theses going as far back as 1969 were found on the particular houses chosen for my study. In all about eight studies were utilized and provided valuable information and detailed plans, to add to the evidence already gathered.

Non- Architectural Sources
Other sources were also used to gather more information on the samples selected. These included in the case of the Hawkesbury District a guide book by Ian Jack, *A Heritage Field Guide: Exploring The Hawkesbury*. This provided basic information on the samples selected and in fact added at least two more examples to my list. Being a guidebook it provided locational information that was specific and not as vague as other publications and heritage studies.

After the architectural sources had been analyzed, further research into the owners of the original properties was commenced. If information on these people was scarce in the evidence already examined (which was the case for the lesser known exconvicts and settlers), an alternative avenue existed in the publications on early settlers and family histories. These sources are area specific and mainly concentrate on the Hawkesbury and Penrith regions.

Further sources included historical and photographic data supplied by Professor Ian Jack on houses in the Hawkesbury and Penrith regions. Annette Macarthur Onslow supplied historical information on her residence, Hassell Cottage near Camden. Dennis Gojak from the National Parks and Wildlife Service let me view the files for Caddie Park at Cattai SRA, and read the controversial new report on the Governor's Dairy by Sue Rosen. Mary Casey also supplied her report on Collingwood at Liverpool.
Pictorial Evidence
Evidence crucial to the understanding of the development of rural vernacular architecture throughout the period being studied consists of pictorial records, which included photographs, drawings, sketches, lithographs and paintings. It was not until the 1880s that photography really gained popularity, in part due to the advancement of technology and the mobile nature of the new cameras, but also to the trend for portraiture and recording of family, their home and important family events.

The use of photographs in this study can therefore be considered as evidence for that period as historical artifacts. Because I am only utilizing these photographs for the structures only, any human depiction or action is not dealt with, so any bias or misinterpretation intentional or not is thus avoided. The structure depicted in these photographs reflects the actual physical form of the house or dwelling at that time. It is this evidence that is utilized, in conjunction with the physical evidence so as to be able to help reconstruct the development of construction. This evidence obviously only applies to post 1880 and in at least two cases has proved essential in the understanding of how the buildings developed with later changes and additions obscuring some of the physical evidence.

For pictorial evidence pre 1880 reliance on the remaining types was investigated. Any sketches, drawings, lithographs and paintings of the samples under study were examined to see what the early phase or phases of construction were like. If these sources have secure dates they can provide the only clue as to how these dwellings actually appeared before later additions alter the original structure. Discretion is needed however, when examining these sources, total trust in their accuracy would be unwise given the ‘artistic’ nature of their execution. A number of factors can influence this form of evidence, some of these include; artistic license, non-professional artists, naivety and Euro-centric bias to name a few. Other evidence, either physical or documentary must corroborate this type of evidence if it is to be used with any accuracy. Given the scarcity of extant structures in the first two decades of the colony, pictorial evidence is widely used to flesh out the documentary evidence for these early structures. Sketches and lithographs of early structures are only used in this study to provide a background to the development of rural vernacular structures. The majority of these structures were built from inferior building materials ie wattle and daub, so there was no permanence to them. Given these limitations this form of evidence is more often than not the only clue in ascertaining their original form. Archaeology has shed some light on these early structures with the excavation of the convict huts at Parramatta by E Higginbotham.
The Physical Investigation of selected structures

Site Visits
The study area was divided into six districts, which made managing such a large area more efficient. The following districts were then defined and included the following.

<table>
<thead>
<tr>
<th>District</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parramatta</td>
<td>P</td>
</tr>
<tr>
<td>Liverpool</td>
<td>L</td>
</tr>
<tr>
<td>Campbelltown</td>
<td>C</td>
</tr>
<tr>
<td>Camden</td>
<td>CD</td>
</tr>
<tr>
<td>Penrith</td>
<td>PE</td>
</tr>
<tr>
<td>Hawkesbury</td>
<td>H</td>
</tr>
</tbody>
</table>

Each district was then given its own separate file, which included all the relevant information on the selected samples, and any history deemed pertinent on the area.

Due to the lack of information concerning location and ownership the majority of the samples selected required an actual visit to introduce myself and explain to the owners my reasons for wanting to investigate their property. Details of location for the samples selected proved problematic and ranged from signs pointing to their location to complete disappearance amongst suburbia. Most of the information provided on locations was out of date, nearly ten years old in most cases. Suburban sprawl in the last decade had seen the districts of Campbelltown, Liverpool and Penrith grow and enclosed the early structures. Street names had changed and new ones assigned in the last decade, making it all that more difficult to locate the samples identified.

A number of factors helped in the location of some of these samples surrounded by new suburbs. (Interestingly the names of some of these new suburbs stem from the early structures under investigation, although this was no help). These factors included references to the property’s name in a street or park, other factors mainly visual cues provided more evidence. The presence of Bunya Pines and Palm Trees towering above roofs helped at a distance. Large clumps of cacti indicated an older site of occupation when approaching at a closer range. This process of locating the samples was not only frustrating but also rewarding when they were finally located. Out of all the properties visited, some thirty three structures only two owners refused entry, these being Erskine Park and Neapean Park. A number of properties were unattended so access inside was not possible, although this was not actually needed for the majority of structures.
Investigative Procedure
On arrival at the property I attempted to locate the owner, I introduced myself and presented my student card as a form of identification. I then explained my reasons for wanting to look at their property and that I did not need to enter, simply to make notes and take photos from the outside. If it was not convenient or the owners were absent I made an appointment for another more suitable time. This procedure was the only way in which I could investigate the selected samples. Owner’s privacy was the major factor in not being able to obtain addresses from earlier research. Maintaining privacy was a shared concern by all owners, who dread people turning up unexpected and uninvited and who do not have any real appreciation of the buildings and their environment. The owners welcomed me as I was researching something relevant from their point of view and in the way I acted, being polite and not at all authoritarian or condescending.

After arrival and introductions a tour of their property usually occurred, with the owner filling me in certain points of interest or showing me various architectural features and offering their own explanation on the origin or reason why it was so. Restraint and patience was needed at times as the owners explanations did not concur with mine and any immediate correction would appear rude. I thought it best to suggest an alternative suggestion in that way not ridiculing theirs but leaving them to weigh up the two options.

Some owners asked me some quite technical questions which was not able to be answered and I suggested some options but told them that these were only tentative at this point and only further research would flesh them out, I hoped. After I had completed my research I thanked them, some owners said they would like a copy of my research cover their property as in the past other students had promised but not done so. Without the owners permission and help any research would not have been possible, their patience and time and their interest in history have all helped make this study possible.
ANALYSIS OF STANDING STRUCTURES

Investigative Criteria
Analysis of the selected samples involved the filling out of a data sheet, each sample receiving its own sheet (See Figure 4 p:21). The layout of the data sheet was designed so as to provide the most convenient method of recording all relevant information on one page.

The Data Sheet
Non Architectural Data Section
Each sample has its own number which starts with a letter prefix taken from the district it is in i.e. P for Parramatta, then followed by the number for example P001 for Elizabeth Farm. Location, address and owner details along with a contact number are next. The parish the property is in, a current map reference the UBD street directory was used for this study. The date the survey took place, the building type i.e. a farmhouse, cottage, homestead or hut. Then finally the initial date of construction so a quick chronological appraisal can be used in filing or research.

Architectural Data Section: Structural Elements
Walling Materials
Recording of the walling materials their type and method of construction. For example, sandstock brick in Flemish Bond covered later by cement stucco.

Roof Form External
What form or type the roof represents, this could include Hipped, Half-Hipped or Jerkin Headed, and Gable. As nearly all structures roofs were covered by corrugated iron in the mid to late 19th century any remains of the shingles beneath is noted as confirming the original roofing material. Also noting if the roofs eaves and their type, either close type that sits flush with the wall or the boxed or projecting type of eaves.

Roof Form Internal
The materials used in the construction if known the actual type of roof construction if access is allowed to the roof. This could be for instance, the open-couple or king post

Number of Floors and Plan Type
Noting how many storeys the structure has helps for the future classification of the samples. A typology will be based on this basic attribute along with a selection of others. Plan type refers to the actual layout of the structure, and in the case of a two storey building ascertaining its plan type, i.e. single or double pile plan. In the case of single storey dwellings, does its plan have two or three cells (rooms). This is most important in establishing a typology and trying to identify changes over time and space.

Verandas
The locations of the veranda or verandas around the dwelling, i.e. on what elevation are they located. Are the verandas joined to the roof in one continuos extension, or is it
# DATA RECORDING SHEET

<table>
<thead>
<tr>
<th>Cumberland Plain</th>
<th>Sample No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property</td>
<td>Location</td>
</tr>
<tr>
<td>Address</td>
<td>Owner</td>
</tr>
<tr>
<td>Parish</td>
<td>District</td>
</tr>
<tr>
<td>Map Ref</td>
<td>Survey Date</td>
</tr>
<tr>
<td>Building Type</td>
<td>Initial Date of Construction</td>
</tr>
</tbody>
</table>

## Structural Elements

- Walling Materials
- Roof Form Ext/ Internal
- Number of Floors
- Plan Type
- Verandahs
- Other Elements and Features

## Condition of External Fabric

- Alterations and Additions

## Environment

- Orientation
- Topographic Location
- Natural Features

## Notes

<table>
<thead>
<tr>
<th>Photographic Recording Frame No’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour Film</td>
</tr>
</tbody>
</table>

Figure 4

21

RM 1999
separate from the roof and relies on bracing attached to the wall. Is there paving on the floor of the veranda and if so of what material.

Other Elements and Features
This includes fenestration (windows) and what type they are, casement or sash, nine or twelve pane. Are there shutters or evidence that they had been there at some time. It also includes doors if original sidelights and fanlights. Any other features not falling within the above criteria can be placed in this section.

Condition of External Fabric
This observation is not integral to this study, it is more a note to establish what the fabric was like at the time of investigation. Given the rate of destruction and alteration to some of these structures I thought this relevant.

Alterations and Additions
This is a crucial part of the recording process as establishing the phases of construction provides the basis for the typology of these early structures before additions and alterations altered their original form. Additions to these early cores need to be thoroughly examined at the point of their joining so as to confirm that it is a later addition. This evidence can be corroborated with any documentary evidence to provide the basis for a reconstruction. Alterations consist of new internal dividing walls, insertion of new windows etc and can usually be detected by the different style, materials and construction techniques.

Outbuildings
Substantial outbuildings located in the immediate area of the sample dwelling, are noted. But any detailed investigation lies outside this study. Major outbuildings in a homestead will be seen as integral to that type of dwelling. As the majority of these early outbuildings were of timber, their survival rate has been poor, with mainly later structures surviving.

Environmental Section
This section is concerned with the environment surrounding the sample, acknowledging the landscape and how it has been altered, modified and adapted to suit the European settlers.

Orientation
This is concerned with the actual placement of the front of the dwelling toward a particular compass point, ie North, South facing and the reasons why it was chosen.

Topographic Location
Siting of the dwellings in relation to the surrounding topography, where is it located and in relation to what natural feature.

Natural Features
This could include being near a river or creek, or some other permanent watersource. Are there significant introduced trees, changes to the landscape etc.

Notes
This is some extra space for adhoc notes and information not able to fit in the previous sections. Measurements and oral information can also go here if needed.

Photographic Data
This section is for the recording of frame numbers and to what type of film was used at each sample. Was it colour, slide or black and white or a combination of all types. Negatives can then be placed with each data sheet and their appropriate file.

Recording Procedures
The recording of the structures identified in this study consisted of two parts. The first part involved the use of the data sheet and recording information based on its criteria. Secondly, a photographic representation of the feature or element was implemented and duly recorded on the same sheet. Each structure was also photographed from different elevations to obtain a record of its overall form and design. Interior shots depended on access and the owners’ permission, so these were in the minority. There was no set quantity set aside for each structure, so time, light and size all influenced the amount of shots taken.

Some structures investigated had not had any floor plans drawn, so this necessitated plans being drawn on site. This was done by myself and required measuring and the drawing of a rough floor plan. This plan was to be later redrawn and professionally presented.
Chapter 4 Structures Identified for this study

Investigation by District

Structures were visited and recorded for this study 33 broken down into six major districts, based on the geographic location of the structures and their unique pattern of distribution. Proximity to a major urban center and/or river made this allocation reasonably simple. (Please refer to Figure 3 p: 6)

Districts Identified

The six districts identified were:

1. Parramatta
2. Liverpool
3. Campbelltown
4. Camden
5. Penrith
6. Hawkesbury

Please note that these districts have no definite border and are approximate only.

1. The Parramatta District Code P

This district is centered on Parramatta and extends east along the Parramatta River as far as Ryde, and west to St Marys. In the north it extends to the Baulkham Hills and in the south to Fairfield.
Structures located in Parramatta District
P 001 McDonalds Farm at Ermington
A single storeyed house with ashlar sandstone quoins and roughly dressed but regularly coursed walls. Internal walls are of sandstock brick. Facing south, it has a hipped roof and a detached verandah extending too halfway along the east and west elevations. It has four original rooms with an entrance hall and rear passage.

Built c1820, it is an early example of house with french doors opening on to a verandah, fanlight surrounded by sandstone voussoirs and almost white keystone. Double sandstone lintels support the window openings and sandstone flagging covers the verandah floor. Of interest is the raised stone plinth with a mortise hole cut to receive the tenon of the wooden verandah post. Rachel Roxburgh states that the verandah originally extended from the roof, but offers no explanation (Roxburgh p: 192) A cellar is entered by steps at the rear of the house and covers the dimensions of the western rear room. Later additions to the rear and eastern side of the structure date mainly to the first half of the 20th century.

Built on land granted to Alexander McDonald in 1792. He was a marine from the First Fleet and was one of eight ex-marines that made up the grants in the district known as the Field of Mars. The whole family was drowned in December 1821 on the Parramatta River, which must be the date of latest possible construction (Roxburgh p:189).

Walling Materials: Sandstone, brick internal walls
Orientation: South
Topographic location: Slight rise above Parramatta River
Water source: Possible well?
P002 Brush Farm Eastwood
Unfortunately not much information was available on this structure and as access was not possible, only a brief synopsis is provided. Built c1820 by Gregory Blaxland it is the oldest extant structure in the Ryde area. The main house is two storeyed, with a hipped roof and boxed eaves. Built from sandstock bricks the walls have sandstone quoins on the south elevation (now covered by cement stucco) and are plain brick at the rear of the house. The central block appears to be the oldest part, with side additions giving it a Palladian appearance, and a rear addition was also added, possibly at the same time, considering the style of flat stone arch. These additions are not symmetrical and differ in style, suggesting a date between 1825-1840 for the western wing and possibly part of the eastern block. A Victorian cast iron verandah of the 1860s-70s replaced an earlier wooden one. The front façade has five bays with unusually elongated windows on the ground floor. These have been replaced by later two pane sash windows. It appears to be double piled, but this could not be confirmed, as entry was not possible. Gregory Blaxland was a free settler who purchased Brush Farm in 1807 from William Cox (Kingston p:75).

Walling Materials: Brick and sandstone(quoins)
Orientation: South
Topographic location: On a crest of a small hill
Water source: Not known
P003 Dairy Cottage  Parramatta Park
This structure contains according to a number of sources (R Varman, D Cornell et al) the early farmhouse of George Salter, dating to between 1798 and 1806. The early structure, which consists of the central two rooms of the cottage, is clad in the later skin of additions and alterations. However on the western façade an exposed section of roughcast concrete has fallen away to reveal the join between the early section and the later addition of 1815/20 (Design 5 p:4). As evidence of what appears to be tothing (joining new work to old) appear at this join, where later bricks are a tan colour and are speckled with black vitrified material (See Photograph Overleaf). While it appears that the earlier bricks are a salmon colour, and R Varman identifies and illustrates the bond of this early section as Flemish (Varman p:84-88). According to two sources (R Brunskill & C Lloyd) referenced, the bonding depicted is in fact English Bond, a cheaper and less ornate bond (See Glossary p:III). The form of this early cottage is the Georgian box, two windows either side of a central front door and a single chimney.

The later additions saw two wings added each side and an extra window in the front façade (See Illustration Overleaf). The bond of the later addition appears to be English or Colonial Bond, only a few courses are visible. The front and possibly back verandahs were added at this time, running off the roofline in a single pitch forming a bungalow type roof. Externally the Dairy of the early 1820s conforms to the structure present form, except for the fibro additions at the rear.

Walling Materials:  Brick, English Bond both phases
Orientation:  West
Topographic location:  Above river bank
Water source:  Parramatta River
THE GOVERNOR'S DAIRY 1815-1820

SCALE 1:50 RM 1999
SALTERS FARMHOUSE
FIRST PHASE 1798

From Design 5 Architects Scale 1:50

Reconstruction based on R Varman’s and D Cornell’s Plans and reports. Scale 1:50

RM 1999
As the earliest surviving example of European construction in Australia this structure provides evidence for the first three decades of building in this country. A number of studies have been made, the 1977 thesis by Wendy Lewin and Ruth Hely provides information on the phases of the house’s study. The central section built in 1793 of brick with English Bond consisted of a hall and two rooms with two windows each side of a central front door. A 1794 letter by John Macarthur provides the following details. “It was of brick, 68ft in the front and 18ft in breadth. It has no upper storey but consists of four rooms on the ground floor, a large hall, closets and cellar etc.” (Lewin and Hely p:21). Given this evidence two extra rooms have to have been additions and the suggestion of side skillions by Lewin & Hely et al, appears to be unchallenged. This increases the length to the 68ft mentioned by Macarthur providing 10ft for each skillion (Lewin & Hely p:22).

In 1972 excavations by an archaeological team from Sydney University in what is known as the Oak room, uncovered evidence of a possible verandah: a series of square postholes running parallel to the rear wall and 1.5mtrs (5ft) out. The postholes were approximately 15-20cms wide (6-8 inches) and spaced at approximately 1.2mtr centres (Lewin & Hely p:23). This evidence led a member of the team Professor Ian Jack to believe that a covered way or verandah extended the length of brick portion. The cellar entrance just near the back door would have been covered by the verandah and thus avoiding flooding (Lewin & Hely p:23-29).

The close spacing of the posts, at approximately 1.2 m centres or 1.1 (taking the width of the post into account), would see some 14 posts spaced at every 3ft 6 inches covering the length of 48 feet. This quite different to the standard verandah post spacing of almost double the distance. However, another an early verandah has the spacing of its posts even closer. This can be seen on the Lieutenant Governor’s house sketched in 1793 by Juan Ravenet, during the visit of the Spanish expedition under Don Alejandro Malaspina between March and April that year (Broadbent p:21). This sketch has the verandah as a backdrop, and closely spaced posts, which James Broadbent suggests are only approximately 2ft wide (Broadbent p:22).

The verandah on the Lieutenant Governor’s house was added by Major Grose sometime between March 1792 and March/April 1793 (Broadbent p:21). Elizabeth Farm was inhabited in November 1793 with the rear verandah or covered way being added as early as 1794. This could then represent a very early verandah and closely spaced posts that could have been utilized for security, storage or some other function. Macarthur’s dealings with his servants and convicts would have taken place at the rear of the house, and possibly on the verandah.

Documents provide detailed information about the builder, the materials used the date of completion. Major works in the second phase of building were carried out between late
1806 and September 1811. From September 1809 to September 1811 Graham Blaxcell and George Howell supplied materials and worked for Elizabeth Mcarthur (Levin & Heley p:38). The amount of bricks and cedar supplied suggests that the southern bedroom at the rear of the original Dining Room was built during this period. In an aquatint by Joseph Lycett c1824 of Elizabeth Farm, the L shaped form can clearly been seen on its eastern side. There is no skillion running off the eastern Dining Room. As two windows can be seen instead, the skillion could have been removed when the bedroom was built between 1809 and 1811. In 1991 an excavation by Edward Higginbotham in the two southern rooms facing the kitchen revealed evidence of a pre 1826 skillion and verandah, presumably from the 1809-1811 phase (Higginbotham p:43).

Walling Materials: Brick, English Bond & internal brick nog (1820s)
Orientation: North
Topographic location: On a slight rise
Water source: Near by creek
ELIZABETH FARM FIRST PHASE 1793

BASED ON W LEWIN AND R HEY'S PLANS IN THEIR
ELIZABETH FARM PARRAMATTA, AN APPROACH
TO RESTORATION AND PRESENTATION 1977

RECONSTRUCTION OF FIRST PHASE  
Not To Scale  
RM 1999
2. Liverpool District Code L
This area borders the Campbelltown district around Ingleburn in the south and Leppington in the southwest. It extends as far west as Bringelley and ends in the north at Fairfield, the boundary of the Parramata district.

L001 Collingwood Liverpool
Built between 1810 and 1814 on land owned by an American sea captain Eber Bunker. The structure is of sandstock bricks that have been rendered at a later date, the bond is unknown. Its central front door has two 12-pane sash windows either side all with louvered shutters. The front door has sidelights and a fanlight although these look like a later addition. It has a gabled roof but was originally hipped, as evidence of diagonal rafters were found at both ends of the structure sitting on the wall plate (Casey & Lowe p:8). The original dwelling consists of the existing front western section and contained two rooms either side of the central hall. A fireplace was located at the end of each room and the chimneys protruded from the hipped roof and were limewashed, as no doubt was the rest of the house (Casey & Lowe p:28).

There are some rear internal walls of sandstock brick that could possibly date to the first phase or at least before the major additions sometime before the 1840s. Further investigation of the fabric if access is possible, might solve this important question on the development of the structure and its original form.

Walling Materials: Brick
Orientation: West
Topographic location: On the flat terrace above the Georges River
Water source: Well at rear, Georges River within 100m
COLLINGWOOD FIRST PHASE c1814

Proposed later additions indicated by--- Not to Scale
RM 1999

Collingwood Western Elevation
RM 1999
L002 Cecil Hills Farm Cecil Park
Built c1820 for Sir John Wylde, Judge Advocate, it is a single storey structure of weatherboard over brick nog walls (JRC Planning Ref.666). It has an unusual pyramidal roof that covers the wrap-around verandah in one pitch. A central double front door has two windows either side, they are the 12 -pane sash variety and appear all round the building. Due to refurbishment and lack of access a detailed investigation was not possible. The floor plan shows four major rooms running off a central passage with outshuts. These outshuts are at each end of the wrap around verandah. Two larger rooms follow next both with fireplaces, then four small rooms that appear to be the kitchen and possibly a parlor. It is probable that the row of four rooms were added by possibly filling in a rear verandah(of similar width to the front verandah) when the separate kitchen was moved into the house (c1850s-1860s).

Walling Materials: Brick nog construction/weatherboards
Orientation: North
Topographic Location: On a rise near the base of a small hill
Water Source: Possible semi-permanent creek nearby (200m) No well located?
L003 Glenfield Farm - Casula
Built c1817 for Dr Charles Throsby on 950 acres granted in 1809, this structure's development is still far from being decided (See Chapter 6 p:76).

The main residence is of brick construction although covered later by render is of English Bond. The first phase of the house is single storeyed forming an L shape, with a continuous verandah along the north and western elevations. It has a hipped roof extending to the verandah forming a roof with a broken back or bellcast form. The verandah has stone flagging and turned wooden columns on stone plinths. Four windows on the western elevation are the 12-pane sash type as are the three on the northern elevation. There are two doors on each elevation, both are French doors and it is not known if these are original, or later replacements. The eastern wing contains an attic storey with five dormer windows, above a separate verandah. Under this wing is a large cellar reinforced with stout brick arches. It is at this time that the outshuts are built at the end of the northern and eastern verandahs. The date for the eastern addition is possibly between 1822 and 1828, the year of Charles Throsby's death.

Walling Materials: Brick, English Bond
Orientation: West
Topographic location: On the flat above the Georges River
Water source: Well and nearby creek
GLENFIELD SECOND PHASE 1820S

GROUND FLOOR

RM 1999
LO04 Kelvin Bringelly
Built between 1819 and 1820 this single storeyed dwelling was built of brick with stone quoins and windowsills. An ornate fanlight and sidelights decorate the front door in each side there are two windows sashed with 15 panes and shuttered. The hipped roof follows the encircling verandah on three sides, ending with a room at each end of the verandah. At the rear of the house is a courtyard, with a separate kitchen (joined by a breezeway) and servants quarters, all of the same date as the house. The floor plan reveals a similar design to Cecil Hills, McDonalds Farm and Denbigh, all dating from the early 1820s.

Built for Thomas Laycock a former ensign in the New South Wales Corps who retired in 1817 after duty in the American War of 1810. Becoming a trader and meat supplier to the Government he was granted 600 acres at Bringelley in 1818 and died in 1823 (Baker p:24).

The house appears to be almost unchanged from its original form, the only addition being the addition of an extra room on the northern outshut. The kitchen block still has its shingles in situ under the corrugated iron roof. This complex has all the characteristics of a homestead, on closer inspection the superficial cottage orne trim blends well the standard form and function of a homestead.

Walling Materials: Brick, bond unknown because of render. Stone or brick quoins?

Orientation: Facing East

Topographic location: On a rise

Water source: Creek nearby 100m
Kelvin c1820-23

Floor Plan based on R Roxburgh’s plan

Kelvin Eastern Elevation

Not to Scale
RM 1999
3. Campbelltown District Code C
This district extends to the North as far as Ingleburn, to the East it goes as far as the
Army Base of Holdsworthy. Southwards it extends to Menangle and the Nepean River.
To the West it borders Narellan and the Camden Municipality as far as Varroville.

C001 Epping Forest Kearns
There is no evidence available for who built this structure and when, any evidence for
dating is based on style and architectural features only. Surrounded by encroaching
suburbia this structure had been fenced off and locked, with no sign of occupation.
Therefore it was impossible to investigate and only basic information could be obtained.

Built of sandstock brick with an encircling verandah ending halfway along each side. The
hipped roof extends over the verandah and is supported by half posts mounted on a
curtain wall around the edge of the verandah, probably dating to the early 20\textsuperscript{th} century.
It has a central six-panel door with fanlight and has two, 15 pane sash windows on each
side of the door. The shutters are not louvered but are solid for extra protection. The 15
panes suggests a late 1820\textsuperscript{s} date, and they are similar in design to the McDoanld Farm at
Ermington which is early 1820\textsuperscript{s}. The verandah is stone-flagged and a detached kitchen
building is at the rear of the house (Kingston p:28). Later additions appear to have been
made to the rear half of the side verandahs, forming extra rooms. Remains of two
chimneys were seen and a well is located just behind a fibro addition at the rear of the
house. This is possibly the house of William Kearns. He was described in 1824 as a
farmer of Epping Forest and a neighbour to Joseph Ward, caretaker at the St Andrews
estate (Liston p:39)

Walling Materials: Brick, Flemish Bond?
Orientation: Southwest
Topographic location: On a slight rise
Water source: Well
Epping Forest c1824 Southern Elevation

Epping Forest drawn by Daphne Kingston, from *Early Colonial Homes of the Sydney Region* 1788-1838 p.28
C002 Campbellfield House  Minto
This structure has been so altered that most of the façade, roof and rear of the building have been rebuilt not only in different material but also in form and layout totally at odds with the original structure. The only original section left appears to be the southern end section comprising a sandstone wall, gable and cellar. A stone chimney also remains on this side, the other one destroyed in the rebuilding of the 1960s. Originally it was a house with an attic storey originally, as is evident from the two bricked up attic windows each side of the chimney. The chimney itself shows signs of flashing much higher up than the existing roof. This is confirmed by photographs taken in the 1960s. It originally had a staircase at the northern end, which once led to the attic storey rooms (Bayley p:59). The original stone flagged verandah with carved gutters is still in place. A cellar also exists, and is entered via a recess dug into the eastern side. There is a doorway and window, both supported by stone lintels and a keystone.

This house was built between 1818 and 1820 by Dr William Redfern, a surgeon convicted for mutiny, transported to Sydney and finally pardoned in 1803. A friend of Macquarie’s he practiced until 1818 when he retired to his farm at Minto.

The house has been fenced off although vandals have smashed in at the rear and have damaged the whole building. On visiting the site I had to collect a number of artefacts found dumped near the building, mainly door and window fixtures and fittings. I handed these artefacts in to the police at Campbelltown, and they have now been handed on to the Local Historical Society. They will be incorporated in the restoration of the building (pers. comm. Alex Goodsell).

Walling Materials: Sandstone and brick, originally weatherboards
Brick nog construction?

Orientation: Northeast

Topographic location: On top of a small hill

Water source: Unknown
4. The District of Camden  Code CD
Extending from the Nepean River in the South to Catherine Field in the North and as far west as Cobbity.

CD 001 Gledswood  Catherine Field
Within the later Homestead complex of Gledswood is a stone cottage which once belonged to Count Louis Huon de Kerillian, a refugee from the French Revolution, who was granted 400 acres in January 1810 (Green & Leong p:12-13).

Built between 1810 and 1816, the cottage was built of coursed stone rubble construction, some 20 inches (500mm) thick. Two 12-pane sash windows are either side of the front door on both the north and south elevations. It has a hipped roof and has a separate verandah probably dating to the later phases of the homestead c1829-35. A single brick chimney stands in front of a separate room, possibly a pantry and a further brick partition wall divides the second room into two. This extra room behind the chimney is unusual and not has been seen on any other structures.

Entry was not possible at the of my visit, but alterations undertaken in 1968 have altered the interior considerably (Green & Leong p:129). Two other stone structures on the site are suggested by Green & Leong to be also from this period, they include the convict lockup and stables. Further investigation of the cottages' roof might provide some evidence on the type of construction used, in order to detect any other differences. These differences could have a cultural and or social origin considering Huon de Kerillian's French background. The unique plan of the cottage with its extra room could be as a result of French influence and further investigation is recommended.

Walling Materials: Sandstone rubble, coursed, brick chimney & Internal walls
Orientation: North
Topography: On a rise
Water source: Creek and well
Gledswood First Phase c1810

Floor Plan from S Green & B Leong's *Gledswood House: A Conservation Study* 1991
CD 002 Galvins Cottage  Elderslie
A small brick cottage of English Bond, which typifies the early Georgian cottage with the two windows and front door. It has a gable roof with the brick gables in Stretcher Bond (Brick veneer). As this has not been seen on any other early structure, it could well be a later alteration. The front windows appear to be original with only the glass panes being replaced. They are of the casement type opening outwards. Stone lintels support not only the window openings but also the front door. A single chimney is located at the eastern end and this has been added to in a later phase.

Unfortunately the owner was not at home, so any internal investigation was not possible. Built between 1815 and 1820 by John Galvin near a ford in the Nepean it was used for Roman Catholic services before a church was built in 1869 (Dept Environ & Planning Ref#201).

Walling Materials:  Brick; English Bond
Orientation:  Southwest
Topographic location:  On a flood plain
Water Source:  Nearby Nepean River 200m
CD 003 Hassall Cottage (Macquarie Grove)  Camden Aerodrome
Built c1813 on a grant to Rowland Hassall, this structure originally had a jerkin headed roof, which was altered, to a gable roof in the 1930s (pers comm. A Macarthur-Onslow). The bond could not be identified as the brick is now rendered. The attic storey (later modified with the introduction of dormer windows) appears to be original and was entered externally on the eastern side via a staircase. Next to the entrance to the attic storey a chimney and external fireplace were located, possibly for an open kitchen or skillion addition. Another double fireplace is located at the join between the western and central rooms of the original cottage. A pair of outshuts are situated at each end of the front verandah and both have separate entrances onto the verandah.

Walling Material: Brick
Orientation: Southwest
Topographic location: On a small hill above The Nepean River
Water source: Well and nearby river 150m
HASSALL COTTAGE (MACQUARIE GROVE)
PHASE TWO c1820s

[Diagram of a building plan]
HASSÁLL COTTAGE (MACQUARIE GROVE)
PHASE ONE c1813

Based on plans supplied by A Macarthur-Onslow

Reconstruction of first phase

Not To Scale
RM 1999
CD 004 Denbigh  Cobbity

Denbigh is a single storeyed structure with a hipped roof and integral verandah on three sides. The walls consist of teak weatherboards, probably imported from India facing a rubble filled space with lath and plaster internal walls (Baker p:10). It is not known if the rubble is stone or brick or a combination. The front door has sidelights, which have their own louvered shutters as do the two windows either side of the front door. The verandah has a section of stone flagging in front of the front door and the rest of the area is covered with terracotta tiles laid in a diamond pattern. A brickmaker named Charles Smoders was employed by the owner Charles Hook in 1824 and could have made these tiles then while making bricks for an addition or outbuildings (Roxburgh p:100).

There are two large rooms either side of an entrance hall that ends with a enclosed passage containing closets and above a storeroom is entered via a ledge and brace access door. This area is approximately 2.5m x 1.2m and has another opening at the rear into the attic. This could have held foodstuffs and other items as the remoteness of the property would necessitate. The rear rooms would have been the bedrooms and extend each side of the main rooms opening onto the verandah. (See Illustration Overleaf) An addition to the structure on the western side filled in the verandah, before 1836 as shown on a sketch of the house by Rev Richard Taylor drawn in 1836. This same sketch shows that the metal valance was also added much later (Taylor’s sketch is at Denbigh). The french doors on the western end of the façade were only added in the1960s. The rear of the house has a courtyard with servants’ quarters and a kitchen dating to the same period as the main house as well as a rubble stone barn further back. Additions by Thomas Hassall saw the construction of a two-storey addition c1826 joined to the earlier house.

Built by Charles Hook in 1822 after he had retired as a partner with Robert Campbell the well-known trader. From 1816 tried his hand at farming and lived there to his death in 1826. Hook had spent time in Calcutta and moved from there to Sydney in 1808 to join Campbell & Co (Roxburgh p:99-100)

Walling Material: Weatherboards/ rubble filling

Orientation: NorthWest

Topographic location: On a slight rise

Water source: Well in courtyard, creek 200m
Denbigh First Phase 1822

Denbigh during Charles Hook's residence 1822-26
(From R Roxburgh's drawing pg 9)

Floor plan based on R Roxburgh's plan

Not to Scale
RM 1999
Penrith District Code PE
This district borders the Liverpool district at Kemps Creek, south along a rough line from Kemps Creek to Wallacia on the Nepean River. It extends along the river to Agnes Banks, swinging back through Berkshire Park and down to St Marys.

PE 001 Erskine Park Kemps Creek
Unfortunately access to this structure was denied. The structure on a fleeting glance appears to have been completely modernized without any care or regard to this historical structure. It has been so drastically altered that any recording would require access to the roof and under the floor as the external façade has been coated in render.

Thought to have been built in c1811 by Nicholas Bayly it was built of sandstone and formed a U shaped courtyard, underneath which was a convict lockup-cum. Bayley was a former Ensign in the N.S.W. Corps, then latter became a magistrate dying in 1823 (Stickley p:59).

Walling Materials: Originally sandstone, now cement render
Orientation: West
Topographic location: On the flat
Water source: Kemps creek nearby
PE 002 Mamre St Clair

A two storeyed farmhouse built c1810 on the property of the Reverend Samuel Marsden. It has interestingly two different facades. The western side is well proportioned with the ground floor having two large casement windows each side of the front door. On the first floor three 12 pane sash windows are well proportioned above the ground floor openings. The eastern elevation is completely different, the first floor has two pairs of windows while below on the ground floor there are only two windows with no consideration to symmetry at all, perhaps because it was the rear of the structure, not to be viewed by visitors. The northern elevation is also unusual as the first floor has one window off centre as well. Does this mean that the builder was inexperienced, or was this built in stages by different builders? The roof is hipped and the eaves only just protrude over the walls. The verandah has stone flagging and the posts rest on a curved stone plinth not seen before.

This structure is double piled on the ground floor but the first floor is open with only partition walls and no fireplaces except the flues from below. This structure is a unique example of the early rural vernacular of the colony. There is constant reference to this building being a 'homestead', but in terms of style and design this is incorrect, it is based on the English Georgian Farmhouse of the 18th century.

Walling Materials: Brick, (with later stucco) English Bond
(Freeman & Havelka p:87)

Orientation: Facing West

Topographic location: On the flat

Water source: Nearby South Creek 20m
PE 003 The Cottage Mulgoa

A single storeyed structure with a wrap around verandah is the final stage of a development process that completely altered the original structure of c1811. It is of brick nog construction with 8 inch diameter logs acting as studs, the brick nogging filled in the panels in between and weatherboards were nailed onto the logs (Purdy p:14-15). The first cottage had two pairs of 12 pane sash windows each side of the side lighted frontdoor. The verandah was laid with stone flagging probably after the final addition of the third large bedroom to the western end. It would have been at this time that the two of the windows of the original cottage were converted to french doors with shutters. Built for William Cox between November 1810 and July 1811 it was originally only 40ftx 16ft, with an 8 ft back skilling and front verandah (Broadbent p:26) (See Chapter 6 p: 74 for more details)

Walling Materials:   Brick nog/weatherboards
Orientation:        North
Topographic location; On a rise
Water source:       Mulgoa Creek 50m, well
The Cottage c1811 First Phase

Floor Plan

Proposed Reconstruction of First Phase

Not To Scale
RM 1999
The Cottage Second Phase 1811-1820?

Floor Plan

Proposed Reconstruction of Second Phase

Not To Scale
RM 1999
The Cottage Third Phase c1822

The Cottage in 1999 (similar to its appearance in the 1820s)
PF. 004 Glenmore Mulgoa

Built c1825 for Henry Cox this structure was made from bricks made on site. It has been extensive added to over the years, with the central section with dormer windows representing the first phase. Because of the many alterations it is difficult to reconstruct the original section without conducting an in-depth analysis. The gable roof is an interesting feature and could be a later alteration, as this roof form is not common at this time i.e. mid 1820s.

The interior has been altered to accommodate a golf club so it is difficult to understand its early function as a house. The chimneys at the rear of the house date stylistically to the 1820s. The verandah is stone flagged and the columns are quite thick at their base, tapering towards the top. These appear to be later additions probably made by the Riley family in the 1850s (Purdy p:36).

Walling Materials: Brick, bond unknown

Orientation: North

Topographic location: On a rise

Water source: Nearby Mulgoa Creek
Two structures at this site were investigated, both of early date.

**Hadley Park I**

This small two roomed cottage was according to family tradition first house on the property, built around 1806 (pers. comm. J. Flowers). Charles Hadley had been pardoned in 1800 and by 1806 was granted land next to the Nepean River.

The structure is much altered as it has received a variety of different cladding materials over the years. It was constructed from squared wooden posts sunk directly into the ground and has an open couple roof. The earliest cladding would have been weatherboards and some still remain. It has a hipped roof and no eaves. The front façade has two doors one for each room and only one window remains, another window probably existed on the other (south) side of the main door. Remains of an early cloth ceiling remain attached to the roof beams. The floor was cemented only early this century: there were never any floorboards, just a dirt floor. A brick fireplace was built partly into the north side of the structure but now only remains in a ruined state outside the wall.

There is no way of securely dating the structure by its physical form, and it could date from anywhere from 1806-1830s. Archaeological investigation can be ruled out because of the lack of underfloor deposits. Dating using the bricks might provide some clues and a full physical inspection (Remove and Refasten) could also provide more evidence.

**Walling Materials:**
Weatherboards and later iron sheets, both corrugated and flattened sheets

**Orientation:**
East

**Topographic location:**
On flood plain

**Water source:**
Well, creek 15 m
Hadley Park II

The second structure located at this site is a two storeyed dwelling with a jerkin headed roof. It has an interesting false chimney on the south elevation, due to a concern for symmetry to provide a balance for the other chimney. The first floor has three windows evenly spaced, the middle one has been replaced with a double hung sash and the others have both casement types with later glass panes. The ground floor has a central front door with two windows either side, all being nine pane sash types.

The house is built from brick laid in English Bond painted with whitewash. It is double pile on the ground floor and single pile on the first floor, an unusual combination. In the attic space over the ground floor a possible storage could have been utilized, holding grain and other crops for consumption on the farm. This structure has had no floorboards in its entire history, at first having a dirt floor mixed with cow dung then being cemented in the 1930s, a unique example of the vernacular tradition. It is hard to find a secure date for this structure.

Walling Materials: Brick, English Bond

Orientation: East

Topographic location: On flood plain

Water source: Creek 10m
PE 006 Osborne Park  Agnes Banks
A two storeyed structure built from brick it has a hipped roof with half boxes eaves supported with a wooden dentil supports. The five bays on the first floor have 12 pane sash windows, while below the two sets of windows have non-louvred shutters and also 12 panes. The three chimneys do not open for fireplaces on the first floor and project out from the sidewalls. The sandstone-flagged verandah has posts resting on stone plinths. The plan is similar to Hadley Park in that it has a catslide roof over the rear two rooms on the ground floor so therefore is not a double pile house. It was built by c1823, when an advertisement appeared in the Sydney Gazette wanting tenants for a farm and two good farm houses (Steeley p:77).

Walling Materials:  Brick, stucco later
Orientation:  Southeast
Topographic location:  On a flood plain
Water source:  Nearby Nepean Rive
PE 007 Palmer’s Hut Yarramundi

A two-roomed structure similar to Hadley Park I, it is made from slab timber, brick (chimney and wall) with squared posts set straight into the ground. The rafters are saplings and the original shingles remain under the corrugated iron. The brick chimney is collapsing and is revealing bricks with a cigar shaped frog. The date of this structure is not secure and ranges from the early 1800s to the 1830s. Next to this structure lies a later dwelling of around the 1830s to 1840s. A Charles Palmer lived nearby until 1829 when he moved to Richmond but there is no evidence as yet that sees him living in this building. Pit saw marks could be seen on a hip rafter and nails found include a rose head chisel pointed example, which dates from c1820 to the 1840s (Varman p:33). Hinges (these could have been reused) were seen on an internal door suggesting a possible 1820s date. The bricks seem to be a mixture of smaller sandstock that are badly weathered, and seem to have been reused and larger more intact examples, with the frog mentioned earlier. Further documentary research into this structure is needed, so that evidence for the date of construction could come to light. This structure is under threat as it appears to be in a bad state and could collapse if nothing is done to stabilize the structure.

Dimensions: 26ft (7.9m) long x 15ft (4.5m) wide

Walling Materials: Slab timber, sawn rafters and posts, brick wall and chimney

Orientation: North East

Topographic location: On flood plain

Water source: Near Yarramundi lagoon
Palmers Hut c1820s

Floor Plan Not to Scale

Palmer’s Hut Northern Elevation

RM1999
Hawkesbury District Code H
H 001 Clydesdale Marsden Park
Located just off the Richmond Rd near South Creek this is a much altered two storeyed structure. Originally it was a single storeyed dwelling built c1820 by Charles Thompson (H. Tanner & Assoc's). Limited time and the many alterations that have obscured the original dwelling hampered a full understanding of the building. It was a Georgian house having a large attic storey beneath a hipped shingle roof with a verandah (H. Tanner & Assoc's). I detected a join halfway along the ground floor entrance hall suggesting a section of the original house was only half the size of the ground floor at some point before the addition of the upper storey and front four rooms. This probably occurred between 1898 and 1915 when George Kiss is thought to have enlarged the house to its present form (H Tanner & Assoc's). A booklet on the history of the house exists but could not be obtained at the time of writing.

Walling Materials: Brick later render
Orientation: Northwest
Topographic location: Flat
Water source: Near South Creek 20m
H 002 Mountain View    Richmond

This structure has had numerous additions in roughly six phases, the first phase dates from c1806 the year of a major flood. It could even possibly date to 1804 when the land was owned by Luttrell, who could have built the two room cottage with back to back chimneys for his workers/convicts. This first section is 24 feet long by 17' ft 6in wide built of brick using English Bond it has two rooms that were originally separated by a brick partition wall. Both rooms have separate entrances and a 12-pane sash widow each with solid shutters. It is this section that the Dight family moved into after losing their first house in the flood of 1806.

The next phase was an addition of one room that also included a fireplace and bread oven and which probably dates from 1806 to 1808 and could well have been used as an outdoor kitchen. The next section has similar exterior brickwork to the first phase and consists of one room only with two 12-pane sash windows opposite each other, near the two separate entrances. This third section dates to between 1808 to 1812 (pers. comm R Sharpe). The fourth phase is well documented as a contract to build an addition exists and includes the following, “to erect a Dwelling house’ 25’ long by 15’ 4” wide and 14’ 10” high above the foundations” (Jack p:17). This agreement between John Dight and Lewis Jones is unique and probably is the earliest contract between an owner and a builder yet discovered and marks an interesting departure from contracts between owners and architects.

This fourth phase saw a two storeyed addition one room deep being built of brick that curiously starts off with English Bond at the bottom and ends with Flemish half way up, level with the start of first floor. This change in bond can only be seen at the back as the front is rendered. This section has two 12 pane sash windows on the ground floor to the side of the front door, while the first floor has two 9 pane sash windows off center from the windows below. This new wing is so asymmetrical that it seems Lewis Jones was not schooled in the Georgian sensibilities of architecture. This is paralleled with Mamre dating to around 1810, in that both have this unique asymmetrical quality. The 5th phase saw the addition of another large room and an attic storey with unusual 9 pane sliding windows as well as a false chimney to balance the southern one. This phase probably dates to the 1820s (pers. comm. R Sharpe). The older section phases 1-3 were joined to the two storeyed wing by a possible breezeway and would have acted as a separate kitchen until the 1870s when this section was filled in.

Walling Materials:  Brick all phases, English Bond (Flemish in part of 4th phase) later render front façade

Orientation:  Phases 1-3    Northwest, 4-5   Southwest

Topographic location:  On a slight rise edge of floodplain

Water source:  Well

49
Mountain View c1806-1808 Cottage

Mountain View 1812 Two Storeyed Addition
H 003 Clear Oaks  Richmond
This structure is a two storeyed farmhouse built in brick, containing Flemish bond on the
front facade and English bond at the sides and rear. The ground floor is six bays wide
and contains 5 windows and the front door, which is off center. The windows appeared
to be originally shuttered and are all the 12-pane sash type. The first floor has six small
9-pane windows that align with the six bays below. The roof is hipped and originally had
two chimneys at the eastern end and one at the western end. The first floor is really
only one room deep as a catslide roof cuts off any headroom but leaves enough room for
a rear hall and a storage area. The first mention of a house is in a document dated 26th of
March 1819, which details the sale of David Langley’s grant to Joseph Onus and states
that two rooms of the to be reserved for Mr Langely for four months (Boesen p:56). It is
likely that the house is even older, as stylistically it has elements that could reflect a date
from 1810 onwards. Narrowing the date down further to before 1816 is to be considered
as David Langley was dismissed from his position as Superintendent of the Government
Blacksmiths by Governor Macquarie. This was after seven and a half years service and
the reasons gives were neglect of his duty, drunkenness, and irregular conduct (Langley
Family p:17). The earliest date would be after December 1810 as Governor Macquarie
toured the area and surely would have mentioned such a large house and its owner.
Therefore a date between 1811 and 1816 is quite possible and fits with the style and
architectural features of a house built to impress. It’s size, number of windows and
Flemish brickwork all suggest that this was a house built to be noticed, even though it
was on the outskirts of Richmond in this early period.

Walling Materials:  Brick, Flemish bond front façade, English rear and
Sides, later render

Orientation:  South

Topographic location:  Above floodplain

Water source:  Wells
H 004 Clare House       Oakville
Not documented, a part of this structure may date to c1814 when a brick house was in existence on the site then called Killarney (Kingston p:68). The oldest section of the structure appears to be the northern two storeyed section which has a large cellar underneath. A later section forming an L shape, which has a hipped roof and close eaves, joins the earlier section. Unfortunately all the windows have been replaced by aluminum and the doors have also been replaced so any possibility of dating it is difficult. A thorough investigation is needed for this structure so as to establish the development and date the building phases.

Walling Materials:       Brick, English bond and later render on the front section.
Orientation:             North west
Topographic location:    On a rise
Water source:            Near lagoon
H 005 Lynwood  Pitt Town Bottoms
A two storeyed structure built of brick dating to c1825, it is now a ruin as it was partially destroyed by fire in 1994 and has not been restored. The original section is of brick five bays in width, the four windows on both floors had the two pane casement type. A two storeyed wooden verandah encircled the house and contained rooms on both east and western elevations, that date at least, by the 1940s (pers. comm. Ian Jack). The rear of the house appears to have been altered by the addition of further rooms possibly in the late 19th century. It had a hipped roof with fireplaces on both floors and cedar surrounds typical of the 1820s. The house was built by John McDonald an exconvict, after he had married his masters widow Lydia Benn in 1817 (Bowd p:59).

Walling Materials:  Brick, English and Colonial bond, rendered later
Orientation:  Northwest
Topographic location:  On a rise
Water source:  Creek 200m, no sign of well
H 006 Reibyroft  Freemans Reach
A much altered brick structure with an attic storey it has 5 bays with a front door that has both sidelights and a fanlight. Three dormer windows project either side of a hipped roof with a single dormer at each end and a fireplace on the eastern side. The foundations have been replaced and a Victorian bullnose verandah added along with turned wooden columns. There was a major fire in the building at some point and alterations to the interior seem to have taken place then. These include the removal and replacement of fireplaces, and the addition of the dormer windows. The building was rendered in the 1910s along with the removal of chains (leg shackles) attached to the house (pers. comm. Mrs Kelly).

Walling Materials:  Brick, later render
Orientation:  South
Topographic location:  On a rise
Water source:  Well
H 007 Rose Cottage  Wilberforce

Built c1811 this structure was built originally from slab timber and later received a layer of weatherboards. It is unique in having a roof that is both hipped and gable, the gabled end has a door to allow access to the loft, presumably for storage of farm produce and foodstuffs. There is also an internal ladder type stair to gain access to the loft internally. There were two rooms originally with one fireplace at the western end, both having three 9 pane sash windows on the front façade and only one 9 pane sash window on the eastern elevation. A central passageway runs through the cottage and was extended when two rooms were added to the rear of the cottage sometime before 1816. This addition was a skillion 10ft deep with sapling rafters and shingle roof (in situ) with one 9 pane window facing south and a 4 pane window east. The front verandah appears to have been added not long after or contemporaneously with the skillion addition and has no flagging. An interesting storage shelf is located at each side of the verandah above headheight and could have been used for the storage of farm products or for storage during flooding. The door in the gable originally had a staircase for easier access for larger objects and possibly even furniture in times of flood. There are solid shutters on both windows on the eastern elevation and none on the other windows.

Walling Materials:  Slab timber, brick and later weatherboard

Orientation:  Northwest

Topographic location:  On floodplain

Water source:  Nearby river, well unknown
Rose Cottage First Phase c1812

Floor Plan First Phase c1812 and Rear Second Phase c1816

Proposed Reconstruction of the First Phase c1812  Not to Scale
RM 1999
H 008 Caddie Park  Cattai National Park
Built by Thomas Arndell between 1819 and 1821 it is of brick construction with four rooms on the ground floor and two in an attic story. The roof is a jerkin head and only received the dormer windows during additions in the 1930s (Hadd p:5). The roof extends over the front wall to form the verandah, which is stone flagged. The staircase is one flight only and has a cedar rail and post along with a cedar fireplace surround with roundels, a popular feature of the 1820s. The front façade has two sets of 12 pane sash windows aside the front door and all have flat brick arches. Windows on the southern and northern sides were added in the 1930s refurbishment, along with two wings at the rear. The separate kitchen was demolished at this time as well.

Walling Materials:  Brick, bond unknown later render
Orientation:  West
Topographic location:  On a rise above flood plain
Water source:  River, well (1914)
II 009 Turnbull's House  Port Erringhi
Is a two storeyed house built from sandstone and is random coursed. It has a jerkin headed roof at one end with chimney and small attic windows and is hipped at the other end. It has two 12 paneled sash windows aside a central front door covered by a separate verandah with stone flagging. The verandah posts x 4 are of the style of the 1820s a date assigned to this house (Jack p:89). The dormer windows appear to be later and could date from the time of the rear addition. This addition has ashlar masonry and is gabled with a chimney. Two original verandah posts remain at the rear and there is new stone flagging for this verandah.

Walling Materials:  Sandstone random coursed and ashlar lintels

Orientation:  Northeast

Topographic location:  On a rise above the river

Water source:  River 20m
H 010 Mein’s House  Portland Head

Only the kitchen remains, the rest of the two storeyed section has been demolished. This remaining section is of coursed rubble sandstone and is in ruins, but there is enough left to ascertain its form and dimensions. It is approx. 15 ft wide and 24 ft long resting on a rough stone plinth and bedrock on an outcrop of sandstone 5 m high above the flood plain. It originally had a door on the southern elevation, which is now missing. A photograph from 1965 depicts the kitchen section in better condition and clearly shows gables at both ends. The western end has a large fireplace and chimney with two square openings in the gable. These could have been for ventilation or light, although the gables are not really high enough for an attic storey. A very small window really only a slit is also on the southern elevation and probably was used for defense. An earlier photograph shows the two storeyed section in the 1920s, before it was demolished (l Jack). It ran north to south and had three small windows upstairs and one window each side of the front door. Remains of the footings suggest it was approx. 14 ft wide and ends only 1 m away from a drop of 5 m. The kitchen appears to have been built first, as there would have been no need to build another gable, the rafters could have been attached to the rear wall instead. This early dwelling must date from after 1803 when Mein settled on his grant of 100 acres. The whole site is in need of further investigation and recording before the rest of the structure collapses.

Walling materials:  Coursed rubble sandstone blocks

Orientation:  First house south, second to the east

Topographic location:  On top of a sandstone outcrop, 5 m above flood plain

Water source:  Near a lagoon and creek
This structure is a two storeyed house made of ashlar sandstone. It originally had a hipped roof and had a separate smaller roof covering the rear rooms, which was altered with the replacement of a gabled roof in the 1970s. The front façade is impressive with its stone Doric columns and fanlight. The ground floor windows all had 12 pane sash windows and shutters, while upstairs three French doors open to the upstairs verandah. A date of c.1811 is given for its construction as Andrew Johnston's first house was covered by floodwaters in 1806 and he moved to higher ground and building there (Jack p.90). Stylistically this structure could date to between 1815 and 1825 and only further research might verify this. The introduction of French doors occurs in all the structures investigated by the early 1820s. The upstairs French doors appear original but could date to a later period as could the verandah. Interior access was not possible, as the owner's were not at home.

**Walling Materials:** Ashlar sandstone

**Orientation:** Northeast

**Topographic location:** Above flood levels on a rise

**Water source:** Nearby creek and river
Chapter 5 Results

Typological Assessment of Structures Investigated

Introduction

The typological approach used to clarify architectural structures dates back to the late eighteenth and nineteenth centuries. Quatremere de Quincy in 1823 stated that a type should not be equated with a model, as a model is explicit and specific, whereas a type is suggestive and general (Upton p:26). Rapoport in the 1960s did much to advance the general field of vernacular studies he did not specifically proceed with a typological approach. It was not until Glassie’s Folk Housing of Middle Virginia published in 1975, that a typological approach to vernacular architecture was attempted. As R Lawrence states Glassie’s study of houses in one region was not related to the nomenclature of spaces or constructional elements, but is solely founded upon the geometrical and compositional rules employed to generate floor plans of houses. He established mathematical rules for the combination of room size, shape and arrangement, the location of doors, chimneys, and windows. Thus the proposed typology is a synthesis of the relational characteristics which Glassie maintains the builders, consciously or unconsciously, employed when constructing these houses (Lawrence p:20). Glassie’s work relied on fieldwork and recording of these houses in Middle Virginia identifying seventeen major types. His approach was unique in the history of architectural studies, as he made an attempt of trying to understand the mindset of these builders and to what rationale they had in common. Glassie’s influence on vernacular studies saw the rise of interest in Folklorist studies and had a major impact on Historical Archaeology in the United States, influencing Deetz, Leone and others.

In ascertaining types or models, Lawrence’s definition appears to be applicable in a typological study like mine. He states that a type of vernacular building is specific to certain regions and periods, whereas a model refers to a specific building at a precise date (Lawrence p:20).

Another view in attempting a typological “based” approach, is that taken by R W Brunskill. He divides examples of vernacular architecture into three broad categories, domestic, agricultural, and industrial structures, all based on function. These categories are then further broken down into Size-Types, based on the social status and wealth of the owner/occupant. These four types start with the Great Houses not usually vernacular, then the Large Houses of the squire, the successful farmer, mill-owner etc. Then there is the Small House, with the yeoman, miller, tenant farmer etc. Lastly there is the Cottages owned or occupied by labourers and artisans (Brunskill p:22).

Any attempt of repeating a Glassie approach in this study would have required much more time and backup from a number of quarters. Since this was not possible, an investigation based on Brunskill’s approach was attempted. In selecting what criteria I should use in the assigning of types, I opted for the size of the structure. This was not based on any social status but the physical characteristics of the structure, which includes how many floors, is it single or double pile. Then a definition was assigned to differentiate between a cottage and a hut, a Homestead or a Farmhouse.
A Typology of Rural Vernacular Structures in the County of Cumberland

The following typology was generated as a means for classification and recording purposes and applies specifically to rural vernacular structures. This typology relies on the structures investigated for this study. Not all known structures were visited due to access restrictions, seven structures in total. Not all structures visited were recorded internally and some were in a ruinous state, which made them difficult to interpret. Given this any structure that is not totally identifiable but has some attributes, is assigned as being only a ‘possible’ example of that type. These other structures will hopefully be investigated in the near future.

Homesteads

The following homesteads have been identified based on a number of attributes proposed below, but also on the grounds of style, design and plan form. These attributes have been recognized as being integral to this type and include the following.

Attributes
1. Single storeyed structure
2. Main residence part of a distinct complex
3. The presence of verandahs on at least three sides
4. Hipped roof with double pitch for the verandah, forming the unique Pavilion style roof form
5. Associated with pastoralism i.e. livestock, sheep and cattle

There is a distinct difference in type of Homesteads, firstly there is a L form with Elizabeth Farm providing a rural model. Secondly there is the T plan with Kelvin as the earliest model yet found.

Homesteads

The L Plan
Elizabeth Farm c1807-1827 The second phase and third phase
Attributes 1. 2. 3. 4.

Glenfield Farm 1817-1820s First and second phase
Attributes 1. 2. 3. 4

The T Plan
Kelvin 1819 First phase
Attributes 1. 2. 3. 4. 5.

The Cottage c1822/3 Final phase
Attributes 1. 3. 4. 5.

Denbigh 1822-1826 First phase
Attributes 1. 2. 3. 4. 5.
Cecil Hills c1820-24 First phase
Attributes 1. 2. 3. 5.

Farmhouses
Two Storeyed Farmhouses
This covers a broad range of farmhouses and can be further broken down into three sub categories. These are the single, one and a half, and double pile families.

Single Pile Farmhouse
Single pile structures consist of having only one room in depth on both floors.

Examples of the Single Pile Farmhouse
Mountain View’s 1812 addition Richmond
Clare House c1810 Oakville near Windsor

One ½ Pile Farmhouse (Continuous Outshut)
This has not been thoroughly documented in Australian sources, although it is known in Britain as a Continuous Outshut and was the predecessor to the double pile plans. It is also known in North America as the Saltbox House (Bruskill p:113-202). An early example of this form of dwelling can be seen in Isaac Nichols’s House built c1798 at Sydney Cove. Nichols’ house appears in a number of depictions of Sydney Cove, and its design appears to have a jerkin-headed roof on the first floor single pile section, which then pitches at a 45-degree angle to cover the ground floor double pile. It has a central chimney and windows on each side of the first floor.

It has been recognized while undertaking this study as a distinctly different form, to either the single pile or the double pile plan. It has the attributes of both in so far as being a hybrid of both forms, usually having two rooms deep on the ground floor and only one or one and a half rooms on the top floor. Thus the naming of this type of house reflects its position between the other two types. The remaining attic space over the ground floor was used as a storage area for foodstuffs and general storage.

Examples of the One ½ Pile Farmhouse
Hadley Park II c1812 Near Castleraeagh
Osbourne Park 1823 Yarramundi
Clear Oaks c1819 Richmond
Portland Head c1811 Portland Head

Double Pile Farmhouses
Examples of this type have a depth of two rooms on both the ground and first floors.
The rear rooms have roughly the same dimensions on both bottom and top floors. Essentially this design is two houses joined together, with in most cases each section having its own roof forming a gutter valley at the join. This double roof form is known as the M shaped roof for obvious reasons.

61
The double pile plan was introduced in Britain high in the social scale towards the beginning of the seventeenth century and by the middle of the eighteenth, had spread to all parts of the community and all levels of society (Brunskill p:112). The use of the double pile plan in Australia was not common in the first two decades of the colony, although it had been used and is evident in, Cowper's Parsonage of 1815 and at Rouse Hill by 1818 (Broadbent p:52).

Examples of the Double Pile Plan
Mamre c1810 St Mary’s
Lynwood c1825 Near Pitt Town

Possible Double Pile Farmhouse (Not Investigated)
Nepean Park 1823 Near Castlereagh

Attic Storey Houses
These are houses that have a ground floor and have a room or rooms in the roof cavity or attic. Windows in the gables obtain lighting for these rooms, either singularly or in pairs, or by the use of dormer windows. Given these three forms, the type of roof that is suitable is limited to three main types, gable, half-hipped and hipped.

Examples of the Gabled Attic Storey
Campbellfield 1818 Minto
Turnbull’s House c1820 Port Erringhi (Hawkesbury R)

Examples of the Half- Hipped Attic Storey
Hassell Cottage 1813 Near Camden
Caddie Park 1821 Catti

Examples of the Hipped Attic Storey with Dormers
Reibycroft c1825 Freemans Reach
Possibly
Glenmore c1825 Glenmore Park

Single Storeyed Structures
Single Storeyed Farmhouses
The definition for this type is based on the number of rooms or cells within the structure. For this study a farmhouse is defined as having four or more rooms (cells) and a separate hallway, which is not considered a room or cell. A farmhouse can also be constructed out of a range of materials, no distinction will be made based on materials used.
Examples of Single Storey Farmhouses
Elizabeth Farm 1793-1806 Parramatta
The Cottage c1811 Mulgoa
Collingwood 1814 Liverpool
McDonald’s Farm c1820 Ermington

Rural Cottages
The definition for this type is also based on the number of rooms (cells). Therefore cottages have been defined as having between two and three rooms. They can be made from any material, timber slabs, brick or stone.

Examples of Rural Cottages
Salters Farmhouse (Cottage) 1798 Parramatta
Hadley Park I c1806 Near Castlereagh
Gledswood c1810 Catherine Field
Rose Cottage c1812 Wilberforce
Galvin’s Cottage c1815-20 Elderslie
Palmer’s Hut 1820s Yarramundi

Huts
This classification is based on the structure having only one room or a single cell. There were no extant examples located, so historical accounts and some archaeological reports provided the description and plan of such structures.

No Examples of Huts (One Room Structures) Located
Chapter 5
Analysis of Building Materials
As part of the recording procedure for this study all walling material was noted and as were any later alterations. This information can be utilized in a number of different ways, firstly it provides an indication on the variety of materials available and any influences that might have affected this choice. These include economic, cultural and social, the physical environment and geographic location, all within a temporal context. An attempt is made to consider all the evidence gathered pertaining to the major building materials used and to see if there any patterns or similarities, or none at all.

Brick
Was the material most often used, out of the thirty-three examples twenty were exclusively brick. Three more were a combination with another material, in all these cases it was wood and the type of construction was brick nogging. Temporally and spatially there is a consistent use of brick in all types of dwelling. Where brickwork was exposed and could be investigated all the bricks exhibited the usual characteristics of the early sandstock type. These attributes include the salmon or samel colour, the variations in size and their susceptibility to weathering. The fragile state of these bricks is as a result of the early techniques of firing and not as many have stated due to them being sun dried or baked. A number of sites have reported areas where clay had been excavated for brickmaking, a number of these sites now contain a waterhole or lagoon. This use of the natural clays could only occur in clay rich areas so presumably if there was none present it would have to carted in or another material used. The many references to these early bricks being sunbaked needs to be rectified. Bricks need strength in order to do their job and also to be as water resistant as possible, firing at a high temperature is the only this can be achieved. It is in the process of firing that problems occur, and can result in bricks being underfired and thus more prone to weathering. Another misconception is that bricks need a kiln to be fired in, this is not the only method as evidence at Lake Innes House has revealed. Graham Connah and his team located a brickmaking site 1.1kms away from the site of the house. At this site were found brick clamps, one clamp was 1.65mtrs high and contained numerous imperfectly bricks stacked in a manner that left vents for the heated air to pass through as the fireboxes slowly burnt (Connah p:36). Therefore these bricks were fired out in the open and where subject to the natural elements that could effect the firing, these include rain, wind and the quality of wood for burning.

Types of Bonding used
By far the most common type of bonding used was English Bond, 15 structures made use of it with 5 other structures not being able to be identified due to later rendering. Three structures used a combination of bonds, two-used Flemish bond and the other Colonial Bond similar to English Bond, but with two or more courses of Headers. Flemish Bond is considered to have a superior appearance to English Bond as it shows a larger proportion of face bricks (stretchers) (Lloyd p:15). In the case of Clear Oaks at Richmond the front façade has only Flemish Bond while the other walls have English
Bond, suggesting that the front of the house was meant to impress with its decorative Flemish Bond.

**The use of Stone**

There were only seven structures built of stone, out of the thirty-three investigated. Three stone structures are found grouped in close proximity to each other on the Upper Hawkesbury River. All the original owner's of these three houses came from Scotland and arrived on the same ship the Coromandel in 1802. The choice of building in stone cannot be explained solely by cultural tradition, as stone was plentiful in the region as outcrops of Hawkesbury sandstone abound. One of the structures Turnbull's House c1820 has randomly coursed rubble walls while the remains of Mein's house/kitchen c1803-6 are coursed rubble. The last house is Portland Head Farm c1811, a two storeyed structure with ashlar masonry. Within this small area three different types of stonewalling can be found. Out of the other 4 structures, one Erskine Park was not investigated due to refusal by the owner, and out of the remaining three one was built partly of stone and timber. This structure Campbellfield 1818 has undergone some extreme alterations so that only one stone wall is left. It is of roughly dressed and coursed sandstone blocks with keystone lintels. Gledswood c1810-16 is built from what appears to be coursed random rubble although this identification is not definite, due to later render and painting.

There is only example with a mixture of ashlar and coursed squared rubble can be found at McDonalds Farm in Ermington (c1820). Since there is no good quality sandstone near the Ryde area, it is possible that it was shipped up the Parramatta and unloaded at the private wharf owned by McDonald.

**Timber**

Some six examples were found to be either solely or partly constructed from timber. Those constructed exclusively from timber include two main types, those made from slab timber and those walled solely in weatherboards. The examples that are built from slab timber include Rose Cottage at Wilberforce and Palmer's Hut at Yarramundi. Palmer's Hut has no secure date but evidence suggests the 1820s or 1830s. It is a structure 26ft x15ft and consists of three walls made from slab timber and are set straight into the ground. The tops of the slabs are nailed to a top wall plate, which rest on corner logs cut to receive them. The joists across the roof cavity are debarked saplings approx 260mm or 10" thick and meet every second rafter also a sapling of approx 130mm 5" thick. Battens are laid on the rafters at close intervals and 18" (460mm) long shingles are attached to them. Later re-roofing has seen corrugated iron being laid over the shingle roof.

Rose Cottage c1812, is another example of slab timber construction, here also slabs and posts are set straight into the ground. Ceiling joists in the front rooms are pit sawn being roughly squared, and the skillion addition contains sapling rafters with pit sawn battens and shingles. Weatherboards were put on the front and back of the cottage, before the 1840s as they are pit sawn, and nailed to the slabs, the remaining slab walls were filled with a mud caulking and later galvanized iron strips. It has an open couple roof with floorboards providing a sizeable space for storage and can be entered internally via a ladder staircase and externally by a staircase (now removed).
The other example is Hadley Park where the original house/kitchen possibly dating to c1806 survives. It has been re-cladd with a variety of different materials so it is hard to establish what was the original material. It has squared posts that are set in the ground and sapling joists over the ceiling. The rafters are sawn as is the ridge and battens, there are no signs of shingles under the corrugated iron. Cloth is still attached to the ceiling joists in some places and appears to have been whitewashed as well. Most of the structure has been re-cladded in corrugated iron and flattened iron possible from large cans or guttering. Some weatherboards exist at the front, which could be original. There are only two possibilities for the original cladding, weatherboards or slabs. Excavation and removal of some of the existing cladding could possibly answer this question.

The other examples that use timber in their construction include The Cottage, Cecil Park and Denbigh. Cecil Park and The Cottage use brick nogging, while at Denbigh there is rubble filled walls, covered externally with weatherboards. The Cottage (c1811) at Mulgoa has hardwood weatherboards nailed onto 8"(200mm) diameter logs, which are filled with a frame of 4"x 4" (100mm x 100mm) vertically and 4" x 2" (100mm x 50mm) horizontally. This frame is infilled with a single layer of brick and plastered on both sides (Purdy p:15). Cecil Park (1824) at Cecil Hills has brick nog walls and is similar to The Cottage in terms of technique. Denbigh (1822) near Cobbity employs a similar technique, although instead of brick rubble is used. This rubble has not been identified but could possibly come from the building of the sandstone stables, where discarded stone rubble would have accumulated. Not using brick for the infill is interesting and suggests that the requirement for brick could be fulfilled by a material close at hand. The weatherboards are imported Teak from India and are still sound. Campbellfield (1818) was supposed to have brick nog construction, unfortunately no trace remains only brick veneer and one stone wall.

Interestingly all these examples that have a majority of timber in their construction, fall into the Low and Very Low Rainfall Zones. The rainfall averages 889mm (35") per year in the Low Rainfall Zone, and has a number of months that sees less than 50mm (2") fall. In the Very Low Rainfall zone an average of 635mm (25") falls per year and up to 6 months with less than 50mm (2") per month. This could be coincidence or due to the survival rate of farm buildings in general or possibly acclimatization and adaptation to the natural environment. Geographically all the slab and timber structures are found in the Hawkesbury area and those with brick nog/ rubble are found south of a line extending from Liverpool to Penrith and a line east from Liverpool to Campbelltown.
Chapter 5 The Environment
Orientation
Part of this study concentrates on the built environment and includes the issue of orientation. The questions I asked included are there any patterns or established rationale for choosing the orientation of a rural dwelling? Could any preference be seen to change over time or space? All dwellings in this study were considered to be eligible regardless of size or type of construction. Compass bearings for each structure reflect the actual orientation of the front of the dwelling although in a few cases this is ambiguous, due to each side having the same fenestration and central door.

The results are broken down simply by assigning each bearing taken with one of the 8 major compass points, starting with north.

North: 5
Northwest: 6
West: 6
Southwest: 3
South: 5
Southeast: 1
East: 3
Northeast: 4

Total= 33 Bearings

From these results a preference for an orientation that covers an arc from Northeast through all points to the West occurs. A total of 21 structures representing 63% fall into this category. The most popular direction is shared between Northwest and West each having six examples. The next popular is North and South with 5 each. Northeast has 4 examples, while Southwest and East have 3 each. The least popular direction is Southeast with only one example.

Can the factors influencing the choice of orientation or direction be identified? Some suggested influences were based on the observations made and recorded while at each site. These influences include the following; aesthetics which could include vistas and natural features like rivers or mountains, or the use of a road or river as contact points with the community.
Aesthetic factors include a vista, or a view of some natural feature like a river, lake, lagoon, valley or mountain range. There are 17 examples that could be influenced by these factors. There are four that could be either influenced by a view or feature, or by the fact that they see the river as a transport route and a point of contact. This can be seen at Elizabeth Farm, where the building faces north towards the river and the road to Sydney. Both are transport routes, and points of contact, although it also has a fine view as well. A further nine examples have influences for direction or orientation from transport or points of contact. These could include a road and a river used for transport before decent roads were built. There are three structures left that cannot be assigned any influences, as they are not readily apparent to this writer. Therefore just over half of the structures, seventeen in all, appear to be influenced by aesthetic factors such as a view or vista, a mountain range, valley, or body of water.

**Choice of Site**
Another aspect of this study saw the investigation into the choice of site for structure and ancillary outbuildings. The question asked by this writer was what were the determining factors in the choice of a site? This was attempted firstly by, gathering basic topographic data of each site investigated, and secondly locating the nearest available source of water. It was thought that these two natural elements should be considered as the most likely factors influencing the selection of sites.

**Topographic Influences**
As discussed the reasons for choosing a particular orientation or direction were shown to be based on two main factors, one the aesthetic the other a transport route or point of contact. The aesthetic factor related to the natural environment, which includes a view, a body of water, mountains and valleys etc. Thus the correlation between these factors and the relevance of topography in site selection can be seen to be influential in this cognitive process. At each site visited I recorded basic topographic information, this included whether the site was on a hill, a rise, a flat or near any other natural feature. The main topographic features identified were the following, small hills, a rise, flat and near a riverbank/edge of floodplain. The following results are a numerical breakdown of all sites influenced by topography.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Hills</td>
<td>5</td>
</tr>
<tr>
<td>On a Rise</td>
<td>12</td>
</tr>
<tr>
<td>On Flat Land</td>
<td>8</td>
</tr>
<tr>
<td>Riverbank/ Edge of Floodplain</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32 sites</strong></td>
</tr>
</tbody>
</table>

68
Seventeen sites out of the thirty-two, are located on positions of height, either a hill or rise, this represents 53% of the total sites investigated. The remaining fifteen sites need to be considered as they are not located on positions of height. This could simply be that there were no hills or rises on their property from which to choose from, so this option is not open to them. Are there other factors that could explain their choice of location? The importance of having a permanent water source is crucial to any farming or grazing endeavor.

Water Sources
The importance of water for not only humans but also for stock, has a major influence on site location and viability as a commercial concern. On each site visit I attempted to find the main water source, this could be a well or a natural source like a creek or waterhole. A total of twenty-seven sites had either wells, or natural water sources within 200m’s (600ft) of the main residence. Three other sites had either no wells or no natural water sources within 250m’s (750ft). The remaining two sites of Brush Farm and Campbellfield have undergone landscaping that has altered the surrounding environment, so any sign of a well or permanent water source was not found. A look at the map showing the distribution of structures investigated in this study reveals the importance of having a fresh permanent water supply over and above the use of well water. In the case of grazing having a permanent natural water source on the property was essential for stock survival, a well alone could not hope to provide both humans and a substantial number of animals with water all year round. It is not known by this writer when the use of dams became popular, although I suspect it would not have been before the introduction of mechanization.
Chapter 6 Discussion and Conclusion

Phases of Development In Early Colonial Australian Architecture
The first real attempt to document the history of architecture in Australia was by J.M. Freeland in the late 1960s. In his Architecture in Australia A History, Freeland assigns phases or periods in the development of architecture from 1788 to 1967. In the 1960s and 1970s interest in Heritage and History were becoming popular with the Australian people, the architecture of the past playing a big part. As a school pupil in the mid-1970s I was taken on a number of excursions to visit buildings like, Old Government House at Parramatta, Experiment Farm Cottage, and The Rocks. In the last thirty years many more structures have been open to the public and research into the Colonial period blossomed.

A revaluation of this early period is attempted in this study, based on the structures investigated and documentary evidence. It builds upon Freeland's work, but uses a different approach. It relies on extant vernacular structures in a rural context, to illustrate the architectural developments that occurred in the first forty years of European settlement.

Changes in time, and the ability to recognize and document them are crucial to any research concerning vernacular architecture. Therefore an attempt has been made to understand these temporal changes in using the structures studied. Freeland's first three phases provided a loose framework and gave me the idea to use them as a type of benchmark for this analysis. I have provided an alternative title to each phase proposed by myself, as well as a different date range especially in the last phase when the cutoff date is 1828 for the examples used. The following phases are therefore based on the 33 structures visited in this study.

Proposed Phases:
Phase One 1788-1810: The Transplantation Phase
(The Georgian Box)
Freeland's title for this is The Primitive Phase and dates between 1788-1809.
I propose to use the title, The Transplantation Phase, the movement of a cognitive template of design, form, style and technique of architectural knowledge from one location, and its transplantation to another location devoid of any European influence. This knowledge however had to modified and reassessed as the technological and materials of the early colony were restrictive. Innovation and a process of trial and error were required to establish a building industry. The Georgian mindset of symmetry and proportion was not modified in this first phase; design was kept the same and consisted of the hipped roof, close eaves, central door, symmetrical fenestration and the basic floor plan for both the hut, cottage, and house. A number of examples of this phase are identified in this study. They will be discussed in regards to their relationship to this phase of transference. This transference does not solely apply to Georgian England but also to Scotland, Wales and Ireland were cottages had undergone a change in the late 18th
century, from the older black houses of wattle, turf and open hearth to the white houses
with chimneys, stone walls and permanent partition walls.

A typology has been proposed for the structures investigated in this study, it can be
found in Chapter 5, and is used for this discussion. Each structure referred to can
be found in Chapter 4, where a detailed description is given.

The Cottages
The earliest structure belonging to this type can be seen
in George Salter's cottage (See
Chapter 4 p: 27) of c1798 to 1806 which forms the basis for The Governor's Dairy in
Parramatta Park. This early structure has been dated and identified by R Varman and D
Cornell in their research on the Dairy Cottage. A recent report by Sue Rosen proposes
that it is not Salter’s house and that the present structure was converted from a malt house
around 1813 (Rosen p:4). Rosen’s evidence is not convincing as a sketch drawn in 1844,
depicting what she terms a small cottage with an “oast” style roof, really only depicts the
present structure and its hipped roof, flanked by two outbuildings without chimneys.
(Rosen p:25). Rosen states that the gardener’s house was converted from a malt kiln,
hence her term for the roof of a malt or oast house. No examples of this type of roof are
submitted by her. According to R W Brunskill, English examples usually consist of a tall
conical or tapered square roof with an opening capped by a cowl. (Brunskill p:163).

This early cottage with its two rooms, hipped roof and symmetrical façade typifies the
Georgian Box style of architecture of the transference period. A similar example can be
seen at Hadley Park, were the first structure built dates to c1806 (See Chapter 3 p:44).
It has two basic rooms, a hipped roof with one chimney and was built of either slab timber
or weatherboard. It has the same floor plan as Salter’s cottage although there are two
doors for separate entry.

The cottage at Gledswood(See Chapter 3 p:36) dates to c1810 and is an interesting
departure from the two room variety of cottage. Built for a Frenchman, it has a separate
room attached to the rear of the chimney with its own entrance. Otherwise this cottage
follows the same two-room plan. It also has a cross passage with entrances and two
windows each side of these doors. This extra addition could be as a result of the
influence of a French rural tradition of architecture, which also is to be considered as a
transference.

The remaining two structures, Mountain View 1806-8 and Mein’s house 1803-6 are both
cottages but of a different type. Mountain View (See Chapter 3 p:49) starts off as a
workers’ cottage separated in two with matching back-to-back fireplaces, doors and
windows. By 1808 it had expanded into a larger three-roomed cottage mainly as a result
of the Dights having more children and the need for space. The early workers cottage
was a variation of the family type and could be the focus of more research into the
dwellings of workers in the early colony. James Mein’s cottage built of stone was
gabled with one stone chimney and a central door. This cottage resembles the white
houses built in Scotland at the end of the 18th century with their gabled ends, squat
chimneys, and rubble stone walls. The major difference being that Mein’s house would have been shingled, not thatched.

**Houses**
The only house dating from this phase that is still extant, It is Elizabeth Farm (See Chapter 4 p:28). Built in 1793, this structure has provided a benchmark for the development of vernacular rural architecture in the first forty years of settlement. Starting out as a brickwalled, hipped roof box, with central door and two pairs of windows. Divided into three cells, two of which are rooms, while the middle cell is an entrance hall or vestibule. The two rooms each have a fireplace at the rear, and are connected only to the hall. This plan becomes enlarged with the addition of skillings to either side of the house, and a rear verandah or covered way connected these two skillings to the central section. This plan or variations of it are found in many other structures investigated in this study.

Are there examples of this plan before Elizabeth Farm? First Government House in Sydney Cove provides the earliest example. Originally built as a single-storeyed three-roomed cottage, it was enlarged to include an upper storey with a projection from the rear, containing a staircase. This early plan was as Broadbent states “an elaborated cottage or farmhouse, a ubiquitous vernacular type onto which tokens of a more polite architectural vocabulary were grafted to raise its status” (Broadbent p:3). The dimensions of this structure were approx. 50ft long x 16.5ft wide, with the ground floor 9ft high. The central section of Elizabeth Farm is approx. 50ft long x 20ft wide and 9ft high (from the floor of the verandah to the roof). The hall in Government House was 9ft wide, while at Elizabeth Farm it was 12ft wide. The similarities between the two could have been the result of having the same builder or one trained by the builder of First Government House, James Bloodsworth. This evidence points to a similarity of form that dates to the very beginnings of architecture in Australia, and as Broadbent states, a form that represents an often-found vernacular cottage or farmhouse.

**Two-Storeyed Houses**
There are two structures that date from this period, both are dated to around 1810. The first structure is Mamre (See Chapter 4 p:41) a large double pile two-storeyed farmhouse built for the Reverend Samuel Marsden. It probably was built without its later verandah and resembled a typical Georgian farmhouse. R W Brunskill would call this a Large House, built for the unusually successful yeoman, or the highly favored parson, the small country house of the squire (Brunskill p:22). As Freeman and Havelka stated in their thesis on Mamre, Australian country houses took on characteristics of the English Georgian Farmhouse models (Freeman & Havelka p: 83).

Clare House (See Chapter 4 p:51) is also dated to c1810 but has been much altered and is not thoroughly documented. It is a smaller house, only three bays wide, with a chimney at each gable. In appearance it is similar to many farmhouses in the north of England, and in Scotland.
Phase Two 1811-1820: The Adaptive phase

This phase sees an adaptation of form and the introduction of different architectural features that mark a distinct change from the earlier transplanted phase. It also sees the arrival of Macquarie and an increase of arrivals of people both free and sentenced. It is a period of growth, and the settlement expands beyond the confines of the County. This phase sees the adaptation or modification of dwellings take place due to a number of factors. The most noticeable factors are the physical environment, which includes climate, vegetation, geology, and the availability of resources for building. Other important factors include wealth, class, (emancipist or free), and cronyism.

Two types of structures are discussed here, firstly new structures built in this period and secondly structures that have been altered or had received additions.

New structures:
Rose Cottage (See Chapter 4 p:54) built in 1812, is an excellent example of this adaptive form. It lacks the finesse of the Georgian box, as it is totally asymmetrical, but functional by design. It has a gable on one side and a hipped roof finish on the other. This roof design broke away from the traditional hipped or gable roof, the main reasons being the need for storage and access to it. The open couple roof allows a large space to be utilized for the storage crops, foodstuffs and household items in time of flood. The plan of the cottage before additions consisted of two rooms only with a breezeway running through one room front to back. This room had two windows while the other room only one, mainly due to the internal staircase to the loft above. This structure is a case of function modifying design, and there is a good case for this cottage being the first Australian vernacular dwelling that is still extant.

The Cottage, Mulgoa
This structure and its development has been used to illustrate the development of the bungalow in Early Colonial Australia, based on the interpretation of the structure by its owner James Broadbent (See Figure 5 p:74). I would like to offer another view on the development of this structure. The first phase consists of a jerkin-headed dwelling (40ft x 16ft), with an entrance hall flanked by two rooms built between November 1810 and July 1811. Broadbent suggests that a rear skilling or skillion was built at the same time, as well as a front verandah. These were pitched from the roof at the point that the jerkin head starts (looking from the gable end) and continues at a different pitch covering both the skilling and verandah (Broadbent p:26-27 Fig2.3). This is one possible option, although any precedent on a jerkin-headed example would help with this proposal.
The Cottage Mulgoa

Plate 2.6 Right: The Cottage, Mulgoa. Private Collection.

Plate 2.7 Bottom right: The Cottage, Mulgoa. Private Collection.

Figure 2.3 The Cottage, Mulgoa.

Figure 2.2a

Figure 2.2b

Figure 5

From James Broadbent’s The Australian Colonial House pgs 25-26

74
Glenfield
A structure built at this time that exhibits this adaptation is Glenfield near Liverpool (See chapter 4 p:32). An architectural thesis completed in 1977 by M Bullen and I McGilvray disagree with R Roxburgh and others on the process and dates of the growth of the structure. An attempt is made by this writer to reappraise the evidence and draw his own conclusions.

The first phase at Glenfield was in 1817 according to Herbert Throsby, Charles’ grandson (Roxburgh p:114). It is possible that it could be as earlier (c1812-1817) as Bullen & McGilvray suggest, but they offer no evidence for this conclusion (Bullen & McGilvray p:17-18). This early form i.e. the L-shape, resembles Elizabeth Farm’s second phase which lasted from 1811-1826.

A sketch drawn in 1822 (possibly earlier) by Edward Mason depicts this L-shape clearly. There appears to be no east wing at this time (See Chapter 4 p:32). Bullen & McGilvray maintain that this east wing was built at the same time as the L shapes section and provide the following evidence.
1. Mason’s sketch and his primitive stylization as well as the possibility that his perspective obscured the east wing.
2. The brickwork is bonded between the two wings.
3. Roof timbers are continuous.
4. Bricks and their finish are of a consistent nature throughout. (Bullen & McGilvray p:19-20)

Mason’s sketch may appear crude but it does depict the correct roofline and the three chimneys of the original stage. The eastern wing has two large chimneys rising above this wing and these would have been visible. The bonding between the two wings is explainable if they have been toothed, a form of bonding similar to dovetailing. The roof timbers (rafters and purlins?) could have been replaced when the wings were joined. The bricks would be reasonably consistent as they were probably made on or near the property and share the same clay source and methods of firing given the short time lag.

Other evidence suggests a later date than 1817: the window and door openings on the east wing are all curved at the top, while in the northern wing they are all square. The cellar under the east wing continues under the outshut on the northern face (a later addition) and shows no signs of being rebuilt or reinforced to cope with this extra addition above. The unfinished verandah use of dormer windows and its tacked on appearance all stylistically point to a date between 1820 to 1840.

Given that the original phase consisted of the L shape and its four rooms, its resemblance to Elizabeth Farm is obvious. Macarthur’s residence would have been known to Throsby, its prominence noticeable from the river and road, or via a social visit, and both were pastoralists with a desire to locate new land. This L-shaped form suited adaptation as can be attested by both the later additions to both Glenfield and Elizabeth Farm.
Kelvin
Built c1819 this single storeyed structure marks a change in form and plan for farmhouses. It combines the early three-room cottage with the addition of four rooms along the rear, forming a T-shape. The wings of the T are as a result of adding outshuts which can have their own entrance to the verandah. The verandah is on three sides and was originally flagged in stone. This form of house is as a result of the influence of the Anglo-Indian bungalow adapted and altered so that the outshuts are at the rear not the front. This new T-form in my opinion heralds the Homestead type of rural dwelling that then spreads to all the new areas of settlement. The exterior of this dwelling has some decoration in the form of its delicate fanlight, valances (probably added later), and quoins. Beyond these embellishments the form of the house is not pretentious but functional. Built at the same time are a separate kitchen and servants' quarters forming a courtyard, another feature of early homesteads.

McDonald's Farm
This structure (See Chapter 4 p:25) dates to c1820 and is of a similar plan to Kelvin except that it has no outshuts and the verandah ends half way along each side. Two rear rooms extend off the front two rooms and there is a continuance of the hall passage to a rear door. The verandah is of the same date as the house and is separate from the roof, which makes a departure from the previous examples who had a continuous roof line covering the verandah. Built of stone it has a fanlight and a combination of ashlar and smoothed rubble masonry. It also has french doors that are original and open onto the front verandah, an early adaptation compared to Elizabeth Farm 1826, and Mountain View VI mid 1820s.

Additions and Alterations to Existing Structures
Elizabeth Farm underwent additions and alterations between 1806 and 1811 (See Chapter 4 p:28). It was during 1811 that the addition of a another bedroom and verandahs altered the structure from its box shape to an L-shape, encircled by verandahs on at least three sides (See Figure 6 p:77). The skillion bedroom on the eastern side was removed and the verandah ran the whole length of the structure.

A structure that resembles Elizabeth Farm's L-shape, is Robert Campbell's House at Sydney Cove. Built c1800, it was L-shaped house seven bays long, built of stone. It had a verandah on its eastern side, and by 1808 it had developed further with an addition of a northern verandah. This L-shaped house with verandahs may have influenced the design of the Main GuardHouse at Sydney Cove, located near the present Grosvenor St, and built c1809. This structure is also an L-shape, with a verandah on at least one side and a probable verandah facing George St. Campbell’s house by 1808, exhibits characteristics
The L-Plan Type of Homestead

ELIZABETH FARM SECOND PHASE 1809-1811

GLENFIELD FIRST PHASE 1817

Figure 6
of the bungalow form. This had probably developed from his two years in India, and exposure to the dwellings found in the cantonments of Calcutta, and the surrounding hill stations. It is interesting that the military used this form for their guardhouse. Military architecture in the Southern Hemisphere was heavily influenced by a history of designing structures in the colonies of India, the West Indies and South Africa. The military officers and engineers were quite familiar with this type of verandah structure, and this can be seen clearly in the designs of John Watts (The Rum Hospital of 1811, and later at The Lancer Barracks built in 1820).

As mentioned previously Glenfield follows a very similar plan and Elizabeth Farm may have well inspired Charles Throsby to build a similar house.

**Hassall Cottage**

Built in 1813 this structure consisted of three main rooms with a back-to-back fireplace heating two of the rooms, and an unusual open fireplace probably used for cooking. It had a jerkin-headed roof and at least one room in the attic, which was accessed by a flight of external stairs.

A proposed development of this structure is based on information provided by A Macarthur-Onslow but does not necessarily reflect her opinion.

Phase one, c1813 the central three rooms are built and a verandah is added. This is based on the fact that this central section is approximately 30cm (1ft) higher than the rear three rooms. The front strangers rooms or outshuts have been added later to fill in the ends of the verandah. Their windows are both different, one has two panes, the other four. Both have brick sills, not wood as in the main house, and the entrance doors to the outshuts are smaller than those of the central section. The size of the outshuts differ, the western one being a little larger than the eastern one. The ceiling of the verandah is also interestingly raised above the front door, probably to accommodate the addition of a transom above the earlier smaller six-panel door.

Stylistically a date of c1813 is also very early (but not impossible) for such outshuts on rural dwellings. Both Glenfield Farm and Elizabeth Farm date to the 1820s. This form of infilling the verandah, is the basis for identifying the Bungalow type of dwelling. James Broadbent has proposed a development for the Bungalow in the first two decades of the 19th century and uses Government House at Windsor to illustrate its early formation, by at least 1809 (Broadbent p:23-24).

The front verandah was definitely built by October 1815 when Governor Macquarie dined and attended Sunday service on the verandah (Macquarie p:121). In this structure a number of features show signs of adaptation: the plan leaves out the entrance hall, a double fireplace in a dividing wall marks a change from having them at the rear of each room. The addition of the verandah by 1815 is documented, a rarity for most dwellings of this period, and is evidence of the importance of having a covered area outside the house.
The Third Phase 1821-1828+: Early Colonial Vernacular
(A Verandah Vernacular)

This phase sees the previous phase become established as models are reproduced and are
diffused across the County. The innovations initiated in phase two are introduced into
existing structures, verandahs are now integral with the main structure and french doors
are also introduced as a direct result. The barrier that had existed between the interior
and exterior of these dwellings was being broken down. The verandah provided the
means to enjoy a mixture of both environments at the same time. The Europeans were
slowly adapting to the unique weather of the Sydney region, with its heat, humidity and
heavy rain. The verandah offered shelter and relaxation.

New Structures
Caddai Park
Built in 1821 for Thomas Arndell, this structure follows the four-room plan established in
phase two (See chapter 4p:55). It is jerkin-headed with an attic storey containing two
rooms each side of a staircase. This attic storey is only possible because of the jerkin-
headed roof and three-quarter gable, allowing in light through small windows. The pitch
of the roof descends till it covers the front verandah forming a large flat plain. This is an
economical way of having extra room but saving on the extra cost of having to build a
two-storeyed house. Nearby a similar structure, Turnbull’s House (See Chapter 4 p:56)
c1820 is similar but has a separate verandah. Could Arndell have adapted this type of
house for his own needs?

Denbigh
Built for Charles Hook in 1822, this single-storeyed house follows the T-plan of Kelvin,
only 10 km away. Denbigh (See Figure 7 p:81) has the two front rooms aside an entrance
hall, followed by four rooms (now altered) at the rear, the two outer rooms forming
outshuts. The fireplaces are at the rear of the front rooms, and a breezeway extends
through the house. This form of house has now become the archetypal homestead, and is
copied and distributed out into the other County’s of the colony.
Cecil Park
This is a structure dating to between 1820-24, and was built for Sir John Wylde (See Chapter 4 p:31). This also another T-shaped house but with a very unusual pyramid shaped roof that covers all the structure, including the front verandah. The plan is slightly modified in that the outshuts are smaller and there are two large rooms added to the existing six. These two back rooms, both have fireplaces and could represent the original limit of the house. There are four extra rooms that appear to have been added on later (1870s+), perhaps filling in a rear verandah. Cecil Park is another example of the new homestead type of structure that started with Kelvin, around 1819 and possibly earlier. There is another structure that is similar to additions, but these additions cannot be securely dated, although the style and features suggest the 1820s. This is The Cottage at Mulgoa.
The T-Plan Type of Homestead

Kelvin c1819

Denbigh 1822

Cecil Hills Farm c1824

Figure 7

Not to Scale
RM 1999
Lynwood
This is a two-storeyed structure now almost a ruin due to a recent fire (See Chapter 4 p:52). Built c.1825-7, the brickwork appears to be different between the two floors, the ground floor being of English bond while the first floor changes to Colonial bond. The first floor doorway is out of alignment with the front door below and this along with the brickwork could suggest it was either built in two stages or that the first floor was added at a later date (within 10 years). The use of casement windows is unusual for a house built in the 1820s and could be as a result of matching the earlier windows of the ground floor section. The second storey was built specifically to open onto an upstairs verandah as the first floor door suggests. This was a major departure from the earlier two-storeyed houses with their separate ground floor verandahs. This new style of two-storeyed houses with matching verandahs starts in this period and can also be seen at Brush Farm built in the early 1820s (See Chapter 4 p:26).

Additions and Alterations to Existing Structures.
The Cottage
Another alternative on the development of this structure is proposed. It requires the inclusion of the addition that occurred later, and which saw another room added on the western side possibly by c1822-3, when the Cox brothers brought their new wives to live there. My option follows that there was the original jerkin-headed cottage, but built without the skilling or verandah (See Chapter 4 p:42) In Broadbent's option, this addition occurred at the time of construction and would require the rafters of both the verandah and skilling be attached to the rafters of the roof (Broadbent p:27). This would have required a sturdy carpentry joint to keep it in place or even bolting the members together. In his illustration 2.2 b, Broadbent clearly shows a ceiling joist attached to the skilling rafter. This option would require the builder to have left the ceiling joists sticking out from the wall on both sides. It is possible that the both the rear skilling and verandah were added on at a later date. My option sees both additions being added at a later date using extra ceiling joists to provide a point of attachment for the weatherboards to be used as a ceiling for the verandah and skilling.

In looking at the structure today, one can see this type of broken back or bell cast roof form. The later addition of a bedroom necessitated the extension of the front verandah and rear skilling, and would have also required the eastern side to be altered to accommodate the new verandah. Given Broadbents option (See Figure 5:2.3b) the roof changes pitch much higher up, while if one looks at the photographs (See Chapter 4 p: 42), the change of pitch appears to be much lower. It resembles in effect a typically altered hipped roof which when extended, sees the roof changing pitch as it covers a skilling or verandah. A similar roof can be seen at Elizabeth Farm, Kelvin, Glenfield and Denbigh.
Hassall Cottage (Macquarie Grove)

It is proposed by this writer that the second phase of building saw the additions of the front outshuts and the rear three rooms added in the early 1820s. The cottage was occupied permanently by Samuel Hassall and his new wife in 1819. After Rowland Hassall's death in 1820, Samuel inherited the cottage. In 1830 Samuel died and by 1833 his wife had remarried. From 1833 until 1852 the house was rented and was described by one of its tenants, William Lumsdaine in 1846. He describes the structure as "A good verandah cottage, containing nine rooms...." (A Macarthur-Onslow p:2). So any additions would appear to have been completed well before Samuel's death in 1830. Stylistically the outshuts date from the 1820s and can be found at Elizabeth Farm 1826-28, and at Glenfield 1822-28.

Elizabeth Farm

The third phase of building commenced in 1826 under the supervision of John Macarthur himself, who started to display his mental instability which caused the work to drag on until 1828. Some of the additions that took place at this time included the infilling of the eastern veranda, to widen both the Dining Room and Bedroom. The hall was extended and two extra rooms added behind the Drawing Room, these are the Pantry and what is known as the Oak Room. Excavation of the Oak Room revealed a partition wall made of brick nog construction dating to the 1826 additions. The little rooms (closets or outshuts) at each end of the northern verandah were also added between 1826 and 1828. All the french doors that currently exist, replaced a number of windows, so as to allow access to the eastern and northern verandahs. The verandah itself, received seven turned wooden Doric columns that were later replaced by the present cast iron ones (Historic Houses Trust p: 55). Seen from the northern elevation the structure resembled the Anglo-Indian bungalow, quite a transformation from the simple Georgian box that had existed thirty-five years earlier.
Chapter 6
Environmental Influences
The locational map (See Figure 3 p: 6) can best gauge the distribution of all the structures investigated. The actual location of each structure investigated for this study, is superimposed over a map that depicts both geological deposits and rainfall a correlation emerges.

Rainfall
All the structures fall into the Moderate, Low and Very Low Rainfall Zones. None are found in the High Rainfall Zone that runs parallel with the coast. The majority of structures lie within the Low Rainfall Zone, which runs from Richmond to Camden. This zone has an average annual rainfall of below 889mm, with both Camden and Richmond receiving an average 787mm a year. Those structures in the Very Low Rainfall Zone located around Penrith and Castlereagh receive only an average of 635mm per year. Of interest is the distribution of timber structures in the County. All timber structures in this study lie within the Low to Very Low Rainfall Zones, with no exception.

Geology and Vegetation
The relationship between the geological deposits, vegetation and rainfall is part of symbiotic cycle of cause and effect. One can also see a relationship between the geological deposits of the County of Cumberland and the location of the structures in this study. Nearly all the sites are in either the Wianamatta Group of shale deposits or the Quaternary Alluvial sand, silt and clay deposits. The impact of the Hawkesbury Sandstone deposit is notable: there was very little settlement in these areas and the majority of the area is now National Park. The poor soils and rugged terrain forced the settlers into the Sydney Basin where the soils and vegetation where more amenable to farming and grazing.

The vegetation of the Sydney Basin varied, the largest association being the Grey Box – Red Gum Association, that covered a good proportion of the Basin before settlement. This association had a grass understorey as a result of burning by the Aboriginals over millennia. The relationship between the sites of these structures and the Quaternary Alluvial deposits is most striking. The reliance on good alluvial soils and available water is all too apparent. This dependence is often mentioned in the historical accounts when land was sought or land grants made.
Water Sources
Given this important reliance on good alluvial soil and a reliable water source, the pattern of distribution of the structures investigated shows that nearly all of them were sited next to a creek or river. This is understandable if the impact of rainfall is understood. All the sites lie within low to very low rainfall zones, reliance on rainfall was not an option. The dependence was on permanent flowing water. This period was before the use of tank water and dams, for it was not until the introduction of corrugated iron and guttering that a rainwater catchment strategy was possible. The catchment of rain and the ability to store it made it possible for the settlers and squatters of the 1860s and 70s to push further west into the dry country.
Chapter 6
Economic Influences

Rapoport, in House Form and Culture stated that ‘when social explanations of house form are proposed, defence and economics—the most material ones—are most commonly used’.
(Rapoport p:31). Even earlier in 1951-53, Fox and Raglan’s study into houses in the Welsh county of Monmouthshire developed the concept of cultural regions, based not only on existing buildings, but archaeological remnants, climatic and cultural features (Lawrence p:25).

The most noticeable feature of the distribution of structures according to type, was the apparent divide between those structures in the northern half of the Sydney Basin and those in the south. A line roughly drawn between Parramatta and Penrith separates these two zones. Farmhouses typify the northern zone, the most common being two storeyed houses or those with an attic storey. There are also at least three cottages, two of slab timber and on stone. Whereas in the southern zone the most common dwelling is the single storeyed farmhouse, homestead or cottage. Thus two distinct regions based on the type of dwelling is found. What has caused this to be so? There are a number of factors that I think are responsible for this pattern. As discussed previously the physical environment is an important factor, but most importantly it is economic factors that affect this distribution. The majority of dwellings in the southern zone were originally situated on large property’s that were primarily concerned with grazing. These property’s sprawled over 100s and in some cases 1,000s of acres, with their large flocks of sheep and herds of cattle. The predominance of grazing in this zone and the financial capital needed to purchase livestock, resulted in a unique built environment, that witnessed a preference for veranded single storeyed dwellings. The distance from urban areas, namely Liverpool and Parramatta, resulted in these larger property’s having to be self-sufficient, in terms of maintenance, storage and processing of food.

Between 1815 and 1821, this southern zone was primarily concerned with pastrolism. In 1821 the Liverpool District, which included almost the majority of the southern half of the Sydney Basin, had overtaken the other districts of Sydney, Parramatta and the Hawkesbury, in numbers of livestock. It however, was second in the number of sheep as areas outside the county of Cumberland were being opened up to pastrolism.

Positions of the Principal Districts 1821

<table>
<thead>
<tr>
<th></th>
<th>Sydney</th>
<th>Parramatta</th>
<th>Hawkesbury</th>
<th>Liverpool</th>
<th>Outside County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horses</td>
<td>1062</td>
<td>753</td>
<td>942</td>
<td>1084</td>
<td>173</td>
</tr>
<tr>
<td>Cattle</td>
<td>16,164</td>
<td>11,160</td>
<td>11,720</td>
<td>18,322</td>
<td>10,583</td>
</tr>
<tr>
<td>Sheep</td>
<td>8,878</td>
<td>26,324</td>
<td>17,339</td>
<td>32,949</td>
<td>34,287</td>
</tr>
</tbody>
</table>

(From B Fletcher’s ‘Landed Enterprise and Penal Society’ p:200)
From the mid 1820s onwards the larger property’s became head stations and holding areas for stock being brought to the markets at both Sydney and Parramatta. The dwellings investigated in this southern zone represent this increased shift toward pastoralism, between the years of 1815 and 1825. A number of these dwellings reflect a similar plan and exhibit shared architectural features. Kelvin 1819, Denbigh 1822, and Cecil Hills 1820-24 are all based on the T plan type of homestead. Another structure that is similar to this T shaped plan, is The Cottage at Mulgoa. It had developed into this similar type around the early 1820s. All these structures were on pastoral property’s in the period 1815-1828. The other homestead type, the L plan, starts with Elizabeth Farm c1811 and is seen at Glenfield, a pastoral property in 1817. Hassall Cottage built c1813 is of a different plan and form, but by the 1820s has developed into a verandahed cottage with outshuts, akin to an Anglo-Indian bungalow.

In the northern zone, the majority of dwellings are two storeyed farmhouses and cottages. A concentration of dwellings occurs along the Nepean and Hawkesbury Rivers, with the majority of structures having either an attic storey or has full two storeys. A number of small cottages are also found in this zone, but almost no single storey farmhouses. Why is this, are their economic influences? The predominate rural industry in the Penrith to Hawkesbury region was agriculture, and from 1794 it was the colony’s breadbasket in terms of cereals, fruit and vegetables. The sizes of these farms were on average between 30 and 100 acres, quite the opposite of those in the southern zone. There were some pastoral property’s or a combination of both rural practices, as at Arndell’s property at Catti. However a reliance on agriculture was the focus of the region and still is in some areas today. The dominance of agriculture in the early of the colony saw the rise of both the attic and two storeyed farmhouses, as the preferred choice of dwelling between 1810 and 1828. Early in this period the need for a dwelling that could be utilized in the storage of crops, hay, and foodstuffs was vital. A number of these dwellings had a continuous outshut roof that covered a large area for storage. An example can be seen at Hadley Park, which was built c1812, and represents one of the earliest example of this type. This plan was popular and was used in a number of other structures. Portland Head c1811?, Clear Oaks 1816-19, and Osborne Park 1823. The other type of structure that occurs frequently is the attic storey farmhouse. This is an economical way of adding space without having to build a full upper storey. The earliest examples are Turnbull’s House c1820, Caddi Park 1821 and Reibycroft 1825. There are also a number of cottages that represent the modest means of the small landowner. Hadley Park 1 c1806, Rose Cottage c1812-16 and Palmer’s Hut 1820s all represent the small landowners dwelling, usually of around 30 to 60 acres. In some cases these cottages were superseded after years of good harvests, with much larger farmhouse replacing the cottage as the main residence. This is the case at Hadley Park, were the early cottage c1806 was still kept after the building of a new two-storeyed farmhouse, and used as the kitchen.

The influence of economic factors in the rural vernacular dwellings of the County of Cumberland has therefore been shown to be quite distinct in the division of the county into two economic zones. The northern zone during this period was primarily concerned with agriculture, while the southern zone was favoring pastoralism. This specialization in
either industry affected the form and plan of the dwellings contained within, and can be seen to play an influential role in the development of these structures.
Chapter 6 Conclusion

This thesis had four main aims. The first aim was to document and record all the rural vernacular dwellings in the County of Cumberland. Thirty-two structures were visited, with a further four being denied access. The collection of data from the thirty-two structures varied, depending on the amount of access that was granted. In combining both the data gained from the site visits, and existing documentation, enabled this study to draw on a large body of data. There are some seven structures however, that require further in-depth research and recording. Unfortunately this was not possible to complete, due to limited time, and inability to gain interior access. I have attempted to record, as much data as thought necessary for this study, and in many cases this necessitated the drawing of plans, where none existed. A considerable number of photographs were taken in this study, and each structure is represented by at least one photograph.

The second aim of this thesis was to identify and provide a typology for the structures investigated. This was attempted in chapter five, along with an analysis on the main building materials encountered in the study. Two major types of structures investigated had antecedents in the urban environment of Sydney Cove, providing an interesting insight into the transplantation of architectural form, not only from Britain, but from an urban to a rural environment. Of particular interest is the development of the bungalow form. From its earliest appearance c1808 in the house of Robert Campbell and its diffusion and influence on early colonial architecture. This is an area of potential research for those interested in the bungalow and its origins in Australia.

The third aim was to propose a chronological development based on the structures investigated, as an alternative to J M Freeland’s three phases of early colonial architecture. This approach was employed to illustrate the development of rural vernacular architecture over the first forty years of settlement. The phases that I propose concur with Freeland’s in terms of the time and length of the phase. From the first phase, 1788-1810 a case for transplantation is proposed, followed by a second phase, dating from 1811-1821, which is considered to be the adaptive phase. The third phase stating in 1821, goes beyond the end date of this study (1828) into the 1830s. This third phase, sees the development of a rural vernacular architecture into an early Colonial “Australian” form. This phase witnesses a form that is distinct and indigenous to the Sydney region, which is then carried out of the County of Cumberland into the new areas of settlement. Thus these three phases provide an insight into the early development and formation of a rural vernacular in the County of Cumberland up to 1828.

The fourth aim of this study was to try and ascertain what non-architectural influences affected these early rural structures in the county of Cumberland and specifically the Sydney Basin. These influences were shown to be present via the influence of the environment and economic factors. The influence of the environment was most noticeable in the spatial pattern of the structures in the study area. The proximity to permanent water can be seen in the placement of the majority of the structures next to creeks, lagoons, and rivers. There are two main reasons for this, firstly there was no rain
catchment strategy in this period (before galvanized iron), and secondly rich alluvial soils could be found in these areas.

Building on these environmental influences, are economic factors that helped shape this region rural identity. This study has revealed two quite distinct economic zones. The northern half of the Sydney Basin was predominately an agricultural region, while the southern zone was pastoral. A line running roughly from the southern side of the Parramatta River to the Mulgoa Valley, just south of Penrith, represents the divide between these zones. The structures in the northern zone are predominately two-storeyed and attic-storeyed farmhouses. The southern zone however, sees the single -storeyed homestead type becoming more dominant, especially from 1815 onwards. When the rise of pastoralism commences. These two zones saw their respective structures develop at different times, with those in the Penrith and Hawkesbury areas proceeding the majority of structures in the southern zone by five to ten years. This time difference I think, points to a shift in architectural influence from the earlier traditional Georgian farmhouse in the period 1810-1820, in the northern zone. Then a later Pan Colonial influence is introduced, originating in the other British colonies, and arriving in Australia in the period 1815-1825. This Pan colonial influence introduced the bungalow form, which developed into the Homestead type of dwellings in the southern zone.

As part of the physical investigation of structures I also attempted to ascertain if there was any pattern to the orientation of the structures, and what influenced the choice of site for these dwellings. I found that there was a preference, 63% of structures to face between the compass bearings of Northeast through to the West, with a fairly even spread for each other bearing. These results suggest that it was an individual choice on which way the dwelling faced, and not any traditional European influence. The selection of the site for the dwelling was also investigated and it was found that there was two main influences. Firstly there was the aesthetic choice, which saw sites placed on small hills and rises, with views of natural features, which could include a river, mountains, or valley. The second major influence was the proximity to a river or creek.

The major theme of this study was to locate and document those remaining rural structures in the Sydney Region. This gathering of data is seen by this researcher to be of great importance, as these structures are quite vulnerable to destruction given their remoteness and susceptibility to vandalism. The need for more in-depth research and recording of these and other vernacular structures is crucial, given the high rate of vandalism. It is hoped that data gather in this study will provide a convenient source of information for future research, and will hopefully encourage others to embark on similar studies.
Bibliography


Baker, H. 1982 *Historic Homesteads Vol I&II* Australian Council of National Trusts, Canberra ACT.

Bayley, W. A. 1965 *History Of Campbelltown New South Wales* Campbelltown Municipal Council, Campbelltown


<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic Houses Trust</td>
<td>Elizabeth Farm Parramatta A History and a Guide</td>
<td>Historic Houses Trust, Sydney.</td>
</tr>
<tr>
<td>Kartzoff, M.</td>
<td>Nature and a City: The Native Vegetation of the Sydney Area</td>
<td>Edwards &amp; Shaw Pty Ltd, Sydney...</td>
</tr>
<tr>
<td>Keating, C.</td>
<td>A Social History of Liverpool</td>
<td>Hale &amp; Iremonger, Sydney.</td>
</tr>
<tr>
<td>Kingston, D.</td>
<td>Early Colonial Homes of the Sydney Region 1788-1838</td>
<td>Kangaroo Press, Kenthurst NSW.</td>
</tr>
<tr>
<td>Lawrence, R. J.</td>
<td>Housing Dwellings and Homes Design theory, research and practice</td>
<td>John Wiley &amp; Sons, Chichester.</td>
</tr>
</tbody>
</table>
Lewis, M. 1977  *Victorian Primitive*  
Greencourse Publications, Melbourne.

Liston, C. 1988  *Campbelltown The Bicentennial History*  
Allen & Unwin Australia Pty Ltd, Sydney.

Lloyd, C. 1971  *Building Construction For Craftsmen and Builders*  
Macmillan of Australia, Sydney.

Macquarie, L. 1979  *Lachlan Macquarie Governor of New South. Journals of His Tours in New South Wales and Van Dieman’s Land 1810-1822*  

McClymont, J. 1996  Disrepair and repair 1792-1800 in *Parramatta a Past Revealed*  
Parramatta City Council, Parramatta.

Rapoport, A. 1969  *House Form and Culture*  
Prentice-Hall of Australia, Sydney.

Roxburgh, R. 1974  *Early Colonial Houses of New South Wales*  
Ure Smith, Sydney.

Stickley, C. 1984  *The Old Charm of Penrith*  
C. Stickley, ST Marys.
Unpublished Sources


JRC Planning Services 1985  
*Macarthur Region Heritage Study Inventory*  
JRC Planning Services, Sydney.

Kass, T. 1992  
Thematic History in *Liverpool Heritage Study*  

Lewin, W. & Hely, R. 1977  
*Elizabeth Farm, Parramatta An approach to restoration and presentation*  

Macarthur-Onslow, A 1984  
*A Brief History of Macquarie Grove*  
A Macarthur-Onslow, Camden

Purdy, B. 1969  
*The Cox Family In Mulgoa Valley*  

Rosen, S. 1999  
*The Dairy Precinct in the former Government Domain, Parramatta Park: Evidence for an Alternative Interpretation*  
Sue Rosen & Associates, Epping

Somerville, J & Howard, R. 1993  
*Architecture in Liverpool Heritage Study*  
Neustein & Associates, Sydney

Varman, R. 1980  
*The Nail as a criterion for the dating of buildings and building sites (Late c18th to 1900)*  
Australian Society of Historical Archaeology Newsletter Vol 10: 1

Varman, R. 1994  
Archaeological Report: Governor's Dairy Precinct Parramatta  
In Design 5 Architects, *The Dairy Precinct Parramatta Park Conservation Plan*  
Design 5 Architects, Chippendale

95
Bibliography Con’t
Personal Communications

Flowers, J.  Former owner and caretaker of Hadley Park, and a descendant of Charles Hadley

Goodsell, A.  Member of Campbelltown and District Historical Association

Kelly, Mrs.  Owner of ReibyCroft, Freemans Reach

Macarthur-Onslow, A.  Owner of Hassall Cottage, (Macquarie Grove)

Sharpe, R.  Owner of Mountain View, Richmond