

CORBELLED BUILDINGS AS HERITAGE RESOURCES:

IN THE KAROO, SOUTH AFRICA



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Master of Philosophy
CONSERVATION OF THE BUILT ENVIRONMENT

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ABSTRACT

The primary aim of this study was to determine who claims the corbelled buildings in the Karoo as their heritage and why. Through the use of vernacular architecture and heritage identification theory, interviews and research it is clear that the buildings are significant and a heritage resource. Their significance lies in their historical, social, aesthetic, symbolic and cultural values, as well as their unique vernacular construction and limited distribution. The corbelled buildings as vernacular buildings are part of the natural landscape which the local community associate as part of their identity and heritage.

The buildings also possess academic and historical potential as they have the potential through further archaeological and vernacular architectural research, to provide more information on the northern frontier during the late 18th and early 19th centuries, a time that is not well recorded or documented.

The buildings were built in 19th century along the 'open' northern frontier where there was intermingling and creolisation of people from different economic and social groups. As a result, they cannot be claimed by a single group of people in the present. The vast range in types and styles of corbelled buildings indicate that they were built by most people living in the area. They can therefore, be claimed by everyone who lives in the area today. They can also be claimed as national heritage as they possess values that are common to the whole country.

Key words: Corbelled buildings; Karoo; vernacular architecture; heritage significance

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CHAPTER ONE: INTRODUCING THE STUDY

This study deals with understanding how heritage is determined in South Africa by using a set of corbelled buildings as a case for study. These buildings are architecturally unique and were only built in a specific area in the Karoo during the 19th century. Understanding who heritage belongs to can be complicated as many claimants can be involved and each group often sees certain heritage objects as significant for different reasons. Understanding significance can be a difficult task and should be approached with caution. The buildings do not have a well recorded history, indeed, no one is certain about who built them or where this particular building technique originated or why it was used. As a result, they are not claimed by any particular group of people as their direct heritage. Instead they are claimed by a wide variety of people who see the buildings as part of the landscape; a valuable part of the history of the area and examples of a unique building technique.

The study falls under two theoretical contexts. First the identification of heritage where I explore the main theoretical concepts around the formation and rise of heritage as a discipline. I discuss the changes around value and authenticity in heritage theory and how this affects how heritage is identified. The best methods for determining if an object or site has heritage significance and why are outlined.

Second, vernacular architecture theory and how it contributes to the heritage value of a resource and the role it plays in the identification of a heritage object is explored. In the case of the corbelled buildings, the history of the area provides much needed context which plays a significant role in understanding why these buildings were built and their heritage value. The environmental and geographical conditions of the area, the availability of building materials as well as the construction elements of the buildings are also important contextual factors that have been considered.

THE ARGUMENT

The argument therefore is located in debates around the nature of heritage and the recent thinking around value and authenticity in heritage discourse. This includes the shift towards a more pluralistic approach to heritage identification and the importance of community

involvement in the process. The study relies on the arguments presented by Smith (2004; 2006), Lowenthal (1998; 2005), Mason (2002), and de la Torre (2002) and vernacular architecture theorists Johnson (1993; 1997), Oliver (1997; 2003) and Asquith and Vellinga (2006).

One of the main aims of the study is to explore whose heritage the corbelled buildings could be.

In the case of the corbelled buildings, understanding the context is important for determining what values have been assigned and why. For the vernacular buildings the context is comprised of the physical environment as well as the historical background and understanding what social, political and economic factors affected people living along the northern frontier around the time the buildings were built.

CORBELLED BUILDINGS

The corbelled buildings being studied are found between the towns of Carnarvon, Williston, Fraserberg and Loxton in the Northern Cape Karoo. This limited distribution of the buildings is the result of the environment in which they are found and the time they were built. They were built in the 19th century between 1820 and 1880 (Kramer, 2012: 43; Walton, 1981: 123). The area they are built in has large quantities of stone slabs that are easily available and suitable for building¹. There is very little flora in the area that would have been suitable for building, and it is important to note that there were no trees. While the environment does play a role in the type of dwellings that can be built there are other social and historical factors (that are discussed in Chapter 4) that contribute to the construction of vernacular structures, including in this case cultural interactions and conflict between different groups of people along the open northern frontier, other factors include the popularity of pastoralism, changes in land tenure and the arrival of the London Missionary society.

¹ The stone would have been quarried in some cases and cut to size. Between the slabs is a mortar and some of the corbelled buildings are plastered and painted.



Figure 1 map showing the area where the corbelled buildings are located (Kramer, 2012: 6)

About 200 corbelled buildings have been recorded and measured in this area by the Vernacular Architecture Society of South Africa (VASSA), the majority of which fall within the polygon shown above (Figure 1) with some outliers to the west near Sutherland. There is a wide range of typologies of form among the buildings and no two are identical. Kramer (2012: 117) has created a typology that explores the differences in form between the buildings².

Despite there being approximately 200 corbelled buildings, they have been largely ignored in the 20th century by people outside the area. In 1959 James Walton was commissioned by the then Commission for the Preservation of Natural and Historical Monuments, Relics and Antiques, to look at the buildings and see if they were of any significance. The Commission had received a request from the magistrate of Williston to have one of the houses on

² Kramer's typology organises the corbelled buildings according to the shape of the base (circular, square or oval) and the shape of the roof (round, cone or pitched) of the buildings and whether they have a full or half door.

Arbeidersfontein farm protected (see Appendix). On his visit Walton found the buildings fascinating and surveyed several of the larger, grander corbelled houses on a number of different farms. As a result of his trip the buildings on Arbeidersfontein, Stuurmansfontein, Gorras, Grootfontein and Schuinshoogte farms were declared Monuments.



Figure 2 Photograph of corbelled building on Grootfontein which was declared a national monument in 1968. (Walton, 1960)

After his trip to the Karoo, Walton compiled a report in 1960 detailing the buildings he visited and in 1961 he wrote an article published in *Panorama*, titled 'Stone Beehive Dwellings of the North-Western Cape'. He later wrote a book *Old Cape Homesteads* (1989), and an unpublished paper, 'Early Settlement in the Great Karoo' (n.d.), which features some of the corbelled buildings he visited. Other works that refer to the corbelled buildings are van der Waal-Braakma and Ferreira's *Die Noordwste* (1989), a book about early farming culture in the Karoo. There were no other publications for several decades and the buildings fell into obscurity until 2006 when the Vernacular Architecture Society of South Africa (VASSA) organised a trip to Sutherland and Fraserberg to see some of the corbelled houses that they had been told about (by a VASSA member who grew up in the area). The members of VASSA were also impressed by the buildings and began to measure and record as many of them as they could find. By 2010 around 100 had been recorded, and by 2016 well over 200 had been located. VASSA views the buildings as a finite resource that is slowly disappearing and will

soon be lost so one of its members, Patricia Kramer, wrote a Master of Philosophy thesis for the department of Archaeology on the possible builders of the corbelled houses and the different types of corbelled buildings that exist. As a result of this 'rediscovery' there have been several other academic studies around corbelled buildings which have focused on as mentioned their typology and possible origins (Kramer, 2012), the spatial layout of the households (Hancock, 2013) and a study on the possible link between Surveyor General diagrams and title deeds and the construction of the corbelled buildings (Smuts, 2012).

VERNACULAR ARCHITECTURE

Vernacular architecture is an important aspect of this study. The corbelled buildings that are being examined in this study are a perfect example of vernacular buildings as they were not built by professionals but rather by the land owner/occupant or local community using a locally known technique and locally available resources to meet the needs and values of the people living there at the time. Vernacular architecture is made up of a number of different disciplines and can cover a wide range of studies and has been defined as:

[Vernacular architecture] comprises the dwellings and other buildings of people related to their environmental contexts and available resource, they are customarily owner- or community-built, utilizing traditional technologies. All forms of vernacular architecture are built to meet specific needs, accommodating the values, economies and ways of living of the culture that produce them. (Oliver, 1997: xxiii)

Vernacular buildings are therefore a material reflection of the society that built them. They are a representation of a cultural system and reflect that culture's values and beliefs. The corbelled buildings are therefore more than just examples of vernacular architecture, they are a material representation of a specific time in the history of the Northern Frontier in the 19th century during a time of entanglement and creolization where many different groups of people were trying to make their way in the world (Penn, 2005: 10).

Little is certain about the builders or the origins and influences of the corbelling technique in this area, but they are believed by some of the local residents to have been built by *bywoners* (poor farmers living and working on another's farm) and Afrikaans settlers during the 19th

century. This, however, cannot be believed with complete certainty as there is no definitive documentary or physical evidence to fully support this idea. There is some debate around the origins as to whether the corbelling technique was imported by European settlers or if it developed locally from existing indigenous building traditions that used circular dwellings. The Khoisan lived in circular *matjeshuise* made of a wood frame and reed mats and the Sotho constructed temporary small circular stone dwellings. The corbelled buildings themselves can be used to answer some of these questions and understand more about the culture and worldview of the people who built them and first lived in them and so can help us gain a better understanding of their history contributing to their value as heritage objects.

METHODS APPLIED

The study uses the corbelled houses of the Karoo as a case showing how they are regarded as heritage, illustrating how a variety of different groups of people that have a vested interest in an object have to navigate the tricky landscape of heritage identification and the different values and significance that such objects can hold for different people. These issues are addressed by explaining the experiences that a variety of people have had in the Karoo and how they value its landscape and history.

A case study methodological approach provides context-dependent knowledge that allows us to learn from this case and to extract rules that can be applied to different situations. Flyvberg (2006) argues that the case study method is appropriate when studying human affairs, because they allow the researcher to engage with people that are part of the case and to get feedback which enhances the researcher's understanding of the case.

My interest in this case began when I wrote a short thesis as part of my Honours degree in Archaeology. During this time, I was introduced to the corbelled buildings, their history and some of the people who live in the area and Patricia Kramer. Kramer who has been recording corbelled buildings in the Karoo for several years and has conducted her own research, helped me get in contact with people who live in the Williston, Carnarvon and Loxton districts who I could interview. Kramer went with me to these areas, made introductions and acted as an

interpreter when an interviewee was not comfortable speaking English (this area is predominantly Afrikaans-speaking).

A useful approach when dealing with the issues raised in this study is to do detailed historical research and draft a historical narrative; literature research; and finally ethnographic research in the form of interviews (Mason, 2002: 14). However, it soon became clear that there were very few to no primary sources available that are accessible to the public. The primary sources that still exist are most likely part of private collections belonging to people in the area that were not made known to me or they have been lost. As a result I had to rely more on secondary sources and interviews in this study.

The interviews focused on people who have a link to the buildings to understand how they value the buildings. After conducting a series of preliminary interviews, it became clear that there are three apparent interest groups: the first group is comprised of those I describe as 'owners', who are people who have corbelled buildings on their farms and are responsible for what happens to the buildings. Some of these parties have lived on these farms for generations and have a familial link to the buildings while others have attained ownership of the farms fairly recently and do not have personal links to the buildings. The second group is comprised of 'occupants' who currently live in a corbelled building or who have lived in them in the past. The last group who I have called 'professionals', is comprised of people who have a scholarly or professional interest in the corbelled buildings and have produced research on the buildings and have taken a keen interest in their preservation. There are five to six people in each group. The small number of parties interviewed means that this study is in effect a pilot study that is consistent with the detail expected in a 'mini-dissertation' of this sort.

The main themes that emerged from the interviews are the importance of the landscape and personal associations with the land; how the corbelled buildings are used and who is thought to have built them and why; and, finally, the heritage values that have been assigned to the buildings and what conservation approaches are being followed. The responses from the interviewees allowed me to gain an understanding of how the corbelled buildings have been identified as heritage.

Most of the interviews were conducted face-to-face, we met the interviewees at a place of their convenience which in most cases was on their farms in the Karoo. In cases where a

meeting could not take place, the interview was conducted via email or telephone. The interviews were not overly formal and consisted of open ended questions that began with general wide-ranging questions which later became more specific. The questions were focused around specific topics such as what the interviewee understood by the term heritage and what they considered their own heritage to be, any history about the buildings that had been passed down orally, what values they assigned to the buildings and whether they believed them to be significant and, if so, why and, lastly, what conservation methods would be best suited for the buildings. On average the interviews took between 25 and 40 minutes.

The informal nature of the interviews allowed interviewees to deviate from the questions and mention facts about the buildings or more personal stories that revealed more information than my questions could have. All of the interviewees gave their consent to be interviewed and the face-to-face interviewees all allowed me to take notes and record the interview. I made sure to get contact details of everyone that was interviewed so that I could contact them later for follow up questions. Some interviewees are dependent on others for income or land tenure, as a result none of the interviewees are identified by name.

This study could be described as an 'instrumental case study' (Stake, 1995: 549), which are chosen when the researcher wants to provide insight into an issue or help to refine a theory. The case plays a supportive role by facilitating our understanding of something else. This study is focused on how heritage is identified and issues surrounding vernacular architecture. The corbelled buildings were chosen to illustrate how these issues are applied in the world and how they can be resolved.

This case can also be described using Yin's (2003) typology as a 'descriptive case', as the case is used to describe a phenomenon such as the identification of heritage and the real-life context in which it occurs which in this instance are the corbelled buildings in the Karoo.

LIMITATIONS

There are some limitations to this study. As mentioned there is very little documentary evidence about the corbelled buildings and this applies to both primary and secondary sources. This made the researching and describing the historical background of the corbelled

buildings very difficult. I have dealt with this limitation by focussing on the history of the general area during the time the buildings were constructed to show what larger social, cultural and economic forces were at play and would have affected the occupants and builders of the corbelled buildings.

Another limitation is how few people outside of the Carnarvon, Loxton, Williston area know that corbelled buildings exist. Due to the work done by VASSA there are some academics and heritage professionals who have heard of them and even some who have seen them, but an average person on the street will not have heard or seen them. This caused difficulties in locating 'outsiders' or people not directly connected to the corbelled buildings or the area to interview who could have provided opinions as to how the buildings are regarded as heritage by people outside the Karoo area.

OUTLINE OF CHAPTERS

Chapter Two will briefly elaborate on heritage as a discipline, the rise of values-based heritage conservation methods and how heritage is identified. Chapter Three outlines the main themes in vernacular architecture and how this relates to heritage identification and the corbelled buildings as a heritage resource. Chapter Four provides contextual information about the corbelled buildings and the area where they located. This includes historical background, environmental conditions, a description of the construction principals involved in the corbelling technique and a description of corbelled buildings found in some other parts of the world. Chapter five is a presentation of the themes and sub-themes from the interviews describing what values the interviewees associate with the buildings. Chapter Six uses the information from Chapters Four and Five and applies it to the heritage identification method described in Chapter Two. Chapter Seven concludes the main argument.

CHAPTER TWO: DETERMINING HERITAGE SIGNIFICANCE

To understand the heritage value or significance of the corbelled buildings one needs to understand the origins of heritage as a discipline and how it has evolved over time in response to outside influences to become what it is known as today. There are a number of different methods used to assess the significance of heritage objects or sites; these will be discussed and later applied to the corbelled buildings.

Heritage is a difficult term to define. The meaning of heritage has changed over time to reflect the changes in world views, history, identity, memory and conservation. It has in the past referred to what a person would inherit; now it is often understood to be an umbrella term that broadly focuses on identity and how to preserve the markers of an identity so that they can be passed on to future generations so that they may learn about their past and use this to form their own identities (Lowenthal, 1998: 2).

The need to protect heritage has led to the creation of international bodies such as UNESCO, ICOMOS and ICCROM³ whose sole purpose is to help countries protect their heritage. International conservation bodies have over the years created several charters or documents that express what they believe heritage to be and how it should be protected. The most relevant to this study are the Athens Charter (1931), the Venice Charter (1964), the Australian Burra Charter (1979 and most recently updated in 2013), the Charter on the Built Vernacular Heritage (1999), and the Nara Document on Authenticity (1994). These charters give overall guidelines, many countries have incorporated these guidelines into their local legislation so that they can be enforced. In order to protect heritage, it first needs to be identified. There has been much debate around what heritage is and this has affected how heritage is identified. The charters however have adapted to these changes and new definitions of heritage have been followed by new methods of identifying heritage.

³ United Nations Educational scientific and Cultural organisation UNESCO, International Council on Monuments and Sites ICOMOS and International Centre for the Study of the Preservation and Restoration of Cultural Property; ICOMOS and ICCROM are advisory bodies for UNESCO.

The current theoretical debates were initiated by issues and arguments raised by the Nara Document on Authenticity (1994) and The Australian Burra Charter (2013). They provide guidelines for identifying heritage according to the values assigned to them by the people who have an interest in them. The charters suggest how to identify which values have been assigned and how to determine the heritage significance based on the intensity of these values. There are many authors who have compiled various value categories in an attempt to create a standardised method for identifying and assessing heritage (Pearce and Sullivan, 1994; Thackray, 1999; Jokiletho, 1999; de la Torre, 2002; Mason, 2002). These will be used to determine the heritage value of the corbelled buildings, what values they represent and who has assigned them these values.

THE RISE OF HERITAGE STUDIES

The current understand of what heritage is the result of constantly shifting ideas and theories around topics such as heritage conservation, heritage values, determining heritage and ideas around the meaning of authenticity. These shifts have been ongoing since the 19th century and will continue into the future. Several of these theoretical shifts are of particular relevance to this study and are discussed. The ideas underpinning arguments around authenticity have affected how values have been understood over time; and the effect this had on the growth of national identity and how we understand heritage. The explicit articulation of values in the identification and assessment of heritage is a recent theoretical change that became dominant since the 1990s.

Conservation and heritage are ideas that have become complex over time, they have broadened in scope and have slowly become more dominant as a discourse. Determining heritage as it is understood today is a specialised activity that requires decisions from skilled professionals. Heritage authorities and professionals, however, now recognise the importance of community involvement in the heritage identification and conservation processes, although there are some who argue that the communities are the true experts on heritage (Smith, 2006: 27).

There is a tendency to see heritage as a modern phenomenon, this however is not the case (Harvey, 2001: 323). The current understanding of heritage, originated in the 19th century and is closely linked to the development of nationalism and liberal modernity taking place in Europe at the time. It is within this context that the current concept of heritage emerged in Britain, France and Germany (Smith, 2006: 17). During this time Europe was undergoing colonial and imperial expansions across the world. Through colonial expansion ideas around race, biology and cultural identity began to emerge and Europeans believed themselves to be at the height of the biological, cultural and intellectual evolution of humankind. This thinking naturalised the concept that race, culture and identity are linked (Smith, 2006: 17).

This thinking combined with the emergence of nation states caused the need to bind populations through a sense of territorial identity that would legitimise the formation of nation states. Smith (2006: 18) argues that it is within this context of nationalisation and modernity that a new concern for what we now identify as 'heritage' emerged. Monuments began to be built 'as physical representations of national identity and European taste and achievement' (Smith 2006: 18). These values were then propagated through public education about their civil and national duty. This promoted social stability through growing peoples' sense of national community and social responsibility. Legislation⁴ was created to protect these new national monuments and ushered in the practice of conservation. The second half of the 19th century saw a surge in the development of legislation throughout Europe to protect monuments and significant architecture. Architects and archaeologists played a large role in the development of the new legislation and as a result they were able to claim professional expertise over the discipline and took on the leading role in identifying what was worthy of protection under these acts.

The word 'monument' came to mean grand and powerful and monuments were seen as objects that were both a work of art and a witness to history that triggered certain memories and values to the public. This sense of importance is linked to inheritance and the idea that it was the duty of the present to receive and revere what had been passed on and to leave it untouched for further generations. This thinking is linked to a romanticism of the past and

⁴ The first legislation created to protect antiques was in Sweden in the 17th century.

the English ethos of 'conserve as found' which was strongly influenced by the works of John Ruskin at the end of the 19th century (Smith, 2006: 19).

In other parts of Europe during the 19th century the growing practice was to restore buildings to their 'original' or 'best' state by removing later editions.

[Restoration] The word and the thing are modern. To restore an edifice means neither to maintain it, nor to repair it, nor to rebuild it; it means to re-establish it in a completed state, which may in fact never have actually existed at any given time.' (Voillet-de-Luc, 1866 in Muños-Viñas, 2005)

Ruskin on the other hand argued that the fabric of the building was inherently valuable, containing artisanal and aesthetic values that needed to be conserved.

'It is again no question of expediency or feeling whether we shall preserve the buildings of past time or not. We have no right whatever to touch them. They are not ours. They belong partly to those who built them, and partly to all generations of mankind who are to follow us.'

(Ruskin 1899 in Smith, 2006: 20)

This notion of trusteeship with as little intervention as possible in the fabric of the building was strongly advocated throughout Europe as the archaeological notion of the monument (or buildings) as documents gradually advocated the idea of restoration. This thinking also had a strong sense of Romanticism about the past and the rural idyllic.

These European preservation principles were imposed on much of the rest of the world through colonial rule and later became rooted in the *Athens Charter for Restoration of Historic Monuments* (Athens Charter) of 1931 and the *International Charter for the Conservation and Restoration of Monuments and Sites* (Venice Charter) of 1964, the first of many ICOMOS charters that continue to influence heritage debates and has become globally accepted as 'common sense' (Smith, 2006: 21).

In the countries where Ruskinian conservation had been adopted, there were debates around multi-culturism and indigenous heritage. These debates led to the formation of the Nara Document on Authenticity in 1994. This document emphasised the heritage values are

relative and must be considered and judged within the cultural contexts to which they belong (Nara Document on Authenticity, 1994: Article 11). In Australia this led to The Australian ICOMOS Charter for the Conservation of Places of Cultural Significance (Burra Charter) in 1979, which still focussed largely on the fabric of buildings and that as little as possible should be done to alter the fabric thus damaging its authenticity and value. The Burra Charter has been rewritten several times, the latest in 2013, which has since 1999 attempted to incorporate greater community involvement and participation in heritage management. The inclusion of local communities in the protection of their own heritage has now been adopted in many countries contributing to what we understand as heritage today and the formalisation of heritage as a discourse.

FORMALISATION OF HERITAGE AS A DISCOURSE

This history led to the creation of what Smith (2006: 29) calls the Authorised Heritage Discourse (AHD) which was defined by those who claimed to be the legitimate spokespersons for the past. Because the past is complicated and requires study it became accepted among scholars that only experts such as historians, architects or archaeologists could make judgements about heritage. This thinking was the beginning of a process that formalised heritage as a discourse. The AHD is an institutionalised discourse and is embedded in the primary documents and charters and within practices of heritage, its identification, management and conservation. Smith (2006: 30) argues that conventions and charters enacted by UNESCO and ICOMOS define what heritage is; how and why it is significant; how it should be managed and used, and by whom. They assume the authority to decide this as the heritage professionals who are following the processes laid out in these documents are also the people who are members of ICOMOS and are the ones who decide what the process should be. The assumptions, values and ideologies that are embedded in the discourse are then reinforced and perpetuated through the policies that have been made. It is in this way that the scientific method of identifying and conserving heritage was established as the orthodox approach. Identifying and conserving heritage became more systematic as standardised criteria were established.

This led to heritage identification becoming a formalised process with certain steps that needed to be followed. The end of the 20th century saw another theoretical shift in conservation from a scientific/positivist approach towards a more relativist approach in the identification and conservation of monuments that we are more familiar with today. The Nara Document on Authenticity (1994) and later versions of the Australian Burra Charter (1979, revisions 1981, 1988, 1999, 2013) reflect this shift towards a more value-based approach.

HERITAGE CONSERVATION IN THE PRESENT: VALUES-BASED CONSERVATION

The World Heritage Convention in 1972 was a significant moment in the history of heritage studies. At the convention 178 countries, formally agreed to follow the conservation principles ratified at the convention. These principles reflected the positivism of the Venice Charter and it became very clear to many countries around the world that these principles were not sufficient to address all forms of heritage. The charter was criticised for its Eurocentric approach and its focus on stone architecture of Western Europe (Smith, 2004: 106). Later charters such as the Nara Document on Authenticity (1994) and Nara +20 (2014) began to address these issues. They focussed less on material authenticity, and more on intangible heritage and the significance of heritage and the values assigned to sites. The later revisions of the Australian Burra Charter provided guidelines and a set of steps to be taken when determining heritage significance and how to manage and conserve places of cultural significance. It challenged the idea that heritage can only be identified by 'professionals' and demanded that local communities be involved in the process.

The Nara Document on Authenticity (1994) was drawn up at a conference in Japan and focused on the relativity of authenticity and intangible forms of heritage. It recognised that architecture in many developing countries required an intrinsically different approach as they were built out of different materials such as adobe or timber. More importantly, the Nara Document on Authenticity (1994) recognised that judgements about values will differ from culture to culture making it impossible to judge authenticity according to a fixed criterion but that heritage must be 'considered and judged within the cultural contexts to which they belong' (Nara Document on Authenticity, 1994). The role of context and the involvement of

multiple stakeholders have been recognised to be important in the heritage identification process and are central to determining the heritage significance of the corbelled houses and identifying who the claimants of this heritage are.

THE IMPORTANCE OF VALUES IN HERITAGE IDENTIFICATION

Value or significance has always been the main underlying reason for heritage conservation. It has always been clear that a society will not make an effort to conserve what it does not value (de la Torre and Mason, 2002: 3). However, the importance of values has only recently been acknowledged because until now the heritage field was relatively isolated and was made up of small groups of specialists and experts (Smith, 2006: 44). As mentioned before these groups determine what constituted 'heritage' and the best way to conserve it through the Authorised Heritage Discourse and their decisions were validated by the authorities on the subject. Recently, however, the concept of heritage has expanded, and new groups of people have joined the specialists, and this has changed how heritage is identified (Nara +20, 2014). These new groups of people consist of ordinary citizens, community groups and professionals from fields other than history, architecture and archaeology. Each new group has its own opinions and value systems that differ from those of traditional heritage specialists. This has led to the democratisation, that de la Torre and Mason (2002: 3) describe as a positive development in the heritage field and is a reflection of how modern society perceives their heritage.

It has now become clear that heritage is multivalent and not immutable and, like values, is constantly changing over time. This new theoretical shift has led to values having greater importance when heritage decisions about what to conserve and how to conserve it are being made. There has been in the past a general consensus among traditional heritage professionals around what methods should be used to assess heritage. These methods are still useful when determining historical and artistic value but when it comes to assessing or measuring social/cultural significance or values it becomes more difficult (de la Torre and Mason, 2002: 3). There is a lack of widely recognised or accepted methodologies for assessing

cultural significance⁵ which has begun to be addressed by a number of heritage specialists. Social values are often determined by stakeholders who are generally members of the public and who, for a long time, did not have their opinions taken into consideration. Today, however, it is clear that the opinions of all stakeholders are important in the process of determining heritage significance.

THE IMPORTANCE OF CONTEXT

The changes in values over time are strongly shaped by contextual factors such as cultural trends, economic opportunities or politics. A heritage site must be understood in relation to its context or it is devoid of meaning (del a Torre and Mason, 2002: 4).

The concept of heritage values including concepts of cultural, historical, and social values are culturally and historically constructed (del a Torre and Mason, 2002: 3). This position claims that values are not an intrinsic quality but rather the heritage site relies on externally imposed culturally and historically specific meaning which determines its values depending on the dominant frameworks of value at a certain time and place (Gibson and Pendlebury, 2009: 2). In other words, values do not emanate from the artefact or building itself, they are produced out of the interaction between the artefact or building and its context. One therefore cannot fully understand a site without understanding its context which usually extend beyond the site itself 'both literally and conceptually' (Mason, 2002: 14)

Understanding the context of the heritage site or object allows one to perceive which values are related to the site and which values should be assessed. It also helps to determine who has an interest in the site and who the stakeholders are. The values and stakeholders related to a heritage site are an essential aspect of the assessment process of a site and identifying heritage as well as determining a conservation management plan and any other activities related to the site. It is therefore important that the context is properly investigated and understood in its fullest sense. To have a full understanding of the heritage values of a site, heritage assessors must cast a wider net and consider looking at more and different contexts

⁵ Cultural significance is used here to mean 'the importance of a site as determined by the aggregate of values attributed to it.' de la Torre and Mason, 2002: 3

connected to a heritage object even if they include other professions such as cultural history and anthropology (Mason, 2002: 20; Low, 2002: 31).

For this study there are several contexts to consider when looking at the corbelled buildings. The historical context is important as it will provide a thorough understanding of the social, political, and economic factors that were in play in the area at the time the corbelled buildings were built and will show who was living there at the time and what may have influenced their decision to build their dwellings in this way.

Other contexts to consider are the environmental conditions in that area at the time of construction and how this influenced people's buildings options. The corbelling building technique is distinctive which makes understanding the basic engineering principals an important factor to consider. The corbelled buildings should also be placed within a wider context, to better understand them, corbelled buildings in other countries are determined and briefly the South African corbelled buildings are considered in that context. This is discussed in further detail in chapter four which focuses on the historical background of the corbelled buildings.

THE ROLE OF CLAIMANTS

A site is only as significant or as valuable as the values assigned to it and values, as mentioned earlier, do not emanate from the site or object. Values come from people, they are opinions that people have which are assigned to a heritage site or object. These opinions change constantly over time and reflect changes in politics, power, society and culture and how people feel about their past (Lowenthal, 2005: 81). These values only become apparent when they are articulated and advocated by stakeholders. Stakeholders therefore play an essential role in determining the significance of a site. How to determine who the stakeholders are is not always straight forward and deciding who to consult can be very difficult.

The Nara Document however stresses that this difficulty should not prevent heritage practitioners from doing all they can to identify and consult all stakeholders and states:

‘Those with authority to establish or recognise the significance, value, authenticity, treatment and use of heritage resources have the responsibility to involve all stakeholders in these processes, not forgetting those communities with little or no voice.’ (Nara +20, 2014: para 3)

The later revisions of the Australian Burra Charter also mention that ‘people for whom the place has special associations and meanings, or who have social, spiritual or other cultural responsibilities for the place’ (The Australian Burra Charter, 2001: Article 12) should be able to participate in the conservation and interpretation of a heritage place.

Identifying the stakeholders of the corbelled buildings comes with its own difficulties and it is still unclear who built many of the houses. It is possible that they are not necessarily directly connected to any specific groups in the present something that will be argued in later chapters. But as Lowenthal (1998: 24) writes, ‘history did not need to be mine in order to engage me, it just needed to relate to someone, anyone.’ Heritage over the last three decades has become less about individual histories and seen more as inherently collective and we now share what we inherit (Lowenthal, 1998: 54). This raises the questions of can heritage be claimed by a single group in the present?

There is another aspect of collective heritage that is common in many post-colonial countries, particularly in Africa such as Zimbabwe and South Africa. State leaders in an attempt to create a new national identity and reclaim a sense of heritage outside colonialism have re-popularised and promoted legacies from pre-colonial history. These histories are then incorporated in the new national narratives in an effort to create a new national identity and to reclaim a sense of heritage and identity that was lost during colonial times or as in the case of South Africa, to focus on healing and creating a new inclusive national identity or ‘rainbow nation’ (Warden, 1996: 60). In these instances, there does not always need to be a direct link for heritage to be assigned value. Sites that are declared World Heritage Sites must have universal significance, so it is clear a site can be considered shared even if there is no direct link to a single group of people in the present, either because the site is far away or because of its age. For example, the Cradle of Human Kind is too old to have any direct link to a society in the present but it is claimed as the heritage of all South Africans and, in the case of the Cradle, it is claimed by the whole human race.

It does not mean that the corbelled buildings, not having a proven direct connection to any specific groups in the present, cannot be seen as significant or that they do not have heritage value. Ashworth and Tunbridge (1996: 27) discuss how heritage is created by interpretation, how it is interpreted and by whom which will have an effect on the value and meaning of heritage places and the past that it represents (Ashworth and Tunbridge, 1996: 27). As a result, the past is valued and understood differently by different people, groups or communities. How this past is understood effects whether a site is seen as a valid heritage space or not (Smith, 2006: 80). Understanding who the claimants are is therefore very important in understanding the heritage values and significance of the corbelled buildings.

TYPES OF VALUES AND DIFFERENT WAYS OF INTERPRETING VALUES

It is understood that heritage practitioners must consider cultural, historical and social values to have equal weight when assessing what heritage values are associated with a site (Gibson and Pendlebury, 2009: 1). This understanding however is difficult to implement practically. How does one fix meaning and value to something which by its very nature is not immutable, and will assume new values and meaning over time?

As mentioned, many heritage scholars base their arguments in the understanding that concepts of value are social constructs and value and meaning are not an intrinsic quality, but are imposed on a site. The values that are assigned are decided according to the dominant frameworks (del a Torre and Mason, 2002: 4). Knowing this, how does one proceed? What methods are then best for interpreting value and how should one decide what values are relevant to the corbelled buildings?

Heritage and conservation have a long history, they have existed in some form or another for several centuries, but heritage as we know it today is a modern construct (Gibson and Pendlebury, 2009: 6). It developed during the enlightenment period in 18th century Europe which saw the rise of the idea of a nation state and the subsequent development of nationalism and the need to form collective histories through creating national identities and common national heritages to draw people together and create a sense of common identity. This led to romantic ideas about the past and 'invented traditions' that nations felt they had

to protect (Hobsbawm, 1983: 2). Legal frameworks were developed to protect this new sense of heritage which resulted in the formation of classifications and typologies of heritage value (Gibson and Pendlebury, 2009: 7). One of the first typologies of heritage values was written by Alois Reigl in 1903 and many subsequent typologies have been created since then (Gibson and Pendlebury, 2009: 6). The main criticism of having a typology of heritage values is that they are reductionist. Despite this they still lie at the heart of conservation and heritage as we know it today. Typologies, however, have evolved to become broader in scope and therefore more inclusive and versatile (Mason, 2002: 8).

The ideas around cultural values as a multivalent and malleable force have impacted heritage management practices and how we value heritage. It has also impacted who is included in the process and whose opinions should inform this process. This thinking is evident in the Nara Document of Authenticity (1994) and the Australian Burra Charter (2013), advisory documents which advocate following a sequence of research and analysis and the inclusion of local communities in the process. They also show a shift towards intangible heritage more values-based understanding of heritage. The combination of these result in a greater understanding of the site.

In order to determine significance, the Australian Burra Charter (2013) begins with the premise that place is important and in order to understand the significance of a place one needs to gain an understanding of the fabric of the place, its setting, and its use. More importantly the charter emphasises that significance similarly comes from people's memories and the associations they have with a place. This means that significance is not just based on the architectural or archaeological merits but that it includes the experiences of the local people and understanding what values they ascribe to the place. This shows, once again, the importance of including a number of claimants or stakeholders in the process of determining heritage significance.

This means that the assessment of values and the determining of significance should not be the sole decision of heritage experts but should include the opinions of various groups of claimants. It should be a democratic process that includes public participation as people have certain rights over their cultural heritage, a more pluralistic approach should be followed (del a Torre and Mason, 2002: 4). Including the public is not straight forward however, and a

balance needs to be found in each situation between participation by public and non-specialist groups where the process on the whole is still controlled by a professional (Waterton, Smith and Campbell, 2006: 340). There needs to be a balance between Laurajane Smith's 'Authorised Heritage Discourse' (2006) and a relativistic chaos where only the opinions and values of all individuals determines significance. A more pluralistic approach will therefore be used to determine the significance of the corbelled buildings where several claimant groups have been identified and interviewed and detailed research on the area has been completed so as to provide the necessary contexts needed for proper assessment.

The value typologies⁶ relevant to this study have to be identified in a way that is relevant to all the people involved and will be able to inform policies and planning decisions in the future (Thackray, 1999: 19). There are so many different types of values that interact and over-lap that it must be clear from the start what typological system⁷ is going to be used and how best to implement it. This study is going to use the typology outlined by Randall Mason (2002) in his essay in the Getty Conservation Institute's *Assessing the Values of Cultural Heritage*. This typology separates values into socio-cultural values and economic values (use and non-use values), this study focuses on the socio-cultural values which are categorised into historical value, social value, spiritual/religious value, aesthetic value, cultural value and symbolic value. These categories are similar to those that are used in a South African context. The National Heritage Resources Act (25 of 1999) categorises cultural significance into historical, social, spiritual, aesthetic, architectural, scientific, linguistic and technological. The two typologies cover the same values but the National Heritage Resources Act categories are specific while Mason's (2002) categories are broader and include more value types.

In this study, some values are more relevant than others. Values such as historical, cultural and aesthetic are more likely to be associated with the corbelled buildings, whereas other values such as religious values are not. Each of the relevant values will be described as they will later be used to determine the significance of the corbelled buildings. The first are

⁶ The word typology used here is understood to be a classification based on types or categories. Heritage values have been sorted into different categories which are used when determining heritage significance.

⁷ Values have been organised into many different typologies over time. Each typology reflecting the main focus of heritage discourse at the time it was made. It is important to note that values have not changed, how we group them has changed. The creation of typologies has a long history that will not be covered here but is noteworthy for the purposes of this discussion.

historical values which are understood to be at the root of the very notion of heritage. Historical values describe the capacity of the site to embody the past and are part of the fundamental nature of a heritage object (Mason, 2002: 11). Historical values can come from the material age of a site; its association with an historic person or an event; its rarity or uniqueness; or its archival, documentary potential. Other values that Mason (2002:11) has grouped under historical value are educational or academic value. The importance of educational and academic value lies in the potential to gain knowledge about the past in the future through, for example, an archaeological excavation.

Social value generally refers to a shared social connection that comes from a shared use of a space, such as a community hall used for celebrations or social gatherings. It can also include 'place attachment' aspects of value, which refers to the social cohesion, community identity or other feelings of affiliation that social groups derive from a certain heritage site that generally lies within their 'home' area (Mason, 2002: 12).

Aesthetic value is a category of socio-cultural values but refers to wide range of qualities that can be found at a heritage site. The most relevant to this study are visual qualities of heritage which includes the design and evaluation of a building. Aesthetic value is the most personal and individualistic of the value types and is difficult to quantify (Mason, 2002: 12). There is another value, artistic value, that Mason (2002: 11) has grouped under the larger umbrella of aesthetic value. Artistic value is where the value is based on an object being unique or a good example or the work of a particular individual.

Cultural/symbolic value is also part of the very notion of heritage, 'there is no heritage without cultural value' (Mason, 2002: 11). Cultural value represents the ideas, materials and habits passed on through time. They are used to build cultural affiliation in the present and can involve politics, history, ethnicity or any other activity that involves shared meaning, such as craft or work-related values. Craft related values are important for this study as they include crafts skills such as building. 'A building embodies the methods used to design and make it', and the values relating to the process of making and building are often lost among more aesthetic values (Mason, 2002: 11).

Mason (2002: 14) and Low (2002: 31) outline several different tools and methods that are suited for eliciting heritage values. The tools that are useful for the values described above are research and writing historical narratives; ethnography in the form of surveys or interviews and lastly expert analysis.

Each heritage site will have a number of values but these values never exist in equal measure. Values can be assessed or graded according to their level or degree of significance (Pearson and Sullivan, 1995: 127). In the South African context, values are graded according to their local, provincial, and national significance and are graded respectively as Grade III, Grade II, and Grade I. Determining levels of significance is useful for the management of sites and policy planning as well as to determine if a site may be demolished or not.

This study will therefore be using a pluralistic value-based approach using Mason's (2002: 11) typology to identify the significance of the corbelled buildings and to determine who the stakeholders are and who this heritage belongs to.

CHAPTER THREE: VERNACULAR ARCHITECTURE STUDIES

Vernacular architecture is a relatively new discipline that combines a number of different disciplines and has been studied in different parts of the world with little overlap and as a consequence its interpretation is different everywhere, determined by where the researcher is and what his/her background is; vernacular architecture 'is not universally known or accepted' (Vellinga, 2011: 178). The term 'vernacular' is borrowed from linguists to whom it means the 'native language of a region' (Malan, 2004:24). The word essentially means common, ordinary, spontaneous, indigenous, rural or not worthy of notice, it is architecture without architects (Rudofsky, 1965: 1). Vernacular became the preferred term to use, due to the negative connotations associated with the terms folk, indigenous, tribal or primitive.

Vernacular architectural studies are considered a relatively new scholarly field that developed during the 1960s. This however does not mean that people were not studying vernacular buildings before then. Interest in vernacular architecture in the sense of non-classical and non-western buildings can be traced back to the 18th century, to the written accounts of travellers, missionaries and colonial officials who were scattered around the world and came across buildings that were very different from what they were familiar with (Asquith and Vellinga, 2006: 3). The first studies of vernacular architecture, as rural, non-monumental and preindustrial traditions started to appear in the late 18th century (Jokilehto, 1999: 217). Many of these were undertaken in Europe and the United States by scholars who were influenced by the Arts and Craft movement.

The simplest definition of vernacular architecture, 'architecture without architects' comes from Rudofsky (1965:1). Oliver (2003) defines vernacular architecture as 'architecture of the people, ... it refers to those buildings not designed by architects, but by owners and inhabitants of the houses themselves – sometimes built with the help of family or community members, using locally available materials and in accordance with local regulations...' (Oliver 2003: 14). 'The term... has been adopted to define that sort of building which is deliberately permanent rather than temporary, which is traditional rather than academic in its inspiration, which provides for the simple activities of ordinary people ... which is strongly related to place, especially through the use of the local building materials, but which represents design and

buildings with thought and feeling rather than in a strictly utilitarian manner (Brunskill, 2000: 22). The corbelled buildings in the Karoo are clearly examples of vernacular architecture. They were built by the people who lived in them possibly with help from other people who lived in the area and have been constructed with local stone and they were constructed using a distinctive local corbelling technique.



Figure 3 large stone corbelled building located on Eendfontein Farm located near the R361 between Carnarvon and Fraserburg



Figure 4 Rectangular based corbelled building with white plastered walls on Arbeidersfontein farm located on the R63 between Williston and Carnarvon.



Figure 5 Small corbelled building on Droogeputs Farm located on the R63 between Carnarvon and Williston.

Figures 3 – 5: Photographs of three different corbelled houses to show the variation in form and size.

SPLIT IN VERNACULAR ARCHITECTURAL DISCOURSE

Vernacular architectural theory has made major developments in the last few decades but has arguably split into two separate scholarly discourses that seldom overlap (Asquith and Vellinga, 2006: 4). The split has been the result of disputes around what subjects should be included in vernacular architecture studies and the uneven global distribution of people who choose to study vernacular architecture. The one discourse deals with historic western building traditions whereas the other deals with contemporary and historical non-western building traditions, each discourse have their own separate concepts, perspectives and interests (Asquith and Vellinga, 2006: 5). In this study, I focused on the latter discourse.

The second discourse focuses on non-western building traditions but still includes some western building traditions. It is dominated by architectural theorists, archaeologists, anthropologists and geographers. These studies discuss vernacular buildings within their cultural and historic contexts and focuses on analysing the ways in which the design, form, use and meanings of certain building traditions change over time and what was likely to have caused this change. It also analyses the impact of trends such as consumerism, manufacturing of heritage, deterritorialization, and ethnic revitalization on vernacular architectural studies instead of only focusing on the past (Asquith and Vellinga, 2006: 6).

DIFFERENT ANALYTICAL APPROACHES TO VERNACULAR STUDIES

Typological Approach

At its inception Vernacular architectural studies focused on the typologies of vernacular buildings until the second half of the 20th century. The main interest was to document, classify and name the traditional layouts, forms, materials and styles. This documentation was seen as necessary as the buildings were understood to be a finite resource that were never built to last and were destined to disappear. While this is still the case for many vernacular structures, particularly those that have been abandoned or where the society that built the structures no longer exists (such is the case with the corbelled buildings). It is, however, not the case with all vernacular structures as many are still being built and many have simply adapted to change (Vellinga, 2011: 181).

It is valuable to have well-documented accounts of certain buildings, particularly in the event that they are demolished. The typological approach is also valuable in that it establishes dating parameters and a chronology is a useful first step in any study. This approach is criticised for only answering questions of 'how' a structure was built, it does not make any attempt to understand 'why' this kind of structure was chosen to be built. This approach also does not take the larger context into account nor does it examine the society that produced the structures and how changes in this society may have caused alterations in their form (Johnson, 1993: 8).

Physiological Approaches

Once the criticisms of the typological approach had been raised, scholars soon began to address them. A number of theories were put forward explaining the main factor that determined why a dwelling was built a particular way. Many of these theories focused on a physical element that was believed to be the determinant. These were based on climate and the need for shelter or based on materials, construction and technology.

Climate and the need for shelter, as a theory, relied on the determinist view that 'man is concerned primarily with shelter, and consequently the imperatives of climate determine form' (Rapoport, 1969: 18). This theory however failed to account for the persistence of a number of nomadic societies such as the San in Namibia and the Inuit in Canada and Alaska who for cultural reasons continue live as nomads without the need for permanent dwellings. This theory also failed to explain why buildings built with similar climates and materials but in different locations had such different forms (Glassie, 1999: 295). Nor did it explain why buildings built in the same location with the same climate such as Greece could be so diverse. Colonists who settled on different continents with different climates than their country of origin often continued to build buildings that they were familiar with even if they were not suited to the local climate (Rapoport, 1969: 20). While climate is an important variable and does play a role in why buildings are built a certain way, it is not the determining factor.

Many theories based on materials, construction and technology as the determinants argued that 'for thousands of years wood and stone have determined that character of buildings' and 'if it applies to high-style design, then these factors must be particularly strong in societies of limited technology and hence, strong constraints' (Rapoport, 1969: 24). This theory suggests

that form changes when societies learn to master more complex building techniques and that there is a natural evolution from living in a cave towards living in a rectangular building made of stone. This theory was based on Victorian social evolutionist ideas,⁸ which are flawed, so the theory of the evolution of building form is also flawed. This theory neglects to note that 'just because man can do something does not mean that he will' (Rapoport, 1969: 24). There are many societies that have shown that they possess certain technological skills but have not used these skills when constructing buildings. Communities in Haiti for example, have complex weaving techniques used to make fishing traps, however, none of these skills are used to decorate homes.

The local available materials do play a role in what buildings can be built and the available building technology also plays a role in why certain house forms are built; but once again, they are only contributing factors, not the sole determining factors. There are many examples where house form stays the same despite the availability of new materials. Most building forms rely more on symbolism and cultural norms, and new materials when used, are often used to build a dwelling that has the same form (Johnson 1993: 6).

Economic Approach

The economic approach was another approach that developed to try and understand why certain building forms were chosen. This approach no longer saw buildings as 'artefacts in themselves' (Johnson, 1993: 9) but treated them as historical products that indicate the past economic forces in the area. This was a popular approach that was adopted by scholars in historical and geographic disciplines. It is useful in that it is a logical place to begin looking for the historical context of the buildings. There are however many criticisms of this approach. One of the main criticisms is that it assumes that there is a straightforward relationship between wealth and housing, this is not the case as the relationship is far more complex than that. It also fails to consider that there is no certain way to determine how people will spend their money and if they have an excess money that they would choose to spend it on architecture and as opposed to something else. How people spend their money differs not

⁸ Victorian social evolutionist ideas believed that Europe was the apex of a social evolutionary chain and all other societies were less advanced and had yet to evolve to what they believed was the height of civilization.

only between cultures but between different social groups within cultures (Johnson, 1993: 10).

When determining how people spend their money there are other factors that need to be taken into account such as security of tenure, the world view of the social group, as well as any ideological changes that have taken place within a society over time. To understand why buildings are built a certain way one cannot look at economic factors alone as cultural factors similarly play a major role in decisions of house form and type. Economic factors are therefore also one of many contributing factors and only make up part of the story.

The criticisms of these approaches show that there is no single set of determinants that explain why a society chooses to build using particular styles, forms or materials but rather that the buildings must be seen within their wider contexts. While these approaches have value, they were heavily criticised, these criticisms led to the development of the material cultural approach, an approach that views buildings as artefacts which are a product of their social environment. This approach has also been criticized but is the dominant approach used today by vernacular architectural scholars to understand why certain societies chose to build a certain building. This approach is also used to understand past societies by using the buildings as a physical remnant to interpret and understand the world view of the society that built the buildings. This is a useful approach used by historians and archaeologists when the society that built the buildings no longer exists or have changed beyond recognition over time, as is the case with the corbelled buildings.

Vernacular architecture as a form of culture has been known by architectural theorists like Rapoport (1969) and Oliver (1969) but it took almost two decades for this link to filter down to vernacular studies due to the fractured nature of vernacular architecture as a discipline as mentioned earlier. Once it had filtered down, people like Matthew Johnson (1997) began to create detailed methodologies for understanding culture by looking at the buildings that a society built.

VERNACULAR ARCHITECTURE AS A FUNDAMENTAL EXPRESSION OF CULTURE

Johnson (1997) is a strong advocate for what he has named The Material Cultural Approach. It relies on a set of principles that can be used to interpret the cultural meaning behind vernacular architecture and use it to uncover something about the lives of the people who built the houses rather than just providing a description of the house. He argues that the primary approach to studying vernacular buildings should be to examine cultural meanings, how people saw the world around them, what meaning did they ascribe to the world, and how are these meanings reflected in their buildings.

The principles that Johnson (1997) describes are based around the idea of looking at past mental attitudes or 'world views' and to understand how different cultural surroundings influenced the decisions made by the occupants in building houses of a certain form (Johnson, 1997: 14). In order to do this, one must understand that cultural thoughts meanings and world views will vary historically and from culture to culture and that these thoughts and meanings are rarely 'overtly articulated' (Johnson, 1997:14). People often do things without thinking about why we do them, we see these activities as instinctual or common sense, but they are not. They are subconscious actions driven by our cultural world view. To find the meaning behind these actions in other cultures one needs to look below the surface. This is a potential approach to use to understand the culture and meaning attached to the corbelled buildings. Johnson (1997: 15) notes that these unarticulated meanings and thoughts can often go against what we consider 'common sense'. The researcher should not impose their own cultural beliefs or what they believe to be common sense on past societies.

Cultural practices are embedded in everything we do including all our material objects and the houses we choose to live in. As with identifying heritage significance, looking at the wider context of vernacular buildings and looking at all aspects of the lives of the builders of the corbelled buildings and the different people who have lived in these buildings over the decades is necessary. This includes the different aspects that were discussed earlier such as the climate, environment and the social and economic history of the area. This information is discussed in Chapter Four and will help in understanding these buildings which will in turn help to determine their significance as heritage resources.

The principles for interpreting vernacular buildings by looking at cultural meanings read in conjunction with recent definitions of vernacular architecture show the role of the material cultural approach in vernacular studies.

Vernacular architecture comprises the dwellings and other buildings of people related to their environmental contexts and available resources, they are customarily owner- or community-built, utilizing traditional technologies. All forms of vernacular architecture are built to meet specific needs, accommodating the values, economies and ways of living of the cultures that produce them. (Oliver, 1997: xxiii)

Buildings are, or should be, identified as social representations which link them to coherent cultural systems of values and beliefs. Bronner (2006: 25) argues that vernacular buildings should never be seen as static points because culture and traditions are subject to continuity as well as change. He argues that change in a cultural tradition is a slow process and is the result of individual innovation which is balanced with social custom and this change can be seen in the material culture. Anne Hoare (2006: 65) describes cultural change by drawing on Bourdieu's theory of *habitus*. According to Bourdieu, *habitus* are the social rules and regulations which we have internalised, embody and reproduce almost effortlessly as if they were second nature. As a result, a society's world view is shaped by the social process they were born into and is acted out almost unconsciously. Hoare (2006: 79) argues that as a result of this process our homes are a reflection of our society and world view. Consequently, we are more likely to build our homes to look like the houses we grew up in because it reflects our belief of what a home should be and within which all cultural activities can easily take place. Social rules, however, are not set in stone and when it is necessary, change may occur. This change is made through small changes and innovations which, over a long period of time, can change the society. In some cases, the society evolves to be very different from what it originated as and through this process past cultures may be lost. This would explain why corbelled houses are no longer built as the society that produced them has changed over time and this change is reflected in the houses they live in.

Davidson (1988: 101) suggests that it is not enough to assume that social organisation is simply reflected in material culture, he argues that we must move beyond this by using ethnographic research aimed at investigating the relationship between ideas and how they

are represented materially in certain socio-economic contexts. Rapoport (1990) extends this argument by writing that culture is a social construct and can never be directly seen or observed, only its effects and products which are part of culture can. These products or objects can be active agents in shaping perceptions in a society and informing behaviour as well as being objects that reflect behaviour. Material culture is therefore not a passive reflection of behaviour but is actively implicated in informing social life. Giddens (1981) makes the same argument saying that 'human action is carried on by knowledgeable agents who both construct the social world through their actions and yet whose actions are also conditioned and constrained by the very world of their creation' (1981: 54).

Johnson's (1997) material cultural approach will not be applied in detail in this study as it is a mini-dissertation and the focus of the study will be on heritage identification and understanding the significance of the corbelled buildings. This approach does show that vernacular architecture can provide information about past societies, this gives vernacular structures value as an academic resource to vernacular architectural scholars as well as archaeologists and historians who seek information about the past. The corbelled buildings therefore are a heritage resource to academics and researchers in these fields.

ARCHITECTURE OF THE OTHER AND THE LOSS OF VERNACULAR STRUCTURES

Almost all definitions of vernacular architecture make a distinction between so called 'modern' or 'polite' architecture and 'vernacular' architecture. Vellinga (2011: 176) argues that this distinction is used to create an 'us' and 'them' dichotomy and the study of vernacular architecture has become the study of 'the architecture of the other'. He argues that the concept 'reduces cultural diversity to essentialist stereotypes, is not unlike other concepts such as 'indigenous', 'primitive' or 'tribal'. The acceptance and existence of the concept reveals the prominence of an approach towards the study of the architecture of other cultures that is largely based on implicit social evolutionist ideas' (Vellinga, 2011: 172). Anthropologists have been critical of representing non-western cultures as 'other' and reducing them to immutable, essentialist characteristics. Culture changes and adapts to more modern or globalised ways of being without losing their authenticity. While vernacular architecture studies is a multi-disciplinary subject it has yet to incorporate important

theoretical shifts that have taken place in related subjects such as anthropology. Vernacular architecture studies and architectural theorists still create 'us' and 'them' dichotomies when studying buildings. This distinction is echoed in the introduction of the Charter on the Built Vernacular Heritage (1999) which argues that because of the 'homogenisation of culture and of global socio-economic transformation, vernacular structures all around the world are extremely vulnerable, facing serious problems of obsolescence'.

The difficulty in defining the study of vernacular architecture due to it being an interdisciplinary field that has been developed at different speeds in different places across the world and the issues associated with 'architecture of the other', does not diminish the importance of studying vernacular buildings and what can be learnt from such buildings. Vernacular buildings are understood to be the 'fundamental expression of the culture of a community, of its relationship with its territory and, at the same time, the expression of the world's cultural diversity' it acts as a record of the history of the society (Charter on the Built Vernacular Heritage, 1999:1). This gives vernacular structures such as the corbelled buildings value as sources of information of the people who lived along the northern frontier during this time and can offer an insight into their lives and world view.

The corbelled buildings belonged to a society that no longer exists. While it is still unclear who built the buildings, they were occupied by families that later migrated to the area. Some of the decedents of these families still live on the farms and were interviewed. The societal changes that took place in the part of the Karoo where these buildings are found resulted in new cultural norms that were reflected in the new rectangular single-story detached bungalow houses that were built later during the 20th century. There is a clear shift from corbelled buildings to bungalow styled houses that were popular in small towns in the area. These new homes were built during the 1950s and 1960s after an increase in income due to what is known as the 1950s 'wool-boom' which was generated by the Korean War as American soldiers were provided with wool lined clothes and South African sheep farmers benefitted from the increase in demand for wool (Kramer, 2012: 50).

It is believed that social stigma was a contributing factor in the drive to build new homes. Living in a corbelled house indicated that you and your family were poor while a wool-boom house was seen as a statement of wealth (Kramer 2012: 176). Poor families could not afford

to build new homes so they had to live in buildings that already existed in the area. Many families began to build new homes as they wanted to present a more modern image and the corbelled houses were either abandoned or relegated to the back of the building as new extensions were built. They were able to build these new houses because new materials were now more easily available due to improved transport. Building materials manufactured in Europe were exported to South Africa in greater volumes after the First World War and then again after the Second World War. This, combined with the improvements in road infrastructure and modes of transport, meant that building materials could now be easily transported to farms in the Karoo which before had been a very difficult process. The imported materials were cheaper and required less labour than previously, which may have added to the attractiveness of building a wool-boom house.

Once wool-boom houses were built the corbelled buildings were relegated to store rooms or where abandoned entirely. As a result of this change, the skills needed to build these buildings were lost. The inability of locals to construct corbelled buildings has led to them becoming a finite resource. This rareness gives the buildings new value to different groups of people for different reasons. It has value as an academic resource for vernacular studies as there are limited numbers of corbelled buildings that can be used to interpret the past society that built them and understand why they chose to build them. They can also be used to gain a better understanding of the past, particularly life along the northern frontier during the 18th and 19th centuries.

Vernacular architecture studies rely on the larger context to give vernacular buildings full meaning and value. This value plays a role in determining the significance of the corbelled houses as a heritage resource. These buildings are not common, and their distribution is limited to a particular area in the Karoo around the towns of Carnarvon, Williston, Loxton and Fraserburg. The skills that are required to build these buildings appears to be lost in the present and the availability of new building materials means that other building types are now preferred. This has led to the corbelled buildings becoming a finite resource which contributes to their heritage significance and rarity value. The role of vernacular architecture studies in this case is therefore linked to the heritage identification process and forms part of the larger context that needs to be studied to understand the significance of these buildings

as heritage resources and who this heritage belongs to, which will be explored in the following chapters.

CHAPTER FOUR: EXPLORING CONTEXTUAL FACTORS RELATED TO THE CORBELLED BUILDINGS

A description of contextual factors, with a focus on the historical record is essential in both identifying heritage and in establishing meaning through the study of vernacular architecture. Much can be understood about the corbelled buildings by combining what can be learnt from heritage studies and what can be learnt from vernacular architecture studies. Both will be used in this study to analyse the different contextual factors that are associated with the corbelled buildings to understand their meaning, value and who this heritage belongs to and why this is so.

One of the main criticisms of vernacular architectural studies in the past has been a disproportional focus on the form and function of the buildings. Important aspects such as the historical context within which they were built were somewhat ignored. A number of studies on vernacular buildings have been done where buildings are described in great detail and placed in a typological category rather than placed within their historical context so that questions surrounding meaning could be answered (Johnson, 1993: 5). Once the meaning is better understood, it makes the identification of values that are associated with the buildings. The historical context also plays a vital role in the process of articulating heritage significance and determining what cultural values are important.

The corbelled buildings are an excellent example of vernacular architecture. They were built by the people who lived in them using local materials. The buildings and the people who built them and lived in them can be better understood if they are studied using the final approach discussed in Chapter Three. This approach relies on the larger contexts as well as the buildings themselves. This is another reason why exploring the contextual factors surrounding the corbelled buildings is an important part of this study.

Heritage is about identity, and how to preserve the markers of this identity. Ideas around identity are therefore understood by looking at the past. As discussed in Chapter Two heritage is assessed using a value-based approach and requires a relativist way of thinking about the past. This makes identifying heritage values more difficult as there are no fixed criteria and

the meaning assigned to heritage objects differs between cultures, therefore possible heritage sites such as the corbelled buildings must be understood within their cultural context or they become devoid of meaning. Values come from interaction between the corbelled buildings and their context, once this is understood then it becomes clear which values are relevant and should be assessed and who will have an interest in them.

4.1 EXPLORING THE CONTEXTS OF THE CORBELLED HOUSES:

HISTORICAL BACKGROUND, THE NORTHERN FRONTIER

This section provides the historical context of the area along the northern frontier of colonial South Africa before the 19th century when the corbelled houses are argued to have been built. It explores the social, political and economic factors that influenced the different groups of people who were living on the frontier. It describes the various groups of people who occupied the area at the time, what made them live along the northern frontier, how they interacted with one another, the conflicts that arose and the legal issues surrounding the ownership of land and buildings.

OPEN/HETERODOX FRONTIER ZONE

Before beginning a historical narrative of northern frontier, the concept of an open/heterodox frontier and a closed/orthodox frontier needs to be discussed. Life along the frontier is a subject of interest to many scholars. There are often parallels drawn between South Africa and the westward movement of settlers in North America around conquest, resistance, cultural entanglement, resource allocation, European hegemony and debates around race and identities (Mitchell, 2008). One of the main reasons that the frontier is still being studied with such vigour is because of its flexibility. The frontier was seen as a boundary that was both fixed and porous, it was at the margins of the colonial government's control but was never completely out of their reach.

To understand this flexibility, one needs to look and the cultural contact that took place while the frontier was 'open'. A frontier, when it is 'open', can be defined as 'a region where regular contact takes place between two or more culturally distinct communities, and where at least one of the communities is attempting to control the others but has not completely succeeded in doing so' (Elphick, 1997: 7). A frontier becomes 'closed' when a clear dominant group emerges and can assert control over the others (Humphreys, 1988: 4).

Guelke (1985: 445) formed the notion of 'outlaw' and 'orthodox' when referring to the frontier. This goes beyond the notion of simply having an 'open' or 'closed' frontier zones, which does not fully explain the terms of conquest; whereas the outlaw/orthodox social formations offer a better understanding of frontiers by exploring the ways individuals and groups of people interacted with each other and colonial authority.

Mitchell (2008) has taken Guelke's idea further to include 'heterodox' rather than 'outlaw'. Heterodox includes a range of resistance against society from lawlessness to the creation of alternative houses and making unofficial claims for land beyond the frontier. The concept of the heterodox looks at how people on the margins of society exploited the fact that they were along the frontier to defy conventions to survive in a harsh environment. Mitchell sees the frontier as a space 'where both colonizing and colonized people contested metropolitan expectations' (Mitchell, 2008:4). Orthodox on the other hand was therefore an affinity with or acceptance of colonial authority.

'The frontier was not a simple geographical phenomenon but a complex region which offered opportunities to many different kinds of people' (Guelke, 1985:446), it was a space characterised by social diversity. The composition and density of the frontier changed in the 18th and 19th centuries. To the Khoekhoe the frontier meant access to land that they were denied within the bounds of the colony even if their access to the land was limited or restricted. There was the possibility that a Khoekhoe group could continue to sustain a lifestyle independent of the settlers. Some Khoekhoe made limited land claims but many others were not so lucky and were either employed in settler households and farms as subordinates or some of the women entered into permanent relationships or marriage with settler men (Mitchell, 2008).

For the colonists, the frontier offered material and social opportunities. There was the prospect of acquiring land and access to large herds of game which offered a life of subsistence and opportunity for some and enrichment for others. Outlaws lived in the same community as company officials such as *veldkornets* as well as runaway slaves and soldiers from Cape Town. The difference between life and society along the frontier compared to Cape Town and other settlements such as Stellenbosch were often noted by travellers. The northern frontier was not a clearly bounded area, there was no line that indicated where the colony ended and indigenous territory began. It was a contested space where settlers, Khoikhoi, San, Bastards, bywoners, runaway slaves and occasionally Xhosa and Tswana agropastoralists had to live together in this socially charged environment where multiple kinds of interactions and relationships took place. It was a space where new identities were constructed and negotiated and manipulated through the process of creolization. It is in this space that the corbelled buildings were built (Kramer, 2012:16).

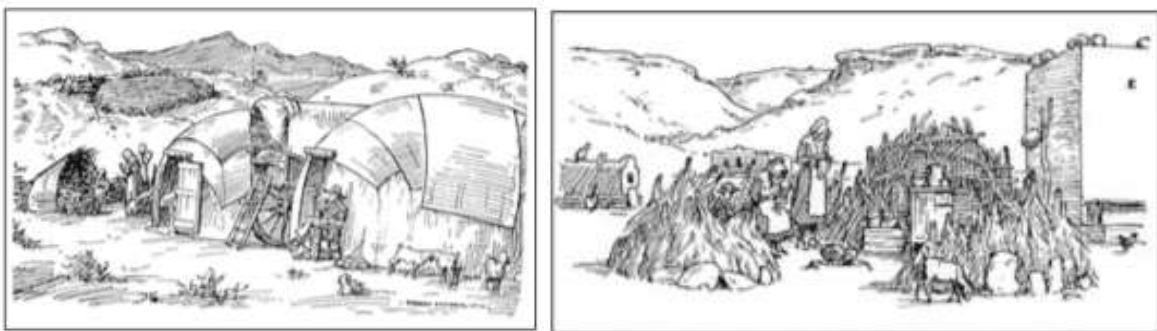


Figure 6 Sketches made by Erich Mayer in the 1920s illustrates cross-pollination: the adoption of the indigenous maatjieshuis and kookskerm by trekboers (Pictures from Die Boerevrou Boek, 1950)

To understand life along the open/heterodox northern frontier one needs to look back to when the Dutch first arrived at the Cape and what factors made so many people choose to move to the frontier.

LIFE AT THE CAPE PRIOR TO EXPANSION

The Dutch East India Company arrived at the Cape with the intention of creating a refreshment station. The station supplied the passing ships with fresh produce grown in the Company Gardens and livestock that was bartered from the local Khoikhoi to meet the

demand. Soon the Company Gardens and Khoikhoi livestock could not provide enough food for the ships (Schute, 1979: 188). To deal with this problem the Company gave permission for soldiers to be granted the right to become free burghers at the Cape. They were to be given land and supplies to begin their new life as farmers where they would be able to make their fortunes (van der Merwe, 1995: 2). Land was granted near the settlement and farmers were given supplies to grow wheat, rice and other crops.

The main reason the company's decided to allow free burghers to settle was because it wanted to promote farming at the Cape to supply the demand for wheat in other VOC territories. Crop farming at the Cape, however, was a disaster. The crops continued to fail due to unsuitable climate and soil conditions (Guelke, 1979: 44). As a result, many of the new free burghers abandoned their farms to become craftsmen in the growing settlement that would become Cape Town or to take up stock farming (van der Merwe, 1995: 2).

It was not until 1679 after the meat supply from the Khoikhoi was under threat, that the Heeren XVII, who controlled the VOC, made new policy for expansion at the Cape (Schute, 1979: 174). Khoikhoi pastoralists became more reluctant to trade their livestock for luxury goods such as tobacco, copper and brandy. They began to feel threatened as the Dutch began to settle in areas surrounding their settlements. The situation worsened when Dutch officials took livestock by force if the Khoikhoi refused to trade willingly (Elphick, 1979: 10). The expansion policy was created with the intention of first to expand the production of wheat and wine, the two products that were showing the most promise, and second to lessen the Company's dependence on the Khoikhoi for meat supplies (Guelke, 1976: 29).

The policy was initiated by the new governor at the Cape Simon van der Stel. It allowed free burghers to settle on land beyond the Cape Flats on a first come, first serve basis (Guelke, 1976: 29). These new grants were considerably larger than those issued by van Riebeeck and ranged from 80-160 acres (32.3 to 64.6 ha). Burghers would let their livestock graze on communal unallocated land. By 1687 most of the new grants were located at Stellenbosch.

The framework for landholding that was first used at Stellenbosch was applied to other areas that were settled from 1687 to 1717. The difference was that the authorities now allocated standard rectangular grants of 125 acres (50.5 ha) to applicants (Guelke, 1976: 29).

The expansion led to free burghers settling further and further away from the market in Cape Town. They now had to transport their produce over rough terrain usually by ox-wagon which led to an increase in transport costs. The expansion also created a demand for more labour. This demand was met by importing slaves predominantly from Asia and Africa (Guelke, 1976: 29). The less affluent who could not afford slaves, turned to the Khoikhoi who were slowly being integrated into the settler economy as they lost their herds and land and were forced to work as indentured labourers⁹ (Elphick, 1979: 19). It was through this process that the Khoikhoi at the Cape slowly lost their land and wealth. This process was exacerbated by a smallpox epidemic that swept the colony in 1713 and killed vast numbers of Khoikhoi, decimating their way of life and forcing them to become incorporated in the colonial society and economy (Penn, 2005: 42).

THE RISE IN POPULARITY OF STOCK FARMING

The colony saw a rise in the number of stock farmers or pastoralists after it became clear that crop farming was not going to provide the independence and wealth that was promised (Guelke, 1976: 27). There were many advantages to converting to stock farming. Compared to crop farming, livestock required a lower start-up capital. There was no need to buy equipment, oxen, seeds, or large numbers of slaves. All one needed to be a pastoralist was a small herd of sheep or cattle that had the potential to breed, thus increasing herd numbers (Legassick, 1969: 36). There were less transport costs as the livestock could walk themselves to the market and did not have to be transported by ox-wagon as crops were. This allowed stock farmers to move away from the Cape and further into the interior.

William Adriaan van der Stel became the Cape governor in 1699 and was in favour of pastoralism and expansion and made several changes to the licence laws (Schute, 1979: 193). He repealed his predecessor's laws limiting expansion and began granting grazing licences or *leeningsplaats* as they came to be called without a rent fee. The holder of an early grazing permit was given exclusive use of a designated area for three or four months. They were later

⁹ Penn (2005: 147) remarked that there was little difference in the life of an indentured Khoikhoi labourer and a slave. In some instances, slaves were treated better because they were seen as property worth maintaining while Khoikhoi were often worked to death.

extended to six months and gradually a general criterion was established to determine the limits of grant licences. The general rule was that the size of a grant was determined by placing a marker at the centre and all the land within an hour's walking distance of this marker was part of the land grant (van der Merwe, 1995: 77). Each grant holder therefore had exclusive control of at least 6000 acres (2.420 ha) of land (Guelke, 1976: 31).

In 1714 the company began charging a fee for grazing licences. The change in regulations around grazing licences seems to coincide with a rise in applications and according to Guelke (1976: 31) shows the growing number of pastoralists who were choosing to make permanent settlements. This shows a shift from the transhumance lifestyle of pastoralist *trekboere* who would move their herds to different grazing sites depending on the season to a more sedentary way of life (Penn, 2005: 17). The practice of moving herds according to the seasons was adopted from the Khoikhoi, as it allowed the land to recover and the animals would always have access to food.



Figure 7 Trekboers were used to living in small, round structures along the frontier where they lived free from the constraints of the Company. Maatjeshuis sketch by Erich Mayer (1876 - 1960).

Living far in the interior, along the frontier free burghers could enjoy a certain amount of freedom. They did not have to conform to the strict social rules imposed by the Company (Hall, 1994: 2). As a result, societies were more racially and culturally diverse and there was a certain amount of miscegenation and cultural entanglement with the sharing of cultural ideas

between the different groups of people occupying the same space as the free burghers began to move into areas occupied by the Khoikhoi and San (Mitchell, 2008). Not all of these exchanges were peaceful; there were many violent clashes during the 18th century that impacted on all parties involved, but this will be discussed later.

EXPANSION TO THE NORTHERN FRONTIER

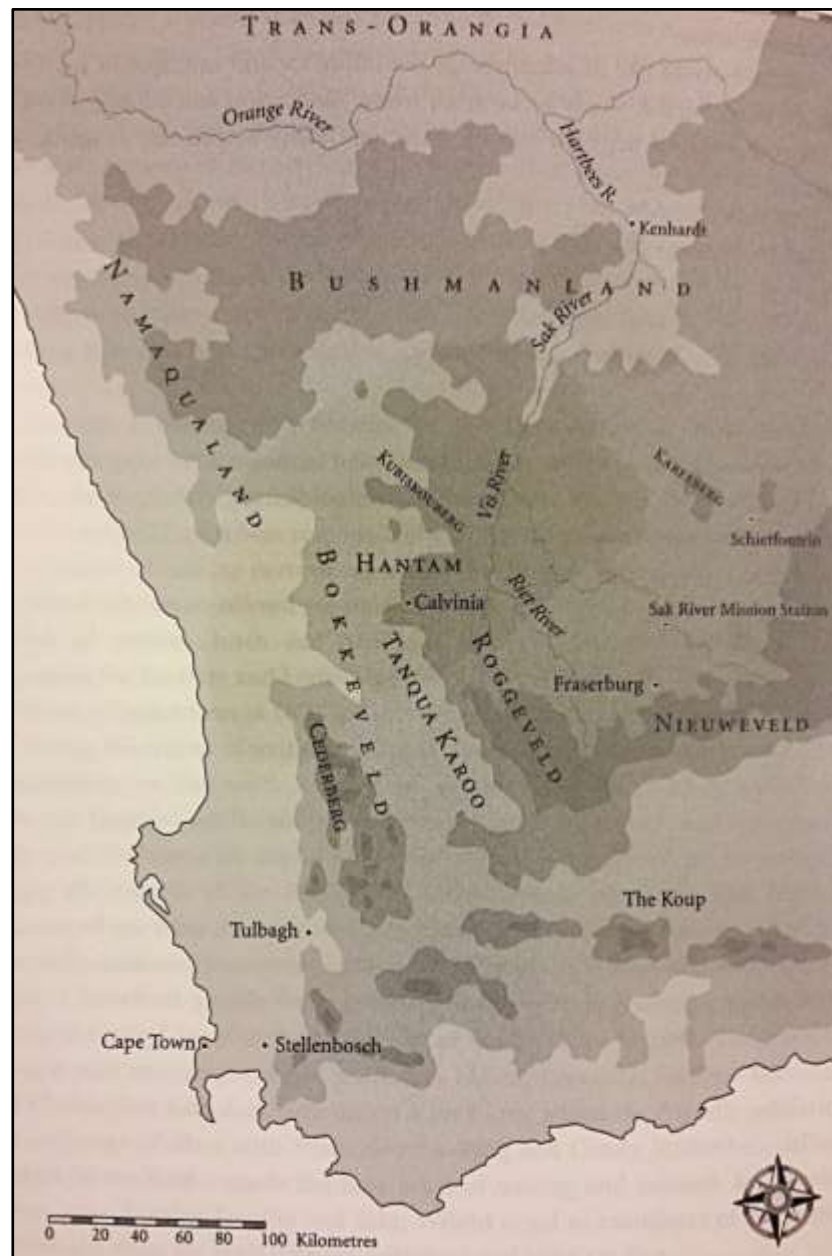


Figure 8 The southern, western and northern cape, c1815 illustrating the expansion of the northern frontier beyond the Hantam, Nieuweveld and Sak River (Penn, 2005: x).

The growth in the popularity of livestock farming was one of the main factors that drove Trekboers into the interior towards the northern frontier. Trekboers were constantly searching for water and new pastures for their growing herds. The colony slowly began to expand northwards first through Tulbagh, then the Olifants River Valley up to the Koue Bokkeveld. It then expanded through the Ceres Karoo to the Roggeveld and eventually towards the Hantam where the records show that grazing licences were granted in the 1740s (Penn, 2005: 82) (Elphick, 1979: 24). The Sak River (Figure 7) was considered the boundary of the colony during this time, although in reality the boundary was in no way fixed but was permeable and constantly changing.

Expansion along the frontier was closely related to land tenure and other factors such as access to water and personal safety. Many of the farmers had their livestock stolen during raids by groups of Khoikhoi, San, rouge bands of Baasters or sometimes a combination as groups would make alliances with one another (Penn, 2005: 108). Land tenure controlled the movement of people along the frontier to a certain extent. Farmers would not necessarily graze their livestock within the boundaries of the land that they possessed, they would usually venture out into unallocated land beyond where the area demarcated in grazing licence. The system of grazing licences had to be changed to accommodate the changes that were taking place in the colony, and these changes had a further effect on the movement of people along the frontiers.

CONFLICT AND THE FORMATION OF COMMANDOS

‘...when colonists began encountering other people in a more consistent manner, one person’s homeland may have become another’s frontier’ (Lightfoot and Martinez, 1995: 473)

The expansion of the settlers further into the interior meant that they were slowly encroaching on land occupied by the San and Khoikhoi. This led to increased conflict as they fought for territory, resources and livestock (Penn, 2006: 109) (Legassick, 1969: 65). The Khoikhoi would often be forced to trade their livestock with colonists for very little in

exchange. The Khoisan would retaliate to all these pressures by stealing livestock from the farmers, partly to regain their losses and partly to make it impossible for the new comers to live in the area, forcing them to abandon their farms. The colonists and colonial officials responded to these threats by establishing the commando system.

Commandos would be led by the local *Landdrost* or *Veldcornet* and was made up of all the local farmers in the area. Whenever a theft occurred the commando would have to assemble and pursue the perpetrators and reclaim the livestock. A commando could not be assembled however, without permission from the Company who required a written report of all that happened during the commando from the official in charge. These reports generally included a death tally, the number of stock recovered or lost, and the number of Khoisan women and children captured. The company would then supply the commando with firearms, ammunition and gun powder (Penn, 2005: 117). The Company regarded Khoisan people as under their protection and therefore protected by Company laws. The official letters would often advise the leaders of the commandos to use as little violence as possible. This however was not heeded as large numbers of Khoisan men were killed.

If the farmer himself was not able to report for commando duty then he could send someone in his place. The substitute could be a son or relative or it could be a *kneght*¹⁰ or trusted Khoikhoi or Baastard¹¹ servant. As a result, the commandos were made up of diverse individuals who would all work together to achieve a common goal. The Khoisan and Baastard substitutes were not seen as completely trustworthy and the guns and ammunition were usually locked away. This is an example of the kind of intermingling or entanglement that occurred along the frontier (Penn, 2005: 111). These written accounts of the commandos detail who was living in the area at certain times and they offer insights into the relationships between the different groups of people living there before during and after the corbelled buildings were built.

There were several major clashes along the norther frontier during the 18th and 19th centuries. The first was the 'Bushman war of 1739' where the San retaliated after one of the first expansions made by frontier settlers. Once the San were quelled, the frontier was relatively

¹⁰ Kneght was a man who would be paid to run the farm in the absence of the owner.

¹¹ Baastard was a term used to describe the children who had one white parent and one not white parent.

quiet for several decades and the settlers were able to expand towards the Onder-Bokkeveld and Sak River (Penn, 2005: 77). The next major clash took place in the 1770's, where there was an increase in raids and counter commandos across the frontier. This suggests that there was increased tension between the colonists, their Khoisan labourers and independent bands of Khoisan. This tension resulted in what was called the 'Roggeveld Rebellion of 1772' which saw almost a decade of conflict.

THE GENERAL COMMANDO

The general commando was assembled in 1774 to fight the San. The San were a more destructive enemy for farmers along the frontier. They did not steal livestock to accumulate wealth but as a food source, therefore could not be returned. In the 1770's the frontier had expanded north west, into an area that was considered sacred by the San, they retaliated to this invasion by stealing as many livestock as they could. The General Commando was assembled to eradicate the San (Penn, 2005: 119).

There were 250 men in the Commando, 100 'European settlers' and 150 'Bastaards' and 'Bastaard-Hottentots'. The Commando lasted for two months and during this short time the Commandos killed 503 San and captured 289. Captured San were always women and children and were forced to become indentured labourers. This method of 'capture' would continue until well into the 19th century and would increase after the ban of the slave trade to make up for the loss of labour force (Legassick, 1969 61). The method was not just used by European settlers but also by land owning Bastaard and Droster gangs. The violence continued until the end of the 18th century and it was not until the frontier began to 'close' that the fighting finally stopped.

CHANGES IN LAND TENURE

A new form of land tenure was introduced in 1732. Land was now leased for 15 years at an annual rent. If there were defaults on the payment or if the VOC had to reclaim the land then the farmer would only be compensated for the 'buildings or plantations at a proper valuation'

(Botha, 1962: 84). This would have influenced the kind of the buildings that were constructed by the occupants as land tenure was now seen as slightly more secure they would have begun to build more permanent dwellings.

Another major change took place in 1743 as the Trekboers were expanding towards the Roggeveld. Land tenure was changed to freehold loans or perpetual loans in an effort to make the farmers feel more secure on the land. Freehold loans were standardised at 60 morgen in size with an annual rent of 24 rix dollars. There was no limit on the number of licences an individual could hold. The introduction of freehold loans solved a difficult social problem at the Cape The VOC were very reluctant to give out land but the farmers were desirous for more secure land tenure options (Botha, 1962: 85). With the freehold farms the VOC provided more security for the farmers but retained ownership of the land and would receive annual rent. In reality however, the VOC had very little control of the land along the frontier where grants were requested. It would take a long time for official surveys to be drawn and Trekboers would request and relinquish grants according to what best suited their needs at the time.

In 1809 when control of the colony was ceded to the British, it was decided by the then Governor that if farmers had greater security of tenure then they would be more likely to better develop their land, so a new form of perpetual quitrent was developed that would allow the owners to hold the farm hereditarily and dispose of it how they chose. The owner had to pay an annual rent that was determined by the size and fertility of the farm and its proximity to a local market. This form of land ownership was formalised in 1813 (Amschwand, 2009: 3). Before the land could be transferred, again a proper survey had to be conducted which was a costly and time-consuming process and some farmers in the interior had to wait many years before their farms could be surveyed. It was during this time after the 1820s that the corbelled buildings were being built and they begin to appear on surveyor general diagrams as 'round house' or 'rondawel' (Kramer, 2012: 48). As they waited for the diagrams to be drawn they continued to move across the landscape into unallocated land which would have encroached on the land occupied by Khoikhoi. This would have required the newcomers to make deals with the Khoikhoi so that they could co-habit the area in a relatively peaceful manner (Penn, 2005: 85). The different groups however were not always willing to coexist peacefully and regularly antagonised each other.

This new system was not very popular with livestock farmers in the interior as they had previously been able to abandon the current loan farm and rent a new one elsewhere with relative ease. The new system required them to live a more fixed existence, it cost 200 Rix dollars for a survey which was more than eight times the annual rent of the previous loan farms and many farmers were reluctant to pay this sum (Kramer, 2012: 35). It was not until the 1830's and 1840's that farms near the border of the northern frontier were transferred. This is one of the reasons why it is difficult to obtain primary documentary evidence about the people living along the frontier and why the archival records of farms in the Williston, Carnarvon, Loxton area can only be traced back to the early to mid-19th century even though people were living in the area long before then during the 18th century.

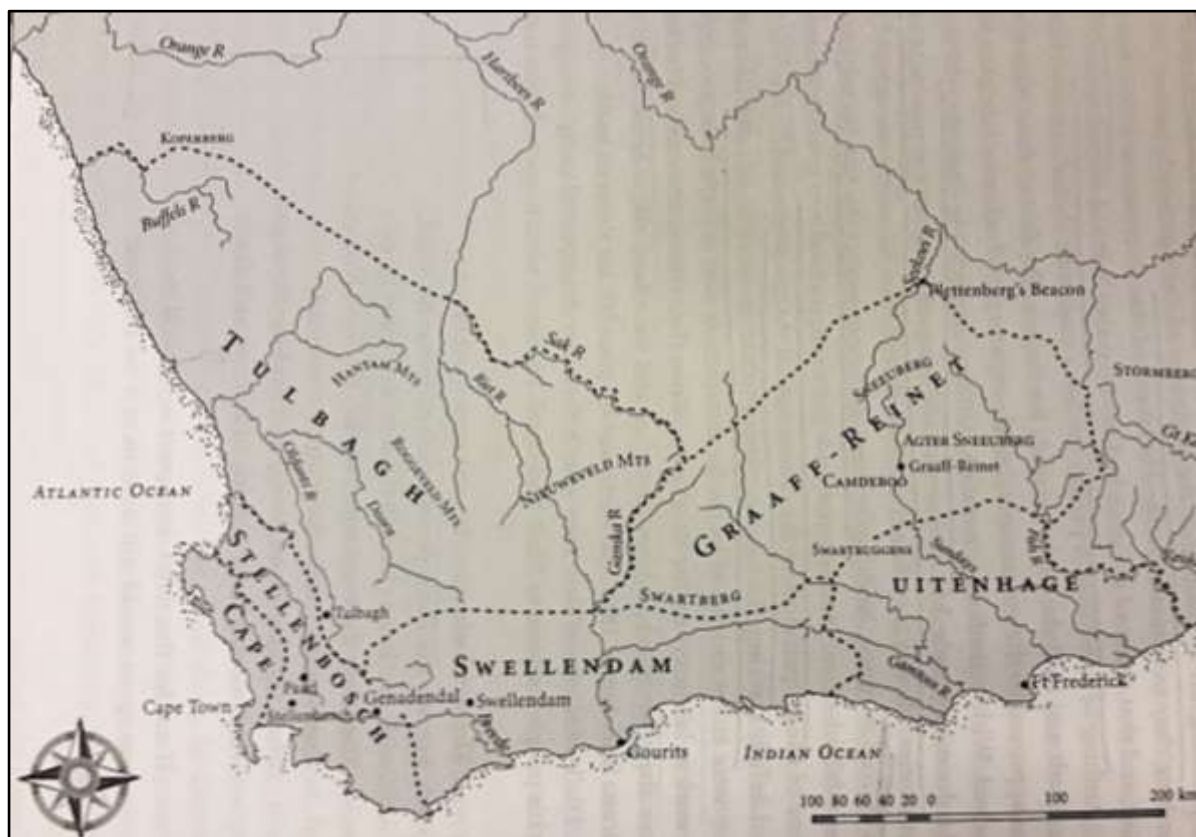


Figure 9 Cape districts and the northern boundary, 1805 (Penn, 2005: 288)

The expansion to the north came to a halt in the 1740s and the Trekboers did not move beyond the Roggeveld for some time. The Roggeveld environment was harsher and more demanding making mobility and transhumance the key to survival. This combined with renewed Khoisan resistance made settlement difficult (Elphick, 1979: 26). This kind of lifestyle

would have had an influence on the type of dwellings that were used by Trekboers at the time.

PEOPLE ALONG THE FRONTIER

As mentioned before there were many different groups of people who chose to live along the frontier for various reasons. There were the landowners who were usually European colonists and on the other end of the economic scale were slaves and Khoisan servants who have been discussed. There were however, several classes of people in-between, such as less affluent colonists and baptised people of colour who performed a large range of roles in the ever-changing frontier zone.

BYWONERS

Through a study of tax returns, Amschwand (2009: 143) has noted that there were families made up of baptised people of colour with mixed ancestry who lived a nomadic existence along the frontier with no permanent home. He looks at the Diergaard and Kleyn families who both appear to have owned few livestock and never appear to have reported any grain harvest in their tax returns nor did they appear to have any Khoisan servants. These families are typical examples of bywoners (tenant farmers) who would move across the landscape from farm to farm and provide labour in exchange for the use of some of the land. The records unfortunately do not mention what type of dwelling nomadic bywoners families lived in. It is possible depending on the family that some bywoners would have carried around *maatjehuis* like the Khoekhoe or they could have built more permanent structures like *hartbeeshuise*¹², in areas where trees were available. In other areas with less natural building materials available it is possible that they built some of the corbelled houses which were relatively easy to build with the abundant stone in the area. There have been verbal accounts that suggest that bywoners were the builders of some of the corbelled houses (Interviewee 3: 30 May 2016).

¹² Hartebeeshuise is a temporary shelter that was built out of wattle and daub by settlers throughout South Africa.

Up until the Second World War farms in what is now the Northern Cape were run by the farmer, his family, and bywoners. The latter would have handled the majority of the workload (Amschwand, 2009: 150). By 1948 when the National Party came into power it is believed that most of the bywoners went to work for the South African Railways and other government labour projects (Amschwand, 2009: 151).

BASTAARDS

The term Bastards, Basters or Bastards was used to describe the children from a European settler and indigenous Khoisan relationship (Elphick and Shell, 1979: 126). The term Bastard-Hottentot was used to describe the children of Khoisan and slave relationships. If the mother was a slave then the child would be too, if the mother was Khoisan then the children were born free. Bastard children were usually recognised by their settler fathers and would be baptised, which would give them more social and economic opportunities in colonial society. In the early 18th century baptised Bastards were included in colonised society. Later towards the end of the century after a slow social shift Bastards were considered to be members of the underclass (Penn, 2005: 20). They were seen as above Khoisan on the social scale but not quite accepted into white society. Bastards were very common in the Cape, particularly further inland along the frontier as there were far more white men than women (Elphick and Shell, 1979: 128). Rigid social rules that had to be followed in the Cape were often ignored along the frontier, this made miscegenation far more socially acceptable (Mitchell, 2008).

The uneven number of white men to women continued into the 19th century, particularly along the borders of the colony. This resulted in women from lower classes marrying more affluent land-owning farmers and men from lower classes marrying Khoisan women or freed slave women (Elphick and Shell, 1979: 135). The children from many of these relationships would lose their Christian status and the social and economic benefits that came along with it (Elphick and Shell, 1979: 136).

MISSIONARIES AND THE CLOSING FRONTIER

While the Dutch ruled the Cape, no missionaries were allowed to enter the colony. The Dutch Reformed Church (DRC) had made little effort to convert the indigenous population and

slaves. This was partly due to the Calvinist beliefs of the DRC. The DRC taught its followers to believe that everyone's life is pre-ordained by God, so the Dutch saw the Khoisan as heathens who were already destined for damnation and to convert to Christianity would not change this (Gerstner, 1997: 21). The end of VOC and Dutch rule at the Cape in 1795 meant that missionaries were now allowed to enter the colony. The arrival of many missionaries and in particular the London Missionary Society (LMS) led to a new form of interaction along the northern frontier, the balance of power began to shift in favour of the farmers and colonial officials marking the beginning of the closure of the frontier.

The missionaries sought to convert the Khoikhoi, San and Bastaard communities along the frontier and set up several mission stations (Legassick, 1969: 75). The Khoikhoi who lived in the interior during the beginning of the 18th century was very stable and saw no need or benefit in converting to another religion. By the end of the century after all the turmoil and violence along the frontier the Khoikhoi had been largely affected and were no longer socially or economically stable. They had lost their land, livestock and their way of life, they needed the benefits that came with conversion such as colonial protection, literacy, social security and social status that were the result of baptism after their previous way of living was no longer possible (Elbourne, 1995: 70).

The Droster communities who lived outside the borders of the colony in what is now Namibia, was largely made up of Bastards as well as some free slaves and displaced Khoisan. They allowed missionaries into their community as they saw Christianity as a means of getting greater access to the colonial economy as well as a means of forging their independence from the colony as the newly established Griqua people (Legassick, 1979: 263).

The colonial officials passed the Caledon Code in 1809, a law which placed heavy restrictions on the Khoisan forcing them to carry a pass or letter of employment at all times. This law was a huge factor in the popularity of conversion and working for the mission stations by Khoisan who preferred life in a mission station than life as an indentured farm labourer (Boonzaier *et al*, 2000: 108). On the mission stations, they could become literate and learn skills that would help them survive in a colonial economy. The mission stations could be named as places of residence or employment as well as a family base for when men had to leave to find seasonal employment on the surrounding farms (Elbourne and Ross, 1997:42).

The newly established Griqua people invited missionaries to stay with them. The two leading families in the Griqua society gave up a lot of their power to the missionaries who would act on their behalf when dealing with the colony (Legassick, 1979: 27). It is clear that there is a power shift as the Khoikhoi, San and Griqua began to relinquish their power to the missionaries and colonial authorities. As a result of this shift, a more homogenous or orthodox culture started to emerge, indicating the closing of the northern frontier.

By the 1850s power was cemented in colonial hands and British rule. Indigenous people particularly the Khoikhoi and San had no autonomy, land, livestock or religious choice and were seen as second-class citizens. The frontier society was no longer a place of fluidity and entanglement but was more homogenous. From the 1830s and 1840s land control began to change to title deeds and the frontier is regarded by historians as closed. It is during these changes that corbelled buildings were built. After the social, economic and land ownership changes had taken place it was no longer possible for pastoralists and bywoners to live such mobile lives. Limited to a particular area by title deeds these mobile groups of people began constructing more permanent households out of the local building resources available, stone.

CONCLUSION

Life at the Cape prior to expansion reveals the conditions that made colonists want to move to the frontiers. The failure of crop farming and the strict VOC economic and social rules resulted in the rise of stock farming. The rise in stock farming show what social and economic factors were at play to make stock farming popular.

Another factor that contributed to the need for migration were changes in land tenure. The changes show a slow progression from a mobile pastoralist lifestyle towards a more sedentary one. A more sedentary lifestyle required people to build more permanent structures to live in. This was one of the factors that contributed to corbelled buildings being built, stock farmers along the frontier built their homes out of the available resources using a technique that they were already familiar with. The changes in land tenure also explain why surveyor diagrams of the farms along the region were officially recorded years after the land grants

were made. This delay makes the surveyor diagrams not as reliable a resource as they could be.

The commando reports are useful in that they describe what life was like along the frontier near the Sak River during the late 18th and early 19th centuries when the corbelled buildings were built (Kramer, 2012: 58). They show that there were many different groups of people living in the area at the time and that they were constantly interacting with each other and were often engaged in conflict. This shows that the builders of the corbelled buildings did not belong to one social or economic group but were most likely to have been a combination of people who were all occupying the area at the time. The range in size and form of the corbelled buildings also suggest this.

By understanding the larger historical context, it was difficult to find information relating directly to the corbelled buildings and who may have built them and why. The larger historical context provides some answers and combined with the other contexts will determine what values are related to these buildings and by whom as well as how the buildings can be assessed as heritage sites.

4.2 THE ENVIRONMENT

The materials that were available to the people in any area during the 19th century as discussed impacted on the vernacular dwellings people were able to build or at the very least, limited their choice. The Karoo is known for its harsh climate and limited range of flora and fauna. The indigenous people who lived there for centuries and later the Trekboers had to learn to adapt to live in such a harsh environment. The physiological approach detailed in chapter Three is therefore one of the factors to consider for the choice of form of the corbelled buildings in this landscape. This chapter will explain some of the daily difficulties they had to face.

VEGETATION

The bulk of the corbelled buildings are located in the Nama Karoo (figure 9) which is a semi desert region made up of drought-resistant vegetation; grasses and shrubs; 'grassy, dwarfed shrub land'(National Biodiversity Institute, n.d.). The grasses are more common in depressions and sandy soil; they appear less on clayed soils. The constant grazing in the area also increases the abundance of shrubs (National Biodiversity Institute, n.d.)¹³. The area suffers from drought, overgrazing, kraaling¹⁴ and tramping these combined with poor soil have resulted in an increase in unpalatable shrubs which, in turn, has had an effect on the fauna in the area (Kramer, 2012: 59). Some of the vegetation damage may have been caused by herds of Springbok but the majority of the damage was caused by the large herds of sheep that the Trekboers brought to the area. They allowed their herds to graze intensively, so the plants that the sheep preferred were eaten to the point where the grassland could not recover.

Kraaling is a farming technique used in the area that resulted in parts of the veld being trampled on a regular basis. The trampling stopped seeds from being naturally dispersed in

¹³ Less grass results in less competition for space and water, so the shrubs are able to grow in abundance.

¹⁴ Kraaling is an Afrikaans term that describes the action of creating an enclosed space where domestic animals can graze.

the veld. Other vegetation found in the Karoo are certain hardwood trees, which are very slow growing and are generally found only near rivers. There are very few trees or rivers in the area.

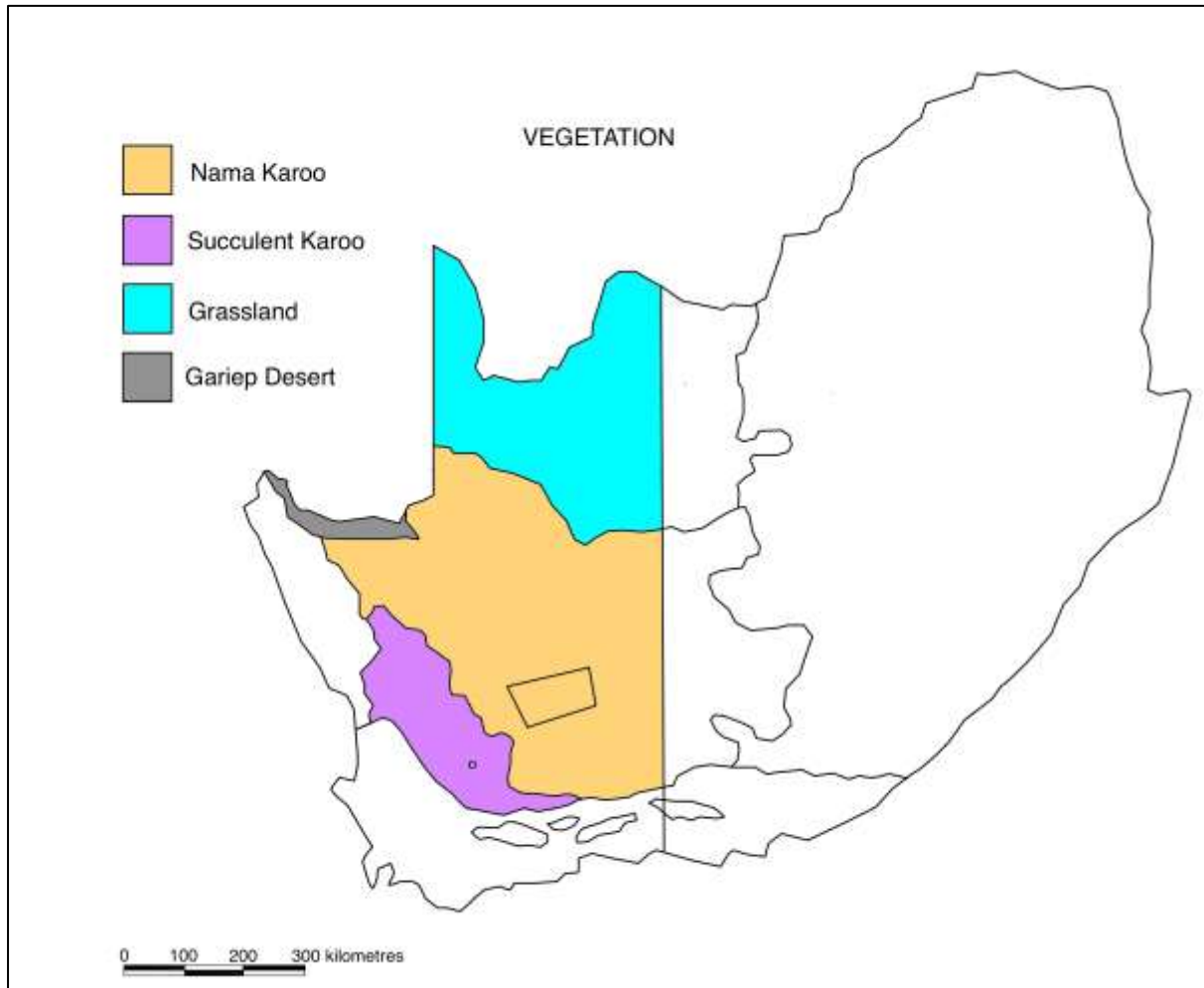


Figure 10 Vegetation map showing the distribution of vegetation across the Karoo. The frame indicates the area where the corbelled houses are found in the Nama Karoo. The outliers located in the Succulent Karoo (Small Shape). (Kramer, 2012: 60)

RAINFALL

The Nama Karoo receives summer rainfall. The annual rainfall is between 146 and 200 millimetres, most of which falls in March (Desmet and Cowling, 1999:4). This rainfall varies and is unpredictable; and as a result, each region will receive different amounts of rain due to a combination of weather patterns and topography. Kramer (2012: 61) describes this difference by noting that the foot hills of the Nieuweveld (indicated in purple in Figure 9)

where some of the corbelled buildings are situated receive substantially more rainfall than the others in the Nama Karoo to the North where the majority of the corbelled buildings are found.

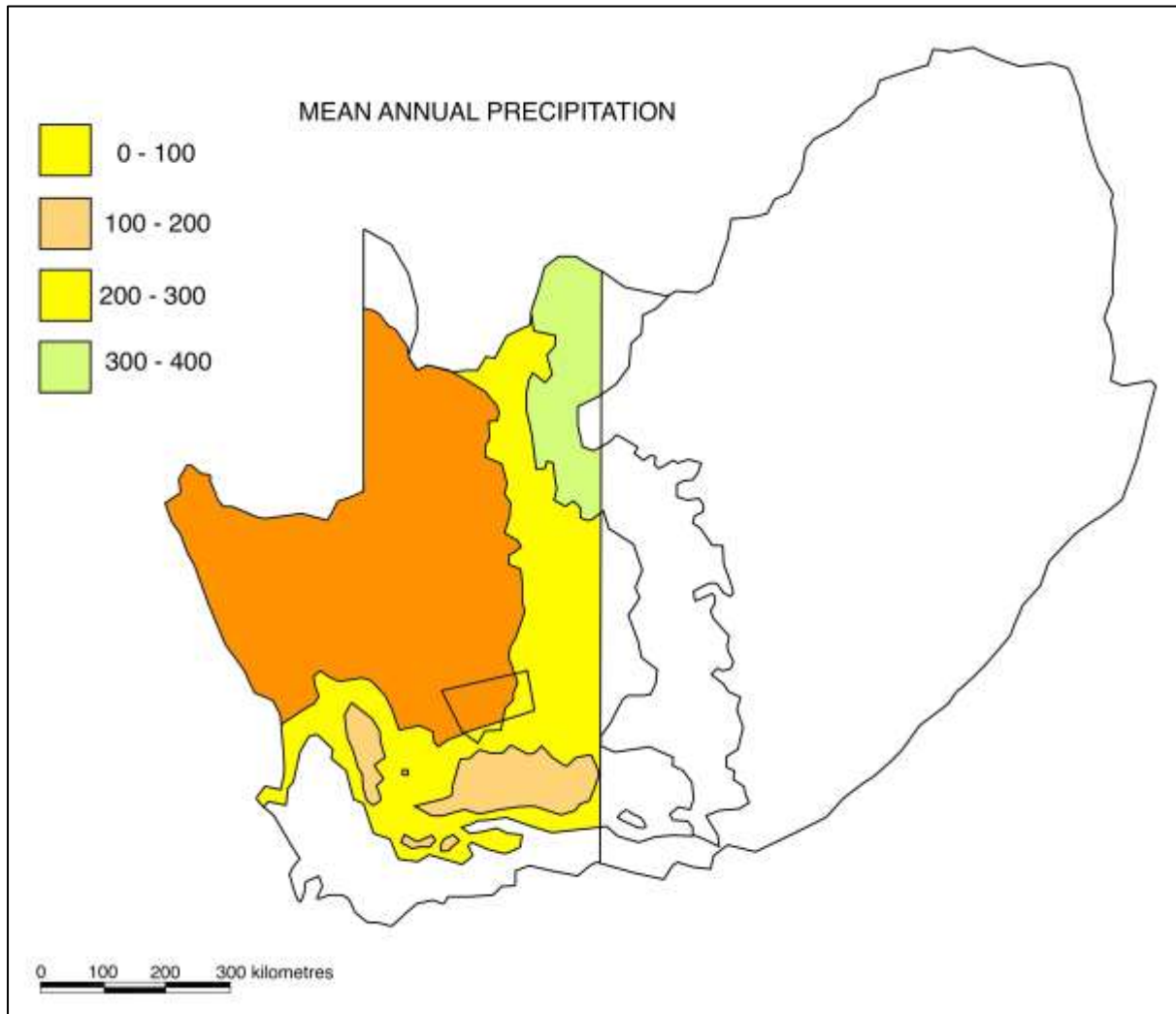


Figure 11 Map showing the annual rainfall in millimetres. (Kramer 2012: 61)(Adapted from the Department of Water Affairs and Forestry map)

The fact that the rain can fall heavily in one area and not rain at all a short distance away made it necessary for pastoralists to live a transhumant lifestyle. This was practiced first by the Khoikhoi and later by the Trekboers; particularly the Trekboers who chose to live in the central Karoo and no longer had the option of returning to the Roggeveld (refer back to maps

shown as figures 7 and 8) in the winter months. They had no choice but to follow the rain as it fell.

The Roggeveld has a higher annual rainfall that is far more predictable than the Nama Karoo. The vegetation is therefore different, and the farming styles were therefore also altered to suit the different environmental conditions. Pastoralists in the Roggeveld moved their herd according to the seasons from the Karoo escarpment in the summer to the lower Karoo in the Winter (this pattern is still followed) (van der Merwe, 1995: 41). This difference between the two areas must have had an impact on the people who built the corbelled buildings.

The more consistent summer rainfall on the eastern side of the Karoo near the Sneeuberge area to the east of Carnarvon gives that area better veld and enough water to build dams. A constant supply of water makes this area more desirable; farmers here tend to have larger farms and are wealthier than their neighbours with lower rainfall. The amount of available water affects the lifestyle and livelihoods of the people who live in the Karoo. This would have had a related effect on the builders of the corbelled houses and where they chose to build their homes.

GEOLOGY

The geology underlying the area is part of the Karoo Supergroup which is divided into three parts, the Ecca Subgroup, the Beaufort Subgroup (Figure 11) and the Dolerite intrusions in the form of volcanic sills and dykes¹⁵. The Karoo Supergroup plays a role in the distribution of the corbelled buildings as it provides the ideal type of stone to turn into building blocks (Kramer, 2012: 63). The types of stone used are mudstones, siltstones and finely grained sandstones (Visser, 1986:7, 10).

In the northern area near Loxton the sediments which form the Ecca Subgroup are exposed on the surface. The Ecca Subgroups was laid down under deltaic conditions, while the finer

¹⁵ Supergroups and Subgroups are term geologist use to describe different lithostratigraphic units that make up the geologic record. The geological record is made up of a number of rock strata, which are categorised hierarchically into supergroup, group, formation, member and bed. These units are usually named after the geographical locality, in this case the Karoo Supergroup.

sediments of the Beaufort Subgroup were laid down by in low energy riverine and stream conditions. The volcanic intrusions of dolerite were also formed during this period and have formed the few hills and outcrops of stone boulders in the area (Judy Maguire, as quoted by Kramer, 2012: 63).

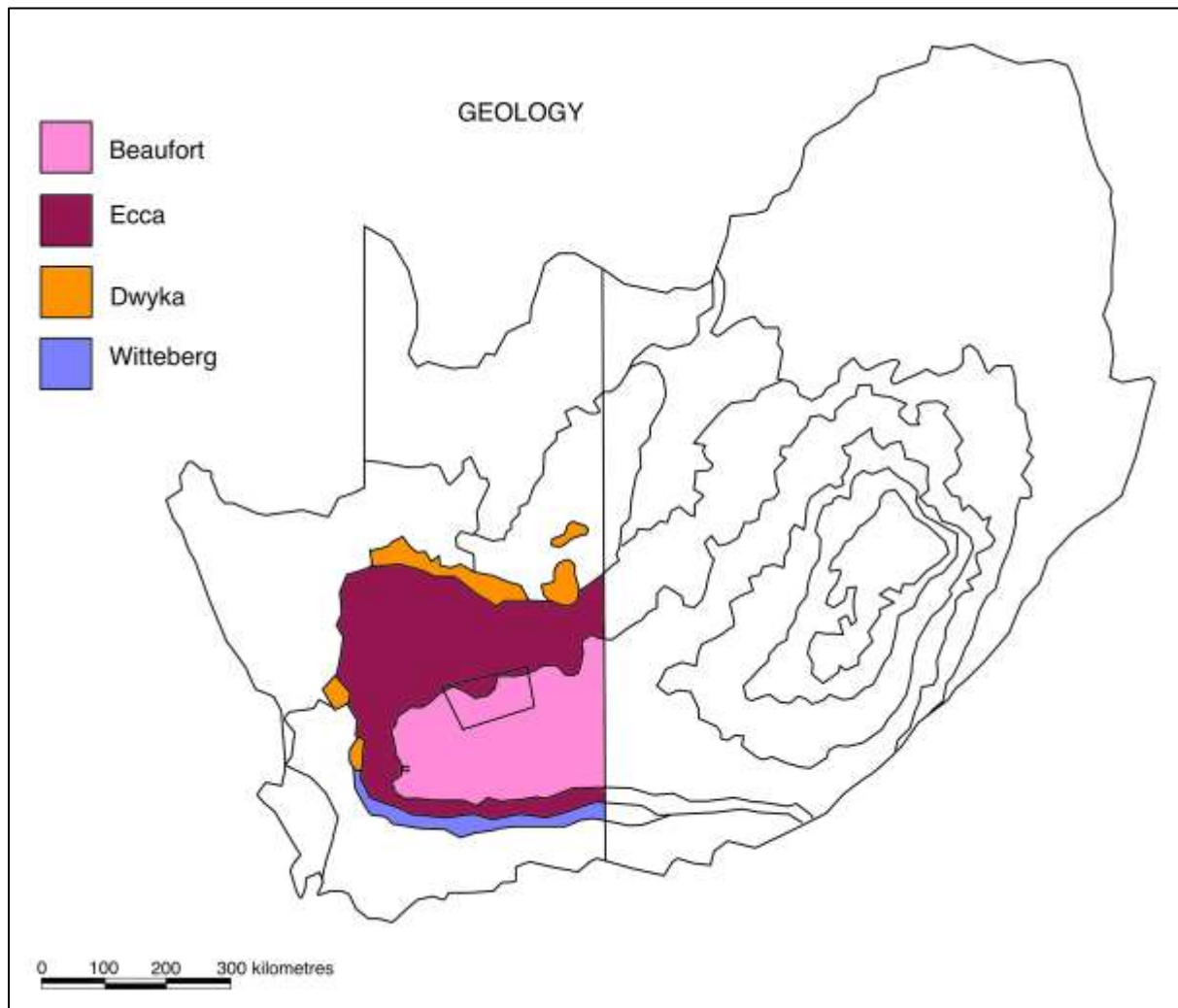


Figure 12 Map showing the Karoo Supergroup separated into the four subgroups (Kramer 2012: 63)(Adapted from the Department of Water Affairs and Forestry map)

The most commonly used stone for building corbelled buildings comes from the Beaufort Subgroup, in the Loxton area however stones from the Ecca Subgroup are more common, this stone is prone to cracking and it is hard to get large slabs of stone which are easier to find in Beaufort Subgroup (Judy Maguire, as quoted by Kramer, 2012: 63).

WATER SOURCES

Many farmers were reliant on underground water which is generally found in joints in Karoo sandstone or sometimes dolerite intrusions such as dolerite dykes (Hodgson, 1986: 84). A spring is formed where sandstone joints meet dolerite near the surface. The farm names are an indication that there were many springs in the area with names like Elandsfontein, Modderfontein and other names such as Brakvlei and Aasvoëlvlei suggest that there was a water source on the farm¹⁶.

Near Loxton water is scarcer and there are no dolerite intrusions to provide underground water and the gradient of the water table is low as a result of the flat landscape. Water had to be obtained by digging into river beds which farmers then lined with stones to stop the side from caving in when the hole became too deep creating a well. This method of obtaining water is also reflected in farm names such as Gorras (Khoi word for a hole dig in a river bed), Droodgeputs (dry well), and De Puts (the well). In some cases, farmers had to dig through rock to reach the water table and create a *put*. The quality of the water was determined by the minerals and concentration of soluble salts in the rock, in some cases the water was mineralised or 'brak' and could not be used. A number of different mechanisms were introduced to help get water to the surface they ranged from a bucket and rope to a donkey driven bucket pump (Bakkiespomp) which was introduced in 1880 (Kramer, 2012: 64). Windmills and boreholes were introduced in the 1890's, which made farming easier as there was a more consistent supply of water.

The availability of water on a farm affected its value. A farm with a steady water supply would be priced at 20 shillings per morgen during the 19th century while a farm without water would only cost 2 shillings per morgen. This difference in value has persisted to the present; farms in the eastern part of the Karoo that receive higher rainfall and have better quality groundwater have a higher value than farms to the west, where the corbelled buildings are located, and which have a lower quality of underground water and less annual rainfall (Hodgson, 1986: 85).

¹⁶ Fontein and vlei are Afrikaans words that translate to spring and marsh respectively.

MATERIALS OF THE AREA

This part of the Karoo during the 19th century when these buildings were built was considered the edge of the colony with the Sak River being the official boundary (figure 8). The people who lived here were far from towns and did not have easy access to supplies and transport was slow and difficult. These people were also poor in that they did not have monetary wealth, their wealth consisted of livestock. Raw materials to build dwellings therefore had to be found locally.

During the 19th century there was a narrow range natural resources available in the Karoo. As mentioned earlier, there were very few trees which took a very long time to grow (over 20 years to reach its maximum height) and reeds, *Pliragmites australis*, found near rivers which according to historical accounts were used to build temporary structures. The only natural resource that featured in abundance was stone.

OTHER BUILDINGS IN THE AREA AT THE TIME

There was a diverse range of people living along the northern frontier during the 19th century who came from different levels of society. And, as explained earlier, there were the Trekboers and their *bywoners* who were usually *Bastaards*, Khoisan who worked as labourers or still lived independently of colonial society. The houses that people lived in were also diverse. Other buildings that would have existed alongside corbelled houses were *fluitjiesriet*¹⁷ buildings, *hartebeeshuise*, *matjieshuise*¹⁸ and some mud-walled buildings (Frescura, 1981). There were not many *brakdak*¹⁹ buildings due to the lack of wood. Other structures that were built were stone walled kraals and various irrigation systems like puts that were mentioned earlier.

¹⁷ Fluitjiesriet is a reed that was used make dwellings.

¹⁸ Matjieshuis is a beehive shaped dwelling made from poles and reed mats that could be packed up and transported. It was used by Khoikhoi pastoralists.

¹⁹ Brakdak is a flat roofed parapet dwelling often made from mud and thatch.



Figure 13 Burchell's drawing of Windheuwel (Burchell, 1822: 238) showing other buildings that were built at the time.

CONCLUSION

The environment plays a significant role when looking at vernacular architecture. It provides an understanding of what difficulties the people who built the corbelled buildings faced and what environmental factors along with other social and economic factors that were discussed earlier, influenced the choices they made regarding their homes.

The geology, rainfall, and vegetation explain why stone was the favoured building material and why no thatch or wood was used. The lack of available materials can also be used to explain why the circular shape and the technique of corbelling was chosen. Comparing corbelled buildings to other vernacular dwellings that were being constructed at different locations along the West Coast or the Eastern Frontier at the same time under similar cultural and economic circumstances show that the form of corbelling was a regional one as there were other dwelling types they could have chosen to make.

As previously discussed, the contexts surrounding the corbelled buildings plays a large role in determining their significance. The environment at the time of their construction is therefore one of the many contexts to consider when looking at the corbelled buildings. This combined with the historical contexts sheds light on who built these buildings and why they chose this particular form.

4.3 CONSTRUCTION OF CORBELLED BUILDINGS

CORBELLED BUILDINGS AS THE NATURAL VERNACULAR

The Karoo environment as described in Chapter 4.2 is a dry flat landscape with very few plants and almost no trees. The days are hot, the nights are cold, and water can only be found at springs or seasonal rivers. Most water is sourced from underground through the use of windmills. During the 19th century it was not common practice to build a permanent dwelling, People in this area were predominantly stock farmers and due to limited edible or palatable grazing plants they moved around constantly so survive the harsh living conditions of the Karoo through constant movement and seasonal migration. The people in the area at the time were living in *maatjehuisse* and other movable temporary dwellings described in Chapter 4.2. Many of the colonists who were moving into the area chose to live in similar dwellings as they were well suited to the lifestyle and landscape.

The changes in land tenure, however, confined people to a certain space and more permanent dwellings in the form of corbelled buildings emerged. The inspiration for the corbelling technique as discussed, is not clear. It may have been imported from Europe or it may have been inspired by the local circular domed dwellings. Regardless of their origins the corbelled buildings are natural vernacular. Some of the corbelled buildings are plastered and painted white, the majority however, are not and have exposed stone exteriors that blend in seamlessly with the surrounding landscape.



Figure 14 Un-plastered corbelled buildings that blend with their surroundings on Vryeleege farm.

The aesthetics of the buildings mimics the forms around it, the mounds and Karoo landscape creates a beautiful biomimicry of the natural landscape and its form. They are very visually appealing with the brown, grey colouring and layout of the rocks. As mentioned they were constructed because of a need for shelter using materials sourced on site, which is why it blends in with the environment, they became one with the landscape.

The uniqueness of form and aesthetic comes from the stone and the precision needed to build these structures and the development of a natural local craftsmanship. There is however a contrast between the soft organic shape that blends in with the landscape and the piercing, plastered, white larger buildings. Height can impact the visual aesthetic of buildings and how they interact with their environments.



Figure 15 Plastered, white corbelled building on Leeufontein farm.

By plastering the outside of the buildings and painting them white, they no longer mimic the surrounding Karoo landscape, instead they create a jarring contrast to the surroundings and become very noticeable from a distance. Painting the buildings reflects the influence of western notions of homes where one had to be visual and known in the landscape. Home owners wanted to express their wealth and economics and architecture go hand in hand. The larger white buildings became the main focus and the environment acts as a backdrop. The corbelled buildings were never intended to be significant but through heritage they should be notified as iconic.

CORBELLED BUILDINGS ACROSS THE WORLD

Corbelled buildings are not unique to South Africa. The building technique of layering stone on top of one another has been dated back to 6000 years ago by archaeologists. The circular buildings in Malta for example are dated to 4850 BC (Juvanic, 2001). Corbelled buildings are found across the Mediterranean, in Greece, Croatia, France, Spain and Italy. They can also be found in the south west region of Ireland where they are associated with monks who are believed to have exported the technique to Scotland and the United States (Kramer, 2007: 5).

It is still not clear if this is a technique that slowly diffused across continent or if each area developed the technique independently. It is however important to note that corbelling can only take place in a certain environment. The style of a building in an area is closely linked to the local geology as the type of stone available in an environment informs the type of structures that can be built. Corbelled buildings can only be built where there is an abundance of easily accessible stone slabs. Corbelling is a very logical and practical way to build structures especially in an environment where there are lots of flat stones and when alternate building materials are limited (Collis, V, Personal Interview: 30 August 2016). This makes the corbelled buildings in the Carnarvon, Loxton, Williston, Fraserberg area a very logical response to the environmental, social and economic challenges faced by the melange people who lived on the boarder of the colony during the 19th century.

The corbelled buildings found across Europe have a number of stylistic differences; the buildings in Spain resemble a pile of stones while the buildings in Truli in southern Italy are more picturesque with their pointed roofs. Most of the corbelled buildings in Europe are constructed using two layers of flat stone, an inner and outer layer with the hollow between them being filled with small infill stones. This was most likely done for insulation as well as structure and is an early technique of the cavity wall for insulation and keeping the interior dry. This also results in the buildings retaining the dome shape on the inside while the outer layer can be constructed into organic shapes (Juvanic, 2003).



Figure 16 Images of Left: Trulli of Puglia in southern Italy, right: corbelled dome in Tierra de Campos, Spain (Kramer, 2012: 7).

In South Africa, there are two main expressions of corbelled buildings (Walton, 1951; 1960). The 'Ghoya' people who settled in the eastern Free State and southern parts of Gauteng in the 17th century and the buildings that have been attributed to the early Trekboers in the Carnarvon, Williston, Loxton area. The most noticeable difference between the South African and European buildings is that the South African buildings are built with one, thick layer of stone instead of two. Walton's description on first seeing the corbelled buildings in the Karoo shows this difference:

I have studied the corbelled huts of Italy, France and Britain and I fully expected the Karee Berge buildings to be similar to the less imposing examples from these parts of Europe. I was both delighted and amazed, therefore, with my first distant glimpse of Stuurmansfontein as we passed through the neck overlooking the farmstead. It nestles in an amphitheatre of basalt hills crowned by pinnacles of glistening patinated black columns eroded into gaunt fantastic shapes. Against these burnt semi-desert surroundings, which had seen practically no rain for four years, the tiny whitewashed homestead stood out clearly in the brilliant sunshine. Even at this distance the giant stone beehives were a strange and fascinating sight: one which I had never expected in South Africa and almost as remarkable as the beehive villages of Alberobello, Gordes or Tel Bisseh.... (Walton, 1960: 2).



Figure 17 Photograph of Stuurmansfontein (source, Patricia Kramer, Personal Collection).

CORBELLING TECHNIQUE

All buildings regardless of their function or style have to meet certain physical restrictions or construction principles if they want to remain standing. No matter how simple or sophisticated a building may be, it is still subject to the same physical laws (Oliver, 2005).

Juvanec (2003) describes the corbelling technique:

‘Corbelling is a construction system in which one stone lies above another, with the position of the upper stone not exceeding its centre of gravity. This rule however applies only to two stones. A third stone must not exceed the centre of gravity common to all three. If the ground plan is a small circle, or if a counterweight is applied on the rear part of the stone, then the structure works.’

What Juvanec is describing here is a centre cantilever system that works with the gravity of the forces on the stones laid upon one another. This is one of several construction principles required to build a corbelled structure.



Figure 18 Photograph of the ceiling of a corbelled building on Osfontein farm showing the corbelling technique used in the Karoo.

Dome

The dome shape, in its geometric make up, is a very efficient structure, as it produces the maximum volume possible for a given surface area. The dome itself holds its own weight by distributing the forces down, without there being a need for central columns to hold it up, therefore the open plan can be achieved. Some well-known basic historical examples of a dome in use are an igloo or beehive hut. When a dome is built of stone, it is made up of multiple arches that share a common centre. A vertical compressive action is exerted on the truncated wedge blocks which are shaped to bond together under the force of gravity. Each stone transfers some of the compressive force down to the stones adjacent to it, eventually transferring the weight of the arch to the supporting columns or walls (Oliver, 2003: 24).

Centre Cantilever

Centre cantilever is an essential principle when constructing a corbelled dome. It relies on the same forces of compression as the dome, but the stones are placed differently. When building a dome structure using this principal, stone slabs are layered in a circle, with each layer cantilevering inwards from the stones of the layer below it and wedged in by the layer above it (Salvadori, 1980: 90). This layering continues until an egg-shaped dome is created. Building in progressive circles can be seen as the most logical and energy efficient way to build a corbelled dome, and if built accurately and/or with the assistance of mortar, it does not require any scaffolding or centring (Collis, V, Personal Interview: 30 August 2016).

The stone slabs are held in place vertically by self-weight and friction which is a result of the cantilever arch. These are known as dry stone buildings. Some of the buildings have been built using plaster which helps to hold the stones in place, but it is still reliant on self-weight to stay upright. The circular form of the structure has the added benefit of resisting wind pressure horizontally, 'this structural system delegated the resistance to wind and other horizontal forces to the outer cantilever walls' (Salvadori, 1980: 90).

Parabolic Dome

When layering stones on top of each other to build a corbelled building, the structure is limited by the progressive inclination of the stone layers (Kramer, 2012). As a result, many corbelled buildings have a parabolic dome which is usually built on top of a thick-walled base. This base can be circular or cubed but the roof will generally be built as a parabolic dome.

A parabolic dome is more efficient than a semi-circular dome as it is more able to support its own weight, which is most likely why it was used when constructing corbelled buildings (Collis, V, Personal Interview: 30 August 2016). The domes are built at a 90-degree angle to the supporting wall which eventually leads to the creation of an oculus at the centre of the dome which in the case of the Karoo was covered by a single large stone.

CONCLUSION

Looking at the corbelled buildings within the wider global context illustrates how rare this built form is and how the corbelled buildings in the Karoo differ from others around the world. The construction principals involved in building a corbelled structure highlight the uniqueness and rarity of corbelled buildings. It also highlights that this technique has been developed independently at different times in different places around the world and this gives the corbelled buildings in the Karoo value as a historic, archaeological and architectural resource. These are compelling factors that will be considered when assessing their heritage significance in Chapter Six.

CHAPTER FIVE: UNCOVERING VALUES AND SIGNIFICANCE

To determine the significance of the corbelled buildings as mentioned in previous chapters it is necessary to explore all contexts related to the houses. In Chapter Four the historical context in which the corbelled houses were built was explored as were several other contexts that detailed the environment and the construction principals. In this chapter, the significance of the corbelled buildings according to the claimants or stakeholders will be investigated and described.

Interviews have been conducted with several categories of people that have an interest or connection to the corbelled buildings. They are identified as the relevant claimants, having a vested interest in the buildings, their history, preservation and conservation.

Cultural significance as discussed in Chapter Two is made up of different kinds of significance. Identifying the relevant claimants and determining what values they place on the buildings and how it differs between each group and individuals within these groups. The interviews were used as one of the multiple sources or 'contexts' in this study to determine the cultural significance of the corbelled buildings. Each interview group places different values on the buildings for different reasons. These values will be discussed as part of the interview analysis in this chapter.

Chapter Two also argues that values which determine cultural significance have not changed, rather how they are evaluated has changed multiple times over the decades. With the introduction of the Nara Document on Authenticity (1994) and the Australian Burra Charter (2013) there has been a shift towards giving the local communities and any other interested parties a larger role in determining the significance of a heritage space or object. The values they assign to the heritage object are regarded more highly now by heritage authorities than in the past.

INTRODUCTION TO THE INTERVIEWS

The search to uncover the values of potential heritage claimants relied on interviews with three categories; 'owners', 'occupants' and 'professionals'. The categories are made up of a range of individuals that have a link or relationship with the corbelled structures. There are however some interviewees who are both owners and occupants, who were deemed to be occupants. While it is interesting to hear the experiences of the people who have historical ties to the structures, this study aims primarily to identify the current heritage value which is reliant on the present experiences of a variety of interested parties.

After conducting preliminary interviews, several themes began to emerge that were investigated further during more formal interviews and follow-up questions. Three broad topics were covered by the interview questions. The first set of questions focused on the local history of the farms and the landscape and any general stories related to the corbelled buildings. The second set of questions were about the structure of the corbelled buildings, their uses, construction and exploring why people believed they had been built in this way and who could have built them. Lastly the third set of questions revolved around ideas of heritage and what values people assigned to the houses as well as different conservation practices that the interviewees thought would be best suited to the corbelled buildings.

Furthermore, a set of 'unintended' themes emerged from the interviews that were not considered at the outset of the study but have been incorporated. The themes and several sub-themes are all connected and certain patterns emerged that show relationships between the themes.

The information gathered through the interviews has been organized in a way that supports the overall argument of the study adding richness to the different issues discussed so far; 'the coding, categorization and typologising of stories result in telling only parts of the story, rather than them in their 'wholeness'' (Miller and Glassner, 1998: 127). With this in mind there were many topics and issues discussed in the interviews that, although interesting and informative, were not pertinent to the argument made here and are not included.

Open-ended questions were used in the interviews as they are a way to understand how and why people believe what they believe or why they think and act in a certain way. It creates opportunities to discuss certain topics further and it provides an opening for the interviewee to tell stories or give answers that were not anticipated when the questions were drafted. These types of questions were useful in this case when attempting to understand how interviewees understood heritage and what values they associated with the corbelled buildings as this was a difficult topic for many to articulate. To better help the interviewees articulate certain topics I changed the wording of the questions or used the freedom of open-ended questions to lead the discussion differently to allow interviewees to talk more comfortably about meaning and values. This helped both myself and the interviewees to understand the heritage status of the buildings as well as their management in the changing environmental, political and economic Karoo environment.

Heritage is about understanding one's identity by looking at their past, as a result heritage has become more about identity and how to preserve the markers of this identity. This led to questions of how the interviewees see the corbelled buildings in relation to themselves. This helped in identifying the dominant values that were assessed and will be further discussed in the next chapter. The desire to have these buildings conserved and maintained by all the interviewees will also be a contributing factor when assessing value and significance. While all the interviewees said that they thought the buildings were important and they would wish to have them preserved, each group that was interviewed had different reasons for doing so.

The process of finding out why the interviewees wished to have the buildings conserved is seen as part of the need to involve interested claimants and local communities in the process of determining the heritage significance of a site. As discussed in Chapter Two values are malleable and how people judge the value of heritage sites differs between cultures. There are no fixed criteria for determining heritage significance as values are constantly changing, and so the corbelled houses need to be judged within their cultural contexts (Nara Document on Authenticity: 1994). The contexts of the corbelled buildings were presented in Chapter Four.

The importance of stakeholders or claimants in the process of identifying heritage significance was discussed earlier in Chapter Two. A site is only as significant as the values assigned to it

and these values come from people who are connected to the site. People assign value to a site based on their opinions which change over time; and the only way to identify what these values are is to get claimants to articulate them. Interviews with different groups of people who are connected in some way to the corbelled buildings are therefore an important part of identifying the significance of the corbelled buildings and understanding who this heritage belongs to.

IDENTIFYING CLAIMANTS

Ashworth and Tunbridge (1996: 27) discuss how heritage is created by interpretation. It is not only the interpretation, but how it is interpreted and by whom that will have an effect on the value and meaning of heritage places and the past it represents (Ashworth and Tunbridge, 1996: 27). This is why all interested parties must be identified and included in the heritage identification process. Recognizing who all the claimants are in relation to the corbelled houses was difficult as the documented history of the buildings is multifaceted and involves a diverse set of peoples in past during a tumultuous time in the history of the northern frontier during the 18th and 19th centuries.

Despite these challenges, the corbelled buildings are still regarded as having value as a cultural resource in the present because heritage is now seen as more inherently collective 'we share what we inherit' (Lowenthal, 1998: 55). The corbelled buildings have not yet been included in the larger national historical narrative. Now, in the last two decades, lesser known histories are being reincorporated into the new national narrative in an attempt to be more inclusive and to reconnect with histories that have been lost. The lack of historical knowledge does not necessarily diminish the heritage value that the corbelled buildings possess, it does however make identifying interested parties more difficult which is why a range of groups and individuals with different interests, professions, social class, race, age and gender all with an interest or link with the corbelled buildings were chosen to be interviewed.

I chose to determine the heritage values and the significance of the corbelled buildings through the use of a pluralistic values-based approach, outlined by Mason (2002: 11) and discussed in Chapter Two. This approach highlights the importance of including the experiences of local people and the role of public participation and community involvement in the process of identifying heritage significance. The interviews are therefore important for

the heritage identification process and help create a balance between what heritage professionals think and what interested parties or claimants think.

I elected to interview 17 people the majority of whom live in the Karoo and were categorized as 'owners' or 'occupants'. The interviews allowed me to understand how the corbelled buildings were perceived and what values they assigned and why. I was also able to determine what the history of these buildings is and who is believed to have built them and why. As there is no documented record of this and no conclusive oral history, the answers varied considerably. Despite this all interviewees felt that the corbelled buildings are an important heritage resource that represents the past and should be conserved and maintained for future generations.

The interviews combined with the research conducted on the history of the area, the climate, geology, engineering principals and vernacular architecture described in Chapter Four, gave a clearer understanding of the significance of the corbelled buildings as a heritage resource.

INTERVIEW THEMES

The main themes that emerged explore what makes the corbelled buildings significant which includes discussions such as to who is thought to have built the buildings and why this particular form may have been chosen. As well as maintenance and conservation and why so little is known about the buildings and lastly what research should be perused in the future. All these themes contribute to understanding why these buildings are significant and to whom. As stated the lack of available information on the corbelled buildings and their history, makes it difficult to have strong conclusions about why they are significant and should be regarded as heritage. As a result I have relied more on the information gathered from the interviews so the conclusions focus on how the buildings are regarded in the present and less on their history.

WHO BUILT THE CORBELLED BUILDINGS

There is no consensus between the three groups on who built the corbelled buildings. There was only one interviewee who believed that his great grandfather may have been the builder

but was not certain (interviewee 1: 29 May 2016). His grandfather was born in 1902 which would suggest that the corbelled house on his farm was built in the latter half of the 19th century. Interviewee 8 knew that the building on his farm had been built in 1860 but does not know by whom (Interviewee 8: 30 May 2016). Other interviewees from the 'owners' and 'occupants' groups said that the buildings were already there when their families moved onto the land and they could not say with certainty who built them. Many suggested that they could have been built by bywoners (farmers), herders or Trekboers. The 'professionals' were also undecided due to the lack of documentary and oral history but suggested that they were likely to have been built by a variety of different people from different economic and social classes which would explain why the form of corbelled buildings is so varied. They suggested that they were built by bywoners, herders and Trekboer farmers or 'anyone who could move a block of stone' (interviewee 15: 22 March, 2017).

These opinions are supported by the description of the history of the area in Chapter Four, which described the area as occupied by many different groups people intermingling during the first half of the 19th century at the time the buildings were built.

CHOICE OF BUILDING FORM

It is unclear to say with certainty why the builders chose to build this particular form of building and where the skill to build in this way came from. Although this study has suggested that the Karoo environment and the intermingling of different groups of people along the frontier during the late 18th and 19th centuries are factors that would have influenced the choice of house form.

Some interviewees in both the 'owner' and 'professional' groups suggested that the idea of a corbelled building was imported through European settlers who worked as stone masons in the area during the 18th and 19th centuries (interviewee 6: 1 June 2016); (interviewee 15: 22 March 2017). Other interviewees 16 and 17 from the 'professionals' group believed that there was a strong Khoekhoe or indigenous influence that inspired the buildings to be built as they were because the notion of living in a circular dwelling has always been common among South African societies. Living in a circular dwelling was a concept easily adopted by the colonists in the area as it is documented that many chose to live in *matjieshuise* while they travelled along

the northern frontier and this may have contributed to the popularity of the corbelled buildings.

A dominating opinion among the 'occupant', 'owner' and 'professional' groups is that the environment and low socioeconomic standing played role in why this form was chosen. Importing building supplies would have been difficult and expensive and the lack of available wood or thatch would have limited the available options of building types to dwellings that could be constructed from stone, as shale stones that were easy to mine and shape and were abundant. This cannot be the sole reason as interviewees from the 'professionals' groups pointed out that in other areas with similar environmental and material conditions, people did not build corbelled buildings but chose different house forms (Interviewee 15: 22 March 2017). The specific locality of the corbelled buildings suggests that someone in what is now the Carnarvon, Williston, Loxton area must have begun building them and they became the regional way of constructing buildings (Interviewee 16: 22 March 2017).

CORBELLING A LOST SKILL?

The changes in cultural norms has resulted in corbelled buildings no longer being constructed; this raises the question of whether or not there are still people who can construct these buildings or if the skill has been lost. The opinion of those in the 'owners' group is that the construction skills needed are lost, which is why they are no longer built. Interviewee 2 (30 May 2016) and interviewee 4 (31 May 2016) believe that a stone mason could be found to do repairs while the rest of the interviewees in the 'owners' group did not think such a person could be found.

The 'occupants', however, did not consider the corbelling skill to be lost. Interviewee 10 built a corbelled room extension onto his guest house so that it could have an indoor bathroom. Interviewee 11 (1 June 2016) believed that her husband would be able to make repairs while interviewee 12 (1 June 2016) said that the farmer who owned the buildings had offered to repair and re-plaster the building they were living in which implies that he has some knowledge of the necessary skills needed for the task.

Interviewee 16, Tim Hart, from the 'professionals' group suggested that there are local people who could repair or build corbelled buildings but that people who own corbelled buildings should not attempt any repairs unless they could do so in a sensitive manner that would not have a negative impact on the original building (Hart, T: 3 March 2017). Therefore, the skills needed to build a stone corbelled structure does not seem to be lost, but there is no longer a need for corbelled buildings to be constructed so the required skills are no longer as widely known as they once would have been and are less likely to be passed on.

CORBELLED BUILDINGS CEASE TO BE CONSTRUCTED

Changes in cultural norms in the Karoo area led to new house form being built. There was a clear shift from circular dwellings to rectangle. Other factors that led to change were improved modes of travel and construction of more roads led to people in the area having better access to building materials from outside the area, this coincided with an increase in the number of exports of building materials to the Cape and an increase in income due to demand for ostrich feathers and wool (Kramer, P: 11 April 2017).

Interviewees 1, 8, 13 and 17 mentioned that there was a social stigma against having had any relatives who lived in a corbelled house as it meant that their families had once been poor and they did not wish to show that side of their family histories. This social stigma also possibly played a role in why people chose to change their house form in the 20th century.

ASSOCIATED VALUES

During the interviews, everyone said that they believed the corbelled buildings are heritage worthy. However, when I tried to get people to articulate why they believed this, in order to better understand the values that they had assigned to the site, many could not or found it difficult to do so. This was initially a result of how the interview questions were worded. Interviewees understood these values to be innate and instinctive and were unsure of how to explain something which seemed obvious and more a feeling than something that can be easily expressed. Once the questions and how they were asked had changed the responses became more expressive and detailed but were not as clear as I had hoped.

The difficulty in articulating specifically why the interviewees thought the corbelled buildings were of heritage significance led to challenges assessing the heritage significance of the site. However, some values did emerge from the interviews even though they were not specifically described in the way that heritage sites are usually discussed.

The three interviewee groups have different associations and interactions with the corbelled buildings. As a result, the values they assign reflect this difference. When questioned about what heritage significance the buildings had the people who lived in the area or insiders, the 'owners' and 'occupants', identified similar values. For them the corbelled buildings are a part of the landscape and those who grew up in the area have a very strong link to the landscape which is tied up with their sense of identity. Interviewees that are the 3rd or 4th generation of a family to live on their farm see the corbelled buildings as part of their personal history and not just as part of the local landscape. Aesthetically they are also seen as part of the landscape as mentioned in Chapter 4.3 they have become icons of the landscape and are linked to the 'owners' and 'occupants' sense of place. For all the interviewees the buildings have become icons of geology, geography, local history and climate.

For other interviewees in the 'owners' and 'occupants' groups, the corbelled buildings are seen as an important part of the history of the area, they are a representation of the past and what life was like back then for the first people who chose to permanently settle in the area. It is this opinion that emphasises the importance of material authenticity for the owners and occupants. There was a strong sense of the need to preserve the original fabric of the buildings which is why any interviewees preferred maintenance over reconstruction as they feared something important would be lost (Interviewee 2, 30 May 2016; Interviewee 4, 31 May 2016). Although it was not articulated as such, this shows that value is placed on authenticity and original building materials.

The distribution of the corbelled buildings was noted by all groups as significant. They are spatially confined to this specific area in the Karoo which is why locals see them as an important link to the past and why some owners have chosen to use their corbelled houses as guest houses. The corbelled buildings are now seen as icons of this area because of what they represent which is why the guest house is advertised as a unique part of South African history that guests have the opportunity to experience (Interviewee 10, 1 June 2016).

The 'professionals' associated different values to the buildings than the two other groups. They spoke about building form, location and rarity as things that give the buildings value. The buildings are a unique form of vernacular architecture that is confined to a specific area in the Karoo. The limited distribution of the buildings makes them local architecture that is no longer used. This along with the knowledge that several Trekboer families have lived there for many generations, whether they built the corbelled buildings or not, led to the suggestion that the corbelled buildings are local heritage (Kramer, P: 4 April 2017). However, all the professionals agreed that although it is considered to be a local architectural form, and there are a limited number of corbelled buildings that still exists, it should also be considered national heritage as they possessed values that were common to the whole country. As they were most likely built by many different groups of people 'it speaks to all sorts of South Africans which is important because we are always looking for more common heritage' (Malan, A: March 2017).

Hart, T (March 2017) suggested that the values and significance of the corbelled buildings is so difficult to determine because there is so little known about them and that we do not understand them well enough, so they should be 'given high significance, then once they are better understood, the significance can be brought down if necessary. But I do not believe that will be the case' (Hart, T: March 2017). By doing this, the corbelled buildings will have legal protection from heritage officials and they will be better protected until they have been researched further.

FUTURE RESEARCH

The lack of available knowledge on the corbelled buildings has been a limitation for this study. The buildings are not well understood yet and further research is needed. The 'professionals' suggested that future research should focus on oral histories before they are lost, more investigation into the distribution of the buildings. An investigation into the social meaning of the buildings must be perused through the use of more archival research most likely in personal archives and archaeology to get a better understanding of the living patterns of the people who have lived in the buildings.

Additional research on the structural elements of the corbelled buildings is needed, preferably by structural engineers. Kwa Zulu Natal University have scanned the buildings with 3-D scanners, which will help with understanding structural elements but more of the buildings need to be scanned and this information needs to be more accessible. Interviewee Malan, A (March 2017) argued that parallel research should be conducted on other regional architectural styles such as the Reed Buildings along the West Coast.

An improved understanding of the corbelled buildings will assist in better understanding the value of the corbelled buildings but until then the current values that the interviewees have assigned to the buildings along with the other information gathered will be used to assess the significance of the buildings in the next chapter.

CONCLUSION

The interviews were not entirely successful because the buildings do not carry a high profile and are not a form that is widely known, as a result a limited number of people could be interviewed. Many of the interviewees did not know very much about the buildings so the responses they gave were a pale reflection of the history and heritage value that the buildings may possess. It was also clear from the interviews that most people interviewed in the study had read the works of Walton and Kramer as their answers reflected the arguments in their works. None of the interviewees offered any new insights into the buildings but instead reinforced those that already exist. This unfortunately suggests that oral histories are not likely to yield anything new on these topics.

Another difficulty is the lack of documentary information and oral histories about the corbelled buildings, as a result no one could say anything with confidence about who built them and why a circular form was chosen. It is clear from this study and these interviews that further research in one of the areas suggested is necessary.

Despite these restraints the interviews did show what associations the interviewees have with the buildings and it soon became clear what the dominant values are, and the main themes emerged were able to be discussed. The information from the interviews will be added to the information presented in the previous chapters and used to argue the significance of the corbelled buildings.

CHAPTER SIX: ARGUING HERITAGE SIGNIFICANCE

‘For purposes of planning and management, value assessment presents a threefold challenge: identifying all the values of the heritage in question; describing them; and integrating and ranking the different, sometimes conflicting values, so that they can inform the resolution of different, often conflicting stakeholder interests.’ (Mason, 2002: 5)

The heritage significance of a building is the most important part of identifying heritage resources and to understand who claims these corbelled buildings as part of their heritage. Through the process of identifying a heritage site and determining its significance, the people who have a claim on the site are identified. By identifying the claimants, one gets a better sense of who considers corbelled houses as part of their heritage, this in turn aids in establishing who sees the corbelled buildings as heritage and why. As discussed in Chapter Two and Chapter Five, the heritage significance of a site relies on the local people or interested parties, as their experiences and associations are important in understanding what values have been ascribed to the corbelled buildings.

Including the public is not straight forward however, and a balance needs to be found in each situation between participation by public and non-specialist groups but mediated by a heritage authority (Waterton, Smith and Campbell, 2006: 340). There needs to be a balance between Laura-Jane Smith’s (2006) ‘Authorised Heritage Discourse’ and a relativistic chaos where only the opinions and values of all individuals determine significance. A more pluralistic approach is therefore used here to determine the significance of the corbelled buildings where several claimant groups have been identified and interviewed and detailed research on the area has been completed so as to provide the necessary contexts needed for proper assessment.

The heritage significance of the corbelled buildings is assessed using Mason’s typology outlined in Chapter Two. The significance is based on the information presented in the previous Chapters and is based on the main themes that emerged in the interviews as well as the information presented in Chapter Four where the different contexts within which the corbelled buildings exist were described.

Different tools and methods have been used to determine the relevant heritage values in this study. The tools used were research and writing historical narratives; secondary literature research; ethnography in the form of surveys or interviews and, lastly, expert analysis.

As discussed in Chapter Two, it has been accepted by heritage scholars that they must try to consider cultural, historical and social values to be assessed and weighted equally. This however is very difficult to implement. Each heritage site will have a number of values but these values never exist in equal measure. Value can be assessed or graded according to their level or degree of significance (Pearson and Sullivan, 1995: 127).

As discussed, some values are more relevant to a site than others, and the values that have been identified as relevant in assessing the significance of the corbelled buildings are more historical, symbolic and aesthetic. Each of the values that have been associated with the buildings will be briefly described again followed by a discussion on why they are associated with corbelled buildings.

HISTORICAL VALUES

Historical values are the root of the very notion of heritage. They represent the capacity of the site to embody the past and is part of the fundamental nature of heritage. Historical values can come from the material age of site, its association to a historical person or event, its rarity or uniqueness, archival or documentary potential, educational or academic value (Mason, 2002: 11)

The corbelled buildings can be considered to have value due to their material age. They were built in the 19th century, within a South African context and as part of the country's colonial history they are considered old buildings. Their rarity has been discussed in the interview responses. While rarity can be categorised as a separate value, Mason's (2002) typology places it under the broader category of historical values. Interviewees expressed the buildings unique form and construction technique as well as the limited distribution of the buildings to the Carnarvon, Loxton and Williston districts are significant and of value. The rarity value of the corbelled houses therefore is not only in their age but that they are a particular kind of architecture that is not used anywhere else in South Africa and the skills used to build these

buildings has been lost over time, so there are a limited number of buildings that still exist and are distributed in a particular area which gives the corbelled buildings rarity value.

The corbelled buildings are associated with a historical event or series of events, the expansion of the northern frontier in the late 18th and early 19th centuries. A turbulent time in South African history that has been understudied, particularly during this time period compared to other frontier zones. The buildings therefore also have documentary potential as well as academic value. Their association with the expansion of the northern frontier makes them valuable as an academic and documentary resources, they have the potential to provide much information on what daily life was like for the people who lived on the frontier as well as more information about the buildings themselves such as who built them and why they chose this form. They can also provide information about where people moved and when and what may have led them to decide to live along the northern frontier during this time. This information can be achieved through archaeological studies and the use of the material cultural approach to the corbelled buildings as vernacular architecture to understand cultural meaning and the worldview of the occupants.

SOCIAL VALUE

Social value refers to the shared social connection that comes from a shared use of space. It can also include 'place attachment' aspects of value, which refer to the community identity and other feelings of affiliation that social groups derive from certain heritage sites that lie within their home area (Mason, 2002: 12).

The interviewees that lived in the area all spoke about a strong sense of connection to the landscape. The social value of the corbelled buildings is therefore connected to their landscape value and place attachment. The buildings are seen as icons that represent the local and national history as well as geographic icons as they are only found in this area. The corbelled buildings therefore, are part of the Karoo landscape and form part of the local's sense of identity. The buildings are seen as heritage by people of all backgrounds in the area, they have a shared connection to the buildings or place attachment that refers to their

community identity. The corbelled buildings are an icon of this place and they represent the life and history of those who live there.

AESTHETIC VALUE

Can refer to a wide range of qualities, the most relevant to this study are the visual qualities of heritage. This includes the design of the building. Determining aesthetic value is difficult as it is the most individualistic of the value types and therefore difficult to quantify (Mason, 2002: 12). The sub category of artistic value is based on an object being unique or a good example of a certain building form or the work of a specific individual.

The corbelled buildings have a very appealing aesthetic that is unique as the only such buildings on the African continent. They are a good example of the corbel construction technique that relies on a cantilever system and parabolic dome. As vernacular structures, the unpainted buildings mimic their surroundings and blend into the natural landscape, while the painted larger corbelled buildings are in juxtaposition with their surroundings and have a greater sense of grandeur. All the buildings however, are very aesthetically pleasing due to their shape and the skill used to build them.

There are many different form variations of the corbelled buildings and different forms appeal to different people for different reasons that are linked to personal preference. It is however easy to say that general aesthetic of the corbelled buildings gives the buildings value and is a part of their overall significance.

CULTURAL AND SYMBOLIC VALUE

Cultural and symbolic values are also part of the very notion of heritage, they represent the ideas, materials and habits passed on through time. These values are used to build cultural affiliations in the present and can involve politics, history, ethnicity or any other activity that involves shared meaning. 'A building embodies the methods used to design and make it', and the values relating to the process of making and building are often lost among more aesthetic values (Mason, 2002: 11).

These corbelled buildings are of cultural and symbolic value, the interviewees all expressed that the buildings were important to them as they were landmarks that represented the history of the area and how their ancestors lived in the harsh Karoo landscape. While no one can say with confidence who built the corbelled buildings the historical evidence suggests that they were not built by a single cultural group but by people of different social, economic and racial backgrounds. This means that they are a shared history that can be claimed by a variety of different people who currently live in the area.

CONCLUSION

The corbelled buildings are a heritage resource whose significance is derived from their historical, social, aesthetic and cultural/symbolic values. The exploration of the different contexts related to the corbelled buildings discussed in Chapter Four combined with the interview responses detailed in Chapter Five have shown the different values that have been assigned to the buildings and why. It is clear that they are a heritage resource as they are seen as significant to different groups of people for different reasons.

The owners and occupants see the corbelled buildings as significant because they are part of the landscape and therefore part of their local heritage and sense of community identity. They are a part of history that illustrates how their predecessors lived and how they have changed as a community. Academics and heritage scholars, other professionals and heritage authorities however, see them as significant because of their historical and academic potential as well as for cultural, social and aesthetic values but they do not have the same connection to the landscape, so they do not see it as part of their identity but rather as a heritage resource of national significance that is part of the South African collective national identity as a shared common history.

CHAPTER SEVEN CONCLUSION: HERITAGE SIGNIFICANCE OF THE CORBELLED BUILDINGS OF THE KAROO

The primary aim of this study was to determine who claimed the corbelled buildings in the Karoo as their heritage and why. It is clear that the buildings are significant and that they are a heritage resource. They are significant because of their unique vernacular construction and limited distribution. Their significance is derived from their historical, social, aesthetic, cultural/symbolic values. They are part of the local landscape which the local community associate as part of their identity and heritage. They are a part of local history that illustrates how their predecessors lived and how they have changed as a community. The buildings have aesthetic values due to their circular form and use of stones and relationship with their surroundings. They also possess academic and historical potential as they have the potential through further archaeological and vernacular architectural research, to provide more information on the northern frontier during the late 18th and early 19th centuries.

The corbelled buildings are a distinct heritage resource, but to answer the question of who claims this heritage we have to look at the study as a whole. The interview responses by the claimants, the historical background and other contextual factors that were explored indicate that the corbelled buildings were built and occupied by a variety of different groups of people who were finding their way during the chaos that was part of living on an 'open' frontier. During the period that the buildings were built in the 'open' frontier there was intermingling and creolisation of people from different economic and social groups in the area. As a result, they cannot be claimed by a single group of people in the present. The vast range in types and styles of corbelled buildings indicate that they were built by everyone living in the area or passing through. Therefore, they can be claimed by everyone who lives in the area today. They can also be claimed as national heritage as they possess values that are common to the whole country. The diversity of the people who built and occupied these buildings speaks to all persons of South Africans which is important because we are always looking for common heritage.

This study however, highlighted the need for more research on the corbelled buildings to get a better understanding of their history, how they were used as a living space as well as a more

detailed understanding of the construction principals. With more information on the corbelled buildings the heritage values can be better assessed. Until then they can be seen as national heritage with particular value to the local communities around the distribution area of Carnarvon, Loxton and Williston.

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APPENDIX 1: THE INTERVIEWEES

The majority of the interviewees requested to be anonymous, so I have respected their wishes and chosen not to name identify any of the interviewees as their identification would not change the nature of the study. All the interviews were conducted by me, Caroline Hancock. Some of the Interviews were translated by Patricia Kramer. The interviews are noted as follows:

OWNERS

- **Interviewee 1:** Interviewed on 29 May 2016.
Farmer with family ties to the corbelled buildings on his farm.
- **Interviewee 2:** Interviewed on 30 May 2016.
Lives with her husband on a farm with a corbelled building
- **Interviewee 3:** Interviewed on 30 May 2016.
Farmer whose great grandparents lived in the corbelled buildings, has converted it into a museum
- **Interviewee 4:** Interviewed on 31 May 2016.
Farmer who inherited family farm with a corbelled building on it
- **Interviewee 5:** Interviewed on 31 May 2016.
Farmer who bought and now lives on a farm with corbelled building.
- **Interviewee 6:** Interviewed on 1 June 2016.
Farmer who recently moved onto a farm with a corbelled building on it.
- **Interviewee 7:** Interviewed on 31 May 2016.
Lives on farm with a corbelled building on it

OCCUPANTS

- **Interviewee 8:** Interviewed on 30 May 2016. Lived in a corbelled house when he was young.
- **Interviewee 9:** Interviewed on 31 May 2016. Moved into a recently renovated house with two rooms that are corbelled buildings.

- **Interviewee 10:** Interviewed on 1 June 2016. Owns a corbelled house that he and his wife converted into a guest house.
- **Interviewee 11:** Interviewed on 1 June 2016. Labourer who currently lives in a house with two extended rooms that are corbelled rooms.
- **Interviewee 12:** Interviewed on 1 June 2016. Labourer who lives with her husband in a corbelled house.
- **Interviewee 14:** Interviewed on 2 June 2016. Museum curator who gives guided tour around the Carnarvon museum, she lived in a corbelled building when she was young.

PROFESSIONALS

- **Nigel Amschwand:** Interviewed on 12 August 2016. An engineer who has conducted historical research in the area and has visited and recorded many corbelled buildings.
- **Antonia Malan:** interviewed on 22 March 2017. Historical archaeologist who is a has served on the Archaeology Permit Committee at Heritage Western Cape. She has visited a number of corbelled houses.
- **Tim Hart:** Interviewed on 22 March 2017. An archaeologist who is familiar with heritage legislation and has seen some of the corbelled buildings.
- **Pat Kramer:** Interviewed on 11 April 2017. An expert on corbelled buildings, she has been conducting research on and recording corbelled buildings for over a decade and has written a book on the subject.

Interview with structural engineer on corbelling technique:

- **Vernon Collis:** Interviewed on 30 September 2016.

APPENDIX 2: INFORMED CONSENT DOCUMENT²⁰

Title of Research Project: **Claiming Heritage: Corbelled Houses in the Karoo, South Africa**

My name is Caroline Hancock and I am conducting research towards a Master's Degree in Conservation of the Built Environment through the University of Cape Town and am hoping to conclude my studies by the end of 2016. My research is focused on vernacular architecture and how it is regarded as a heritage resource. I have decided to use the corbelled houses that are found in your district as the main focus of my research.

There is very little information available to the public about the corbelled houses and they are not well understood. I wish to get a better understanding of why this is so and what people who interact with these buildings think about them. I am going to interview roughly 10 people who have some link to the corbelled houses. This link will be either as an owner of a corbelled building; as someone who has lived in one of the buildings or lastly as someone who has an academic or professional interest in corbelled buildings. You have been identified as having one of these links and I would like to talk to you.

Voluntary participation

Your participation in this research project is completely voluntary and you do not have to take part in it if you don't want to. Should you agree to participate it must be your decision alone and you must understand that there will be no negative consequences if you don't. Once you agree to participate and later feel that you no longer want to continue, it is your prerogative to withdraw without any consequences at any time.

Recording

I hereby request your permission to take notes and record your voice for the purposes of being able to transcribe it later and/or to make an oral history transcript to be used in the writing of my study. The interview will be a discussion based around a series of questions to which you can respond to. I will dispose of the recordings and my notes after my research is complete.

What is expected of you?

To be interviewed by myself and Pat Kramer who will act as a translator if needed for approximately 45 minutes. There will be no costs involved for you and your participation will be at no charge.

Benefit

²⁰ This consent form was drawn up using the example in Appendix D p14 of the University of Cape Town's EBE Ethics in Research Handbook, Revision 3.1 dated 2 February 2012.

Being an academic research project, there will be no direct benefit for you other than hopefully feeling good that you participated in a project which is interested in the heritage of your community. I can give you a copy of the completed study, if you like.

Possible Risks for You

Confidentiality will be maintained as far as possible. Your contact details will not be disclosed, the interviews will take place one-on-one, and your responses will not be disclosed to other participants. You may request that I not use any names in my study but rather identify Interviews as, Interviewee 1, 2 ,3 etc. It is however possible those other members of your community will be able to identify you through your answers.

What will happen with the information obtained from you?

The main reason for the interviews is to collect information about the corbelled houses from people in the farming community. The information gathered from these interviews will form part of the research for my Master's and may be included in my dissertation. On completion, a copy of this can be made available to you if you like. Should you understand and agree with the information in this consent form, I would appreciate it if you could sign below to indicate your willingness to participate. Thank you for time and participation. If you are concerned about anything with regards to this and want to discuss this further, please contact me.

Yours sincerely

.....

Caroline Hancock

Name:

.....

Signature:

.....

Date

.....

APPENDIX 3: INTERVIEW QUESTIONS

I have chosen to ask open ended questions in a more informal conversational interview style. The questions will cover four general topics, with more specific questions in each. The questions will differ slightly from person to person by the overall themes will stay the same.

- Explain the purpose of the interview.
- Explain that I will be using their answers as part of my research to determine if they consider these buildings to be significant enough to be considered heritage.
- Explain that we will be asking general questions to understand what their opinions are.
- Ask if it is okay if I take notes and record the interview.
- Ask them if they have any questions and tell them how they can get in touch with me at a later date if they want to.

General question about the farm, its history and the houses

How long have you lived here? How long have you or your family owned the farm?

How many corbelled buildings do you have on your farm?

What can you tell us about the houses?

Questions about the corbelled houses: use and construction

Do you use any of them? If yes what for?

Has the use of the buildings changed?

Are the buildings important to you? Why?

Do you know how long the corbelled building has been here (when it was built)?

Do you know who built it?

Can you tell me about how they were used? How did people live in them?

Who lived in them?

Does anyone live in them now?

Why do you think they were built this way? (Building style and shape)

Where could people have learnt how to build houses in such a way?

Do you know how to build in this way, or if the house is damaged would you be able to repair it or know of someone who could?

Questions about heritage and the houses as heritage

What is your heritage?

How do you feel about the houses as a part of history?

Do you feel that they are part of the history of the area?

Do you think that the houses are important or unique enough to be considered heritage?

Do you think they are worth preserving?

Do you think they should be called heritage?

Would you consider the corbelled houses to be a part of your heritage?

[if not then whose heritage do you think they belong to?]

How would you feel if the houses were demolished?

State involvement in protecting local heritage

Do you think it is important for the state to protect certain places or buildings so that heritage can be maintained?

The houses that were declared national monuments have now automatically become provincial heritage sites. What are the owners' opinions on this?

Are they aware of all the legal restrictions that are placed on formally protected heritage sites? Do they adhere to them?

If the houses on their farm are not provincial heritage sites, would they like them to be? Would they want the state to get involved in how they choose to use the buildings on their farm? Would they take steps to get the houses protected?

Other questions of interest:

The SKA project and how it has affected them and their farms.

The new expropriation bill that was recently passed

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Phone No. 44-4985.

UNIVERSITY OF THE WITWATERSRAND
MILNER PARK,
JOHANNESBURG.

Graphic Address "HOMEO"

4th May, 1959.

James Walton Esq.,
Education Department,
Maseru,
BASUTOLAND.

My dear Walton.

RONDAWELS : WILLISTON : CAPE

The Commission has been asked to take some action to preserve one or more of a peculiar type of 'rondawel' of which some examples still exist in the district of Williston, Cape Province. I enclose a translation of a report we have received from the Magistrate of Williston and also a small photograph which gives some idea of the appearance of one of them.

We feel that there is no great urgency to protect these rondawels or a specimen of them, but would appreciate your comments and would be glad if, when you have an opportunity, you could visit the place and submit a report. Unfortunately Williston is somewhat remotely situated between Calvinia and Ceres, in the country East of Victoria West and I find it difficult to imagine a reason for a visit to those parts. If however, you reach a point anywhere within striking distance of Williston we would willingly meet the additional cost of going to Williston.

With kind regards,
Yours sincerely,

[Handwritten signature]
SECRETARY.



RONDAVELS.

Report by Magistrate, Williston dated 30/12/1958.

I visited the rondavel on the farm Arbeidsfontein of Mr. H. de W. Esterhuyse.

I enclose a photograph of the rondavel which please return.

This rondavel is built rectangular to roof height and then conically towards a point. The interior is more conical than the exterior.

The whole is built of natural flat stones placed upon one another, narrowing gradually so that at the top there is only a small opening. The opening is closed by a few large flat stones which rest on two wooden beams.

On the outside round the roof the flat stones protrude in such a way that scaffolding can be placed on them. Between the stones clay has been worked in to close the openings but the construction of the stones holds the building together. The walls at the base are very thick - 28 inches, and the building is 18ft. diameter at the base and 21ft. high. There are two small windows and a stable door. The only timber in the building is the jaabs and the two beams about 4ft. long on which the topmost flat stones rest.

This rondavel is said to be 80 years old. Bricks, cement and lime were unknown in these parts and the abundant stone of the area was used. The rondavels were built so high for the sake of coolness. This area gets tremendously hot in summer.

The owner of the rondavel on Schuinshoofte is Mr. G.S. Esterhuyse. I did not visit this farm but ascertained that it is similar but circular from the bottom up. Both rondavels are well built, in good condition and can stand for a very long time.

D. DE V.J. VAN RENSBURG.

Magistrate of Williston