The non-lithic assemblages discussed in this chapter include artefact categories such as bone (both unidentifiable and identifiable), shell (ostrich eggshell, *Achatina* landsnail and freshwater mussel) and colouring material (ochre, haematite and specularite). Also included are modified bone and shell in the form of worked bone, engraved bone, beads and pendants. Artefacts of farmer origin, such as pottery, glass and metal beads, and other metal objects, are also discussed. Each category is discussed according to shelter, and a general conclusion and comparison of the non-lithic assemblages concludes the chapter. Plant material preservation is poor at all three sites, and thus no comment can be made regarding that portion of the hunter-gatherer subsistence base, or seasonal occupation of shelters. Length of pre-ceramic versus ceramic occupation can be examined through changes in the frequency of artefacts including lithics, bone, beads, ostrich eggshell, and could perhaps give insight into the dynamics of contact and the construction and changes of identity.

**Bone**

Identifiable bone was studied by Job Kibii, a PhD student in faunal studies at the University of the Witwatersrand. Due to the lack of large amounts of cranial material, Mr Kibii chose to identify faunal classes for the most part, rather than attempt to identify specific faunal species, as post-cranial material is less diagnostic than cranial material, and secure identifications are difficult to make (J. Kibii *pers. comm.* 2003). Where the faunal material could be identified to species, specific diagnostic features existed that allowed for these identifications. Unidentifiable bone fragments from all three shelters were weighed according to square and spit level, and the results tabulated and graphed. Many unidentified fragments are the result of long bones being smashed open for marrow.

Since all the sites were excavated in 0.05m spits, studies of the minimum number of individuals (MNI) present in the various levels of the assemblage could not be done, as such an analysis would not be valid. Instead, numbers of species represented
NISP) are used as they are more informative (C. Cain *pers. comm.* 2003). Mr Kibii categorised all identifiable material according to body part and faunal class (as well as to species level, where possible – see Appendix C). This data was then condensed into a simplified body-part zone representation, after Cain 2000 (Fig. 6.1), in order to determine body part preference and possible hunting techniques. Body-part zone representation is able to provide more information than simple species identification and body part identification. According to Cain (2000), certain elements of a carcass will often be removed from the location of the kill, and taken to other places where they will be consumed and the bones discarded. Specific patterns in body part representation will be produced by repeated removal of certain parts of the carcass but not others. Areas where animals were consumed tend to have body-part distribution numbers that are skewed towards meat-bearing limbs and axial elements (Cain 2000). If vertebrae are present at a site, this generally indicates that the entire carcass was present. I refer to each class of animal by its common name, in order to simplify discussion and interpretation.

**Tshisiku Shelter**

A large portion of the bone recovered from Tshisiku Shelter was identifiable to body part and faunal class, and in some cases, to species (Tables 6.2 & 6.3). Faunal classes that are well represented in the assemblage include reptiles, bovids and fish. Other types of fauna present in smaller quantities include crab, small birds, rock hyrax, hares (lagomorphs), suids (including warthog), zebra, small mammals, carnivores (such as small cats), and small primates. Large numbers of fish vertebrae (Table 6.2) were recovered from all levels of the excavation. Fish were probably obtained from nearby rivers and streams, including the Limpopo River. Tortoises are also common, with carapace fragments occurring throughout the sequence in fairly large numbers. Bovids of size class I (the smallest bovids) are the most favoured, although bovids of size class II are also fairly well represented in the assemblage. The majority of Tshisiku Shelter faunal assemblage thus consists of small animals (for example small antelope, tortoises, and snakes) that can be easily gathered or snared, and brought back to the shelter whole. Limb bones are common (Table 6.3). This pattern of body-part zone representation is often indicative of limbs being cut off larger carcasses and carried back to the campsite by hunter-
gatherers (C. Cain *pers. comm.* 2003). Thus, a diversity of species were exploited by the Tshisiku Shelter hunter-gatherers, with a focus on bovids (particularly size class I bovids), tortoise, and to a lesser extent, fish. These smaller species are high reproducers and frequent in the landscape. They are easy to obtain, especially for individual consumption. Several of the other species occurring in the faunal assemblage, including the leguaan (monitor lizard / *Veranus spp*) and the small carnivores, are likely to have been introduced through natural use of the cave, rather than through cultural use of the shelter (C. Cain, *pers. comm.* 2003).

The frequency of tortoises collected through time by the Tshisiku hunter-gatherers increased from the lowest levels of the pre-contact occupation through time to Spit 5, although a sharp decrease occurred in Spit 6. The amount of tortoise bone decreased again in Spit 4 (1220 – 1010 BC) (Tables 4.2 & 4.3), but increased again in the contact period (Spit 3). However, frequencies decreased from Spit 2 to the Surface. The frequencies of snake vertebrae and other indeterminate reptile bones follow a similar pattern to that displayed by tortoise bone, although no snakes bones were recovered from the early pre-ceramic period between Spit 14 and Spit 9, or in the ceramic period between Spit 2 and the Surface.

Bovids of size class I increase in frequency from the early pre-contact period to peak in Spit 6 (Table 6.2). Thereafter, a decrease in frequencies occurs in Spit 5, followed by another increase in Spit 4. Frequencies decrease in the contact period levels, between Spit 2 and the Surface. A somewhat different pattern occurs in the frequency of bovids of size class II and III. No medium sized bovids were present in the pre-contact period between Spit 14 and Spit 10, but from Spit 8 (4330 – 4220 BC) (Tables 4.2 & 4.3), frequencies increase to Spit 7, before decreasing in Spits 6 and 5. Although frequencies increase again in the late pre-ceramic in Spit 4 and in the beginning of the ceramic period in Spit 3, a decrease in bovids of size class III occurs on the contact period between Spit 2 and the Surface. Limb bones of size class IV bovids occur across the pre-contact / contact period divide, in Spits 4 to 2.

Fish also formed part of the Tshisiku Shelter hunter-gatherers’ diet throughout the period that the shelter was occupied (Table 6.2). Frequencies of vertebrae increase from the early pre-ceramic period to peak in Spit 5. A slight decrease in frequency
occurs in the late pre-ceramic in Spit 4 (1220 – 1010 BC) before frequencies increase again in Spit 3 in the ceramic period. After this, frequencies of fish bone decrease through time to the Surface level. The only crab remains recovered from the shelter were found in the early pre-contact period in Spit 6, where the highest frequencies of fish vertebrae occur.

No mammal remains are present in the lowest levels of the deposit (Spit 14 – 12). Frequencies gradually increase from Spit 11 (5660 – 5610 BC) (Tables 4.2 & 4.3) to Spit 5, before they decrease again (Table 6.2). None occur in the contact period above Spit 2. No carnivore (indeterminate) remains occur in the early pre-ceramic period between Spit 14 and Spit 9. Frequencies increase from Spit 8 (4330 – 4220 BC) to Spit 6, then decrease to nothing in Spit 4 in the late pre-ceramic, with a slightly higher amount of carnivore material occurring in Spit 3 and Spit 2.

Through time, the frequency of identified body parts increases from the early pre-contact period in Spit 14 to Spit 7. A slight decrease occurs in Spit 6, before frequencies peak in Spit 5. A second slight decrease occurs in the late pre-contact period in Spit 4 (1220 – 1010 BC) before frequencies increase again in Spit 3. Low frequencies occur in Spit 1 and the Surface. A similar pattern is observed in the unidentifiable bone fragments.

The distribution of unidentifiable bone fragments in the assemblage (Table 6.4; Fig. 6.1) is similar to the pattern displayed by the lithic assemblage and other non-lithic artefacts (Fig. 6.2): an increase in bone fragment masses occurs in the early pre-ceramic period from Spit 14 to Spit 7, where the largest amounts occur, after which time masses decrease again to Spit 4 in the late pre-ceramic period. Bone masses then increase in the ceramic period, in Spits 3 and 2, before decreasing again in the Surface level.

**Balerno Main Shelter**

A small portion of the Balerno Main Shelter faunal assemblage was identifiable to body part and faunal class (Tables 6.5 & 6.6). The majority of the faunal assemblage consisted of highly fragmented, unidentifiable bone (Table 6.7; Fig. 6.3). Classes
that were well represented include reptiles (specifically tortoise) and bovids of several size classes. Other less well-represented classes include mammals (indeterminate), fish, bird, rodents, suids, and small carnivores (Table 6.5). The majority of the identifiable assemblage consists of small, easily procured animals, suitable for individual consumption. Fish vertebrae occur only in the ceramic period between DBG 60-65 and BRA 45-50 (AD 910 – 920; AD 950 – 1020) (Tables 4.5 & 4.6), while fragments of rodent, suid, and small carnivore occur in DBG 60-65 only.

Tortoise remains represent the greatest portion of the Balerno Main Shelter faunal assemblage. Frequencies are low in the earliest pre-contact levels, but increase to DBG 65-70 where the highest frequencies occur. After this time, frequencies of tortoise decrease. In BRA 50-55 in the early ceramic period, tortoise frequencies are high, but decrease through time to BRA. Low amounts occur above BOD (AD 1640 – 1650) (Tables 4.5 & 4.6).

Size class I bovids are the most common, with frequencies increasing from DBG 70-75 (340 – 320 BC; 210 – 100 BC) to DBG 65-70 / DBG 60-65 (Table 6.5). Frequencies are low in the other ceramic spits between DBG 55-60 and BOD, with the exception of BRA 50-55, where frequencies are fairly high. Cranial and distal limb fragments of size class II bovids occur in the early ceramic period in between DBG 65-70 and BRA 50-55. Bovids of size class III and IV occur across the pre-contact / contact period divide (DBG 70-75 to DBG 55-60). Overall, frequencies of bovids increase from DBG 70-75 to peak at the beginning of the contact period in DBG 60-65. After this, frequencies gradually decrease to DBD.

The distribution of the unidentifiable bone fragments in the assemblage (Table 6.7; Fig. 6.3) is similar to the pattern displayed by the lithic assemblage and other non-lithic categories of artefacts (Fig. 6.4). Bone masses increase from the lower pre-ceramic levels to peak in the beginning of the ceramic period (DBG 60-65). After this time, a decrease in mass occurs, before increasing again in BRA 50-55. Between BRA 50-55 and BRA bone masses remain fairly constant (unlike the lithic assemblage), before decreasing in BOD. Very low masses of unidentifiable bone are present in the levels above BOD (AD 1640 – 1650).
**Balerno Shelter 2**

Only a small amount of the Balerno Shelter 2 faunal material was identifiable to body part and faunal class (Tables 6.8 & 6.9). This is not surprising because the faunal assemblage recovered from the site is small. Most of the identifiable bones were limb bones of small, easily hunted and gathered animals, including tortoise, small bovids and mammals. Tortoise carapace fragments were the most common remains in the assemblage, as was the case at Balerno Main Shelter and Tshisiku Shelter. The frequency of tortoise bone increases in the later pre-contact period between GB 15-20 and GB 10-15, peaking in the ceramic period in GB 0-5. Slightly lower frequencies occur in the Surface level. Size class I bovids are the most numerous, although frequencies of overall bovid remains are low. No bone from the pre-contact period (OB 30-35 to GB 15-20) was identifiable. From pre-contact spit GB 10-15 to GB 0-5 in the contact period, however, bovid frequencies increase, peaking in GB 0-5. Mammal and suid remains only occur in the ceramic period, with a single bird bone occurring in GB 5-10.

Unidentifiable bone fragment masses (Table 6.10; Fig. 6.5) increase from pre-contact spit level OB 20-25 to the GB layer, as do other categories of non-lithic artefacts (Fig. 6.6). Within the GB spit levels, bone masses increase from GB 15-20 in the pre-ceramic period to peak in the ceramic period in GB 5-10 and GB 0-5, before decreasing sharply in the Surface level. Faunal material is thus concentrated in the contact period.

**Worked bone**

Several pieces of the faunal material recovered from Balerno Main Shelter and Tshisiku Shelter showed evidence of use or modification, either in the form of polished surfaces, rounded edges or abraded edges. These worked bone tools included matting needles (Walker 1995a), bone points and other broken worked pieces. Almost all worked fragments were tips of matting needles. According to Walker (1995a), this breaking pattern was likely the result of repeated twisting during use, as the needle was pushed through the reeds. Matting needle tips are usually rounded and polished through use, but some may still be sharp. They are likely to have been made from splinters of long bones that were then shaped.
Several bone beads were also recovered from some of the sites, but these will be discussed later, in the section devoted to beads.

No worked bone was recovered from Balerno Shelter 2.

**Tshisiku Shelter**

At Tshisiku Shelter, worked bone occurs mainly in the pre-ceramic period between Spits 11 and 3, with one piece occurring in Spit 13 (Table 6.11). Broken bone points and matting needles occur sporadically throughout the deposit. Figure 6.7 illustrates several examples of the Tshisiku Shelter worked bone pieces.

![Figure 6.7. Tshisiku Shelter: Examples of worked bone](image)

**Balerno Main Shelter**

A small amount of worked bone was recovered from Balerno Main Shelter - only 21 pieces in all (Table 6.12). The worked bone consists mainly of broken points and broken matting needles (Fig. 6.8), which predominantly occurred between DBG 75+ and BOD. No pieces of worked bone were found in the late second millennium contact levels above BOD (AD 1640 – 1650) (Tables 4.5 & 4.6), or in LB. A small
piece of engraved bone was also recovered from the late pre-ceramic level DBG 65-70 (Fig. 6.9).

Figure 6.8. Balerno Main Shelter: Examples of worked bone.

Figure 6.9. Balerno Main Shelter: Engraved fragment of bone.
Shell

Shell recovered from the excavations includes ostrich eggshell, *Achatina* landsnail, and freshwater mussel shell. Of the several kinds of shell present in the assemblages, ostrich eggshell is the most common, followed by *Achatina*, with only a small amount of freshwater mussel occurring throughout the deposits. Shell fragments were weighed, and the results for each spit level and square were tabulated. These raw materials were also used in the production of beads and pendants (see the separate discussion on beads that follows later in the chapter).

Tshisiku Shelter

Masses of ostrich eggshell in the early pre-ceramic period at Tshisiku Shelter increase through time from Spit 14 to peak in Spit 7 before decreasing through time to Spit 4 (1220 – 1010 BC) in the late pre-ceramic (Table 6.4; Fig. 6.2). Ostrich eggshell fragment masses remain similar across the pre-contact / contact divide (from Spit 4 to Spit 3), with a slight increase in the ceramic period in Spit 3, before continuing to decrease through time to the Surface level.

*Achatina* landsnail shell fragments follow the same pattern as that displayed by ostrich eggshell fragments (Table 6.4; Fig. 6.2): masses increase in the early pre-contact period from Spit 14 to peak in Spit 7 before decreasing through time to Spit 4 in the late pre-contact period. A slight increase in shell mass occurs from pre-contact Spit 4 to contact period Spit 3, before masses continue to decrease quite sharply through time to the Surface.

Little freshwater mussel shell remains at the site, as it does not preserve well (being very fragile and friable). No freshwater mussel shell occurs in Spit 14. From Spit 13, masses of freshwater mussel shell increase through time to Spit 7, where they peak. From Spit 7 to Spit 2, masses decrease again, with a slight increase in Spit 1 and the Surface level.

As with unidentifiable bone fragment masses, shell masses at Tshisiku Shelter tend to be concentrated in the pre-ceramic period, in Spit 7, with only a slight change in densities occurring across the pre-ceramic / ceramic period divide.
**Balerno Main Shelter**

Within the late pre-ceramic period, densities of ostrich eggshell generally decrease through time from DBG 70-75 (340 – 320 BC; 210 – 100 BC) (Tables 4.5 & 4.6) to DBG 65-70, before peaking again at the start of the ceramic period in DBG 60-65. Densities then decrease sharply from the beginning of the ceramic period in DBG 60-65 to DBG 55-60 and BRA 50-55. Thereafter, densities continue to decrease from BRA 50-55 to BRA, with a sharp decrease in the late second millennium AD in BOD (AD 1640 – 1650). Almost no ostrich eggshell is present in the levels above BOD (Table 6.7; Fig. 6.4). This pattern of decreasing material densities in ostrich eggshell is in contrast to that displayed by the lithic assemblage and faunal assemblage, where material densities increase from the late pre-ceramic to the first millennium ceramic period.

*Achatina* densities (Table 6.7; Fig. 6.4) are low in the basal pre-contact levels of DBG 75+ and DBG 70-75 (340 – 320 BC; 210 – 100 BC), but increase through time to the beginning of the ceramic period in DBG 60-65. Densities then decrease again to DBG 55-60 and BRA 55-60 (AD 670 – 770). After increasing to BRA 50-55, densities remain fairly consistent through time to BRA, and then drop sharply in BOD (AD 1450 – 1460) (Tables 4.5 & 4.6) in the late second millennium. Unlike ostrich eggshell, there is almost no *Achatina* in the upper levels, above BOD. The pattern of distribution displayed by the *Achatina* shell is similar to that of the lithic assemblage.

Freshwater mussel densities are low, and occur only between DBG 75+ and BOD (Table 6.7; Fig. 6.4).

**Balerno Shelter 2**

Ostrich eggshell, as well as *Achatina* land snail shell fragments were recovered from Balerno Shelter 2 (Table 6.10; Fig. 6.6). A few tiny fragments of freshwater mussel were found, but were too light to weigh. The masses of the ostrich eggshell and *Achatina* shell exhibit the same pattern displayed by the lithic and faunal assemblages, with low densities of material occurring in the late pre-ceramic OB spit levels. Densities are higher in the lower pre-contact GB spit levels, increasing
through time to peak in GB 5-10 and GB 0-5 in the ceramic period, finally decreasing in the Surface level.

**Shell pendant**

**Balerno Main Shelter**

A fresh water mussel shell pendant was found in BRA 55-60 (AD 670 – 770) (Table 6.12; Fig. 6.10). The pendant is very fragile and crumbles easily.

![Figure 6.10. Balerno Main Shelter: Shell pendant.](image)

**Beads**

Several kinds of beads have been found on all three sites, including ceramic period glass and metal beads, as well as ostrich eggshell, *Achatina* landsnail shell and bone beads. All beads have been measured (where possible). Bead diameter, aperture diameter, width and thickness have been recorded using electronic callipers (although the data gathered will not form part of this study, as it was not deemed central to the current research focus). Distinctions have also been made between (broken) complete and incomplete beads, and (broken) rough-outs.

Beads can be made in one of two ways (Jacobsen 1987): a hole is drilled into an irregularly shaped fragment of ostrich eggshell, which is then ground into a circular shape. Alternatively, a blank disc is made (often by biting the disc into a circular shape) and then drilled. Holes can be drilled from one side or from both. The beads are then strung and polished until they are all the same size. It is difficult to identify
how complete beads were made, but incomplete beads often offer clues as to which method of manufacture was used.

High frequencies of the various stages of ostrich eggshell bead manufacture (including complete, incomplete and broken beads and rough-outs) are most likely to be present at base or aggregation camps (Weissner in Jacobsen 1987:56). Sites occupied for a brief period, by small numbers of people (for example a small extended family), or sites used for specific tasks (such as meat processing) would be unlikely to yield incomplete beads, although complete beads would be expected. Greater variability in bead size is also likely, although hunter-gatherer women in the ethnography are unlikely to wear larger beads, as these tend to be used for trade (Weissner in Jacobsen 1987:56). Kandel & Conard (2004) also noted that at Geelbek Pottery Shelter, a short occupation is indicated by mainly complete stages of bead production while at Nora Shelter, the wide range of various stages of bead production represents an occupation of longer duration. One thing to remember, which may complicate interpretations based on incomplete versus complete beads in discussions of bead manufacture, is that complete beads can be lost at any stage after they are made. This may make it difficult to be certain that they were not discarded at some point or at some distance from when and where they were manufactured.

**Tshisiku Shelter**

Glass beads are found in the ceramic period between Spit 3 and Spit 1, with one glass bead occurring in the early pre-ceramic in Spit 6 and one in Spit 9 (these are likely to have originated in the ceramic layers and accidentally become included in the pre-contact layers). Seven metal beads were recovered from the ceramic period levels (Table 6.11; Figs. 6.11 & 6.12). Several of these beads are now incomplete due to degradation by rust. The few *Achatina* beads (Figs. 6.11 & 6.13) present in the assemblage occur in the period spanning the pre-contact / contact period divide (between Spit 5 and Spit 2). A rectangular bone bead was recovered from Spit 6 in the early pre-ceramic period (Fig. 6.11). Overall, ostrich eggshell bead frequencies
Figure 6.11. Tshisiku Shelter: Selection of beads (glass, ostrich eggshell, Achatina, bone and metal).

Figure 6.12. Tshisiku Shelter: Metal beads.

Figure 6.13. Tshisiku Shelter: Ostrich eggshell and Achatina beads.
increase in the pre-contact period from Spit 13 to peak in Spit 7, with a slight
decrease occurring after 5660 – 5610 BC (Spit 11), in Spit 10 (Tables 6.11 & 6.13).
After Spit 8 (4330 – 4220 BC), ostrich eggshell bead numbers decrease, between
Spit 7 and Spit 4 (1220 – 1010 BC) (Tables 4.2 & 4.3). A slight increase in bead
frequencies occurs in Spit 3, at the beginning of the ceramic period, before numbers
continue to decrease through time to Spit 1. Lower frequencies are present in the
Surface level. This pattern of distribution follows that displayed by ostrich eggshell
fragments, as discussed earlier.

The percentage frequency of total completed beads in the early pre-contact period
decreases in general from Spit 13 to Spits 7 and 6 (Table 6.13; Figs. 6.14 & 6.15).
The percentage frequency of complete beads increases significantly from Spit 6 to
Spit 5 before decreasing slightly through time in the late pre-ceramic period to Spit
3. Percentage frequencies then increase again in the contact period from Spit 3 to
Spit 2 before decreasing to the Surface. Higher percentage frequencies of completed
beads are present in the spits between Spit 5 and Spit 1 than in the lower spits
between Spit 14 and Spit 6.

The percentage frequency of incomplete beads (including rough-outs) in the early
pre-ceramic period increases from Spit 13 to Spit 6 (with a slight decrease in Spit 11
(5660 – 5610 BC)), followed by a large decrease between Spit 6 and Spit 5. A small
increase in percentage frequency occurs in the early pre-contact period between Spit
5 and the Surface, with a slight decrease in Spit 2 percentage frequencies. There
appears to be a direct contrast between complete beads versus incomplete beads:
when complete ostrich eggshell bead numbers increase, those of incomplete ostrich
eggshell beads decreases, and vice versa (Table 6.13; Figs. 6.14 & 6.15). Very low
numbers of incomplete ostrich eggshell beads occur between Spit 5 and Spit 1.
Although some change through time is apparent in the bead category after Spits 6 / 5
and in the contact period in Spits 3 / 2, no major changes are apparent in the
assemblage.

When one examines the stages of bead production present in the assemblage (Table
6.13; Fig. 6.15), between Spit 12 and Spit 6 in the early pre-ceramic period lower
percentage frequencies of completed beads occur, in contrast to higher percentage
frequencies of rough-outs and incomplete beads. Between Spit 5 and Spit 1, very few examples of the different stages of bead production are present – the majority of the beads in this time period are either complete or broken complete beads.

**Balerno Main Shelter**

Figure 6.16 illustrates the bone beads found at Balerno Main Shelter. Only one glass bead was found in the assemblage, in BOD (AD 1640 – 1650) (Tables 4.5 & 4.6). The only *Achatina* bead in the assemblage was found in BRA. Two of the bone beads were found in the pre-contact period in DBG 65-70, while one occurs at the beginning of the contact period (DBG 60-65).

![Figure 6.16. Balerno Main Shelter: Bone beads.](image)

Ostrich eggshell beads and rough-outs occur throughout the assemblage, with the exception of DC and Consolidated Surface (Tables 6.12 & 6.14; Figs. 6.17 - 6.19). Lower frequencies of ostrich eggshell beads and rough-outs are found in the pre-ceramic levels between DBG 75+ and DBG 55-60 (although greater frequencies occur in DBG 70-75 (340 – 320 BC; 210 – 100 BC)). Frequencies decrease briefly in the first millennium AD in DBG 55-60, but increase again in the late second millennium AD in BRA. Thereafter, frequencies drop significantly in BOD, with a steady decrease through time in DBD and Rocky Corner, although frequencies in GB
Ash and Surface (AD 1660 – 1680; AD 1760 – 1800) are slightly higher. Very low frequencies of ostrich eggshell beads and rough-outs occur in LB (Table 6.14 & Figs. 6.17 & 6.18). Thus, the greatest number of ostrich eggshell beads and rough-outs occurs in the early ceramic period BRA levels.

![Figure 6.19. Balerno Main Shelter: Stages of ostrich eggshell bead production.](image)

Within the DBG levels, the percentage frequency of complete beads, as well as incomplete beads and rough-outs, is fairly similar (Table 6.14) (with the exception of DBG 70-75 (340 – 320 BC; 210 – 100 BC), where the percentage frequency of completed beads is far higher than that of incomplete beads). Where the frequency of complete beads is high, frequencies of incomplete beads and rough-outs are low. The frequency of complete beads in the first millennium AD increases from DBG 55-60 to BRA 55-60 (AD 670 – 770), after which they decrease through time in the early second millennium to BRA 45-50 (AD 910 – 920; AD 950 – 1020) (Tables 4.5 & 4.6). From the BRA 45-50 level, frequencies increase to peak in BRA (but keep in mind that the P13 BRA 45-50 level was included within the BRA level). An increase in complete bead frequencies occurs from BRA to BOD (AD 1640 – 1650) and DBD, decreasing again in GB Ash and Rocky Corner. The high percentage
frequency seen in the Surface level (AD 1660 – 1680; AD 1760 – 1800) is due to a small sample size.

Although the percentage frequency of incomplete beads and rough-outs is slightly higher than that of complete beads in the DBG levels, percentage frequencies are generally quite similar. A decrease occurs from DBG 55-60 to BRA 55-60 (AD 670 – 770), after which incomplete bead percentage frequencies increase through time to peak in the BRA levels, BRA 45-50 (AD 910 – 920; AD 950 – 1020) / 50-55, in contrast to the decreasing complete bead frequencies. After this time, percentage frequencies of incomplete beads decrease though BOD and DBD, although they are again high in GB Ash and Rocky Corner. No incomplete beads or rough-outs are found in Consolidated Surface, DC or Surface. It must also be noted that there are far more complete beads in the assemblage than there are beads in process (Fig. 6.18).

As in the other artefact categories discussed so far, within the ostrich eggshell bead category, although change is evident between the pre-contact and contact period, these differences are not major. More significant changes in material density are notable between the first and second millennium of shelter occupation.

**Balerno Shelter 2**

Glass beads of several colours occur throughout the ceramic levels (Surface to GB 5-10) as well as in the late pre-contact period in GB 10-15 (Table 6.15; Fig. 6.20).
Ostrich eggshell beads and rough-outs (Fig 6.21) occur throughout the entire GB layer, and also the OB layer (with the exception of the OB 5-10, OB 20-25 and OB 25-30 spits). Ostrich eggshell beads and rough-outs are concentrated in the early ceramic period levels of GB 5-10 and GB 0-5 (Tables 6.15 & 6.16).

Figure 6.21. Balerno Shelter 2: Stages of ostrich eggshell bead production.

The percentage frequency of completed beads increases from the late pre-ceramic period in GB 10-15 to peak in the ceramic period in GB 5-10, then decreases through time to the Surface (Table 6.16; Figs. 6.22 & 6.23). The percentage frequency of incomplete beads follows a contrasting pattern, increasing when the number of completed beads decreases, and vice versa. Thus, percentage frequencies decrease from GB 10-15 to a low in GB 5-10, before increasing again to peak in the Surface.

When the stages of bead production are examined (Table 6.16; Fig. 6.21 - 6.23), a variety of stages are represented in the GB levels, with only complete beads occurring in the late pre-contact period OB spit levels.
**Colouring material and specularite**

Colouring material (including ochre and haematite) and specularite from each square and spit level of all three shelters was weighed separately, and the masses tabulated and graphed.

**Tshisiku Shelter**

Ochre, haematite and specularite are all present in the assemblage (Table 6.4 & Fig. 6.2). No ochre and haematite occurs in Spit 14. Masses of colouring material increase through time from Spit 13 to Spit 11 (5660 – 5610 BC) (Tables 4.2 & 4.3). Between Spits 10 and 8 (4330 – 4220 BC), masses fluctuate somewhat, before increasing to peak strongly in Spit 7. From the early pre-contact Spit 7 to late pre-contact Spit 4 (1220 – 1010 BC), there is a decrease in colouring material mass, followed by a slight increase in the beginning of the ceramic period in Spit 3, before masses continue to decrease through time to Spit 1. High masses of colouring material are present in the Surface.

No specularite occurs between Spit 14 and Spit 12 (Table 6.4; Fig. 6.2). Masses of specularite are low and fluctuate somewhat in the early pre-contact period between Spits 11 and 7, but increase to peak strongly in Spit 6. A sharp decrease in specularite mass occurs in Spit 5, followed by an increase through time to Spit 4 in the late pre-ceramic period. Between Spits 4 (1220 – 1010 BC) and 2, in the ceramic period, specularite masses are higher than those occurring between Spits 11 (5660 – 5610 BC) and 7, and remain fairly consistent through time. From Spit 2 to the Surface, specularite masses decrease.

In general, a battleship curve pattern of colouring material distribution occurs, following the same trends as those displayed by the Tshisiku Shelter lithic assemblage, faunal assemblage, and the shell and bead categories.

**Balerno Main Shelter**

Both ochre and haematite are present in the Balerno Main Shelter assemblage, along with specularite (Table 6.7; Fig. 6.4). Ochre and haematite masses are very low in
DBG 70-75 (340 – 320 BC; 210 – 100 BC) (Tables 4.5 & 4.6). Masses increase significantly in DBG 65-70, but decrease to DBG 55-60 in the first millennium AD, after which they increase again in the early second millennium BRA levels. Between BRA 55-60 (AD 670 – 770) and BRA, densities are roughly similar, and then decrease to BOD (AD 1640 – 1650) in the late second millennium AD. Very low quantities of ochre and haematite occur in LB, almost none in the levels above BOD (excepting the small amount in Surface(AD 1660 – 1680; AD 1760 – 1800) and GB Ash), and none occurs in DBG 75+.

Specularite densities are low in the pre-ceramic period in DBG 70-75, but increase from DBG 65-70 to DBG 55-60, after which they decrease again in BRA 55-60 (Table 6.7; Fig. 6.4). Densities remain similar to BRA 55-60 in BRA 50-55, but then increase briefly to BRA 45-50 (AD 910 – 920; AD 950 – 1020) before dropping to BRA. Although a small amount of specularite occurs in DBD, GB Ash and Rocky Corner, none is found in DBG 75+, BOD, Consolidated Surface, and DC.

In summary, whilst some variation in densities occurs in the DBG and BRA levels, where the highest material densities occur, there is a decrease in the BOD level, with very low densities occurring in the upper levels of the assemblage during the late second millennium.

**Balerno Shelter 2**

Ochre, haematite and specularite occur in the Balerno Shelter 2 assemblage, although specularite percentage frequencies are very low (Table 6.10; Fig. 6.6). Colouring material is concentrated in the GB levels, with the exception of a small amount that is present in the late pre-ceramic period in spit OB 0-5. Specularite only occurs between the late pre-contact GB 10-15 and the contact period GB 0-5. Masses of colouring material increase from the lowest GB levels to peak in GB 5-10, before decreasingly sharply through time to the Surface. This pattern of distribution is similar to that displayed by other artefact categories present in the assemblage.
Pottery
All pottery fragments or sherds were labelled and classified according to size, presence / absence of decoration and rim. All pottery was of quite poor quality. Diagnostic ceramics were examined and identified by Professor T.N. Huffman.

**Tshisiku Shelter**
Fragments and sherds of pottery only occur in the top four levels of the deposit, from Spit 3 to the Surface (Tables 6.11 & 6.17). Six decorated sherds found in Spit 2 were identified as belonging to the Middle Iron Age Leopard’s Kopje tradition – that is, the K2 / Mapungubwe period. Several of the decorated and undecorated sherds were refitted and glued together to reconstruct two portions of a K2 / Mapungubwe beaker (Fig. 6.24), as well as an undecorated portion of the body of a pot.

*Figure 6.24. Tshisiku Shelter: K2 / Mapungubwe beaker.*
The beaker was of fairly poor quality, not very well burnished and therefore unlikely to have been used to contain liquid. It would most likely have been used as a cooking pot. It would thus appear that although the Tthisiku Shelter hunter-gatherers were able to obtain pottery from neighbouring farmers, they were not being given or traded quality wares made by the specialists in the K2 and Mapungubwe capitals (T.N. Huffman *pers. comm.* 2003).

**Balerno Main Shelter**

Pottery fragments and sherds are found throughout almost the entire assemblage, from the Surface (AD 1660 – 1680; AD 1760 – 1800) to DBG 60-65 (Tables 6.12 & 6.18), with the exception of DC and LB. Rim-sherds recovered from the DBD level have been identified as post-1700 AD jar rims (i.e. these kinds of ceramics generally occur towards the last half of the Late Iron Age). Several decorated sherds (Fig. 6.25), from BRA, BRA 45-50 (AD 910 – 920; AD 950 – 1020) and BRA 50-55, have been identified as belonging to particular ceramic traditions, including Mzonjani and Bambata.

*Figure 6.25. Balerno Main Shelter: Selected decorated sherds.*
Mzonjani is an eastern stream of the Early Iron Age, and is also known as Happy Rest level A (while Bambata is referred to as Happy Rest level B), according to Huffman. This ceramic tradition dates to between about AD 350 and AD 500 (T.N. Huffman pers. comm. 2003). Two Mzonjani sherds (jar fragments with punctate decoration) and a Bambata sherd (a jar fragment with a hatched pattern) were found in BRA, as well as an Early Iron Age (AD 350 – AD 600) sherd (with cross-hatched patterns on it, which was too small to be identified to exact type). In BRA 45-50 (AD 910 – 920; AD 950 – 1020), a possible Bambata / Happy Rest (b) jar fragment is present, and in BRA 50-55 another possible Bambata sherd with rippling on the lip was recovered. Several other unidentifiable rim sherds from Consolidated Surface, Rocky Corner and DBD were refitted. Radiocarbon dates for these layers are somewhat older than the time-periods represented by the pottery.

**Balerno Shelter 2**

Pottery occurs in the form of a few broken sherds, which are found between the GB 5-10 and Surface levels (Tables 6.15 & 6.19). No ceramics were found in the levels below GB 5-10. Some decorated ceramics were found in the Surface levels, including the Surrounding Surface Area (SSA), and have been identified as fragments of a Mapungubwe period jar. Another fragment of Leopard’s Kopje pottery was also identified. A stamped and combed sherd belonging to a Happy Rest(b) / Gokomere bowl (dating to around about AD 500) was also recovered from these layers.

**Metal**

**Tshisiku Shelter**

A green copper ring was found in the Surface level – probably associated with the nineteenth century Venda grain-bin period occupation (Table 6.11; Fig. 6.26).
Figure 6.26. Tshisiku Shelter: Copper ring.
Worked wood

Balerno Main Shelter

Several fragments of worked wood were found at Balerno Main Shelter in the Surface level, with one fragment having had a hole drilled into it (Table 6.12; Fig. 6.27).

The non-lithic assemblages: a summary of trends in the Shashe-Limpopo

Material densities in the Tshisiku Shelter faunal assemblage, ostrich eggshell, *Achatina* landsnail, freshwater mussel, ostrich eggshell beads, colouring material and specularite categories all exhibit a similar pattern of distribution to that displayed by the lithic assemblage. Densities increase in the early pre-ceramic period, from Spit 14 to Spit 7, where the highest densities occur. After Spit 8 (4330 – 4220 BC) (Tables 4.2 & 4.3), densities decrease from Spit 7 through time to the beginning of the ceramic period between Spit 4 (1220 – 1010 BC) and Spit 3, where a small increase occurs. After this time material densities continue to decrease to the Surface level. More complete beads are present between the early pre-ceramic in Spit 5 and the ceramic period Surface than there are in the pre-ceramic spits below (Spit 14 to Spit 6), although a greater variety of the stages of bead production are present in the early pre-ceramic period.
Within the Balerno Main Shelter assemblage, pottery and glass beads from contact with black farmers occur between spit DBG 60-65 and the Surface level – a much larger portion of the deposit than the same period at Tshisiku Shelter (represented by Spit 3 to the Surface). Worked bone and ostrich eggshell beads occur throughout the early pre-ceramic and first millennium / early second millennium AD ceramic periods (about 340 BC to AD 1300). Scattered examples occur in the late second millennium AD (AD 1640 – AD 1800). Ostrich eggshell densities increase in the late pre-ceramic period to the beginning of the ceramic period, after which time they decrease through time to BRA. Very low densities are present in the levels above BOD (AD 1640 – 1650) (Tables 4.5 & 4.6) in the second millennium. *Achatina* shell fragment masses increase in the pre-contact period from DBG 70-75 (340 – 320 BC; 210 – 100 BC) to the start of the contact period (DBG 60-65), after which time densities remain consistent up until BOD / late second millennium AD, where densities decrease abruptly. Masses of colouring material and numbers of ostrich eggshell beads decrease through time in the pre-ceramic period at Balerno Main Shelter, before increasing in the ceramic period DBG and BRA levels. In the second millennium, above BOD, masses of colouring material and numbers of ostrich eggshell beads decrease significantly. Specularite masses fluctuate through time. When the numbers of complete ostrich eggshell beads increase the numbers of incomplete ostrich eggshell beads decrease, and *vice versa*, as is the case at Tshisiku Shelter.

At Balerno Shelter 2, masses of bone, ostrich eggshell, *Achatina* landsnail shell, colouring material and specularite, as well as the number of ostrich eggshell beads, all increase from very low amounts in the late pre-ceramic OB spit levels to peak in the early ceramic period in GB 5-10 and GB 0-5.

For the most part, the faunal material found at Balerno Shelter 2, Tshisiku Shelter and Balerno Main Shelter represents small animals that can be easily hunted, snared or gathered (such as tortoises and small bovids), although some larger bovid remains were also recovered from the sites. Species present in the region today include the Leopard tortoise, various snakes such as the puff adder and African python, springhare, warthog, bushpig, duiker, klipspringer, impala, blue wildebeest, kudu, eland and zebra (Branch 1998; Stuart & Stuart 2001). These species may well have
formed part of the hunter-gatherer diet in the past, but further data from other assemblages where faunal material can be identified to species are necessary before this can be claimed with certainty. A wide subsistence base is, however, apparent at some of the shelters, for example Tshisiku Shelter, where crabs, freshwater mussel, fish, tortoise, other reptiles, and a range of bovids were exploited, as well as some suids and equids. At the smaller shelter of Balerno Shelter 2, a narrower range of fauna is represented: tortoise, some other reptiles, and bovids of size class 1. More tortoise remains were present at Balerno Main Shelter than at other shelters, while fish were only present during the ceramic period between DBG 60-65 and BRA 45-50 (AD 910 – 920; AD 950 – 1020) (Tables 4.5 & 4.6). This may indicate that either more hunter-gatherers were present at the shelter during this time, placing pressure on available food, or that the presence of farmers on the landscape forced hunter-gatherers to broaden their food base due to competition.

Few other faunal classes were identified largely due to the fragmentary character of the unidentifiable faunal material, of which there was a large amount. The greatest densities of unidentifiable bone at Balerno Main Shelter occur throughout the late pre-ceramic / ceramic period, while at Balerno Shelter 2 and Balerno Shelter 3 (van Doornum 2000) the faunal material is concentrated in the Bambata / Happy Rest (AD 100 – 600) period (GB 5-10) at Balerno Shelter 3, and GB 0-5 at Balerno Shelter 2. Bone masses at Tshisiku Shelter are highest in the pre-ceramic period, increasing briefly in the ceramic period, in Spit 3. The explanations for the focus on small game, and for the varied periods of greatest densities will follow in Chapter 7.

Only a small amount of bone waste was modified to produce a limited range of bone artefacts at several of the sites. Nineteen pieces of worked bone, comprising mainly broken matting needles and bone points, and no bone beads were found at Balerno Shelter 3, unlike Balerno Shelter 2, where one bone bead and no worked bone was recovered. The number of pieces of worked bone at Balerno Main Shelter (found throughout the deposit) is similar to that of Balerno Shelter 3 (21 pieces) (van Doornum 2000). Two bone beads were also found in the pre-ceramic deposit, as well as a piece of engraved bone. One pre-ceramic bone bead was also found at Tshisiku Shelter, although worked bone occurs throughout the deposit, from the pre-ceramic to the ceramic period. It is interesting to note that bone beads appear to be
mostly restricted to the pre-ceramic period. Matting needles and bone points occur throughout the occupation of the larger, less ephemerally occupied sites.

Greater frequencies of colouring material occur at Balerno Main Shelter during the late first millennium / early second millennium AD in the Zhizo and K2 / Mapungubwe period (AD 900 – 1300) (especially in the BRA levels) than what occurs at Balerno Shelter 2 and Balerno Shelter 3 during the same period. Densities of colouring material, as well as ostrich eggshell and *Achatina* shell, are also high in the late pre-ceramic period DBG levels, unlike the paucity of materials at Balerno Shelters 2 and 3. A greater amount of *Achatina* shell was recovered at Balerno Shelter 2 than at Balerno Shelter 3 (van Doornum 2000) in the Bambata / Happy Rest period (AD 100 – 600). Balerno Shelter 2, Balerno Shelter 3 and Little Muck Shelter (Hall & Smith 2000) all have high ostrich eggshell, *Achatina*, and colouring material densities during the Bambata / Happy Rest. In the Zhizo period (AD 900 – 1000 / 1200), however, these densities decrease significantly at the Balerno shelters but not at Little Muck Shelter, where densities remain high until the K2 / Mapungubwe period (AD 1000 – 1300). At Tshisiku Shelter, colouring material, ostrich eggshell and *Achatina* densities increase from low amounts in the very early pre-ceramic to peak in the middle of the shelter’s occupation, in Spit 7, before decreasing through the rest of the pre-ceramic period. From Spit 6 to Spit 5, a large decrease in the masses of ostrich eggshell and *Achatina* shell (and even in colouring material mass to a certain extent) occurs, for reasons as yet unknown. *Achatina* masses remain fairly constant in the pre-ceramic period between Spit 5 and Spit 3 before decreasing in the ceramic period levels. Ostrich eggshell remains constant between Spit 4 (1220 – 1010 BC) and Spit 3, across the pre-ceramic / ceramic period divide. At Balerno Main Shelter, ostrich eggshell and *Achatina* landsnail masses tend to decrease in the contact period in contrast to the lithic and faunal assemblages, which do not change greatly through time. A shell pendant was also found at Balerno Main Shelter in the ceramic period. The reasons for the differences in the assemblages between sites, through time and through space, will be discussed in Chapter 7.

A small indication of the degree of contact occurring between hunter-gatherers and farmers is found in the number of pottery fragments, glass beads and metal objects
found at each site. Pottery recovered from the shelters was of a poor quality (T. Huffman pers. comm. 2003). This may either indicate how farmers perceived hunter-gatherers (as inferior and not worthy of the quality goods used by farmers themselves) or perhaps it shows that hunter-gatherers only required vessels for cooking, as other containers were used for water storage. It is unlikely that the early second millennium ceramics were left in the shelters by farmers (see Walker’s (2003) cautionary note on the interpretation of farmer material culture in shelters), as the sheer number of stone tools and the lack of many farmer artefacts indicates a hunter-gatherer presence up until at least AD 1300. At Balerno Shelter 3, 33 pieces of pottery were recovered (van Doornum 2000), while at Balerno Shelter 2, 14 fragments were found. At Balerno Main Shelter, 91 pieces of pottery were found, and 104 from Tshisiku Shelter. The fragmentary nature of the ceramics at some of the sites may indicate that no whole pots were present at these sites. Tshisiku Shelter is the only shelter thus far that has produced fragments of pots that could be refitted, although these reconstructions did not form complete pots. This presents an interesting question: why were scattered pottery fragments present at some sites, if not for a functional purpose (see Chapter 7)?

While five glass beads were found at Balerno Shelter 2, only one was found at Balerno Shelter 3 (van Doornum 2000). At Tshisiku Shelter, eight glass beads were recovered, along with four metal beads. A metal ring, probably of Venda origin, was also found on the Surface at Tshisiku Shelter. Although no Achatina beads were found at Balerno Shelter 2, two were found at Balerno Shelter 3 and one at Balerno Main Shelter. Twenty Achatina beads (pre-ceramic period) were recovered from Tshisiku Shelter. Unsurprisingly, Tshisiku Shelter has a greater number of farmer artefacts, no doubt due to their proximity to contemporaneous farmer settlements.

Thus, at a regional level, the greatest period of hunter-gatherer activity occurred during the contact period at all the shelters, with the exception of Tshisiku Shelter, where the greatest period of activity occurred in the early pre-contact period. During the contact period, different phases of activity and occupation are emphasised at the various shelters through time, and, as in the lithic assemblage analysis, no single regional pattern emerges from the non-lithic assemblages.