Supplemental Text 1. Ethnographic and Archaeological Material Correlates Codebook.

Contents

Recording and Categorizing

The Purpose of this document is to outline the recording and categorizing strategy for the ethnographic (eHRAF) and archaeological material used in this research. This document details the following three aspect of the recording and categorizing strategy: (1) the specific aspects of each category that were examined in the ethnographic (eHRAF) and archaeological sources; (2) the approach that was taken to identify and record the data from the archaeological sources used; and (3) the specific Outline of Cultural Material (OCM) code(s) that were used to extract and record the information relating to each of the categories from the eHRAF database. The OCM codes are search codes relating to specific cultural information provided by the host of the eHRAF database, Yale Univeristy (http://ehrafworldcultures.yale.edu/ehrafe/). The information was recorded in terms of:

1.   written descriptions

2.   binary categories of absence or presence using (0 or 1)

3.   ordinal scales to record the levels (e.g. intensity) using (0 to 2) or (0 to 3)

Information for each eHRAF culture and archaeological site-phase was recorded database in terms of seven categories:

1.   General information

2.   Subsistence information

3.   General ritual/religious characteristics

4.   Mortuary practices

5.   Social complexity

6.   Sharing avoidance

7.   Ritual, community and monumental architecture

General Information

General information about each eHRAF culture and archaeological site-phase was recorded on a relational database. This information included the name of the culture, the geographic location of that culture and the estimated population size of the culture. For the eHRAF cultures, the OCM codes 105, 131, 132, 161 and cultural summary were be used for the purpose of recording these categories. The categories used to record general information were:

1. Name of eHRAF culture*

2. Name of archaeological site (site-phase)*

3. Geographic region

4. Geographic sub-region

5. Archaeological period*

6. Absolute dating*

7. Site phase cultural horizon*

8. Estimated area of settlement*

9. Period covered by ethnographic account(s)*

10. Time(s) of excavation of material(s) used*

11. Preservation conditions (description)*

12. Bone preservation conditions (description)*

13. Estimated average population

14. Degree of sedentism

* recorded only for archaeological site-phases

* recorded only for eHRAF cultures

1.   **Name of eHRAF culture***: Name given in the ethnographic account(s) provided by the eHRAF

2.   **Name of archaeological site (site-phase)***: Name given in the published literature usually connected to nearest town or topographical feature

3.   **Geographic region**: This is the continent on which the site-phase or ethnographic culture are located

4.   **Geographic sub-region**: This includes as much regions/local information as possible. For example, country, province, town etc.

5.   **Archaeological period***: Recorded in both Calibrated Years BP and Calibrated Years BC

6.   **Absolute dating***: Date given in published material following radiocarbon or AMS dating of each site-phase

7.   **Site phase cultural horizon***: Cultural horizon that the site-phase has been assigned to following dating and material culture evidence, e.g. Late Mesolithic

8.   **Estimated area of settlement***: The estimated the dated occupation/settlement area excavated, surveyed and reported upon in the literature/available sources (not just the areas of the excavation trenches). Given in meters squared (m^2) or hectares (ha). With 1 m^2 equal to 0.0001 hectares

9.   **Period covered by ethnographic account(s)***: The period covered by the ethnographic accounts given in the eHRAF database. Recorded as (1) period from X until Y in calendar years and (2) the number of years covered. For example, (1) 1810 to 1820 and (2) 10 years.

10.   **Time of excavation of material(s) used***: The period of (1) excavation and/or (2) different period of excavations in calendar years; e.g. (1) 1970 to 1988 and/or(2) 1970 to 1988, 1990 to 1992 and 2001 to 2006

11.   **Preservation conditions (description)***: Record the description of the site-phase given in the literature in terms of its composition: (1) the soil type ranging from

sand to clay; (2) Inclusions in the soil e.g. Stones and charcoal: (3) the Colour of the soil; (4) the recorded acidity or basicity using ph. level.

12.   Bone preservation conditions (description) *:

There are three aspects to recording the conditions of the recovered human bone. Record if the bone recovered reflects inhumation or cremation or both. Record the description of the human bone recovered given in the literature. For example, bone consistency can be described as brittle, hard, soft or metallic in consistency. Lastly, where given, the preservation of human bone is recorded in relation to the survival of original collagen in the recovered human bone, following the ranges given by Jans *et al.* (2002). Human bone is a heterogeneous composite material consisting of a hydroxyapatite, mineral phase and an organic phase. The organic phases accounts for 30% of bone composition. Of this 30%, 90% is composed of type 1 collagen. Thus, it is possible to use collagen as a standard method to examine the preservation of bone following recovery. Where it has been examined, the percentage of original collagen remaining is used to record the preservation of bone from a site-phase. The preservation of bone based on the percentage of original collagen remaining is recorded in terms of three categories.

a)   poor <30% of original collagen remaining

b)   moderate 30-60% of original collagen remaining

c)   good > 60% of original collagen remaining

                     (Jans *et al.* 2002)

13.   Estimated average population: (1, 2, 3)

(1 = population < 150 people, 2 = 150 to 500 and 3 = 500 to 5,000 people)

For this research, population was taken as the number of people at a given site-phase (using the formula) rather than any potential extended community which would have been difficult to determine over 50 site-phases. Therefore, the extent of the site-phase is what was considered as the community.

14.   Degree of sedentism: (0, 1, 2) (0= no sedentism, 1= moderate sedentism/ Semi-sedentary, 2= fully sedentary communities

eHRAF: In the eHRAF database each culture is classified as mobile/nomadic, semi nomadic and settled/sedentary. For each eHRAF culture, the evidence for degree of sedentism is recorded form the available sources that identify and record the subsistence strategy, agricultural/cuktivation intensity, storage practices, settlement plan and mobility patterns for each culture.

Archaeology: In relation to the archaeological record a number of aspects were focused on; which can be categorized as: (1) group mobility pattern; (2) population; the relationship between housing and mobility; (3) resource strategy; (4) food storage strategy; and (5) site-phase organisation. A number of the categories used to assess level of sedentism are dealt with in more detail in the additional sections. For the archaeological site-phases, the degree of sedentism is recorded form the available sources in relation to a set of material culture criteria relating to practice that are indicative of different levels of sedentism:

0 = Classification of no evidence of sedentism

The term fully mobile or nomadic relates to evidence of year-round residential mobility. This degree of sedentism is recorded form the available sources that identify and record any 3 of 23 material culture criteria relating to the no sedentism. The material culture evidence used to classify site-phases in this category was:

1.   Group size less than 150 people

2.   Evidence of hunting

3.   Evidence of gathering

4.   No evidence of domesticated plants

5.   No evidence of domesticated plants

6.	Group focused on a large number of resources; e.g. table isotope evidence indicates: (1) use of varied plant food sources; (2) indicates both terrestrial and marine diet elements

7.	No evidence of long-term food storage strategy but can be evidence of short-term food storage, for example, in pits of storage of wild fruit, nut, seeds etc.

8.	No large scale community food stores e.g. store rooms, granaries or silos

9.	Located near a critical resource e.g. water source

10.	Evidence of seasonal use of resources e.g. seasonal wild plants, summer fish caching, young animal bones indicting winter slaughtering

11.	Evidence of processing of wild resources

12.	Evidence of low occupation field camp via low amount of artifacts, single heath and lithic scatter

13.	Evidence of occupation of natural shelters via low amount of artifacts, single heath and lithic scatter and no evidence of camp construction

14.	No evidence of difficult to transport artifacts

15.	No construction of permanent monuments

16.	Dispersed not nucleated settlement pattern

17.	Structures circular and semi-circular in plan

18.	Generally locally sourced material used in construction rather than transported material

19.	No evidence of foundations as construction on ground surface. Often only modification to ground surface maybe circular or semi-circular pots holes

20.	Construction may include: stick and bush frame, thatch structure and, occasionally, some wattle and daub elements.

21.	No use of mud or other types of bricks

22.	In most examples roof and sides are the same material e.g. hide, locally sourced bark or vegetation

23.	No dedicated burial area for repeated use

1 = Semi-sedentary groups

Semi-sedentary refers to a mobility situation in which relatively permanent house sites are maintained and returned to frequently, but where members of the group are seasonally mobile to procure resources. This degree of sedentism is recorded form the available sources that identify and record and record any 4 of 26 material culture criteria relating to the degree of sedentism. The material culture evidence used to classify site-phases in this category was:

1.   Group size not larger than 500

2.   Evidence that some residence do occupy the site-phase on a year-round basis

3.   Site-describe as early or proto-village

4.   Evidence of garden cultivation with some evidence of domestication

5.   Evidence of domesticated plants but not necessarily stables

6.   evidence of domesticated animals such a sheep and goat but not necessarily cattle

7.   Evidence of diet supplemented by hunting of wild species

8.   Evidence of diet supplemented by gathering of wild species

9.   Evidence of diet supplemented by seasonally available wild resources

10.   Community focused on a smaller number of resources compared to mobile groups; e.g. particular crops

•   Stable isotope evidence indicts use of particular food sources e.g. terrestrial protein source

11.   Evidence of long-term food storage strategy

12.   Domestic food stores e.g. store rooms, cists, granaries or grain bin

13.   Evidence of processing of domesticated resources (plants)

14.   Evidence of processing of domesticated resources (animals)

15.   Evidence of seasonal use of resources e.g. seasonal wild plants, summer fish caching, young animal bones indicting winter slaughtering

16.   Evidence of processing of wild resources

17. Evidence of permanent or semi-permanent occupation with via high amount of artifacts, heaths and lithic scatter

18. craft specialisation for example, stone tools, pottery and other artifacts

19. Structures both circular and rectangular in plan

20. Locally sourced material used in construction

21. Some evidence of foundations and modification of ground surface for construction

22. Construction may include: brush and stick frame, local vegetation, wattle and daub, use of mud or other types of bricks

23. Location, design and orientation are to a degree uniform across a site-phase

24. Not uniform burial practices

25. Not dedicated burial area

26. Presence of mouse (*mus musculus*) bones, indicative of sedentary groups

2 = Fully sedentary groups

Fully sedentary refers to groups who maintain their residences in a permanent manner. This degree of sedentism is recorded form the available sources that identify and record of any 4 of 46 material culture criteria relating to the degree of sedentism. The material culture evidence used to classify the site-phases in this category was:

1. Group size greater than 150 people and can be into the 1000s

2. Description as a permanent settlement such as: farmstead, hamlet, village or urban centre

3. Dedicated areas of crop cultivations; larger than garden

4. Dedicated areas for domesticated animals; penning area(s)

5. Evidence of domesticated stables

6. evidence of domesticated animals—particularly, cattle

7. Community focused on a smaller number of resources; e.g. stable isotope evidence indicts use of particular food sources

8. Evidence of long-term domestic food storage strategy via pottery, store rooms, cists, granaries or grain bin and the drying, curing or smoking of protein source

9. Evidence of long-term community food stores via pottery, store rooms, cists, granaries or silos and the drying, curing or smoking of protein source

10. Evidence of processing of domesticated resources (plants)

11. Evidence of processing of domesticated resources (animals)

12. Evidence of secondary produce from domesticated animals e.g. milk use via study of residues in pottery

13. Evidence of long-term occupation with via high amount of artifacts, heaths and lithic scatter

14. Evidence of more complex, elaborate technology e.g water or wind technology

15. Large amount of artifacts due to:

• period of occupation of the site-phase

• reflects that all activates are carried out at the site-phase

• Accumulation of personal possessions

16. craft specialisation for example, stone tools, pottery and other artifacts

17. Evidence of site divisions that reflect craft specialisation for example, stone tools, pottery and other artifacts production areas

18. Evidence of difficult to transport artifacts; large and heavy

19. Construction of permanent monuments, ceremonial structures

20. Construction of community structures e.g. store rooms or meeting houses

21. Nucleated settlement pattern

22. Structures rectangular in plan

23. Structures rectangular in plan with augmentation(s)

24. Not always locally sourced transported material used in construction

25. Definite foundation trenches and modification of ground surface for construction

26. Landscape altered for domestic or monumental construction

27. Construction may include: wattle and daub, use of mud or other types of bricks

28.   Roof and sides are the often different material e.g. thatched roof and wooden or mud brick walls

29.   Location, design and orientation are mainly uniform across a site-phase

30.   Evidence of social or political hierarchy reflected in larger domestic buildings and special burials (grave goods etc.)

31.   Uniform burial practices

32.   Dedicated burial area

33.   Foci such as communal square or plaza

34.   Long-term labor investment in domestic structures:

•   Maintenance and Renovation e.g. plastering, repainting or reroofing

35.   Long-term labor investment in communal structures:

•   Large amount of people (team) with different skills require for construction

•   time require for construction (not a quick construction)

•   Maintenance and renovation e.g. plastering, repainting or reroofing

36.   Presence of mouse (*mus musculus*) bones , indicative of sedentary groups

Subsistence Practices

This section of the database was used to record the subsistence practices of each eHRAF culture and archaeological site-phase. For the eHRAF cultures, a specific set of OCM codes (Table 1) were used. This section used categories of absence or presence (0 or 1) and ordinal scales to identify and record the levels of crop intensity (0 to 2), animal domestication (0 to 2) and the storage strategy (0 to 3) for each culture. The categories used were:

1. Evidence of hunting

2. Evidence of gathering

3. Evidence of fishing

4. Evidence of animal husbandry

5. Evidence of animal domestication intensity

6. Evidence of cultivation/agriculture

7. Evidence of crop cultivation intensity

8. Evidence of settled forager activity

9. Evidence of nomadic pastoralism

10. Type of food storage strategy

TABLE 1: The eHRAF OCM codes for subsistence practices

OCM Code	Description
222	collecting
224	hunting and trapping
225	marine hunting
226	fishing
231	domesticated animals
233	pastoral activities
234	dairying
241	tillage
243	cereal agriculture
246	forage crops
251	preservation and storage of food
262	diet

1.   **Evidence of hunting**: This category is recorded in terms of: 0 = absent, 1 = present.

 eHRAF: For each eHRAF culture, evidence of hunting (1 = present) is indicated by the recording of 1 of 11 criteria relating directly to hunting practices, in the eHRAF database. Reference to or description of

1.   hunting as a main food source

2.   hunting used to supplement food source

3.   organisational aspects of hunting

4.   yield from hunting

5.   hunting expedition(s)

6.   types of animals hunted

7.   butchering or rendering of hunter animals

8.   sharing or dividing out of hunting yield

9.   storage of hunting yield

10.   cooking of hunted meat

11.   weapons used for hunting

Archaeology: For the archaeological site-phases evidence of hunting (1 = present) is recorded form the available sources that identify and record any 2 of 6 material culture criteria relating to hunting practices. Recording of:

1.   the presence of the remains of non-domesticate animal at site phases

2.   caches of non-domesticate animal remains

3.   evidence on the bones of non-domesticate animal indicative of hunting e.g. perimortem trauma

4.   Zooarchaeological evidence of butchery marks on the bones of non-domesticate animal

5.   evidence of cooking of non-domesticated animals via spoil heap or hearths

6.   weapons associated with hunting animals

2.   **Evidence of gathering**: This category is recorded in terms of: 0 = absent, 1 = present. Gathering in this section relates to non-domesticated plants, vegetables, roots, leaves, cereals, legumes, pulses, nuts, seeds, herbs and fruits.

eHRAF: For each eHRAF culture, evidence of gathering (1 = present) is indicated by the 1 of 10 criteria relating directly to gathering practices, in the eHRAF database. Reference to or description of:

1.   gathering as a main food source

2.   gathering used to supplement food source

3.   organisational aspects of gathering

4.   yield from gathering

5.   gathering expedition(s)

6.   types of plants, vegetables, roots, leaves, cereals, nuts, seeds, herbs and fruits gathered

7.   processing and cooking of gathered food source

8.   sharing or dividing out of gathering yield

9.   storage of gathered yield

10.   tools and material used for gathering e.g. reaching or shaking sticks, coiled baskets, fibre bags or containers.

Archaeology: For the archaeological site-phases evidence of gathering (1 = present) is recorded form the available sources that identify and record any 2 of the material culture criteria relating to gathering practices. Recording of:

1.   gathered non-domestic plants, vegetables, roots, leaves, cereals, nuts, legumes, pulses, seeds, herbs and fruits at a site-phase preserved via application of fire at a site-phase

2.   gathered non-domesticates at a site-phase preserved via human coprolites

3.   gathered non-domesticates at a site-phase preserved via waterlogged or other environment factors at a site-phase

4.   gathered non-domesticates preserved in addition manners such as in pottery glaze

5.   storage of gathered yield, for example in base camps pits, baskets or in pottery

6.   storage of gathered yield in domestic and/or communal settings; e.g. in pottery or baskets in a small house or in a large granary or silo

7.   cooking of gathered non-domesticates mainly via charcoal associated with hearths

8.   tools and material used for gathering e.g. coiled baskets, fibre bags or wooden containers

3. **Evidence of Fishing**: this category is recorded in terms of: 0 = absent, 1 = present.

eHRAF: For each eHRAF culture, evidence of fishing (1 = present) is indicated by the recording of 1 of 10 criteria relating directly to fishing practices, in the eHRAF database. Reference to or description of:

1. fishing as a main food source

2. fishing used to supplement food source

3. organisational aspects of fishing

4. yield from fishing

5. fishing expedition(s)

6. types of fish targeted or caught

7. processing and cooking of fish

8. sharing or dividing out of fishing yield

9. preservation and storage of fish

10. tools and material used for fishing e.g. rods, nets, fish traps or baskets.

Archaeology: For the archaeological site-phases evidence of fishing (1 = present) is recorded form the available sources that identify and record any 1 of the 5 material culture criteria relating to fishing. Recording of:

1. the presence of fish bones at site-phases

2. tools and material used for fishing e.g. fish traps

3. evidence of cooking of fish via spoil heap or hearths

4. evidence of the storage or preservation (drying, smoking, curing) of fish

5. Indication of marine sources in diet through measurement of the ratios of carbon (d13C) and nitrogen (d15N) stable isotopes in bone collagen.

4.   Evidence of herding/ animal husbandry: this category is recorded in terms of: 0 = absent, 1 = present.

eHRAF: For each eHRAF cultures, evidence of herding/animal husbandry (1 = present) is indicated by the recording of 1 of 6 criteria relating directly to herding/animal husbandry practices, in the eHRAF database. Reference to or description of:

1.   herding/animal husbandry as a food source via meat or animal produce

2.   organisational/management aspects of herding/animal husbandry —labour and land use

3.   types of domesticated animal kept

4.   processing of domesticated animals for meat and produce such as leather or dairy products

5.   sharing or dividing out produce or meat as a result of animal husbandry

6.   tools and material used in animal husbandry; for example, animal pens or food stored for domesticated animals.

Archaeology: For the archaeological site-phases evidence of herding/animal husbandry (1 = present) is recorded form the available sources that identify and record 1 of 8 material culture criteria relating to animal husbandry practices. Recording of:

1.   the presence of the remains of domesticated animal(s) at site phases— particularly, cattle, pig and sheep/goat

2.   Zooarchaeological evidence of domestic animal ages, based on tooth eruption and wear indicative of an animal husbandry system

3.   Zooarchaeological evidence of variation in livestock cull profiles relating to meat production and/or animals kept for secondary produce

4.   The presence of a tanning bath (usually wood such as birch) associated with the remains of domesticated animal(s)

5.   Butchery marks on the bones of domesticated animals

6.   Evidence of cooking of domesticated animals via spoil heap or hearths

7.   The analysis of carbon (d13C) and nitrogen (d15N) stable isotope composition in human bone collagen indicates domesticated herbivore protein in their daily diet

8.   Ancient DNA indicates evidence on lactose tolerance connected with the consumption of produce from domesticated animals

5.   Evidence of herding/animal husbandry intensity: this category is recorded in terms of an ordinal scale: 0, 1, 2 with 0 = no evidence of animal domestication, 1 = some domestication, including sheep, goats and pigs and 2 = full domestication including, cattle. This is based on the criteria provided in the evidence of animal husbandry section and the evidence of hunting section to determine:

0: no evidence of animal herding: the group are reliant on the hunting of wild animals

1: some herding: the recording of herded animals (such as sheep, goats and pigs) that form a large component of the meat protein intake, along with hunted animals

2: intense animal herding: the recording of a substantial presence of herded animals (especially cattle) and little evidence of hunting

Evidence of cultivation/agriculture: this category is recorded in terms of: 0 = absent, 1= present.

eHRAF: For each eHRAF culture, evidence of cultivation (1 = present) is indicated by the recording of 1 of 8 criteria relating directly to cultivation practices, in the eHRAF database. Reference to or description of:

1.   cultivated crops as a food source

2.   land use for crop cultivation

3.   organisational/management aspects of cultivation—labour and land use

4.   types of domesticated crops (cereals, pulses, legumes etc.) planted and harvested;

5.   processing (milling) of domesticated crops e.g. corn-driers, querns

6.   processing of domesticated crops

7.   storing or preservation out of yield from cultivation

8.   sharing or dividing out of yield from crop cultivation; (9)   tools and material used in crop cultivation

Archaeology: For the archaeological site-phases evidence of cultivation (1 = present) is recorded form the available sources that identify and recording of 2 of 8 of the material culture criteria relating to cultivating practices. Recording of:

1.   domestication (e.g. cereals, pulses and legumes) at a site-phase preserved via application of fire at a site-phase; e.g. charred remains

2.   domesticates at a site-phase preserved via human coprolites

3.   domesticates at a site-phase preserved via waterlogged context or other environment factors

4.   evidence of domesticates preserved in addition manners such as in pottery glaze

5.   storage of domesticates, in domestic and/or communal settings e.g. storehouses, grain bin, granaries, pits or in pottery; domestic and/or communal settings

6.   cooking of cultivated domesticates mainly via charcoal associated with hearths

7.   processing (milling) of domesticates via querns

8.   evidence of arable/cultivated land associated with site-phase

6.   Evidence of crop cultivation intensity: this category is recorded in terms of an ordinal scale: 0, 1, 2 with 0 = no evidence of cultivation, 1 = cultivation of non-staples and 2 = intensive cultivation/agriculture with domesticated staples.

This is based on the criteria provided in the evidence of cultivation and the evidence of gathering sections with:

0: evidence of gathering with no evidence of plant domestication

1: cultivation of non-staples and evidence of some gathering of wild plants

2: cultivation of fully domesticated staples being: food that is consumed regularly and forms as a dominant portion of a diet in a given group. Staple foods supply a substantial portion of the energy requirements and nutrients. Fully domesticated plants imply that the plants have been genetically modified over time by humans for the selection of such traits as: loss of grain shattering, shorter maturity or the removal of bitter tasting compounds. For this study, I concentrated on food sources derived from cereals such as wheat, barley maize, rice and rye, as well as, tubers/root vegetables such as yams, taro and potatoes as the staple foods.

7. **Evidence of settled forager activity**: this category is recorded in terms of: 0 = absent, 1= present.

eHRAF: For each eHRAF cultures, evidence of settled foraging (1 = present) is indicated by the recording 1 of 11 criteria relating directly to foraging practices in the context of a settled community, in the eHRAF database. Reference to or description of:

1.   direct description of the group as settled foragers

2.   foraging as a main food source

3.   foraging used to supplement food source

4.   organisational aspects of foraging

5.   yield from foraging

6.   foraging expedition(s)

7.   types of foraged plants

8.   processing and cooking of foraged plants

9.   sharing or dividing out of foraged yield

10.   storage of foraged yield

11.   tools and material used for foraging e.g. reaching or shaking sticks, coiled baskets, fibre bags or containers.

Archaeology: For the archaeological site-phases evidence of foraging (1 = present) is recorded form the available sources that identify and record material culture criteria relating to foraging practices by a settled community. This is based on a two-tier analysis: (1) to establish if a community were settled and (2) if they practiced foraging. Thus, presence is recorded if we have a settled community that has any 2 of the additional criteria

(a) Evidence of a settled group via:

(1) Evidence of construction of permanent buildings and (2) Strontium and/or Oxygen isotopic analysis indicates that population were settled in one location

(b) Recording of foraging of non-domestic resources:

1.   plants preserved via application of fire at a site-phase

2.   foraging of non-domesticates at a site-phase preserved via human coprolites

3.   foraging of non-domesticates at a site-phase preserved due to waterlogged or other environment factors at a site-phase

4.   foraging of non-domesticates preserved in addition manners such as in pottery glaze

5.   storage of foraging yield, for example in base camps pits or in pottery

6.   storage of foraged yield in domestic and/or communal settings; e.g. in pottery, a small store- house or in a granary or silo

7.   cooking of foraged non-domesticates mainly via charcoal associated with hearths

8.   tools and material used for foraging e.g. coiled baskets, fibre bags or wooden containers

8.   Evidence of nomadic pastoralism: this category is recorded in terms of: 0 = absent, 1 = present.

Nomadic pastoralism is a form of pastoralism where livestock are herded in order to find fresh pastures on which to graze. Dyson-Hudson (1980) and Khazanov (1994) present five characteristics of nomadic pastoralism:

1. Pastoralism is the predominant economic activity of the group

2. Maintaining herds of livestock all year round on a system of free-range grazing

3. Mobility within the boundaries of specific grazing territories

4. The participation in pastoral mobility of all or the majority of the population

5. Processing of livestock for subsistence

eHRAF: For each eHRAF culture, evidence of nomadic pastoralism (1 = present) is indicated by the recording any 1 of 11 criteria relating directly to livestock practices in the context of a mobile community, in the eHRAF database. Reference to or description of:

1.   the group as nomadic pastoralists

2.   moving grazing livestock a main food source

3.   group moving for grazing livestock

4.   locations for grazing livestock

5.   organisational aspects of nomadic pastoralism (i.e. division of a labour for moving and/or maintaining herd)

6.   yield from nomadic pastoralism

7.   processing of grazing livestock

8.   sharing or dividing out of grazing livestock yield

9.   storage of yield from grazing livestock

10.   tools and material used for nomadic pastoralism

11.   settlements and structures associated with nomadic pastoralism.

Archaeology: For the archaeological site-phases evidence of nomadic pastoralism (1 = present) is recorded form the available sources that identify and record material culture

criteria relating to grazing of domesticated livestock by a mobile group. This is based on a two-tier analysis: (1) to establish if a community were mobile and (2) if they had domesticated livestock. Thus, presence is recorded if we have a mobile group that has any of the additional criteria:

(a) Evidence of a mobile group outlines in the degree of sedentism section include:

(1) Evidence of construction of non-permanent buildings; (2) evidence of base camps and (3) Strontium and/or Oxygen isotopic analysis indicates that population were mobile

(b) Domesticated livestock recorded in terms of:

1.   the presence of the remains of domesticated animal at the site-phase

2.   zooarchaeological evidence of domestic animal ages, based on tooth eruption and wear indicative of managed system

3.   Zooarchaeological evidence of variation in livestock cull profiles relating to meat production and/or animals kept for secondary produce in the context of a mobile group

4.   zooarchaeological evidence of domestic animal ages, based on tooth eruption and wear indicative of nomadic pastoralism system

5.   butchery marks on the bones of domesticated animals in the context of a mobile group

6.   evidence of cooking of domesticated animals via spoil heap or hearths in the context of a mobile community

7.   strontium and/or Oxygen isotopic analysis indicates that animals were grazing in different locations

8.   ancient DNA indicates evidence of lactose tolerance connected with the consumption of produce from domesticated animals in the context of a mobile group.

9. **Evidence and type of Food storage strategy**: this category is recorded in terms of an ordinal scale: 0, 1, 2, 3; with 0 = no storage strategy, 1 = daily/weekly, 2 = monthly (less than 3 months), 3 = seasonal/yearly.

eHRAF: For each eHRAF culture, evidence of food storage strategy is scored in relation to the recording of criteria relating directly to food storage strategy, in the eHRAF database. Reference to or description of:

1. storage strategy employed by the culture

2. storage used to supplement food source in times of scarcity

3. storage method for food sources

4. organisational aspects of food storage

5. types of food sources stored

6. location of food storage

7. underground storage

8. domestic storerooms/houses

9. communal storerooms/houses

10. use of pottery or jars

11. evidence of freezing, drying, smoking, pickling, curing (salting), brining, burial, sealing and caching

12. processing of food source for storage (preservation methods)

13. sharing or dividing out of stored food (at particular times of year).

Archaeology: For the archaeological site-phases evidence of food storage or preservation relates to practices of preservation of food source via freezing, drying, smoking, pickling, curing (salting), brining, burial, sealing and caching. Storage and preservation of food were examined through the recorded evidence of any of the 11 material culture criteria relating to food storage practices. Recording of:

1. No evidence of food storage in pits, pottery/jars etc. is scored as 0

2.   indication of wild fruits and berries such as pear pips in pits is scored as 1

3.   preservation of food source by any of the above methods; indicting monthly or seasonal storage strategy depending of foodstuff:

- freezing, drying, smoking, pickling, curing (salting) of fish is scored as 2

- freezing, drying, smoking, pickling, curing (salting) of meat is scored as 3

4.   food stored in hermetically sealed via lac (insect residue), clay or soil method (i.e. pottery); indicative of longer-term storage strategy is scored as 3

5.   food stored in non-hermetically sealed method (i.e. pit); indicative of shorter-term storage strategy is scored as 2

6.   recoding of food source such as nuts or fruits stored in pits but not hermetically sealed in site-phases associated with mobile hunter-gatherers (base-camps) is scored as 1

7.   storage of food in a domestic setting; e.g. in pottery is scored as 2

8.   storage of food in a domestic setting; e.g. in a domestic granary or grain bin; indicting long storage strategy is scored as 3

9.   storage of food in a domestic setting; e.g. in a underground room or space is scored as 3

10.   storage of food in a communal settings; e.g. in hermetically sealed pottery in a storage house or in a large granary or silo; indicting seasonal storage strategy is cored as 3

11.   storage of food in a communal setting; e.g. in a underground room or space is scored as 3

12.   evidence of moderate, garden cultivations is taken as an indication of a seasonal storage strategy is scored as 2

13.   evidence of intensive agriculture is taken as an indication of a long-term storage strategy is scored as 3

General Ritual/Religious Characteristics

This section of the database was used to record the general ritual activities of each eHRAF culture and archaeological site-phase. For the eHRAF cultures, a specific set of OCM codes (Table 2) were used. For the most part, this section used categories of absence or presence (0 or 1) to identify and record the overall ritual characteristics of each culture and site-phase. However, to further asses the religious complexity of the eHRAF cultures ritual practice, the number of tiers of religious hierarchy was recorded (0, 1, 2, 3, >3); ranging for no religious practitioner in a community to an organised religious structure ranging from local practitioners to regional and pan-regional levels of hierarchy. Similarly, the level of standardisation was recorded using ordinal scales (0 to 2). In general, the presence of a more organised, homogenised, hierarchical and widespread set of religious practices and beliefs is associated with the doctrinal mode of religiosity. As the dysphoric arousal level and the ritual frequency of each eHRAF culture are already known, this section of the recording process was used to explore to what extent evidence of ritual standardisation and hierarchy can be used to comment on the imagistic or doctrinal nature of ritual/religious practices. Fifteen specific aspects of ritual/ religious characteristics are examined:

1.   Evidence of ritual standardisation

2.   Level of ritual standardisation

3.   Evidence of ritual practitioner(s)

4.   Levels of religious hierarchy

5.   Evidence of the standardisation of mortuary practices

6.   Evidence of ritual domestic space

7.   Evidence of communal ritual structures/buildings (not monuments)

8.   Evidence of communal ritual monuments/monuments in the landscape

9.   Evidence of large statues (and totems)

10.   Evidence of anthropomorphic figurines

11.   Evidence of zoomorphic figurines

12.   Evidence of association between food and rituals*

13.   Evidence of feasting

14.   Evidence of an association between food and taboo(s) *

15.   Evidence of in belief in sorcery/witchcraft/demons (malevolent spiritual forces)*

* recorded only for archaeological site-phases

* recorded only for eHRAF cultures

TABLE 1. The eHRAF OCM codes for ritual characteristics

OCM Code	Description
628	inter-community relations
764	burial practices
766	special burial practices and funerals
767	mortuary Practices
771	general character of religion
778	scared objects and spaces
780 (780-789)	religious practice
795	sects
796	organised ceremonial
869	transmission of beliefs

1.   Evidence of ritual standardisation: this category is recorded in terms of: 0 = absent, 1 = present

eHRAF: For each eHRAF culture, evidence of ritual standardisation (1 = present) is indicated by the examination of 13 criteria relating directly to ritual/religious practices, in the eHRAF database: Reference to or description of:

1.   the level of ritual standardisation in a community

2.   hierarchical ritual/religious structure

3. dedicated ritual/religious practitioners

4. organisational aspects of ritual/religious practices

5. beliefs being practiced over a long period of time

6. prescribed ceremonial practices/actions

7. prescribed ceremonial practices/times

8. repetition/diffusion of ritual/religious symbols

9. prescribed set of mortuary practices

10. shared set of beliefs/practices

11. reinforcement of beliefs

12. standardisation of community ritual/religious places/buildings

13. standardisation of ritual/religious architecture

Archaeology: For the archaeological site-phases evidence of ritual standardisation (1 = present) is recorded form the available sources that identify and record of 2 of 15 material culture criteria relating to evidence of ritual standardisation. Recording of:

1. repetition/diffusion of anthropomorphic figurines across the site-phase associated with domestic structures, communal structures, monuments and graves

2. repetition/diffusion of zoomorphic figurines across the site-phase associated with domestic structures, communal structures, monuments and graves

3. repetition/diffusion of human bone relics (the use of particular bone i.e. skulls, long bones, hand and foot bones) across the site-phase associated with domestic structures, communal structures, monuments and graves

4. repetition/diffusion of animal bone relics (the use of particular bones i.e. skulls, and long bones or horns) across the site-phase associated with domestic structures, communal structures, monuments and graves

5. repeated instances of evidence of skull caching, painting or plastering across the site-phase

6.	where reliable dating is present, it is established that that skull caching was repeated over a particular period of time

7.	repetition of carved or painted symbols across the site-phase associated with domestic structures, communal structures and monuments

8.	repetition of domestic ritual spaces across site-phase; identified by ritual artefacts such as figurines and bone relics and carved or painted symbols

9.	caching of anthropomorphic figurines, zoomorphic figurines and bone relics in cists, storerooms and niches of building(s)

10.	large scale public ceremonial places, identified by associated with presence or storage of carved or painted symbols, artefacts, bone relics or burials: a) communal ritual buildings, b) monuments, c) squares and plazas

11.	repetition/standardisation of burial practices in terms of: age, gender, treatment of the body, interment-type, inhumation, completeness, articulation, use of cremation, secondary burial practices, location, orientation, personal adornment and presence/absence of grave goods. This section is used to determine the level of standardisation in burial practices (which is dealt with in a later section) it centres on the description in the literature of a particular practice e.g. the majority of the dead being treated a certain way at a site-phase. Where percentages are given then greater than or equal to 60% is taken as the majority.

12.	where reliable dating is present, it is established that burial practices were repeated over a period of time —strengthening a case for standardisation

13.	specific location (cemetery) for burial containing human remains. This can be in a particular location in the landscape (flat cemetery), a communal building, a burial mound or monument

14.	special burial treatment (outlined in mortuary practices section) for a limited/select number of individuals ($< 30\%$ if percentages are given) may indicate:

(a) a way of treating the corpse of certain individuals

(b) religious leader or practitioner.

15. similarity of painted or carved symbols, figurines, bone relics, architecture of communal ritual structures (monuments and buildings) and burial practices to other site-phases in the region. This is used to consider a shared belief or ritual practices across a number of sites which may be indicative of ritual standardisations

2. Level of ritual standardisation: this category is recorded in terms of an ordinal scale: 0, 1, 2 with 0 = no evidence of ritual standardisation, 1 = some degree ritual standardisation with variations of practices observed and 2 = consistent evidence of highly standardised, repeated practices.

eHRAF cultures: the same criteria used to examine the evidence of ritual standardisation are applied here to determine if practice/beliefs are practiced and replicated throughout the community network.

Archaeology: the same criteria used to examine the evidence of ritual standardisation are applied here to determine to what extent ritual/religious practices are replicated throughout the site-phase an, where possible, if these practices were replicate across and number of site-phases in a regions:

0 = no evidence of ritual standardisation across a site-phase

1 = some degree ritual standardisation with variations of practices observed: Similar type of practice and symbols at the site-phase level but not entirely uniform and greater variation on a regional level.

2 = evidence of highly standardised practices:

A. similar practices and symbols across a site-phase with little variations

B. repetition of architecture of communal ritual buildings and monuments

C. where dating available, evidence of practice and symbols over a long period of time e.g. all the MPPNB

D.   evidence that similar practices and symbols shared by site-phases across a region with a high degree of replication

3.   Evidence of ritual practitioner (s): this category is recorded in terms of: 0 = absent, 1 = present.

eHRAF: For each eHRAF culture, the evidence of ritual practitioner(s) is indicated by the examination of 8 criteria relating directly to the evidence of ritual practitioner(s), in the eHRAF database: Reference to or description of:

1.   the level of ritual standardisation in a community

2.   hierarchical ritual/religious structure

3.   dedicated ritual/religious practitioners

4.   organisational aspects of ritual/religious practices

5.   prescribed ceremonial practices/actions

6.   prescribed ceremonial practices/times

7.   repetition/diffusion of ritual/religious symbols

8.   reinforcement of beliefs via practitioners

Archaeology: For the archaeological site-phases the evidence of ritual practitioner(s) (1 = present) is recorded form the available sources that identify and record of 2 of 5 material culture criteria relating to evidence of ritual practitioner(s). Recording of:

1.   evidence of moderate or high level of ritual standardisation (as scored in previous section)

2.   large scale public ceremonial places such as communal ritual buildings and monuments

3.   special burial treatment for a limited/select number of individuals (< 30% if percentages are given) may indicated a religious leader or practitioner. Special burial treatment (outlined later) centres on the description in the literature of a particular

practice as relating to a minority of the dead. Where percentages are given, then less than or equal to 30% is taken as a minority. For example, dependant on the normal burial practices at a site-phase, special burial treatment includes: inclusion of grave goods, cremation, inhumation, high level of personal adornment (compared to other graves), different orientation of grave, location of grave in a communal ritual structure, a single individual primary or secondary burial where group burials dominate, evidence of secondary burial practices to (a) remove post cranial bones for relics and (b) skull caching, painting or plastering and evidence of secondary burial practices where the corpse is de-fleshed (excarnation) via naturally before being placed in the grave

4.   the generation and storage of a surplus of food which would enable a class of ritual practitioners to be sustained while not actively engaging in a subsistence strategy

5.   similarity in treatment of a minority of the dead at other site-phases in the region. This is used to consider a shared belief or ritual practices across a number of sites which may be indicative of ritual practitioners.

6.

4.   Levels of religious hierarchy: this category is recorded in terms of an ordinal scale: (0, 1, 2, 3, >3) *

eHRAF: For each eHRAF culture, the levels of religious hierarchy are recorded using the ordinal scale with: 1 being a local ritual practitioner, 2 being a person or persons above the local ritual practitioner (regional or provincial level), 3 another level of a person or persons (supra-regional e.g. national level) and >3 being a level of religious hierarchy above the supra regional e.g. international. These are determined from the recording of any criteria relating directly to the levels of religious hierarchy, in the eHRAF database: Reference to or description of:

(1) the hierarchical ritual/religious structure

(2) dedicated ritual/religious practitioners

(3) the role of different ritual practitioners

(4) organisational aspects of ritual/religious practices

5.   Evidence of the standardisation of mortuary practices: this category is recorded in terms of: 0 = absent, 1 = present. This relates to the replication of mortuary practises used in a culture where 1 = present:

Repeated use of mortuary practice throughout the culture and/or

Repeated use of mortuary practice throughout the culture (equal to or more than 60% if percentages are given) of individuals representing a particular group, e.g. adults, sub adults males, females

eHRAF: For each eHRAF culture, evidence of the standardisation of mortuary practices (1 = present) is indicated by the examination of 9 criteria relating directly to mortuary practices, in the eHRAF database: Reference to or description of:

1.   the level the standardisation of mortuary practices in a community

2.   organisational aspects of mortuary practices

3.   rules regarding treatment of a corpse

4.   prescribed set of mortuary practices

5.   locations associated with mortuary practices

6.   repetition/diffusion of mortuary practices

7.   prescribed set of mortuary symbols

8.   shared set of beliefs about death and afterlife

9.   (standardisation of mortuary architecture (i.e. Grave markers and individual monuments)

10.   social rules regarding attendance of mortuary practices

Archaeology: This section is used to examine the evidence for the standardisation of mortuary practices. The determination of a practice being regularly used it centres on the description in the literature of a particular practice e.g. the majority of the dead being

treated a certain way at a site-phase. Where percentages are given, then greater than or equal to 60% is taken as the majority. For the archaeological site-phases evidence of the standardisation of mortuary practices (1 = present) is recorded form the available sources that identify and record of 2 of 14 material culture criteria relating to evidence of the standardisation of mortuary practices. Recording of:

1.   Repetition/standardisation of burial practices in terms of treatment of the corpse. If the majority of individuals are given the same post-mortem treatment

2.   Repetition/standardisation of burial practices in terms of: age and gender. If in most instances sub-adults, adult males and adult females respectively are given the same post-mortem treatment

3.   Repetition/standardisation of burial practices in terms of interment-type, inhumation, cremation completeness, and articulation. If the majority of individuals are given the same post-mortem treatment in terms of (a) interment-type; grave cut, urn, basket, monumental burial, domestic burial etc.; (b) cremation or inhumations; (c) articulated or disarticulated (d) flexed or extended and (e) single or comingled

4.   Repetition/standardisation of burial practices in terms of secondary burial practices. Secondary burial practices involving:

 (a) Reopening the grave after burial to retrieve artefacts or bones (post cranial and cranial). The former can be examine via the presence of staining due to the presence of a metal object which is no longer present and the latter can be indicated by absent bones particularly long bones and skull with no evidence of perimortem trauma

(b) Evidence of secondary burial practices where the corpse is de-fleshed (excarnation) naturally before being placed in the grave. This can be indicated by cut marks of bone or the absence of bone due to bones "rolling away" or being scavenged as happens when remain are placed in the open air to naturally de-flesh or all bones not collected properly

5.   Repetition/standardisation of burial practices in terms of location and orientation

6. Repetition/standardisation of burial practices in terms of personal adornment: presence of beads etc. in burials

7. Repetition/standardisation of burial practices in terms of presence/absence of grave goods

8. Repetition/diffusion of human bone relics (the use of particular bone i.e. skulls, long bones, hand and foot bones) across the site-phase associated with domestic structures, communal structures, monuments and graves

9. Repeated instances of evidence of skull caching, painting or plastering across the site-phase

10. Where reliable dating is present, it is established that skull caching was repeated over a particular period of time

11. Repetition/diffusion of carved or painted symbols associated with burials

12. Large scale public ceremonial places associated with the presence of burials or the caching of cranial and post-cranial bone such as communal ritual buildings, monuments, squares and plazas

13. (13) Where reliable dating is present, it has been established that burial practices were repeated over a period of time—strengthening a case for standardisation

14. Similarity of burial practices to other site-phases in the region. This is used to consider a shared mortuary practices across a number of sites which may be indicative of standardisations

6. **Evidence of ritual domestic space(s)**: this category is recorded in terms of: 0 = absent, 1 = present.

eHRAF: For each eHRAF culture, evidence of ritual domestic space (1 = present) is indicated by the examination of 8 criteria relating directly to the presence of ritual domestic space, in the eHRAF database: Reference to or description of:

1. ritual domestic space

2.   location of ritual domestic spaces

3.   construction of ritual domestic spaces

4.   architecture associated with ritual domestic spaces

5.   practices and ceremonies performed at ritual domestic spaces

6.   rules regarding ritual domestic spaces

7.   ritual aids and paraphernalia connected with ritual domestic spaces

8.   practices and ceremonies attended at ritual domestic spaces

Archaeology: This section is for the recording of ritual domestic spaces at a site-phase. In general, this is identified in the archaeological record by the presence of area of domestic building(s) that are associated with ritual activity. For the archaeological site-phases the evidence of ritual domestic space (1 = present) is recorded form the available sources that identify and record of 2 of 9 material culture criteria. Recording of:

1.   area of a domestic building(s) not associated with craft such as tool productions

2.   area of a domestic building(s) not associated with food storage or processing

3.   area of a domestic building(s) associated burial(s)

4.   area of a domestic building(s) associated with skull caching, painting or plastering

5.   area of a domestic building(s) associated with caching of anthropomorphic figurines

6.   area of a domestic building(s) associated with caching of zoomorphic figurines

7.   area of a domestic building(s) associated with human bone relics

8.   area of a domestic building(s) associated with animal bone relics

9.   area of a domestic building(s) associated with carved or painted symbols

7.   Evidence of communal ritual strutures/buildings (not monuments):   this category is used to record communal ritual buildings used for the purpose of housing ritual material, facilitating ritual/religious meetings and ritual/religious instruction—a

contemporary example being a church or synagogue. The evidence is recorded in terms of: 0 = absent, 1 = present.

eHRAF: For each eHRAF culture, evidence of communal ritual structures (1 = present) is indicated by the examination of 8 criteria relating directly to the presence of communal ritual structures, in the eHRAF database: Reference to or description of:

1.   presence of dedicated communal ritual/religious building(s)

2.   design of communal ritual/religious building(s)

3.   construction of communal ritual/religious building(s)

4.   use of communal ritual/religious building (s)

5.   practices and ceremonies attended at communal ritual/religious building(s)

6.   practices and ceremonies performed at communal ritual/religious building(s)

7.   organisational aspects of ritual/religious practices

8.   community ritual/religious architecture

9.   standardisation of community ritual/religious architecture

Archaeology: This section is for the recording of ritual buildings that were used by the community. In general, this is identified in the archaeological record by the presence of large, supra-domestic buildings that are associated with ritual activity. Large in this case refers to buildings that are bigger that the typical domestic buildings at the site. For the archaeological site-phases the evidence of communal ritual structures (not monuments) (1 = present) is recorded form the available sources that identify and record of 2 of 11 material culture criteria. Recording of:

1.   large supra-domestic buildings not associated with craft such as tool productions

2.   large supra-domestic buildings not associated with food storage or processing

3.   large supra-domestic buildings associated burial(s)

4.   large supra-domestic buildings associated with special burial treatments

5.   large supra-domestic buildings associated with skull caching, painting or plastering(s)

6.   large supra-domestic buildings associated with caching of anthropomorphic figurines

7.   large supra-domestic buildings associated with caching of zoomorphic figurines

8.   large supra-domestic buildings associated with human bone relics

9.   large supra-domestic buildings associated with animal bone relics

10.   large supra-domestic buildings associated with carved or painted symbols

11.   similar buildings at other site-phases in the region. This is used to consider a shared belief or ritual practices across a number of sites which may be indicative of ritual standardisations.

8.   Evidence of communal ritual monuments/monuments in the landscape (including, barrows, henges megaliths): this category is recorded in terms of: 0 = absent, 1 = present.

eHRAF: For each eHRAF culture, evidence of monuments (1 = present) is indicated by the examination of 10 criteria relating directly to the presence of communal ritual monuments, in the eHRAF database: Reference to or description of:

1.   presence of monuments

2.   locations associated with monuments

3.   construction of monuments

4.   architecture of monuments

5.   symbols associated with monuments

6.   practices and ceremonies attended at monuments

7.   practices and ceremonies performed at monuments

8.   organisational aspects of ritual/religious practices at monuments

9.   rules and sanctions regarding monuments

10.   myths and beliefs regarding monuments

Archaeology: This section is for the recording of structures that were used for ritual purposes. This manly includes megaliths, henges, barrows and mounds that the archaeological evidence suggest were (1) the ritual focus of a community and/or (2) associated with ritual/religious practices of a community. In general, this is identified in the archaeological record by the presence of large, supra-domestic monuments that are associated with ritual activity. Large in this case refers to the fact that completion of such a structure would have required a large amount of investment in terms of time and labour. For the archaeological site-phases the evidence of monuments (1 = present) is recorded form the available sources that identify and record 1 of 11 of material culture criteria. Recording of:

1.   presence of relatively complete monuments

2.   presence of partially preserved monuments

3.   presence of partially preserved (e.g. foundation remaining) monuments

4.   monuments associated with burial(s)

5.   monuments associated with special burial treatments (outline in mortuary practices section)

6.   monuments associated with skull caching, painting or plastering

7.   monuments associated with caching of anthropomorphic figurines

8.   monuments associated with caching of zoomorphic figurines

9.   monuments associated with human bone relics

10.   monuments associated with animal bone relics

11.   monuments associated with carved or painted symbols

9.   Evidence of large statues (and totems): this category is recorded in terms of: 0 = absent, 1 = present. Large statues refers to (1) carved or cast figure with zoomorphic and/or anthropomorphic features; (2) that is larger than a bust (3) can be life-size or larger; (4) cannot be move by an individual; (5) made of stone, wood or metal. A totem

refers to a large carved or painted representation of an object (as an animal or plant) that acts as a group emblem.

eHRAF: For each eHRAF culture, evidence of large statues (and totems) (1 = present) is indicated by the examination of 13 criteria relating directly to the presence of large statues, in the eHRAF database: Reference to or description of:

(1) Presence of large statute(s)

(2) Location associated with large statute(s)

(3) Person (real or mythical/religious) associated with large statute(s)

(4) Animal (real or mythical/religious) associated with large statute(s)

(5) Construction of large statute(s)

(6) A sculptor engaging in creating large statute(s)

(7) Symbols associated with large statute(s)

(8) Practices, ceremonies and dedications attended at large statute(s)

(9) Practices, ceremonies and dedications performed at large statute(s)

(10) Organisational aspects of creation and installation of large statute(s)

(11) Rules and sanctions associated with large statute(s)

(12) Myths and beliefs associated with large statute(s)

(13) Payment for large statute(s)

Archaeology: For the archaeological site-phases the evidence of large statues (and totems) (1 = present) is recorded form the available sources that identify and record any of the material culture criteria associated with the presence of large statue(s) (and totems) at site-phase indicated by preservation of

(1) Sections of large statue(s)

(2) Foundation evidence of large statue(s)

(3) Plinth of large statue(s)

10. **Evidence of anthropomorphic figurines**: this category is recorded in terms of: 0 = absent, 1 = present.

eHRAF: For each eHRAF culture, evidence of anthropomorphic figurines (1 = present) is indicated by the examination of 12 criteria relating directly to the presence of anthropomorphic figurines, in the eHRAF database: Reference to or description of:

(1) presence of anthropomorphic figurines

(2) domestic use of anthropomorphic figurines

(3) non-domestic use of anthropomorphic figurines

(4) trading of anthropomorphic figurines

(5) person(s) (real or mythical/religious) associated with anthropomorphic figurines

(6) production of anthropomorphic figurines

(6) storage and caching of anthropomorphic figurines

(7) symbols associated with anthropomorphic figurines

(8) practices, ceremonies and dedications associated anthropomorphic figurines

(9) rules and sanctions associated with anthropomorphic figurines

(10) myths and beliefs associated with anthropomorphic figurines

(11) payment for anthropomorphic figurines

Archaeology: For the archaeological site-phases evidence of anthropomorphic figurines (1 = present) is recorded form the available sources that identify and record

 1 of 10 material culture criteria:

1.   presence anthropomorphic figurines at a site-phase

2.   presence of anthropomorphic figurines in domestic building(s)

3.   caching of anthropomorphic figurines in domestic building(s)

4.   presence of anthropomorphic figurines in communal ritual building(s)

5.   caching of anthropomorphic figurines in in communal ritual building(s)

6.   presence of anthropomorphic figurines at communal ritual structure(s)

7.   caching of anthropomorphic figurines at communal ritual structure(s)

8.   presence of anthropomorphic figurines in burial(s)

9.   caching of anthropomorphic figurines in in burial(s)

10.   evidence of the production of anthropomorphic figurines via (1) unfinished examples or (2) stone debitage or preserved wooden shavings

11.   Evidence of zoomorphic figurines: this category is recorded in terms of: 0 = absent, 1 = present.

eHRAF: For each eHRAF culture, evidence of zoomorphic figurines (1 = present) is indicated by the examination of 11 criteria relating directly to the presence of anthropomorphic figurines, in the eHRAF database: Reference to or description of:

1.   presence of zoomorphic figurines

2.   domestic use of zoomorphic figurines

3.   non-domestic use of zoomorphic figurines

4.   trading of zoomorphic figurines

5.   animal (real or mythical/religious) associated with zoomorphic figurines (6) production of zoomorphic figurines

6. storage and caching of zoomorphic figurines

7. symbols associated with zoomorphic figurines

8. practices, ceremonies and dedications associated zoomorphic figurines

9. rules and sanctions associated with zoomorphic figurines

10. myths and beliefs associated with zoomorphic figurines

11. payment for zoomorphic figurines

Archaeology: For the archaeological site-phases evidence of zoomorphic figurines (1 = present) is recorded form the available sources that identify and recording of 1 of 10 material culture criteria:

1. presence zoomorphic figurines at a site-phase

2. presence of zoomorphic figurines in domestic building(s)

3. caching of zoomorphic figurines in domestic building(s)

4. presence of zoomorphic figurines in communal ritual building(s)

5. caching of zoomorphic figurines in in communal ritual building(s)

6. presence of zoomorphic figurines at communal ritual structure(s)

7. caching of zoomorphic figurines at communal ritual structure(s)

8. presence of zoomorphic figurines in burial(s)

9. caching of zoomorphic figurines in in burial(s)

10. evidence of the production of zoomorphic figurines via (1) unfinished examples or (2) stone debitage or preserved wooden shavings.

12. Evidence of association between food and ritual: this category is recorded in terms of: 0 = absent, 1 = present. *

eHRAF: For each eHRAF culture, evidence of association between food with ritual (1 = present) is indicated by the examination of 14 criteria relating directly to the evidence of association between food and ritual, in the eHRAF database: Reference to or description of:

(1) use of food in rituals, ceremonies

(2) practices, ceremonies and dedications associated with food

(3) connections between food and the deceased/ancestors

(4) types of food collected for ritual(s)

(5) mythical/religious associations with food

(6) mythical/religious figures associated with food

(7) myths and beliefs surrounding the collection of food

(8) myths and beliefs surrounding the production of food

(9) myths and beliefs surrounding the preservation of food

(10) myths and beliefs surrounding the consumption of food

(11) ritual symbols associated with foods

(12) rules and sanctions associated with food

(13) periods of fasting as part of a ritual or ceremony

(14) description of ritual feasting (e.g. harvesting festival)

13. **Evidence of feasting** this category is recorded in terms of: 0 = absent, 1 = present.

eHRAF: For each eHRAF culture, evidence of feasting (1 = present) is indicated by the examination of 20 criteria relating directly to the evidence of association between feasting with ritual, in the eHRAF database: Reference to or description of:

(1) description of feasting event(s)

(2) hosting feasting events

(3) attending feasts

(4) location of feasts

(5) occurrence/frequency of feasts

(6) reasons/motivations for feasts (e.g. harvesting festival)

(7) organisation of feasts

(8) rituals and ceremonies associated with feasts

(9) types of food gathered for feasts

(10) types of animals reared for feasts

(11) types of animals slaughtered/butchered for feasts

(12) types of animals hunted for feasts

(13) entertainment associated with feasts

(14) mythical/religious associations with feasting

(15) mythical/religious figures associated with feasting

(16) myths and beliefs surrounding the collection of food for feasting

(17) myths and beliefs surrounding the consumption of food at feasting

(18) ritual symbols associated with feastings

(19) rules and sanctions associated with feasting

(20) payment/reciprocal aspects of feasts

Archaeology: One of the problems with archaeological evidence of feasting is, even at well dated site-phases, it is difficult to determine if the record is indicating one large event or a number of smaller events. To examine the presence of feasting in the archaeological record of both regions, specific criteria were used:

 (1) the previous criteria used by Dietrich *et al.* (2012); Munro and Grosman (2010); McGovern (2009); Dineley, (2004) and Dietler and Hayden (2001)

(2) the indicators of feasting that emerged as the best potential for examining the evidence o0f feasting during the pilot study.

For this research, the archaeological evidence of feasting (1 = present) is recorded form the available sources that identify and record of 3 of 20 material culture criteria:

(1) remains of large quantities of labour intensive animals

(2) remains of large quantities of labour intensive plants

(3) remains of large quantities of wild animals

(4) remains of large quantities of domesticated animals

(5) remains of large quantities of both wild and domesticated animals

(6) evidence of butchery or processing of animals via cut marks

(7) evidence of butchery or processing of animals at the site via cut marks on bone and stone tool evidence

(8) evidence of all anatomical regions of the animals accounted for

(9) evidence of butchery not at the site (no stone tool evidence) and the selective transport of particular anatomical regions of animals

(10) disposal of large amounts of articular joints

(11) large amount of long bones with evidence of spiral and longitudinal breaks associated with marrow extraction

(12) large amount of bones with evidence of blackening, warping and fragmentation associated with cooking

(13) large amounts of hearths and roasting pits in close proximity e.g. in a row

(14) large of hearth and/or roasting pit

(15) Large bone dumps

(16) unusually large quantities of material e.g. pottery

(17) unusually large vessels

(18) special temporary structure(s) indicated by post-holes etc.

(19) use of special locations usually not habitation sites e.g. monuments, tombs and henges

(20) large food storage facilities e.g. pits, granaries and silos

(21) evidence of record keeping e.g. tally sticks and counting tokens

(22) evidence of special substances such as alcohol narcotics or hallucinogens indicated via (1) material evidence of productions (e.g. Dineley 2004) and/or (2) organic residue on pottery (McGovern 2009).

14.   Evidence of an association between food and taboo(s): this category is recorded in terms of: 0 = absent, 1 = present. *

eHRAF: This section was used to record and examine any social or religious custom prohibiting or restricting a particular practice in relation to types of food including: the growing, harvesting, collection, hunting, processing or consumption of particular food is indicated by the examination of 20 criteria relating directly to the evidence of an association between food and taboo(s), in the eHRAF database: Reference to or description of:

(1) description of taboos associated with food(s)

(2) rules and sanctions associated with food

(3) the enforcement of rules and sanctions associated with food taboo(s)

(4) the carrying out of sanctions associated with food taboo(s)

(5) ritual/religious practitioners associated with food taboo(s)

(6) the taking part in sanctions associated with food taboo(s)

(7) the witnessing of sanctions associated with food taboo(s)

(8) mythical/religious associations with food

(9) practices and ceremonies associated with food

(10) connections between food and the deceased/ancestors

(11) connections between food and the malevolent forces (curses and evil spirits)

(12) connections between food and group fortune/future

(13) connections between food taboo (s) and the fortune/future of the individual

(14) mythical/religious figures associated with food taboo(s)

(15) taboo(s) surrounding the collection of food

(16) taboo(s) surrounding the production of food

(17) taboo(s) surrounding the preservation of food

(18) taboo(s) surrounding the consumption of food

(19) symbols associated with food taboo(s)

(20) social/spiritual cleansing and reintegration into group after sanction(s) associated with food taboo.

15.   Evidence of in belief in sorcery/witchcraft/demons (malevolent spiritual forces): this category is recorded in terms of: 0 = absent, 1 = present. *

eHRAF: For each eHRAF culture, evidence of malevolent spiritual forces: (1 = present). It is indicated by the examination of 23 criteria relating directly to the evidence of

evidence of malevolent spiritual forces, in the eHRAF database: Reference to or description of:

1.   description of malevolent spiritual forces

2.   rules and sanctions associated with malevolent spiritual forces

3.   secret practice connected with malevolent spiritual forces

4.   secret groups connected with malevolent spiritual forces

5.   the invocation of malevolent spiritual forces (e.g. voodoo and black magic)

6.   the enforcement of rules and sanctions associated with malevolent spiritual forces

7.   the carrying out of sanctions associated with evidence of malevolent spiritual forces

8.   the taking part in sanctions associated with evidence of malevolent spiritual forces

9.   the witnessing of sanctions associated with evidence of malevolent spiritual forces

10.   mythical/religious associations with malevolent spiritual forces

11.   practices, ceremonies and incantations associated with evidence of malevolent spiritual forces

12.   preventative appeasement of associated with evidence of malevolent spiritual forces

13.   connections between malevolent spiritual forces and the deceased/ancestors

14.   connections between evidence of malevolent spiritual forces and group fortune/future

15.   connections between evidence of malevolent spiritual forces and the fortune/future of the individual

16.   mythical/religious figures associated with of malevolent spiritual forces

17.   myths and beliefs surrounding malevolent spiritual forces

18.   symbols associated with evidence of malevolent spiritual forces

19.   social/spiritual cleansing and reintegration into group associated with malevolent spiritual forces

20.   appeasement of malevolent spiritual forces via ceremonies and ritual practice

21.   appeasement of malevolent spiritual forces via actions such as animals slaughtered/butchered

22.   types of animals slaughtered/butchered for appeasement of malevolent spiritual forces

23.   types of food used for appeasement of malevolent spiritual forces

Mortuary Practices

This section of the database was used to record the mortuary practices of each eHRAF culture and archaeological site-phase. For the eHRAF cultures, a specific set of OCM codes (Table 3) were used. This section used categories of absence or presence (0 or 1) to identify and record the mortuary practices of each culture and site-phase. A practice was deemed typical based on the description in the literature of e.g. the majority of the dead being treated a certain way at a site-phase. Where percentages are given, then greater than or equal to 60% is taken as the majority. On the other hand, special burial treatment (outlined later) centres on the description in the literature of a particular practice as relating to the minority of the dead. Where percentages are given, then less than or equal to < 30% is taken as a minority.

The material correlates categories used to record the mortuary practices of each culture and site-phase were:

1.   Evidence of the standardisation of mortuary practices

2.   Evidence of cemetery burial (evidence of cemeteries)

3.   Evidence of non-cemetery interment

4.   Evidence of intramural interment

5.   Evidence of extramural interment

6.   Evidence of interment in ritual building(s) (not monuments)

7.   Evidence of monumental burial/interment

8.   Evidence of interment in domestic building(s)

9.   Evidence of single individual burial/interment

10.   Evidence of group burial/interment

11.   Evidence of flexed burials

12.   Evidence of extended burials

13.   Evidence of inhumation

14.   Evidence of cremation

15.   Evidence of secondary mortuary (burial or interment) practice

16.   Evidence of grave disturbance

17.   Evidence of grave goods

18.   Evidence of skulls manipulation/modification (associated with mortuary

practices) Including:

- ➤ evidence of skulls caching: (0 /1)
- ➤ evidence of plastered skulls: (0 /1)
- ➤ evidence of painting skulls: (0 /1)
- ➤ evidence of post-mortem decapitation: (0 /1)

19.   Evidence of burial associated with animals

20.   Evidence of special burial treatment

TABLE 3. The eHRAF OCM codes for mortuary practice

OCM Code	Description
761	life and death
764	burial practices
766	special burial practices and funerals
767	mortuary practices
769	cult of the dead
771	general character of religion
778	scared objects and spaces
788	ritual
796	organised ceremonial

1.   Evidence of the standardisation of mortuary practices: this category is recorded in terms of: 0 = absent, 1 = present.

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the *General ritual/religious characteristics* section.

2.   **Evidence of cemetery burial**: this category is recorded in terms of: 0 = absent, 1 = present.

In this study the term cemetery refers to an area or locations set aside for the burying of multiple human remains (more than 5, if possible); it includes communal burial areas such as cemeteries, graveyards, communal buildings, burial mounds, barrows and monuments. Cemeteries are generally located close to but not necessarily within settlement(s). In the ethnographic record cemeteries, generally, have a systematic layout that is associated with (1) ancestral/familial grave spaces and (2) the performance of community funerary rituals. A cemetery is taken to be an area where repeated interments have taken place, usually, over a period of time. It can contain single individual burial and group burials.

eHRAF: For each eHRAF culture, evidence of a cemetery (1 = present) comes for the recording of 29 criteria in the eHRAF database: Reference to or description of:

1.   the use of a communal burial area(s) (cemetery or cemeteries) by a group/community

2.   the requesting for interment in a cemetery

3.   specific location (cemetery) for burial containing human remains. This can be in a particular location in the landscape, a communal building, a burial mound or monument

4.   the use of a communal burial area(s) for most individuals as a standard treatment

5.   the use of a communal burial area(s) for certain individuals as a non-standard treatment

6.   age differences associated with the use of a communal burial area(s)

7.   sex differences associated with the use of a communal burial area(s)

8.   preparation of a corpse or corpses for cemetery burial

9.   burial practices at a cemetery

(a) primary burial practices at a cemetery

(b) secondary burial practices at a cemetery

10. practices, rituals, ceremonies and dedications associated with the dead in cemeteries

11. practices, rituals, ceremonies and dedications associated with cemetery grounds

12. connections between cemeteries and the deceased/ancestors

13. preforming practices, rituals, ceremonies and dedications associated in cemeteries

14. dedicated ritual practitioner(s) associated with rituals, ceremonies and dedications in cemeteries

15. dedicated member(s) of the community associated with rituals, ceremonies and dedications in cemeteries

16. dedicated kin member(s) associated with rituals, ceremonies and dedications in cemeteries

17. attending practices, rituals, ceremonies and dedications associated in cemeteries

18. participating in practices, rituals, ceremonies and dedications associated in cemeteries

19. mythical/religious associations with cemeteries

20. mythical/religious figures associated with cemeteries

21. design and/or layout of cemeteries

22. architecture associated with cemeteries

23. ritual symbols associated with cemeteries

24. statues and/or grave markers used at cemeteries

25. rules and sanctions associated with cemeteries

26. visiting and re- visiting cemeteries

27. maintenance of graves at cemeteries

28. (maintenance of cemeteries

29. payment for burial in a cemetery

Archaeology: This section is used to determine the use of cemeteries as part of the burial/interment practices at a site. Cemetery is taken as a particular location where

multiple interments have occurred. It includes flat cemeteries, burial mounds, barrows and megalithic cemeteries. Where percentages are given or can be calculated, then greater than or equal to 60% is taken as the majority. On the other hand, where percentages are not given, we have to rely on the excavators' description of practices as standard, typical, uniform, afforded to the majority of individuals etc.

For the archaeological site-phases evidence of cemeteries (1 = present) is recorded form the available sources that identify and record 3 of 19 material culture criteria via the recording of:

1.   specific location for burial/interment containing multiple human remains. This can be in a particular location in:

1.   the settlement

2.   the surrounding landscape (hilltop, plateaux etc.)

3.   communal building(s)

4.   burial mound (s), barrow(s)

5.   monument(s)/tombs e.g. megaliths

2.   sectioned-off specific location for burial/interment containing human remains physical barriers include walls, ditches or palisades:

•   in the settlement the settlement

•   in the surrounding landscape

3.   where reliable dating is present, it is established that a particular location was used for burial/interment repeated over a period of time

4.   the use of a particular location (a communal burial area(s)) for most individuals (standard treatment)

5.   repetition/standardisation of burial practice in a particular burial/interment location

6.   repetition/standardisation of location of burials/interments associated with a particular burial/interment location

7.   repetition/standardisation of orientation of burials/interments associated with a particular burial/interment location

8.   repetition/standardisation of interment type associated with a particular burial/interment location:

- grave cuts in the ground,

- cists,

- urns

- barrow(s),

- burial mound(s)

- interment in a monument/tomb e.g. megalithic tomb(s)

9.   repetition/standardisation of burial/interment of the body associated with a particular location:

- Flexed inhumation

- Extended inhumation

- Articulated

- Disarticulated

- Single inhumation burial/interment

- Group inhumation burial/interment

- Level of completeness of inhumation

- Single Cremation

- Comingled cremation

- Level of completeness of cremations

10.   Repetition/standardisation of practices associated with age at a particular burial/interment location. E.g. the majority of sub-adults receive beads as grave goods

11.   repetition/standardisation of practices associated with biological sex at a particular burial/interment location E.g. the majority of adult females receive weapons as grave goods

12. Repetition/standardisation of grave goods associated with a particular burial/interment location. Including:

- beads

- weapons

- pottery

- utilitarian object

- carved stones

- human bone relics

- animal bone

13. Repetition/standardisation of bodily adornment associated with a particular burial/interment location.

14. repetition/standardisation of primary burial practice in a particular location (similar to points 8 and 9)

15. Repetition/standardisation of secondary burial practice in a particular location. Including:

- re-opening the grave to retrieve bone (e.g. long bone, skull) missing bone but no evidence of perimortem trauma

- re-opening the grave to retrieve artifact (staining due to artefacts no longer present)

16. repetition/diffusion/standardisation of design associated with a particular burial/interment location

17. repetition/diffusion/standardisation architecture associated with a particular burial/interment location

18. repetition/diffusion/standardisation ritual symbols associated with a particular burial/interment location

19. repetition/diffusion/standardisation grave markers used at a particular burial/interment location

3.   **Evidence of non-cemetery interment**: this category is recorded in terms of: 0 = absent, 1 = present.

In this study the term non-cemetery refers to an area or locations not specifically set aside for the burying of human remains. It includes the evidence of single interment or group interment in a grave cut, cist, urn, monument, barrow, henge, tomb, as well as, intramural and extramural interment that appears not be associated with a communal burial/interment location.

eHRAF: For each eHRAF culture, evidence of a non-cemetery interment (1 = present) comes for the recording of 31 criteria in the eHRAF database: Reference to or description of:

1.   the use of a non-cemetery interment area(s) for burial

2.   the requesting for non-cemetery interment

3.   the use of non-cemetery interment for most individuals as a standard treatment

4.   the use of non-cemetery interment for certain individuals as a non-standard treatment

5.   age differences associated with the use of non-cemetery interment

6.   sex differences associated with the use of non-cemetery interment

7.   specific location for non-non-cemetery interments

8.   recording of isolated graves inside the group territory with one individual

9.   recording of isolated graves outside the group territory with one individual

10.   recording of isolated graves inside the group territory with more than one individual

11.   recording of isolated graves outside the group territory with more than one individual

12.   disposal of a body for group members that die away from the group territory

13.   preparation of a corpse or corpses for non-cemetery interment

14.   interment practices at a non-cemetery locations

15.   primary burial practices at a non-cemetery locations

16.   secondary burial practices at a non-cemetery locations

17.   practices, rituals, ceremonies and dedications associated with the dead in non-cemetery locations

18.   dedicated ritual practitioner(s) associated with rituals, ceremonies and dedications in non-cemetery locations

19.   dedicated member(s) of the community associated with rituals, ceremonies and dedications in non-cemetery locations

20.   dedicated kin member(s) associated with rituals, ceremonies and dedications in non-cemetery locations

21.   connections between non-cemetery locations and the deceased/ancestors

22.   preforming practices, rituals, ceremonies and dedications associated with the dead in non-cemetery locations

23.   attending practices, rituals, ceremonies and dedications associated with the dead in non-cemetery locations

24.   participating in practices, rituals, ceremonies and dedications associated with the dead in non-cemetery locations

25.   mythical/religious associations with the dead in non-cemetery locations

26.   mythical/religious figures associated with the dead in non-cemetery locations

27.   ritual symbols associated with the dead in non-cemetery locations

28.   grave markers used at for interments at non-cemetery locations

29.   rules and sanctions associated with the dead in non-cemetery locations

30.   visiting and re-visiting the dead in non-cemetery locations

31.   maintenance of "graves" at non-cemetery locations

Archaeology: For the archaeological site-phases evidence of non-cemetery burial/interment (1 = present) is recorded form the available sources that identify and record of 3 of 22material culture criteria. The recording of:

1.   No evidence of a specific location for burial/interment at a particular location inside the settlement:

2.   No evidence of a specific location for burial/interment at a particular location outside but connected with the settlement:

3.   No evidence of a sectioned-off specific location for burial/interment containing human remains; physical barriers include walls, ditches or palisades:

- in the settlement the settlement

- in the surrounding landscape

4.   Little or no standardisation/repetition of burial/interment practices at a particular location

5.   Burial/interment that is not at a recorded communal burial/interment at a site

6.   Recording of isolated or deviant burial/interments

7.   isolated burial/interments inside the settlement

8.   Contemporary isolated burial/interments outside the settlement. This case can be strengthened if we have dating, ancient DNA or isotope evidence that indicates a connection between the burial and the settlement

9.   isolated burial/interments in a communal building

10.   isolated burial/interments in a communal ritual building

11.   isolated burial/interments between building

12.   isolated burial/interments in a barrow, henge, mound or megalith

13.   burial/interments in a domestic building

14.   No evidence of repetition/standardisation of orientation of burials associated with a particular burial/interment location

15.   No evidence of repetition/standardisation of interment type associated with a particular burial/interment location:

16.   No evidence of repetition/standardisation of burial/interment of the body associated with a particular location:

17. No evidence of repetition/standardisation of practices associated with age at a particular burial/interment location. E.g. the majority of sub-adults receive beads as grave goods

18. No evidence of repetition/standardisation of practices associated with sex at a particular burial/interment location E.g. the majority of adult females receive weapons as grave goods

19. No evidence of repetition/standardisation of grave goods associated with a particular burial/interment location. Including:

20. No evidence of repetition/standardisation of bodily adornment associated with a particular burial/interment location.

21. No evidence of repetition/diffusion/standardisation of design associated with a particular burial/interment location

22. No evidence of repetition/diffusion/standardisation grave markers used at a particular burial/interment location

4. **Evidence of intramural interment**: this category is recorded in terms of: 0 = absent, 1 = present. In this study, the term intramural interment refers to the placing of human remains within the walls, foundations or floor of a building(s). It may reflect a one-off or repeated interment practice at that location.

 It includes the evidence of:

- single complete individual intramural interment (inhumation)

- single incomplete individual intramural interment (inhumation)

- group complete intramural interment (inhumation)

- group incomplete intramural interment (inhumation)

- comingled intramural interment (inhumation)

- Single cremation intramural interment

- Comingled cremation intramural interment

- the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a building(s)

Note for this study:

a. complete = all bones present or anatomical regions accounted for if soft tissue is well-preserved or present (e.g. via Mummification)

b. incomplete = not all bones present or anatomical regions not accounted for if soft tissue is present

eHRAF: For each eHRAF culture, evidence of intramural interment (1 = present) comes for the examination of 31 criteria in the eHRAF database: Reference to or description of:

1. the use of intramural interment:

2. the requesting for intramural interment:

3. the use of intramural interment for most individuals as a standard treatment

4. the use of intramural interment for certain individuals as a non-standard treatment

5. age differences associated with the use of intramural interment

6. sex differences associated with the use of intramural interment

7. the occasions when intramural interment occurs

8. the reasons for the use of intramural interment

9. the individual(s) afforded intramural interment

10. the frequency of intramural interment

11. specific location for intramural interments

12. recording of isolated graves within the walls, floor or foundation of a building(s) with one individual

13. recording of isolated graves within the walls, floor or foundation of a building(s) with more than one individual

14. recording of bone caching within the walls, floor or foundation of a building(s)

15. preparation of a corpse or corpses for intramural interment

16.   practices at intramural interment locations

(a) primary interment practices within the walls, floor or foundation of a building(s)

(b) secondary interment practices within the walls, floor or foundation of a building(s)

17.   practices, rituals, ceremonies and dedications associated with in intramural interment

18.   connections between intramural interment locations and the deceased/ancestors

19.   preforming practices, rituals, ceremonies and dedications associated with the dead in intramural interment locations

20.   attending practices, rituals, ceremonies and dedications associated with the dead in intramural interment locations

21.   participating in practices, rituals, ceremonies and dedications associated with the dead in intramural interment locations

22.   dedicated ritual practitioner(s) associated with rituals, ceremonies and dedications associated with in intramural interment

23.   dedicated member(s) of the community associated with rituals, ceremonies and dedications associated with in intramural interment

24.   dedicated kin member(s) associated with rituals, ceremonies and dedications associated with in intramural interment

25.   mythical/religious associations with the dead in intramural interment locations

26.   mythical/religious figures associated with the dead in intramural interment locations

27.   ritual symbols associated with the dead in intramural interment locations

28.   grave markers used at for interments at intramural interment locations

29.   rules and sanctions associated with the dead in intramural interment locations

30.   visiting and re- visiting the dead in intramural interment locations

31.   maintenance of intramural interment locations

Archaeology: For the archaeological site-phases, the use of intramural burial/interment (1 = present) relates to the identification of any burials/interments inside the walls, floors or foundations of buildings. Intramural burial/interment can occur in a pit, grave cut, cist or urn. Intramural burial/interment is recorded form the available sources that identify and record 1 of 33 material culture criteria:

1. single complete individual intramural burial/interment within the walls, foundations or floor of communal building(s)

2. single complete individual intramural burial/interment within the walls, foundations or floor of communal ritual building(s)

3. single complete individual intramural burial/interment within the walls, foundations or floor of domestic building(s)

4. single incomplete individual burial/interment within the walls, foundations or floor of communal building(s)

5. single incomplete individual burial/interment within the walls, foundations or floor of communal ritual building(s)

6. single incomplete individual burial/interment within the walls, foundations or floor of domestic building(s)

7. single cremated individual intramural burial/interment within the walls, foundations or floor of communal building(s)

8. single cremated individual intramural burial/interment within the walls, foundations or floor of communal ritual building(s)

9. single cremated individual intramural burial/interment within the walls, foundations or floor of domestic building(s)

10. group complete intramural burial/interment the within walls, foundations or floor of domestic building(s)

11. group complete intramural burial/interment the within walls, foundations or floor of communal ritual building(s)

12.   group complete intramural burial/interment the within walls, foundations or floor of communal building(s)

13.   group incomplete intramural burial/interment within the walls, foundations or floor of communal building(s)

14.   group incomplete intramural burial/interment within the walls, foundations or floor of communal ritual building(s)

15.   group incomplete intramural burial/interment within the walls, foundations or floor of domestic building(s)

16.   comingled intramural burial/interment within the walls, foundations or floor of communal building(s)

17.   comingled intramural burial/interment within the walls, foundations or floor of communal ritual building(s)

18.   comingled intramural burial/interment within the walls, foundations or floor of domestic building(s)

19.   comingled cremation intramural burial/interment within the walls, foundations or floor of communal building(s)

20.   Comingled cremation individual intramural burial/interment within the walls, foundations or floor of communal ritual building(s)

21.   comingled cremation individual intramural burial/interment within the walls, foundations or floor of domestic building(s)

22.   single complete individual intramural burial/interment within the walls, foundations or floor of isolated building(s) inside the settlement

23.   single incomplete individual burial/interment within the walls, foundations or floor of isolated building(s) inside the settlement

24.   group complete intramural burial/interment the within walls, foundations or floor of isolated building(s) inside the settlement

25.   group incomplete intramural burial/interment within the walls, foundations or floor of isolated building(s) inside the settlement

26.   comingled intramural burial/interment within the walls, foundations or floor of isolated building(s) inside the settlement

27.   single cremation intramural burial/interment within the walls, foundations or floor of isolated building(s) inside the settlement

28.   comingled cremation intramural burial/interment within the walls, foundations or floor of isolated building(s) inside the settlement

29.   the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a communal building(s)

30.   the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a communal ritual building(s)

31.   the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a domestic building(s)

32.   the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of isolated building(s) inside the settlement

33.   evidence practices associated with interment in building(s)

- primary interment practices within the walls, floor or foundation of building(s)

- secondary interment practices within the walls, floor or foundation of building(s)

5.   Evidence of extramural interment: this category is recorded in terms of: 0 = absent, 1 = present.

In this study the term extramural interment refers to the placing of human remains immediately outside the walls of a building or in the space between buildings in a settlement. It may reflect a one-off or repeated interment practice at that location.

 It includes the evidence of:

- single complete individual extramural interment (inhumation)

- single incomplete individual extramural interment (inhumation)

- group complete extramural interment (inhumation)

- group incomplete extramural interment(inhumation)

- comingled extramural interment (inhumation)

- single cremation intramural interment

- comingled cremation intramural interment

- the caching of particular bones e.g. long bones or skulls outside the walls of or between buildings

eHRAF: For each eHRAF culture, evidence of extramural interment (1 = present) comes for the examination of 31 criteria in the eHRAF database: Reference to or description of:

1.   the use of extramural interment

2.   the requesting for extramural interment

3.   the use of extramural interment for most individuals as a standard treatment

4.   the use of extramural interment for certain individuals as a non-standard treatment

5.   age differences associated with the use of extramural interment

6.   sex differences associated with the use of extramural interment

7.   the occasions when extramural interment occurs

8.   the reasons for the use of extramural interment

9.   the individual(s) afforded extramural interment

10.   the frequency of extramural interment

11.   specific location(s) for extramural interments; outside the walls of or between buildings

12.   recording of isolated graves outside the walls of or between buildings with one individual

13.   recording of isolated graves outside the walls of or between buildings with more than one individual

14.   recording of bone caching outside the walls of or between buildings

15. preparation of a corpse or corpses for extramural interment

16. practices at extramural interment locations

(a) primary interment practices outside the walls of or between buildings

(b) secondary interment practices outside the walls of or between buildings

17. practices, rituals, ceremonies and dedications associated with the dead in extramural interment locations

18. connections between extramural interment locations and the deceased/ancestors

19. preforming practices, rituals, ceremonies and dedications associated with extramural interment locations

20. dedicated ritual practitioner(s) associated with rituals, ceremonies and dedications associated with in extramural interment

21. dedicated member(s) of the community associated with rituals, ceremonies and dedications associated with in extramural interment

22. dedicated kin member(s) associated with rituals, ceremonies and dedications associated with in extramural interment

23. attending practices, rituals, ceremonies and dedications associated with extramural interment locations

24. participating in practices, rituals, ceremonies and dedications associated with extramural interment locations

25. mythical/religious associations with the dead in extramural interment locations

26. mythical/religious figures associated with the dead in extramural interment locations

27. ritual symbols associated with the dead in extramural interment locations

28. grave markers used at interments at extramural interment locations

29. rules and sanctions associated with the dead in extramural interment locations

30. visiting and re- visiting the dead in extramural interment locations

31.   maintenance of extramural interment locations

Archaeology: For the archaeological site-phases evidence of extramural burial/interment (1 = present) relates to the identification of burials/interments outside or between the walls of buildings; in this cases between refers to the space between two building. Extramural burial/interment can occur in a pit, grave cut, cist or urn. It is recorded form the available sources that identify and record 1 of 34 material culture criteria. The recording of:

1.   single complete individual extramural burial/interment outside or between the walls of communal building(s)

2.   single complete individual extramural burial/interment outside or between the walls of communal ritual building(s)

3.   single complete individual extramural burial/interment outside or between the walls of domestic building(s)

4.   single incomplete individual burial/interment outside or between the walls of communal building(s)

5.   single incomplete individual burial/interment outside or between the walls of communal ritual building(s)

6.   single incomplete individual burial/interment outside or between the walls of domestic building(s)

7.   group complete extramural burial/interment the outside or between walls of domestic building(s)

8.   group complete extramural burial/interment the outside or between walls of communal ritual building(s)

9.   group complete extramural burial/interment the outside or between walls of communal building(s)

10.   group incomplete extramural burial/interment outside or between the walls of communal building(s)

11.   group incomplete extramural burial/interment outside or between the walls of communal ritual building(s)

12.   group incomplete extramural burial/interment outside or between the walls of domestic building(s)

13.   comingled extramural burial/interment outside or between the walls of communal building(s)

14.   comingled extramural burial/interment outside or between the walls of communal ritual building(s)

15.   comingled extramural burial/interment outside or between the walls of domestic building(s)

16.   Single cremation intramural burial/interment outside or between the walls of communal building(s)

17.   Single cremation intramural burial/interment outside or between the walls of communal ritual building(s)

18.   Single cremation intramural burial/interment outside or between the walls of domestic building(s)

19.   comingled cremation intramural burial/interment outside or between the walls of communal building(s)

20.   comingled cremation intramural burial/interment outside or between the walls of communal ritual building(s)

21.   comingled cremation intramural burial/interment outside or between the walls of domestic building(s)

22.   single complete individual extramural burial/interment outside or between the walls of isolated building(s) inside the settlement

23.   single incomplete individual burial/interment outside or between the walls of isolated building(s) inside the settlement

24.   group complete extramural burial/interment outside the walls of isolated building(s) inside the settlement

25. group incomplete extramural burial/interment outside the walls of isolated building(s) inside the settlement

26. comingled extramural burial/interment outside the walls of isolated building(s) inside the settlement

27. single cremation extramural burial/interment outside the walls of isolated building(s) inside the settlement

28. comingled cremation extramural burial/interment outside the walls of isolated building(s) inside the settlement

29. the caching of particular bones e.g. long bones or skulls outside or between the walls of a communal building(s)

30. the caching of particular bones e.g. long bones or skulls outside or between the walls of a communal ritual building(s)

31. the caching of particular bones e.g. long bones or skulls outside or between the walls of a domestic building(s)

32. the caching of particular bones e.g. long bones or skulls outside the walls of isolated building(s) inside the settlement

34. evidence practices associated with extramural interment

- primary interment practices outside the walls of building(s)

- secondary interment practices outside the walls of building(s)

6. Evidence of interment in ritual building(s) (not monuments): this category is recorded in terms of: 0 = absent, 1 = present.

For the eHRAF and archaeology, the evidence for the purpose of recording a ritual building(s) (not monuments) are outlined in the *General ritual/religious characteristics* section. But in in this study, this is taken as a building that is used for the purpose of housing ritual material, facilitating ritual/religious meetings and ritual/religious instruction.

In this study the term interment in ritual building(s) refers to the placing of human remains within the walls, foundations or floor of buildings of dedicated ritual buildings; buildings used for religious instruction and ceremonies. It may reflect a one-off or repeated interment practice in ritual buildings. It includes the evidence of:

- single complete individual interment in ritual building(s) (inhumation)

- single incomplete individual interment in ritual building(s) (inhumation)

- group complete interment in ritual building(s) (inhumation)

- group incomplete interment in ritual building(s) (inhumation)

- comingled interment in ritual building(s) (inhumation)

- Single cremation interment in ritual building(s)

- comingled cremation interment in ritual building(s)

- the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of ritual building(s)

eHRAF: For each eHRAF culture, evidence of interment in ritual building(s) (1 = present) comes for the examination of 30 criteria in the eHRAF database: Reference to or description of:

1. the use of interment in ritual building(s)

2. a request for interment in a ritual building

3. the use of interment in ritual building(s) for most individuals as a standard treatment

4. the use of interment in ritual building(s) for certain individuals as a non-standard treatment

5. age differences associated with the use of interment in ritual building(s)

6. sex differences associated with the use of interment in ritual building(s)

7. the occasions when interment in ritual building(s) occurs

8. the reasons for the use of interment in ritual building(s)

9.   the individual(s) afforded interment in ritual building(s)

10.   the frequency of interment in ritual building(s)s

11.   recording of interments within the walls, floor or foundation of ritual building(s) with one individual

12.   recording of interments within the walls, floor or foundation of ritual building(s) with more than one individual

13.   recording of bone caching within the walls, floor or foundation of ritual building(s)

14.   preparation of a corpse or corpses for interment in ritual building(s)

15.   practices associated with interment in ritual building(s)

(a) primary interment practices within the walls, floor or foundation of ritual building(s)

(b) secondary interment practices within the walls, floor or foundation of ritual building(s)

16.   practices, rituals, ceremonies and dedications associated with the dead interred in ritual building(s)

17.   connections between interment in ritual building(s) and the deceased/ancestors

18.   preforming practices, rituals, ceremonies and dedications associated with the dead interred in ritual building(s)

19.   attending practices, rituals, ceremonies and dedications associated with the dead interred in ritual building(s)

20.   participating in practices, rituals, ceremonies and dedications associated with the dead interred in ritual building(s)

21.   dedicated ritual practitioner(s) associated with rituals, ceremonies and dedications associated with the dead interred in ritual building(s)

22.   dedicated member(s) of the community associated with rituals, ceremonies and dedications associated with the dead interred in ritual building(s)

23.   dedicated kin member(s) associated with rituals, ceremonies and dedications associated with the dead interred in ritual building(s)

24.   mythical/religious associations with the dead interred in ritual building(s)

25.   mythical/religious figures associated with the dead interred in ritual building(s)

26.   ritual symbols associated with the dead interred in ritual building(s)

27.   grave markers used at/ for interments ritual building(s)

28.   rules and sanctions associated with the dead interred in ritual building(s)

29.   visiting and re- visiting the dead interred in ritual building(s)

30.   maintenance of interments in ritual building(s)

Archaeology: For the archaeological site-phases evidence of burial/interment in ritual building(s) refers to the interment of human remains in pits, grave cut, cist, tombs or urn in ritual buildings. The evidence (1 = present) is recorded form the available sources that identify and record 1 of 10 material culture criteria. The recording of:

1.   single complete individual intramural burial/interment within the walls, foundations or floor of communal ritual building(s)

2.   single incomplete individual burial/interment within the walls, foundations or floor of communal ritual building(s)

3.   single cremated individual intramural burial/interment within the walls, foundations or floor of communal ritual building(s)

4.   group complete intramural burial/interment the within walls, foundations or floor of communal ritual building(s)

5.   group incomplete intramural burial/interment within the walls, foundations or floor of communal building(s)

6.   group incomplete intramural burial/interment within the walls, foundations or floor of communal ritual building(s)

7.   comingled intramural burial/interment within the walls, foundations or floor of communal ritual building(s)

8.   comingled cremation individual intramural burial/interment within the walls, foundations or floor of communal ritual building(s)

9.   the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a communal ritual building(s)

10.   evidence practices associated with interment in ritual building(s)

•   primary interment practices within the walls, floor or foundation of ritual building(s)

•   secondary interment practices within the walls, floor or foundation of ritual building(s)

7.   Evidence of monumental burial/interment: this category is recorded in terms of: 0 = absent, 1 = present.

In this study the term monumental interment refers to the placing of human remains within man-made structures; including megalithic monuments, henges, tombs, burial mounds and barrows; used for religious ceremonies. It may reflect a one-off or repeated interment practice in these strictures.

 It includes the evidence of:

•   single complete individual interment in monument(s) (inhumation)

•   single incomplete individual interment in monument(s) (inhumation)

•   group complete interment in monument(s) (inhumation)

•   group incomplete interment in monument(s) (inhumation)

•   comingled interment in monument(s) (inhumation)

•   single cremation interment in monument(s)

•   comingled cremation interment in monument(s)

•   the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation monument(s)

eHRAF: For each eHRAF culture, evidence of interment in monument(s) (1 = present) comes for the examination of 28 criteria in the eHRAF database: Reference to or description of:

1.   the use of monument(s) for interment of human remains

2.   a request for interment in a monument

3.   the use of interment in monument(s) for most individuals as a standard treatment

4.   the use of interment in monument(s) for certain individuals as a non-standard treatment

5.   age differences associated with the use of interment in monument(s)

6.   sex differences associated with the use of interment in monument(s)

7.   the occasions when interment in monument(s) occurs

8.   the reasons for the use of interment in monument(s)

9.   the individual(s) afforded interment in monument(s)

10.   the frequency of interment in monument(s)

11.   recording of interments within monument(s) containing one individual

12.   recording of interments graves within monument(s) containing more than one individual

13.   recording of bone caching within monument(s)

14.   preparation of a corpse or corpses for interment in monument(s)

15.   practices associated with interment in monument(s)

(a) primary interment practices associated with monument(s)

(b) secondary interment practices associated with monument(s)

16.   practices, rituals, ceremonies and dedications associated with the dead interred in monument(s)

17.   connections between interment in monument(s) and the deceased/ancestors

18.   performance of practices, rituals, ceremonies and dedications associated with the dead interred in monument(s)

19.   attending practices, rituals, ceremonies and dedications associated with the dead interred in monument(s)

20.   participating in practices, rituals, ceremonies and dedications associated with the dead interred in monument(s)

21.   dedicated ritual practitioner(s) associated with rituals, ceremonies and dedications associated with the dead interred in monument(s)

22.   dedicated member(s) of the community associated with rituals, ceremonies and dedications associated with the dead interred in monument(s)

23.   dedicated kin member(s) associated with rituals, ceremonies and dedications associated with the dead interred in monument(s)

24.   mythical/religious associations with the dead interred in monument(s)

25.   mythical/religious figures associated with the dead interred in monument(s)

26.   ritual symbols associated with the dead interred in monument(s)

27.   rules and sanctions associated with the dead interred in monument(s)

28.   visiting and re- visiting the dead interred in monument(s)

Archaeology: For the archaeological site-phases evidence of burial/interment in monuments (1 = present) is recorded form the available sources that identify and record of 1 of 9 material culture criteria. The recording of:

1.   single complete individual intramural burial/interment within monuments

2.   single incomplete individual burial/interment within monuments

3.   single cremated individual burial/interment within monuments

4.   group complete burial/interment the within monuments

5.   group incomplete burial/interment within monuments

6.   comingled intramural burial/interment within monuments

7.   comingled cremation burial/interment within monuments

8.   evidence practices associated with interment in monuments

•   primary interment practices within monuments

•   secondary interment practices within monuments

9.   the caching of particular bones e.g. long bones or skulls within monuments

8.   Evidence of interment in domestic building(s): this category is recorded in terms of: 0 = absent, 1 = present. It refers to the interment of human remains in pits, grave cut, cist, tombs or urn in domestic buildings.

It includes the evidence of:

•   single complete individual interment in domestic building(s) (inhumation)

•   single incomplete individual interment in domestic building(s) (inhumation)

•   group complete interment in domestic building(s) (inhumation)

•   group incomplete interment in domestic building(s) (inhumation)

•   comingled interment in domestic building(s) (inhumation)

•   single cremation interment in domestic building(s)

•   comingled cremation interment in domestic building(s)

•   the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of ritual building(s)

eHRAF: For each eHRAF culture, evidence of interment in domestic building(s) (1 = present) comes for the examination of 30 criteria in the eHRAF database: Reference to or description of:

1.   the use of interment in domestic context(s)

2.   a request for interment in a domestic

3.   the use of interment in domestic context(s) for most individuals as a standard treatment

4.   the use of interment in domestic context(s) for certain individuals as a non-standard treatment

5. age differences associated with the use of interment in domestic context(s)

6. sex differences associated with the use of interment in domestic context(s)

7. the occasions when interment in domestic building(s) occurs

8. the reasons for the use of interment in domestic building(s)

9. the individual(s) afforded interment in domestic building(s)

10. the frequency of interment in domestic building(s)s

11. recording of interments within the walls, floor or foundation of domestic building(s) with one individual

12. recording of interments within the walls, floor or foundation of domestic building(s) with more than one individual

13. recording of bone caching within the walls, floor or foundation of domestic building(s)

14. preparation of a corpse or corpses for interment in domestic building(s)

15. practices associated with interment in domestic building(s)

(a) primary interment practices within the walls, floor or foundation of domestic building(s)

(b) secondary interment practices within the walls, floor or foundation of domestic building(s)

16. practices, ceremonies and dedications associated with the dead interred in domestic building(s)

17. connections between interment in domestic building(s) and the deceased/ancestors

18. preforming practices, domestics, ceremonies and dedications associated with the dead interred in domestic building(s)

19. attending practices, domestics, ceremonies and dedications associated with the dead interred in domestic building(s)

20. participating in practices, domestics, ceremonies and dedications associated with the dead interred in domestic building(s)

21.	dedicated ritual practitioner(s) associated with rituals, ceremonies and dedications associated with the dead interred in domestic building(s)

22.	dedicated member(s) of the community associated with rituals, ceremonies and dedications associated with the dead interred in domestic building(s)

23.	dedicated kin member(s) associated with rituals, ceremonies and dedications associated with the dead interred in domestic building(s)

24.	mythical/religious associations with the dead interred in domestic building(s)

25.	mythical/religious figures associated with the dead interred in domestic building(s)

26.	domestic symbols associated with the dead interred in domestic building(s)

27.	grave markers used at/ for interments domestic building(s)

28.	rules and sanctions associated with the dead interred in domestic building(s)

29.	visiting and re- visiting the dead interred in domestic building(s)

30.	maintenance of interments in domestic building(s)

Archaeology: For the archaeological site-phases evidence of burial/interment in domestic building (s) (1 = present) is recorded form the available sources that identify and record 1 9 of material culture criteria. The recording of:

1.	single complete individual burial/interment within the walls, foundations or floor of domestic building(s)

2.	single incomplete individual burial/interment within the walls, foundations or floor of domestic building(s)

3.	single cremated individual intramural burial/interment within the walls, foundations or floor of domestic building(s)

4.	group complete intramural burial/interment the within walls, foundations or floor of domestic building(s)

5.	group incomplete intramural burial/interment within the walls, foundations or floor of domestic building(s)

6.   comingled intramural burial/interment within the walls, foundations or floor of domestic building(s)

7.   comingled cremation individual burial interment within the walls, foundations or floor of domestic building(s)

8.   evidence practices associated with interment in domestic building(s)

•   primary interment practices within the walls, floor or foundation of domestic building(s)

•   secondary interment practices within the walls, floor or foundation of domestic building(s)

9.   the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a domestic building(s)

9.   Evidence of single individual burial or interment: this category is recorded in terms of: 0 = absent, 1 = present.

In this study the term single individual interment refers to the placing of the remains of one individual in a grave cut, monument, walls, foundations or floor of a domestic or communal ritual structure(s). It may reflect a one-off or repeated single individual interment practice. The location of burial(s)/interment(s) containing the remains of one individual can be:

•   within the settlement

•   a dedicated location for burial within the settlement without barriers

•   a sectioned-off specific location for burial/interment with physical barriers include walls, ditches or palisades:

•   domestic building(s)

•   communal building(s)

•   communal ritual building(s)

•   burial mound (s), barrow(s)

•   grave cuts in the ground,

- cists,

- pits

- monument(s)/tombs e.g. megaliths

- the surrounding landscape (hilltop, plateaux etc.)

It includes the evidence of:

- single complete individual interment (inhumation)

- single incomplete individual interment (inhumation)

- Single cremation interment (in an urn or not)

- the caching of particular bones e.g. long bones or skulls within the walls, floor or

foundation of a building(s) representing one individual

eHRAF: For each eHRAF culture, evidence of single individual interment (1 = present) comes for the examination of 29 criteria in the eHRAF database: Reference to or description of:

1. the use of single individual interment:

2. a request for single individual interment

3. the use of single individual interment for most individuals as a standard treatment

4. the use of single individual interment for certain individuals as a non-standard treatment

5. age differences associated with the use of single individual interment

6. sex differences associated with the use of single individual interment

7. the occasions when single individual interment occurs

8. the reasons for the use of single individual interment

9. the individual(s) afforded single individual interment

10. the frequency of single individual interment

11. locations used for single individual interment

12.   recording of single individual interments in in cemeteries, non-cemetery locations, monuments and buildings

13.   recording of the caching of bones of different anatomical regions (e.g. skull long, bones etc.) reflecting one individual in cemeteries, non-cemetery locations, monuments and buildings

14.   preparation of a corpse for single individual interment

15.   practices associated with single individual interment

(a) primary single individual interment practices in in cemeteries, non-cemetery locations, monuments and buildings

(b) secondary single individual interment practices in in cemeteries, non-cemetery locations, monuments and buildings

16.   practices, rituals, ceremonies and dedications associated with the dead

17.   preforming practices, rituals, ceremonies and dedications associated with the interment of one individual

18.   dedicated ritual practitioner(s) associated with rituals, ceremonies and dedications associated with the interment of one individual

19.   dedicated member(s) of the community associated with rituals, ceremonies and dedications associated with the interment of one individual

20.   dedicated kin member(s) associated with rituals, ceremonies and dedications associated with the interment of one individual

21.   attending practices, rituals, ceremonies and dedications associated with the interment of one individual

22.   participating in practices, rituals, ceremonies and dedications associated with the interment of one individual

23.   mythical/religious associations with the interment of a corpse

24.   mythical/religious figures associated with the interment of a corpse

25.   ritual symbols associated with the interment of a corpse

26.   grave markers used at/ for single individual interments

27.   rules and sanctions associated with the interment of individuals

28.   visiting and re- visiting the location of the interment of a particular individual

29.   maintenance of single individual interments

Archaeology: For the archaeological site-phases evidence of single individual burial/interment (1 = present) relates to the information from recorded form the available sources that identify and record of 1 of 24 material culture criteria. The recording of:

1.   it is recorded that the majority of interments are single- individual interments

2.   the sources state that single individual interment is afforded to the majority or represents the standard or dominant practice at a site phase

3.   single complete individual burial/interment within the walls, foundations or floor of communal building(s) (Flexed or Extended inhumation)

4.   single complete individual burial/interment within the walls, foundations or floor of communal ritual building(s) (Flexed or Extended inhumation)

5.   single complete individual burial/interment within the walls, foundations or floor of domestic building(s) (Flexed or Extended inhumation)

6.   single incomplete individual burial/interment within the walls, foundations or floor of communal building(s) (Flexed or Extended inhumation)

7.   single incomplete individual burial/interment within the walls, foundations or floor of communal ritual building(s) (Flexed or Extended inhumation)

8.   single incomplete individual burial/interment within the walls, foundations or floor of domestic building(s) (Flexed or Extended inhumation)

9.   single cremated individual burial/interment within the walls, foundations or floor of communal building(s)

10.   single cremated individual burial/interment within the walls, foundations or floor of communal ritual building(s)

11.   single cremated individual burial/interment within the walls, foundations or floor of domestic building(s)

12. single complete individual burial/interment within the walls, foundations or floor of isolated building(s) (Flexed or Extended inhumation) inside the settlement

13. single incomplete individual burial/interment within the walls, foundations or floor of isolated building(s) (Flexed or Extended inhumation) inside the settlement

14. single cremation burial/interment within the walls, foundations or floor of isolated building(s) inside the settlement

15. comingled cremation burial/interment within the walls, foundations or floor of isolated building(s) inside the settlement

16. single complete individual intramural burial/interment within monument(s)

17. single incomplete individual burial/interment within communal structure(s) barrow, henge, mound, monument

18. single cremated individual burial/interment within communal structure(s) barrow, henge, mound, monument

19. Single cremation within communal structure(s) barrow, henge, mound, monument

20. the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a communal building(s) representing one individual

21. the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a communal ritual building(s) representing one individual

22. the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a domestic building(s) representing one individual

23. the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of isolated building(s) inside the settlement representing one individual

24. the caching of particular bones e.g. long bones or skulls representing one individual, within communal structure(s) barrow, henge, mound, monument representing one individual

10.   Evidence of group burial/interment: this category is recorded in terms of: 0 = absent, 1 = present.

In this study the term group interment refers to the placing of the remains of more than one individual in a grave cut, monument, walls, foundations or floor of domestic or communal building(s). It may reflect a one-off or repeated interment practice by a group: (1) as it may reflect a one off scenarios such as simultaneous death via child birth, disease, famine or conflict and (2) group familial burials over a period of time.

This can be located in:

• within the settlement

• a dedicated location for burial within the settlement without barriers

• a sectioned-off specific location for burial/interment with physical barriers include walls, ditches or palisades:

• domestic building(s)

• communal building(s)

• communal ritual building(s)

• burial mound (s), barrow(s)

• grave cuts in the ground,

• cists,

• pits

• monument(s)/tombs e.g. megaliths

• the surrounding landscape (hilltop, plateaux etc.)

It includes the evidence of:

• complete group (inhumation)

• incomplete group interment (inhumation)

• group cremation interment (in an urn or not)

• the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a building(s) representing more than one individual.

eHRAF: For each eHRAF culture, evidence of group interment (1 = present) comes for the examination of 39 criteria in the eHRAF database: Reference to or description of:

1. the use of group interment

2. a request for group interment

3. the use of group interment for most individuals as a standard treatment

4. the use of group interment for certain individuals as a non-standard treatment

5. age differences associated with the use of group interment

6. sex differences associated with the use of group interment

7. the occasions when group interment occurs

8. the reasons for the use of group interment

9. the groups afforded group interment

10. the frequency of group interment

11. locations used for group interment

12. group interments in cemeteries, non-cemetery locations, monuments and buildings

13. mass graves in cemeteries, non-cemetery locations, monuments and buildings

14. familial grave in cemeteries or non-cemetery locations

15. use of group burials in times of disease

16. use of group burials in times of famine

17. use of group burials in times of conflict

18. familial interment

19. familial plot in cemetery

20. child and parent or guardian interments

21. interment of siblings together

22. group interment e.g. warrior band

23. the caching of bones (e.g. skull, long bones etc.) reflecting more than one individual in cemeteries, non-cemetery locations, monuments and buildings

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24.   preparation of a corpse or corpses for group interment

25.   practices associated with group interment

(a) primary group interment practices in cemeteries or non-cemetery locations, monuments and buildings

(b) secondary group interment practices in in cemeteries or non-cemetery locations, monuments and buildings

26.   practices, rituals, ceremonies and dedications associated with interment of more than one individual in a mass or familial grave

27.   preforming practices, rituals, ceremonies and dedications associated with the interment of more than one individual in a mass or familial grave

28.   attending practices, rituals, ceremonies and dedications associated with the interment of more than one individual in a mass or familial grave

29.   participating in practices, rituals, ceremonies and dedications associated with the interment of more than one individual in a mass or familial grave

30.   dedicated ritual practitioner(s) associated with rituals, ceremonies and dedications associated with the interment of more than one individual in a mass or familial grave

31.   dedicated member(s) of the community associated with rituals, ceremonies and dedications associated with the interment of more than one individual in a mass or familial grave

32.   dedicated kin member(s) associated with rituals, ceremonies and dedications associated with the interment of more than one individual in a mass or familial grave

33.   mythical/religious associations with the interment of a corpse or corpses in relation to group burials

34.   mythical/religious figures associated with the interment of a corpse or corpses in relation to group burials

35.   ritual symbols associated with the interment of a corpse or corpses in relation to group burials

36.   grave markers used at/ for group interments

37.   rules and sanctions associated with the interment of groups

38.   visiting and re-visiting the location of group interments

39.   maintenance of group interments

Archaeology: For the archaeological site-phases evidence of group burial/interment (1 = present) relates to the information from recorded form the available sources that identify and record of 1 of 23 material culture criteria. The recording of:

1.   it is recorded that the majority of interments are group interments

2.   the sources state that group interment is afforded to the majority or represents the standard or dominant practice at a site phase

3.   group complete burial/interment within the walls, foundations or floor of communal building(s) (Flexed or Extended inhumation)

4.   group complete burial/interment within the walls, foundations or floor of communal ritual building(s) (Flexed or Extended inhumation)

5.   group complete burial/interment within the walls, foundations or floor of domestic building(s) (Flexed or Extended inhumation)

6.   group incomplete burial/interment within the walls, foundations or floor of communal building(s) (Flexed or Extended inhumation)

7.   group incomplete burial/interment within the walls, foundations or floor of communal ritual building(s) (Flexed or Extended inhumation)

8.   group incomplete burial/interment within the walls, foundations or floor of domestic building(s) (Flexed or Extended inhumation)

9.   group cremated burial/interment within the walls, foundations or floor of communal building(s)

10.   group cremated burial/interment within the walls, foundations or floor of communal ritual building(s)

11. group cremated burial/interment within the walls, foundations or floor of domestic building(s)

12. group complete burial/interment within the walls, foundations or floor of isolated building(s) (Flexed or Extended inhumation) inside the settlement

13. group incomplete burial/interment within the walls, foundations or floor of isolated building(s) (Flexed or Extended inhumation) inside the settlement

14. group cremation burial/interment within the walls, foundations or floor of isolated building(s) inside the settlement—each in an urn

15. comingled cremation burial/interment within the walls, foundations or floor of isolated building(s) inside the settlement

16. group complete burial/interment within communal structure(s) barrow, henge, mound, monument

17. group incomplete intramural burial/interment within communal structure(s) barrow, henge, mound, monument

18. comingled burial/interment within communal structure(s) barrow, henge, mound, monument

19. the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a communal building(s) representing more than one individual

20. the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a communal ritual building(s) representing more than one individual

21. the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a domestic building(s) representing more than one individual

22. the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of isolated building(s) inside the settlement representing more than one individual

23. the caching of particular bones e.g. long bones or skulls within communal structure(s) barrow, henge, mound, monument, representing more than one individual

11.   Evidence of flexed burials: this category is recorded in terms of: 0 = absent, 1 = present.

In this study the term flexed burial/interment refers to the interment of human remains of one or more than one individual in a grave cut, monument or floor of domestic or communal structure(s) in a flexed position—in which the body is interred in a foetal or crouched position with the legs folded up to the chest.

In this study the term flexed interment refers to the placing of the remains of one or more individual in a flexed position in a grave cut, monument, foundations or floor of a domestic or communal structure(s). It may reflect a one-off or repeated single interment event. The burial/interment containing the flexed remains of one or more individuals can be located in:

• the settlement

• a dedicated location for burial within the settlement without barriers

• a sectioned-off specific location for burial/interment with physical barriers include ditches or palisades:

• domestic building(s)

• communal building(s)

• communal ritual building(s)

• burial mound (s), barrow(s)

• grave cuts in the ground,

• cists

• pits

• monument(s)/tombs e.g. megaliths

• the surrounding landscape (hilltop, plateaux etc.)

It includes the evidence of:

• single complete flexed individual (inhumation)

• single incomplete individual interment (inhumation)

- group complete flexed interment

- group incomplete flexed interment

Note for this study:

a. complete = all bones present or anatomical regions accounted for if soft tissue is well-preserved or present (e.g. via Mummification)

b. incomplete = not all bones present or anatomical regions not accounted for if soft tissue is present

eHRAF: For each eHRAF culture, evidence of flexed burial/interment (1 = present) comes for the examination of 28 criteria in the eHRAF database: Reference to or description of:

1. a flexed burial/interment

2. the use of flexed burial/interment for most individuals as a standard treatment

3. the use of flexed burial/interment for certain individuals as a non-standard treatment

4. age differences associated with the use of flexed burial/interment

5. sex differences associated with the use of flexed burial/interment

6. the occasions when flexed burial/interment is used

7. the reasons for the use of flexed burial/interment

8. the individual(s) afforded flexed burial/interment

9. the group(s) afforded flexed burial/interment

10. the frequency of flexed burial/interment

11. locations used for flexed burial/interment

12. horizontal flexed burial/interments

13. upright flexed burial/interments; where the corpse is placed in the ground

14. upright flexed burial/interments; where the corpse is a container (e.g. basket) and then placed in the ground

15. flexed burial/interments in cemeteries, non-cemetery locations, monuments and buildings

16. preparation of a corpse or corpses for flexed burial/interment

17. practices associated with flexed burial/interment

(a) primary flexed burial/interment practices in in cemeteries, non-cemetery locations, monuments and buildings

(b) secondary flexed burial/interment practices in in cemeteries, non-cemetery locations, monuments and buildings

18. practices, rituals, ceremonies and dedications associated with the dead in which flexed burial is used

19. preforming practices, rituals, ceremonies and dedications associated with the interment of more than one individual or the interment of one individual in a mass or familial grave

20. participating in practices, rituals, ceremonies and dedications associated with the interment of one or more individuals in a flexed position

21. mythical/religious associations with the interment of a corpse or corpses in flexed position

22. mythical/religious figures associated with the interment of a corpse or corpses in relation to flexed burial/interment

23. ritual symbols associated with flexed burials

24. grave markers associated with flexed burial/interments

25. rules associated with flexed burial/interments

26. sanctions associated with flexed burial/interments

27. visiting and re-visiting the location of flexed burial/interments

28. maintenance of flexed burial/interments

Archaeology: For the archaeological site-phases evidence of flexed burial/interment (1 = present) relates to the information from recorded form the available sources that identify and record of 1 of 12 material culture criteria. The recording of:

1.   horizontal flexed burial/interments

2.   upright flexed burial/interments; where the corpse is placed in the ground

3.   upright flexed burial/interments; where the corpse is a container (e.g. basket) and then placed in the ground

in any of the following contexts:

1.   It is recorded that the majority of interments are flexed interments

2.   The sources state that flexed interment is afforded to the majority or represents the standard or dominant practice at a site phase

3.   group or single flexed, complete burial/interment within the foundations or floor of communal building(s)

4.   group or single flexed, complete burial/interment within the foundations or floor of communal ritual building(s)

5.   group or single flexed, complete burial/interment within the foundations or floor of domestic building(s)

6.   group or single flexed, incomplete burial/interment within the foundations or floor of communal building(s)

7.   group or single flexed, incomplete burial/interment within the foundations or floor of communal ritual building(s)

8.   group or single flexed, incomplete burial/interment within the foundations or floor of domestic building(s)

9.   group or single flexed, complete intramural burial/interment within the foundations or floor of isolated building(s) inside the settlement

10.   group or single flexed, incomplete burial/interment within the foundations or floor of isolated building(s) inside the settlement

11.	group or single flexed, complete intramural burial/interment within communal structure(s) barrow, henge, mound, monument

12.	group or single flexed, incomplete intramural burial/interment within communal structure(s) barrow, henge, mound, monument

**12.	Evidence of extended burials**: this category is recorded in terms of: 0 = absent, 1 = present.

In this study the term extended burial/interment refers to the interment of human remains of one or more than one individual in a grave cut, monument or floor of domestic or communal structure(s) in a extended position—in which the body is positioned flat with arms and legs straight, or with the arms folded upon the chest. Extended burials may be supine or prone. It may reflect a one-off or repeated interment event. The location of burial/interment containing the extended remains of one or more individuals can be in:

•	the settlement

•	a dedicated location for burial within the settlement without barriers

•	a sectioned-off specific location for burial/interment with physical barriers include ditches or palisades:

•	domestic building(s)

•	communal building(s)

•	communal ritual building(s)

•	burial mound (s), barrow(s)

•	grave cuts in the ground,

•	cists,

•	pits

•	monument(s)/tombs e.g. megaliths

•	the surrounding landscape (hilltop, plateaux etc.)

It includes the evidence of:

- single complete, extended interment (inhumation)

- single incomplete, extended interment (inhumation)

- group complete, extended complete interment (inhumation)

- group incomplete, extended interment (inhumation)

eHRAF: For each eHRAF culture, evidence of extended burial/interment (1 = present) comes for the examination of 25 criteria in the eHRAF database: Reference to or description of:

1.   an extended burial/interment

2.   the use of extended burial/interment for most individuals as a standard treatment)

3.   the use of extended burial/interment for certain individuals as a non-standard treatment

4.   age differences associated with the use of extended burial/interment

5.   sex differences associated with the use of extended burial/interment

6.   the occasions when extended burial/interment is used

7.   the reasons for the use of extended burial/interment

8.   the individual(s) afforded extended burial/interment

9.   the group(s) afforded extended burial/interment

10.   the frequency of extended burial/interment

11.   locations used for extended burial/interment

12.   extended burial/interments in cemeteries, non-cemetery locations, monuments and buildings

13.   preparation of a corpse or corpses for extended burial/interment

14.   practices associated with extended burial/interment

(a) primary extended burial/interment practices in in cemeteries, non-cemetery locations, monuments and buildings

(b) secondary extended burial/interment practices in in cemeteries, non-cemetery locations, monuments and buildings

15. performing practices, rituals, ceremonies and dedications associated nin which extended burial is used

16. attending practices, rituals, ceremonies and dedications associated with the interment of one or more individuals in an extended position

17. participating in practices, rituals, ceremonies and dedications associated with the interment of one or more individuals in an extended position

18. (mythical/religious associations with the interment of a corpse or corpses in extended position

19. mythical/religious figures associated with the interment of a corpse or corpses in relation to extended burial/interment

20. ritual symbols associated with the interment of a corpse or corpses in relation to group burials

21. grave markers associated with extended burial/interments

22. rules associated with extended burial/interments

23. sanctions associated with extended burial/interments

24. visiting and re-visiting the location of extended burial/interments

25. maintenance of extended burial/interments

Archaeology: For the archaeological site-phases evidence of extended burial/interment (1 = present) relates to the information from recorded form the available sources that identify and record of 1 of 12 material culture criteria:

1. It is recorded that the majority of interments are extended interments

2. The sources state that extended interment is afforded to the majority or represents the standard or dominant practice at a site phase

3. group or single extended, complete burial/interment within the foundations or floor of communal building(s)

4.   group or single extended, complete intramural burial/interment within the foundations or floor of communal ritual building(s)

5.   group or single extended, complete intramural burial/interment within the foundations or floor of domestic building(s)

6.   group or single extended, incomplete burial/interment within the foundations or floor of communal building(s)

7.   group or single extended, incomplete burial/interment within the foundations or floor of communal ritual building(s)

8.   group or single extended, incomplete burial/interment within the foundations or floor of domestic building(s)

9.   group or single extended, complete intramural burial/interment within the foundations or floor of isolated building(s) inside the settlement

10.   group or single extended, incomplete burial/interment within the foundations or floor of isolated building(s) inside the settlement

11.   group or single extended, complete intramural burial/interment within communal structure(s) barrow, henge, mound, monument

12.   group or single extended,   incomplete intramural burial/interment within communal structure(s) barrow, henge, mound, monument

13.   Evidence of inhumation: this category is recorded in terms of: 0 = absent, 1 = present.

In this study the term inhumation burial/interment refers to burying the dead with either the soft tissue present or as part of a secondary burial practice involving burial of de-fleshed naturally (excarnation) bone. It may reflect a one-off or repeated interment practice in the group. The location of inhumation burial/interment containing the remains of one or more individuals can be in:

•   the settlement

•   a dedicated location for burial within the settlement without barriers

- a sectioned-off specific location for burial/interment with physical barriers include walls, ditches or palisades:

- domestic building(s)

- communal building(s)

- communal ritual building(s)

- burial mound (s), barrow(s)

- grave cuts in the ground,

- cists,

- pits

- monument(s)/tombs e.g. megaliths

- the surrounding landscape (hilltop, plateaux etc.)

It includes the evidence of:

- single complete individual (flexed or extended inhumation)

- single incomplete individual interment (flexed or extended inhumation)

- group complete individual (flexed or extended inhumation)

- group incomplete individual interment (flexed or extended inhumation)

eHRAF: For each eHRAF culture, evidence of inhumation (1 = present) comes for the examination of 26 criteria in the eHRAF database: Reference to or description of:

1. an inhumation interment

2. a request for an inhumation interment

3. the use of inhumation for most individuals as a standard treatment

4. the use of inhumation for certain individuals as a non-standard treatment

5. age differences associated with the use of inhumation

6. sex differences associated with the use of inhumation

7. the occasions when inhumation is used

8. the reasons for the use of inhumation

9.   the individual(s) afforded inhumation

10.   the group(s) afforded inhumation

11.   the frequency of inhumation

12.   location(s) used for inhumation

13.   inhumations in cemeteries or non-cemetery locations

14.   preparation of a corpse or corpses for inhumation

15.   practices associated with inhumation

(a) primary inhumation practices in in cemeteries or non-cemetery locations

(b) secondary inhumation practices in in cemeteries or non-cemetery locations

16.   performing practices, rituals, ceremonies and dedications associated with inhumation(s)

17.   attending practices, rituals, ceremonies and dedications associated with inhumation(s)

18.   participating in practices, rituals, ceremonies and dedications associated with inhumation(s)

19.   mythical/religious associations with inhumation(s)

20.   mythical/religious figures associated with inhumation(s)

21.   ritual symbols associated with inhumation(s)

22.   grave markers associated with inhumation(s)

23.   rules associated with inhumation(s)

24.   sanctions associated with inhumation(s)

25.   visiting and re-visiting the location of inhumation(s)

26.   maintenance of the location(s) of inhumation(s)

Archaeology: For the archaeological site-phases evidence of inhumation burial/interment (1 = present) relates to the information from recorded form the available sources that identify and record of 2 of 15 material culture criteria. The recording of:

1.   It is recorded that the majority of interments are single- inhumations

2.   The sources state that inhumation interment. is afforded to the majority or represents the standard or dominant practice at a site phase

3.   bone with no evidence of charring or fissuring, warping or fragmentation characteristic of cremation (cremation is dealt with in next section)

4.   evidence of soft tissue still preserved (e.g. via Mummification)

5.   evidence of soft tissue present at the time of indicated by the identification of preserved evidence such as:

•   Evidence of bacterial bio-erosion related to the bacteria of the gastrointestinal tract

•   Preserved Larvae of, for example, the *Calliphoridae* (blowfly) and *Sacrophagidae* (fleshfly)

•   Evidence of presence of beetles such as *dermestid* via beetle larvae

6.   group or single extended or flexed inhumation, complete burial/interment within the foundations or floor of communal building(s)

7.   group or single extended or flexed inhumation, incomplete burial/interment within the foundations or floor of communal ritual building(s)

8.   group or single extended or flexed inhumation, complete burial/interment within the foundations or floor of domestic building(s)

9.   group or single extended or flexed inhumation, incomplete burial/interment within the foundations or floor of communal building(s)

10.   group or single extended or flexed inhumation, complete burial/interment within the foundations or floor of communal ritual building(s)

11.   group or single extended or flexed inhumation, incomplete burial/interment within the foundations or floor of domestic building(s)

12.   group or single extended or flexed inhumation, complete intramural burial/interment within the foundations or floor of isolated building(s) inside the settlement

13.   group or single extended or flexed inhumation, incomplete burial/interment within the foundations or floor of isolated building(s) inside the settlement

14.   group or single extended or flexed inhumation, complete intramural burial/interment within communal structure(s) barrow, henge, mound, monument

15.   group or single extended or flexed inhumation, incomplete intramural burial/interment within communal structure(s) barrow, henge, mound, monument

14.   Evidence of cremation: this category is recorded in terms of: 0 = absent, 1 = present.

In this study the term cremation refers to the evidence for cremation and or cremation burial(s):

A.   Cremation: the use of burning as a method of disposing of a corpse. Cremation of a human body requires temperatures ranging between 800 to 1200 degrees Celsius. The cremation of human remains involves placing the remains on a cremation pyre (elevated or not), chamber or furnace to reduce the remains to its basic chemical compounds resulting in mineral fragments retaining the appearance of dry bone.

B.   Cremation burial/interment: the burial/interment of cremated remains

eHRAF: For each eHRAF culture, evidence of cremation and or cremation burial (1 = present) comes for the examination of 40 criteria in the eHRAF database: Reference to or description of:

1.   cremation and or cremation interment/burial

2.   a request for an cremation

3.   Use of a pyre

4.   collection of materials for a pyre

5.   construction of a pyre

6.   location of pyre

7.   lighting of a pyre

8.   management/supervision of a pyre

9.   extinguishing of a pyre

10.   the use of cremation and or cremation burial for most individuals as a standard treatment

11.   the use of cremation and or cremation burial for certain individuals as a non-standard treatment

12.   age differences associated with the use of cremation and or cremation burial

13.   sex differences associated with the use of cremation and or cremation burial

14.   the occasions when cremation and or cremation burial is used

15.   the reasons for the use of cremation and or cremation burial

16.   the individual(s) afforded cremation and or cremation burial

17.   the group(s) afforded cremation and or cremation burial

18.   the frequency of cremation and or cremation burial

19.   location(s) used for cremation and or cremation burial

20.   cremation and or cremation burial(s) in cemeteries or non-cemetery locations

21.   preparation of a corpse or corpses for cremation and or cremation burial

22.   transportation of corpse to the pyre

23.   placing a corpse on a pyre

24.   position of corpse on a pyre

25.   length of time of cremation

26.   raking the pyre

27.   collecting of remains during the cremation process

28.   collecting of cremated remains

29.   transportation of cremated remains

30.   storage of cremated remains

31.   interment of cremated remains

32.   practices associated with cremation and or cremation burial

(a) primary cremation burial practices in in cemeteries or non-cemetery locations

(b) secondary cremation burial practices in in cemeteries or non-cemetery locations

33.   performing practices, rituals, ceremonies and dedications associated with cremation and or cremation burial(s)

34.   attending practices, rituals, ceremonies and dedications associated with cremation and or cremation burial(s)

35.   participating in practices, rituals, ceremonies and dedications associated with cremation and or cremation burial(s)

36.   mythical/religious associations with cremation and or cremation burial(s)

37.   mythical/religious figures associated with cremation and or cremation burial(s)

38.   ritual symbols associated with cremation and or cremation burial(s)

39.   grave markers associated with cremation burial(s)

40.   rules associated with cremation and or cremation burial(s)

41.   sanctions associated with cremation and or cremation burial(s)

42.   visiting and re-visiting the location of cremation and or cremation burial(s)

43.   maintenance of the location(s) of cremation and or cremation burial(s)

Archaeology: this section outlines the evidence that is used to indicated/record the use of: (1) cremation as a way of processing corpse or corpses and (2) the interment of cremated remains.

(1) cremation as a way of processing corpse(s)

The cremation process and conditions affect the bones in a number of ways. For instance, exposure to the heat of a pyre changes the colour, shape, size and weight of bone. The colour of bone fragments affected by high temperatures is a function of oxygen availability, duration and temperature. Complete burning will result in complete oxidation of the organic component of bone, leaving the mineral portion remaining. At about 900ºC the organic content of bone is destroyed, leaving only the inorganic matrix which, at that temperature, is rendered brittle and assumes a metallic consistency rather like that of fine bone china. On cooling, the inorganic matrix appears white. Importantly, it is this white

colour that offers the most reliable clue as to the temperature reached at the hottest part of the pyre.

Evidence of cremation can be determined from the identification of 2 of 10 criteria:

1. The explicit noting by the excavators as cremation being in use at the site.

2. The recording of a pyre location at the site

3. Presence of Pyre Debris:

- If Pyre debris has been noted to have been deposited in the backfill of cremation burials

4. The colour of the bone

Holden et al. (1995) provide us with a summary of the association between specific colours and their associate bone colours:

- Brown/Orange = Unburnt

- Black = Charred (c.300°C)

- Blue/Grey = Incompletely Oxidised (c.600°C)

- White = Completely Oxidised (>600°C)

5. Bone consistency:

- brittle bone with a metallic consistency indicates cremation

6. The degree of Warping

- degree of warping is related to the presence of soft tissue at the time of exposure to the cremation pyre. Bone burned with flesh still present will contain considerable warping, transverse fractures (recurrently in a curvilinear pattern) and more irregular longitudinal splitting.

7. Evidence of shrinkage and Dehydration:

- Shrinkage of bone during the cremation process due to dehydration can amount to a 25-30% decrease in cross-section width and accordingly approximately a 5% decrease in bone length. Evidence of dehydration presents itself on the bone fragments in the form of fissuring or transverse, concentric and parabolic cracking—particularly, when

soft tissue was still present on the bone. On Spongy bone shrinkage initiates at 700ºC, augments at 800ºC and no further shrinkage occurs at higher temperatures. In addition, it is asserted that shrinkage, correlates with both temperature and the duration of heat exposure.

8.   Evidence of secondary Crushing following cremation:

•   A substantial percentage of bone fragments less that 5mm (<5mm) with indication via colouring etc. of cremation can be considered as probable evidence that following the cremation process, bone were mechanically pulverised in order to get them into a burial container or to transport them.

9.   Evidence of transportation of Remain

•   If transportation had taken place we should observe the absence of a majority of hand and feet bones—which are unlikely to be collected.

10.   Presence of Pyre/Grave Goods

•   For example, metal items leave a trace of their presence in the form of staining on the bone, especially those manufactured from copper alloys. Dunlop (1978) reports that copper produces a pink colour in cremated bones, copper alloys and iron a green colour and zinc a yellow colour.

(2) Interment of cremated remains

The evidence of the interment of cremated remains can be determined form the recording of 1 of 13 criteria:

1.   it is recorded that the majority of interments are cremation interments

2.   the sources state that cremation interment is afforded to the majority or represents the standard or dominant practice at a site phase

3.   group or single cremation intramural burial/interment within the foundations or floor of communal building(s) (with or without an urn)

4.   group or single cremation intramural burial/interment within the foundations or floor of communal ritual building(s) (with or without an urn)

5.   group or single cremation intramural burial/interment within the foundations or floor of domestic building(s) (with or without an urn)

6.   group or single cremation burial/interment within the foundations or floor of communal building(s) (with or without an urn)

7.   group or single cremation burial/interment within the foundations or floor of communal ritual building(s) (with or without an urn)

8.   group or single cremation burial/interment within the foundations or floor of domestic building(s) (with or without an urn)

9.   group or single cremation intramural burial/interment within the foundations or floor of isolated building(s), inside the settlement (with or without an urn)

10.   group or single cremation burial/interment within the foundations or floor of isolated building(s), inside the settlement (with or without an urn)

11.   group or single cremation intramural burial/interment within communal structure(s) barrow, henge, mound, monument (with or without an urn)

12.   group or single cremation intramural burial/interment within communal

13.   structure(s) barrow, henge, mound, monument (with or without an urn)

15.   Evidence of secondary burial or interment practice: this category is recorded in terms of: 0 = absent, 1 = present.

In this study, secondary burial treatment refers to the use of two-part interment practices. This can relate to: (a) reopening of an interment, for example, to remove bones for relics, caching, painting or plastering; (b) reopening or an internment to re-inter the remains in a different location; and (3) the corpse is de-fleshed naturally before being placed in the grave—in this instance the corpse in often placed on a platform of some description for excarnation (de-fleshing). It does not refer to cremation which is dealt with in a separate section.

eHRAF: For each eHRAF culture, evidence of secondary burial treatment (1 = present) comes for the examination of 40 criteria in the eHRAF database: Reference to or description of:

1.   secondary burial practices

2.   request for secondary burial treatment

3.   re-opening of graves

4.   re-interment of individuals

5.   bone caching

6.   bone relics

7.   use of an excarnation/de-fleshing platform

8.   construction of a excarnation/de-fleshing platform

9.   location of excarnation/de-fleshing platform

10.   management/supervision of a de-fleshing platform

11.   the use of secondary burial practices for most individuals as a standard treatment

12.   the use of secondary burial practices for certain individuals as a non-standard treatment

13.   age differences associated with the use of secondary burial practices

14.   sex differences associated with the use of secondary burial practices

15.   the occasions when secondary burial practices is used

16.   the reasons for the use of secondary burial practices

17.   the individual(s) afforded secondary burial practices

18.   the group(s) afforded secondary burial practices

19.   the frequency of secondary burial practices

20.   location(s) used for secondary burial practices; initial interment or second interment

21.   preparation of a corpse or corpses for secondary burial practices; preparing for excarnation/de-fleshing or re-burial

22.   transportation of corpse to the de-fleshing platform

23.   placing a corpse on a de-fleshing platform

24.   position of a corpse on a de-fleshing platform

25.   collecting of remains following the excarnation/de-fleshing process

26.   transportation of remains as part of a secondary burial practices

27.   storage of remains as part of a secondary burial practices

28.   final interment of remains as part of a secondary burial practices

29.   practices associated with secondary burial treatment

(a) primary burial practices in cemeteries or non-cemetery locations

(b) secondary burial practices in cemeteries or non-cemetery locations

30.   performing practices, rituals, ceremonies and dedications associated with secondary burial treatment(s); initial interment or second interment

31.   attending practices, rituals, ceremonies and dedications associated with secondary burial treatment(s); initial interment or second interment

32.   participating in practices, rituals, ceremonies and dedications associated with secondary burial treatment(s); initial interment or second interment

33.   mythical/religious associations with secondary burial treatment(s)

34.   mythical/religious figures associated with secondary burial practices

35.   ritual symbols associated with secondary burial practices

36.   grave markers associated with secondary burial(s); initial interment or second interment location

37.   rules associated with secondary burial practices

38.   sanctions associated with secondary burial practices

39.   visiting and re-visiting the location of secondary burial practices; initial interment or second interment

40.   maintenance of the location(s) of secondary burial practices; initial interment or second interment location

Archaeology: evidence of secondary burial practices (1 = present) comes for the recording of 2 of 9 criteria at site-phase:

1.   Evidence of post-mortem removal of human bone as part of a secondary practice(s) involving:

 (a) reopening the grave after burial to retrieve individual bone, collection of bones or skull(s) for relics, caching modification or interment in another location. It can be examine via by absent bones particularly long bones and skull with no evidence of perimortem trauma in the removal of such bones.

(b) evidence of excarnation as part of a secondary burial practices where the corpse is de-fleshed naturally before being placed in the grave.

(C) evidence of secondary burial practices where the bones have been placed in a second interment

Both (b) and (c) are difficult but can potentially be indicated by:

  I.   absence of particular bones; often hand and foot bone which may not have been collected for reinternment following natural excarnation/de-fleshing (no evidence of cut marks)

 II.   in a situation where soft tissue is, generally, preserved due to the biochemical conditions of the site but we have interments with no evidence of soft tissue

III.   Where analysis demonstrates that the interment was not associated with the presence of soft tissue. evidence of soft tissue present at the time of burial indicated by the identification of preserved evidence such as:

•   Evidence of bacterial bio-erosion related to the bacteria of the gastrointestinal tract

•   Preserved Larvae of, for example, the *Calliphoridae* (blowfly) and *Sacrophagidae* (fleshfly)

•   Evidence of the presence of beetles such as *dermestid* beetle via larvae

2.   Evidence of separate burial of individual bones or skull

3.   Evidence of bone or skull caching:

4.   the caching of bones or skull(s) within the walls, floor or foundation of a building(s)

5.   the caching of bones or skull(s) in any location on the site

6.   the caching of bones or skull(s) in the surrounding landscape of the site; where evidence indicates (1) dating: contemporary with the site and/or (2) ancient DNA or isotope evidence indicates a connection between to the population of the site

7.   Evidence of plastered skulls:

8.   Evidence of painting bone or skulls:

9.   Any of the above any type of

- single complete individual interment (inhumation)

- single incomplete individual interment (inhumation)

- group complete interment (inhumation)

- group incomplete interment (inhumation)

- comingled interment (inhumation)

16.   Evidence of grave disturbance: this category is recorded in terms of: 0 = absent, 1 = present. In this study, grave disturbance refers to the reopening of an interment to: (1) remove bones for relics, caching, painting or plastering; (2) remove grave goods/artefacts; (3) to re-inter in a different location and (4) re-opening of interment to place grave goods/artefacts or additional human or animal bone; this does not include such multiple interments such as familial burial in which a member of the family is later buried in the same plot. It refers to the deliberate re-opening to include items as part of either a standard or special burial practice.

eHRAF: For each eHRAF culture, evidence of grave disturbance (1 = present) comes for the examination of 31 criteria in the eHRAF database: Reference to or description of:

1. grave disturbance

2. re-opening of graves

3. re-interment of individuals

4. bone caching

5. bone relics

6. the practice of grave disturbance for most individuals as a standard treatment

7. the practice of grave disturbance for certain individuals as a non-standard treatment

8. age differences associated with grave disturbance

9. sex differences associated with grave disturbance

10. the occasions when grave disturbance happens

11. the reasons for grave disturbance

12. the individual(s) whose graves are subject to disturbance

13. the group(s) whose graves are subject to disturbance

14. the frequency of grave disturbance

15. preparation of a corpse or corpses for re-burial following grave disturbance

16. transportation of corpse for re-burial following grave disturbance

17. collecting of remains for re-burial following grave disturbance

18. storage of remains as part of a secondary burial practices

19. final interment of remains as part of a secondary burial practices

20. practices associated with grave disturbance

21. grave disturbance in cemeteries or non-cemetery locations

22. performing practices, rituals, ceremonies and dedications associated with grave disturbance(s)

23. attending practices, rituals, ceremonies and dedications associated with grave disturbance(s)

24.   participating in practices, rituals, ceremonies and dedications associated with grave disturbance(s)

25.   mythical/religious associations with grave disturbance(s)

26.   mythical/religious figures associated with grave disturbance(s)

27.   ritual symbols associated with grave disturbance(s)

28.   grave markers associated with secondary burial(s)

29.   rules associated with grave disturbance(s)

30.   sanctions associated with grave disturbance(s)

31.   visiting and re-visiting the location of grave disturbance(s)

Archaeology: The evidence of grave disturbance is recorded using the criteria outlined in the *secondary burial practices section* (no. 15). In this study, grave disturbance refers to the reopening of an interment to:

(1) remove bones for relics, caching, painting or plastering; indicated by absent bones particularly long bones and skull

(2) remove grave goods/artefacts—indicated via the occurrence of staining due to the presence of a metal object which is no longer present

(3) to re-inter in a different location: indicated by the presence of a grave cut where grave goods or other artefacts are present, chemical analysis indicates organic matter (e.g. stomach/intestinal parasites) associated with human burial but all aspects of the skeleton are absent

Note the re-opening of interment to place grave goods/artefacts or additional human or animal bone was not recorded as it is difficult to ascertain in the archaeological record but it mat potential be examined where dating for the individual(s) interred gives an earlier date then the date(s) received for the artefact or bone are different; this may show some continued knowledge of ancestral burial but could also represent later intrusions not connected with the initial interment.

18. **Evidence of grave goods**: this category is recorded in terms of: 0 = absent, 1 = present. A grave good refers to any artefact deliberately places in or accompanying an interment. It can be: (1) manufactured items such as beads, pottery, weapons, carved stone and implements associated with a vocation/profession etc. in an interment and (2) natural items such as unaltered shells, fossils, as well as, animal bones or additional human bones (particular bones or areas of the anatomy) etc. in an interment. The presence of grave goods can be related to a number of factors including, rank, social status vocation/profession, sex and age.

eHRAF: For each eHRAF culture, evidence of grave goods (1 = present) comes for the examination of 44 criteria in the eHRAF database: Reference to or description of:

1. placing grave goods in an interment

2. the requesting of grave goods in an interment

3. the use of grave goods for most individuals as a non-standard treatment

4. the use of grave goods for certain individuals as a non-standard treatment

5. age differences associated with grave goods

6. sex differences associated with grave goods

7. types of grave goods

8. the placing of items in an interment

9. the designing of grave goods

10. making of grave goods

11. storage of grave goods

12. caching of grave goods

13. preparation of grave goods for interment

14. the placing of manufactured items such as beads, pottery, weapons, implements associated with a vocation/profession etc. in an interment

15. the placing of natural items such as shells, animal bones or additional human bones etc. in an interment

16. the placing of personal items in an interment

17.   the placing of items associated with a belief system in an interment

18.   the occasions when grave goods are used

19.   the reasons for placing grave goods in an interment

20.   the individual(s) whose graves receive grave goods

21.   the group(s) whose graves are receive grave goods

22.   the frequency of placing grave goods in an interment

23.   preparation of a corpse or corpses for burial using grave goods

24.   preparation of a corpse or corpses for re-burial using grave goods

25.   collecting of grave goods

26.   transportation of grave goods for interment

27.   final interment of grave goods as part of a primary burial practices

28.   final interment of grave goods as part of a secondary burial practices

29.   practices associated with grave goods

30.   locations associated with grave goods: cemeteries and non-cemetery locations

31.   grave disturbance in cemeteries or non-cemetery locations associated with the placing grave goods

32.   grave disturbance in cemeteries or non-cemetery locations associated with the retrieving of grave goods

33.   performing practices, rituals, ceremonies and dedications associated with grave goods

34.   dedicated ritual practitioner(s) associated with the placing of grave goods

35.   dedicated member(s) of the community associated with the placing of grave goods

36.   dedicated kin member(s) associated with the placing of grave goods

37.   attending practices, rituals, ceremonies and dedications associated with grave goods

38.   participating in practices, rituals, ceremonies and dedications associated with grave goods

39.   mythical/religious associations with grave goods

40.   mythical/religious figures associated with grave goods

41.   ritual symbols associated with grave goods

42.   grave markers associated with secondary burial

43.   rules associated with grave goods

44.   sanctions associated with grave goods

Archaeology: In this study, a grave good refers to the artefacts that are present at the time of excavation. It related to (1) any manufactured item such as beads, pottery, weapons, carved stone and implements associated with a vocation/profession etc. in an interment and (2) natural items such as shells, fossils, animal bones or additional human bones (particular bones or areas of the anatomy) etc. in an interment. As it is hard to determine the intentional placing of natural items such as shells or fossils, these were only deemed as grave goods if their presence was recorded as associated with intentional caching of number of examples via the positioning and arrangement of shells and/or fossils in an interment.

Grave goods present was recorded if (1) any manufactured item such as beads, pottery, weapons, carved stone and implements associated with a vocation/profession etc. in an interment and (2) natural items (as described) were interred with:

1.   that the majority of interments have grave goods

2.   The sources state that the inclusion of grave goods is present at the majority of interments or represents the standard or dominant practice at a site phase

3.   single complete individual interment (inhumation)

4.   single incomplete individual interment (inhumation)

5.   group complete interment (inhumation)

6.   group incomplete interment (inhumation)

7.   comingled interment (inhumation)

8.   single cremation interment

9.   group cremation interment where each cremation is in an urn

10.   comingled cremation interment

11.   the caching of particular bones e.g. long bones or skulls within the walls, floor or foundation of a building(s)

19.   Evidence of skulls manipulation/modification (associated with mortuary practices): this category is recorded in terms of: 0 = absent, 1 = present refers to recording of any deliberately modification or removal of the skull of the deceased, which is not indicative of interpersonal violence, e.g.:

1.   Evidence of post-mortem removal of the skull

2.   Evidence of separate skull(s) interment

3.   Evidence of skull caching

4.   Evidence of plastered skulls

5.   Evidence of painted skulls

Skull manipulation can be related to a number of factors including, rank, social status vocation/profession, sex and age.

eHRAF: For each eHRAF culture, skull manipulation (1 = present) comes for the examination of 48 criteria in the eHRAF database: Reference to or description of:

1.   the use of skull manipulation/modification

2.   the requesting of skull manipulation

3.   the use of skull manipulation for most individuals as a standard treatment

4.   the use of skull manipulation for certain individuals as a non-standard treatment

5.   age differences associated with skull manipulation

6.   sex differences associated with skull manipulation

7.   removal of a skull from a corpse

8.   types of skull manipulation/modification including skull painting and plastering

9.   the placing of individual skulls in an interment

10. tools for skull removal

11. storage of tools for skull removal

12. tools for skull manipulation including skull painting and plastering

13. storage of tools for skull manipulation including skull painting and plastering

14. storage of manipulated skulls

15. caching of skulls

16. caching of manipulated skulls

17. preparation of skulls for manipulation

18. preparation of manipulated skulls for interment

19. the placing of manipulated skulls in an interment

20. the occasions when skull manipulation are used

21. the reasons for placing manipulated skulls in an interment

22. the individual(s) who receive skull manipulation

23. the group(s) who receive skull manipulation

24. the frequency of skull manipulation

25. the frequency of placing manipulated skulls in an interment

26. preparation of a corpse or corpses for burial associated with skull manipulation

27. preparation of a corpse or corpses for re-burial associated with skull manipulation

28. collecting of manipulated skulls

29. transportation of manipulated skulls for interment

30. final interment of manipulated skulls as part of a primary burial practices

31. final interment of manipulated skulls as part of a secondary burial practices

32. practices associated with skull manipulation

33. Locations associated with skull manipulation: domestic, ritual buildings, communal buildings and workshops

34. Locations associated with interment of manipulated skulls: cemeteries and non-cemetery locations

35.   grave disturbance in non-cemetery locations associated with the retrieving of skulls for manipulation

36.   grave disturbance in cemeteries locations associated with the placing manipulated skulls

37.   performing practices, rituals, ceremonies and dedications associated with skull manipulation

38.   dedicated ritual practitioner(s) associated with skull manipulation

39.   dedicated member(s) of the community associated with skull manipulation

40.   dedicated kin member(s) associated with skull manipulation

41.   attending practices, rituals, ceremonies and dedications associated with skull manipulation

42.   participating in practices, rituals, ceremonies and dedications associated with skull manipulation

43.   mythical/religious associations with skull manipulation

44.   mythical/religious figures associated with skull manipulation

45.   ritual symbols associated with skull manipulation

46.   grave markers associated with secondary burial practices for the purpose of skull manipulation

47.   rules associated with skull manipulation

48.   sanctions associated with skull manipulation

Archaeology: Archaeological evidence of skull manipulation refers post-mortem removal and manipulation of the skull(s). It is recorded if any 1 of 5 criteria are present:

1.   Evidence of post-mortem removal of the skull(s) as part of a secondary practice(s)involving:

(a) re-opening the grave after burial to retrieve skull(s) for relics, caching modification or interment in another location. It can be examined via by absent skull bones with no

evidence of perimortem trauma in the removal of such bones—e.g. no marks on the cervical vertebrae, mastoid processes or mandible.

(b) evidence of secondary burial practices where the corpse is de-fleshed naturally (excarnation) before being placed in the grave without the skull.

(C) evidence of secondary burial practices where the bones have been placed in a second interment without the skull

Both (b)and (c) can potentially be indicated by:

I.   absence of particular bones; often hand and foot bone which may not have been collected for reinternment following natural excarnation/de-fleshing (no evidence of cut marks)

II.   Where soft tissue is, generally, preserved due to the biochemical conditions of the site but we have interments with no evidence of soft tissue

III.   Where analysis demonstrates that the interment was not associated with the presence of soft tissue. evidence of soft tissue present at the time of burial indicated by the identification of preserved evidence such as:

•   Evidence of bacterial bio-erosion related to the bacteria of the gastrointestinal tract

•   Preserved Larvae of, for example, the *Calliphoridae* (blowfly) and *Sacrophagidae* (fleshfly)

•   Evidence of the presence beetles such as *dermestid* via beetle larvae

2.   Evidence of separate skull burial

3.   Evidence of skulls caching:

•   the caching of skull(s) within the walls, floor or foundation of a building(s)

•   the caching of skull(s) in any location on the site

- the caching of skull(s) in the surrounding landscape of the site; where evidence indicates (1) contemporary with the site (2) or dating, ancient DNA or isotope evidence indicates a connection between to the population of the site

4. Evidence of plastered skulls:

5. Evidence of painting skulls:

Any of the above any type of

- single complete individual interment (inhumation)

- single incomplete individual interment (inhumation)

- group complete interment (inhumation)

- group incomplete interment (inhumation)

- comingled interment (inhumation)

20. Evidence of burial associated with animals: this category is recorded in terms of: 0 = absent, 1 = present.

eHRAF: For each eHRAF cultures, burial associated with animals refers to (1) the inclusion of any part of animal anatomy e.g. bone, tooth, horns, tusk, antler or hide in an interment and (2) the slaughtering of animals as part of a mortuary ritual. This category refers specifically to (1) hunted large wild game (2) wild or domesticated sheep, goat, pigs or cattle. For each eHRAF cultures, evidence of burial associated with animals (1 = present) comes for the examination of 50 criteria in the eHRAF database: Reference to or description of:

1. placing animal bone(s) in an interment

2. the requesting of animal bone(s) to be placed in an interment

3. the use of animal bone(s) for most individuals as a standard treatment

4. the use of animal bone(s) for certain individuals as a non-standard treatment

5. age differences associated with the placing of animal bone(s) in an interment

6. sex differences associated with the placing of animal bone(s) in an interment

7.   types of animal bone(s) e.g. long bone or skull placed in an interment

8.   the placing of animal bone(s) in an interment

9.   storage of animal bone(s) before placing in an interment

10.   caching of animal bone(s)) before placing in an interment

11.   preparation of animal bone(s) for interment

12.   the placing of items associated with a belief system in an interment

13.   the occasions when animal bone(s) before placed in an interment

14.   the reasons for placing animal bone(s) in an interment

15.   the individual(s) whose graves receive animal bone(s)

16.   the group(s) whose graves are receive animal bone(s)

17.   the frequency of placing animal bone(s) in an interment

18.   collecting of animal bone(s) for interment

19.   transportation of animal bone(s) for interment

20.   final interment of animal bone(s) as part of a primary burial practices

21.   final interment of animal bone(s) as part of a secondary burial practices

22.   practices associated with animal bone(s)

23.   locations associated with animal bone(s)n in interments: cemeteries and non-cemetery locations

24.   grave disturbance in cemeteries or non-cemetery locations associated with the placing animal bone(s)

25.   grave disturbance in cemeteries or non-cemetery locations associated with the retrieving of animal bone(s)

26.   performing practices, rituals, ceremonies and dedications associated with animal bone(s) in mortuary contexts

27.   dedicated ritual practitioner(s) associated with the placing of animal bone(s) in mortuary contexts

28.   dedicated member(s) of the community associated with the placing of animal bone(s) in mortuary contexts

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29.   dedicated kin member(s) associated with the placing of animal bone(s) in interments

30.   attending practices, rituals, ceremonies and dedications associated with animal bone(s) in mortuary contexts

31.   participating in practices, rituals, ceremonies and dedications associated with animal bone(s) in mortuary contexts

32.   mythical/religious associations with animal bone(s) in mortuary contexts

33.   mythical/religious figures associated with animal bone(s) in mortuary contexts

34.   ritual symbols associated with animal bone(s) in mortuary contexts

35.   grave markers associated with animal bone(s) in mortuary contexts

36.   rules associated with animal bone(s) in mortuary contexts

37.   sanctions associated with animal bone(s) in mortuary contexts

38.   organisation of slaughtering of animals for mortuary practices

39.   rituals and ceremonies associated with slaughtering of animals for mortuary practices;

40.   wild animals slaughtering/butchered for mortuary practices

41.   domesticated animals slaughtering/butchered for mortuary practices

42.   types of animals reared for slaughtering/butchered for mortuary practices

43.   types of animals hunted for slaughtering in to context of mortuary practices

44.   entertainment associated with the slaughtering of animals for mortuary practices

45.   mythical/religious associations with the slaughtering of animals for mortuary practices

46.   mythical/religious figures associated with the slaughtering of animals for mortuary practices

47.   ritual symbols associated with the slaughtering of animals for mortuary practices

48.   rules and sanctions associated with the slaughtering of animals for mortuary practices

49.   rules and sanctions associated with the consumption of animals for mortuary practices

50.   payment/reciprocal aspects of slaughtering of animals for mortuary practices

Archaeology: Burial associated with animals (1 = present) was recorded in relation to evidence of the inclusion of any part of animal anatomy e.g. bone, tooth, horns, tusk antler or hide (where the biochemical conditions all for the preservation of hide) of (1) hunted large wild game (2) wild or domesticated sheep, goat, pigs or cattle which were interred:

1.   It is recorded that the majority of interments have animal bones etc. inclusions

2.   The sources state that the inclusion of animal bones etc. are present at the majority of interments or represents the standard or dominant practice at a site phase associate

The inclusion of animal bones with any type of:

3.   single complete individual interment (inhumation)

4.   single incomplete individual interment (inhumation)

5.   group complete interment (inhumation)

6.   group incomplete interment (inhumation)

7.   comingled interment (inhumation)

8.   single cremation interment

9.   group cremation interment using urns for each cremation

10.   comingled cremation interment

11.   the caching of particular animal bones/horns/tooth associated with human remains within the walls, floor or foundation of any building(s).

17.   Evidence of special burial treatment

This category is recorded in terms of: 0 = absent, 1 = present. In this study special burial treatment refers to the evidence that a certain practices were reserved for a minority of

individuals; a limited/select number of individuals (< 30% of all interments, if provided) or where the excavator states that the treatment was only afforded to a minority of examples. Special burial treatment can relate to a number of factors including, rank, social status vocation/profession, sex and age. This can relate to the:

- Different location of an interment e.g. tomb, plaza, ritual building or monument

- Different orientation of an interment

- Special processing of the body e.g. cremation versus interment

- Position of the body; flexed versus extended

- Single individual interments where group burial is used

- Ornamentation of the burial e.g. personal adornment of the corpse via, e.g., beads or dress

- The inclusion of grave goods where normally there are none present. For example, figurines, beads, weapons, metal or pottery

- Burials associated with animal bone , tusk, antler or hide

- The inclusion of different grave goods compared to other burials

- Different grave furnishing compared to other graves

- Secondary burial practices associated with corpse; practices before or after final interment

- Grave disturbance

- Removal of bone for circulation or relics e.g. long bones or skull plastering/painting

- Specific grave markers associated with special burial treatments

- Specific symbols associated with special burial treatments

eHRAF: For each eHRAF culture, evidence of special burial treatment (1 = present) comes for the examination of 32 criteria in the eHRAF database: Reference to or description of:

1.   the use of special burial treatment

2.   request for special burial treatment

3.   the use of special burial treatment for certain individuals as a non-standard treatment

4.   age differences associated with the use of special burial treatment

5.   sex differences associated with the use of special burial treatment

6.   status differences associated with the use of special burial treatment

7.   the occasions when special burial treatment is used

8.   the reasons for the use of special burial treatment

9.   the individual(s) afforded special burial treatment

10.   the group(s) afforded special burial treatment

11.   the frequency of special burial treatment

12.   location(s) used for special burial treatment

13.   orientation of special graves

14.   preparation of a corpse or corpses for special burial treatment

15.   practices associated with special burial treatment

(a) primary cremation burial practices in in cemeteries or non-cemetery locations

(b) secondary cremation burial practices in in cemeteries or non-cemetery locations

16.   grave good associated with special burial treatment(s)

17.   ostentatious grave goods

18.   Bodily adornment associate with special burial treatment(s)

19.   grave furnishing associate with special burial treatment(s)

20.   ostentatious graves

21.   ostentatious funerals

22.   performing practices, rituals, ceremonies and dedications associated with special burial treatment(s)

23.   attending practices, rituals, ceremonies and dedications associated with special burial treatment(s)

24.   participating in practices, rituals, ceremonies and dedications associated with special burial treatment(s)

25.   mythical/religious associations with special burial treatment(s)

26.   mythical/religious figures associated with special burial treatment(s)

27.   ritual symbols associated with special burial treatment(s)

28.   grave markers associated with special burial treatment(s)

29.   rules associated with special burial treatment(s)

30.   sanctions associated with special burial treatment(s)

31.   visiting and re-visiting the location of special burial treatment(s)

32.   maintenance of the location(s) of special burial treatment(s)

Archaeology: In the archaeological samples, special burial treatment was recorded when (1) a particular burial practices was recorder as afforded to a select number of individuals identified. However, this is still difficult as a number of the categories could also lead to the identification of deviant burials. For the most part, it is suggested to focus on (1) enhancements to the typical burial practices e.g. bodily adornment, grave goods and (2) Investment in terms of time and labour associated with interments e.g. in communal ritual structures such a megalithic monuments. The recording of special burial treatment relates to the recording of 2 of 18 criteria:

1.   Different location of an interment:

- Inside the settlement

- Outside the settlement

- Monument

- Tomb

- Individual grave cut(s)

- Extramural: plaza, square or in-between buildings

- Intramural: Communal building, Communal ritual building, domestic building or isolated building

2. Different type interment

- Monument

- Tomb

- Individual grave cut(s)

- Cist

- Pit

3. Different position of the body

   - Flexed

   - Extended

   - Prone

   - Supine

4. Different orientation of an interment

5. Special processing of the body e.g. cremation versus inhumation

6. Ornamentation of the burial via personal adornment of the corpse via, e.g. beads or dress

7. The inclusion of grave goods e.g. figurines, bead , weapons, metal or pottery

8. A group interment with weapons

9. The inclusion of different types grave goods compared to other interments—particularly if evidence indicates exotic/imported good

10. grave furnishing

11. Different grave furnishing compared to other graves

12. Secondary burial practices associated with corpse; practices before or after final interment. involving:

(a) Reopening the grave after burial to retrieve artefacts or bones (post cranial and cranial). The former can be examine via the presence of staining due to the presence of a

metal object which is no longer present and the latter can be indicated by absent bones particularly long bones and skull with no evidence of perimortem trauma.

(b) evidence of secondary burial practices where the corpse is de-fleshed naturally before being placed in the grave. This can be indicated by cut marks of bone or the absence of bone due to bones "rolling away" or being scavenged as happens when remain are placed in the open air to naturally de-flesh or all bones not collected properly

13.   Evidence of skull caching

14.   Evidence of skull painting

15.   Evidence of skull painting

16.   Interments associated with food via the inclusion:

•   of animal bone (domestic and/or wild)

•   gathered plant food (wild)

•   domestic plant food

•   Liquid or resin food (such as honey) indicated by chemical analysis of pottery

•   Alcohol, narcotics hallucinogens indicated by archaeobotanical analysis or chemical analysis of pottery

17.   Interments with the inclusion of animal bone (domestic and/or wild) as a grave good-decorated or undecorated

18.   Specific grave markers associated with particular interments

Social Complexity

This section of the database was used to record the evidence of social complexity associated with each eHRAF culture and archaeological site-phase. For the eHRAF cultures, a specific set of OCM codes (Table 4) were used. This section used categories of absence or presence (0 or 1) to record the evidence of social complexity. In addition, levels of community hierarchy and ritual hierarchy were recorded using an ordinal scale (0, 1, 2, 3, >3). A total of 17 categories were used to examine the level of social complexity:

1.   Evidence of social inequality

2.   Degree of sedentism

3.   Subsistence strategy variables

4.   levels of community hierarchy*

5.   Evidence of resource monopolisation

6.   Evidence of permanent settlement

7.   Evidence of settled forager activity

8.   Evidence of nomadic pastoralism

9.   Evidence of temporary settlement

10.   Evidence of large(r) domestic dwellings

11.   Evidence of feasting

12.   Evidence of craft specialisation

13.   Evidence of pottery

14.   Evidence of exchange networks

15.   Storage of cultural knowledge

16.   levels of religious hierarchy*

17.   Evidence of interpersonal violence

18.   Evidence of single individual burial

19.   Evidence of grave goods

20.   Evidence of special burial treatment

21.   Evidence of cemeteries

* recorded only for archaeological site-phases

* recorded only for eHRAF cultures

TABLE 4. The eHRAF OCM codes for social complexity/inequality

OCM Code	Description
341	architecture
342	dwellings
346	religious and educational structures
362	housing
560	social stratification
622	community heads
628	inter-community relations
682	offenses against life
683	offenses against the person
631	territorial hierarchy
681	sanctions
764	burial practices
766	special burial practices and funerals
767	mortuary practices
769	cult of the dead

1.   Evidence of social inequality: this category is recorded in terms of: 0 = absent, 1

= present.

The evidence of social inequality was assessed by examining:

1.   direct mention of social inequality in the written sources (eHRAF)

2.	positions of rank in the community (eHRAF)

3.	the burial practices; focusing on special burial treatment, single-individual burials, special treatment of the body and the inclusion of burial goods afforded to a minority of the group

4.	domestic architecture; to examine if domestic architectural (size and design) differences related to social inequality

5.	resource monopolization

The presence of these criteria (outlined below) was used to examine and establish if there is evidence of social equality in each eHRAF cultures or the archaeological site-phase. The identification of any one of these criteria in the eHRAF cultures or the archaeological site-phases is used to record social inequality as present.

**2.	Degree of sedentism:** (0, 1, 2) (0= no sedentism, 1= moderate sedentism/ Semi-sedentary, 2= fully sedentary communities

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the *General* section above

**3.	Subsistence strategy:**

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the *subsistence* section above for:

•	**Evidence of hunting**: This category is recorded in terms of: 0 = absent, 1 = present

•	**Evidence of gathering**: This category is recorded in terms of: 0 = absent, 1 = present

•	**Evidence of animal domestication**: This category is recorded in terms of: 0 = absent, 1 = present

•	**Evidence of crop cultivation/agriculture**: This category is recorded in terms of: 0 = absent, 1 = present

- **Evidence of animal domestication (herding) intensity**: this category is recorded in terms of an ordinal scale: 0, 1, 2 with 0 = no evidence of animal domestication, 1 = some domestication, including sheep, goats and pigs and 2 = full domestication including, cattle.

- **crop cultivation intensity**: this category is recorded in terms of an ordinal scale: 0, 1, 2 with 0 = no evidence of cultivation, 1 = cultivation of non-staples and 2 = intensive cultivation/agriculture with domesticated staples.

- **Evidence and type of Food storage strategy**: this category is recorded in terms of an ordinal scale: 0, 1, 2, 3; with 0 = no storage strategy, 1 = daily, 2 = monthly, 3 = seasonal/year.

4. **levels of community hierarchy**: the levels of community hierarchy and ritual hierarchy were recorded using an ordinal scale: 0, 1, 2, 3, >3 *

The number of tiers of community hierarchy: is recorded to assess how hierarchically structure each eHRAF culture was (is). It is generally asserted that the greater the number of tiers of community hierarchy the more complex the society—particularly, when the hierarchical structure extends beyond the initial community. The use of the term structures refers to aspects such as a form of legal system and or members of a community or society who enforce certain codes (e.g. ruling council of a police force). For the purpose of this research, scoring for societal tiers of hierarchy was as follows:

0: relates to hierarch/management via household head only

1: relates to a low level of hierarch/management (household and community leaders)

2: reflects a medium level of hierarch/management (household, community and regional leaders and structures)

>3: represent a high level of hierarch/management (household, community, regional and state leaders and structures)

eHRAF: these are determined from the recording of any criteria relating directly to the levels of community hierarchy, in the eHRAF database:

Reference to or description of:

1.   dedicated household leaders

2.   dedicated kin leaders

3.   dedicated tribal leaders

4.   the hierarchical community structure

5.   dedicated community leaders

6.   community organisation

7.   community officials

8.   community meetings (council)

9.   the hierarchical regional structure

10.   dedicated regional leaders

11.   regional organisation

12.   regional officials

13.   regional meetings (council or parliament)

14.   the hierarchical supra-regional structure

15.   dedicated supra-regional leaders

16.   supra-regional organisation

17.   supra-regional officials

18.   supra-regional meetings (council or parliament)

19.   manner of election to roles (community, regional or supra-regional)

20.   manner of appointment to roles (community, regional or supra-regional)

21.   lineage/inherited roles (i.e. community role via father to son)

22.   making/deciding on rules and regulations

23.   levels of representation (community, regional or supra-regional)

24.   imposing rules and regulations

25.   legal system

26.   enforcement of rules and regulations

27.   levels of sanctions (community, regional or supra-regional)

28.   retribution (community, regional or supra-regional)

29.   Punishment (community, regional or supra-regional).

5.   Evidence of resource monopolisation: this category is recorded in terms of: 0 = absent, 1 = present.

Evidence of resource monopolisation relates to the control of food, territory or vital resources by an individual, a kin group, or select members of a group. This is exemplified by land or resource ownership and controlling the storage and distribution of resources. The presence of resource monopolisation can inform us about the (1) hierarchical organisation of the group; (2) the control and distribution system in a group; (3) the groups' economic system and (4) social inequality

eHRAF: For each eHRAF culture, evidence of resource monopolization occurring in the group comes for the examination of 33 criteria in the eHRAF database: Reference to or description of:

1.   Resource monopolization occurring in the group

2.   Unequal sharing of resources

3.   Organised food storage:

•   In a particular larger domestic setting

•   In a particular secular communal building where the storage as distribution is controlled by group agents or an organisation

•   In a particular religious communal building where the storage as distribution is controlled by religious leader(s)

4.   Ownership of a substantial amount land ownership by:

•   an individual,

- a kin group,

- select members of a group

5. Ownership of a high percentage of the domesticated animals by:

- an individual,

- a kin group,

- select members of a group

6. Control of a river or lake for fishing by:

- an individual,

- a kin group,

- select members of a group

7. Control of an important natural resource such as a water spring by:

- an individual,

- a kin group,

- select members of a group

8. Control of hunting territory by:

- an individual,

- a kin group,

- select members of a group

9. Control of a gathering territory by:

- an individual,

- a kin group,

- select members of a group

10. Competition for resources

11. Bidding for resources

12. Payment for resources

13. The paying of rent for land

14. Renting or sub-letting land

- Renting or sub-letting land for domestic purposes (dwelling renting)

- Renting or sub-letting land for commercial purposes (workshop etc.)

- Renting or sub-letting land for storage purposes

- Renting or sub-letting storage facilities

- Renting or sub-letting land for crops

- Renting or sub-letting land for animal husbandry

- In-group conflict over the control of resources

15. Inheritance of ownership of resources

16. Organised distribution of land

17. Organised distribution of resources

18. The sectioning-off/protection of resources via fences (wire wooded etc..), walls or trenches

19. Animal penning in a certain location

20. Private property

21. Land disputes

22. Disputes related to the control of resources

23. Conflict between individuals over the control of resources

24. In-group conflict over the control of resources

25. Between-group conflict over the control of resources

26. Rules related to the control of resources

27. Sanctions related to the control of resources

28. Taxes and tariffs related to the control of resources

29. Accounting system related to the control of resources

30. Laws related to the control of resources

31. Judgements related to the control of resources

32. Settling disputes related to the control of resources

33. Payment for resources

Archaeology: Evidence of resource monopolisation relates to the control of food or territory by a member or members of a group at each site-phase. Although resource

monopolization could relate to a number of natural resources or produced items, it was decided to focus on land and food. Thus, this section is used to examine and record the control of food resources via "ownership" and storage connected with what appear to be larger domestic dwellings (larger domestic dwellings category outlines in no 8 of this section) to inform us about resource monopolisation.

For the archaeological site-phases evidence of resource monopolisation (1 = present) is recorded form the available sources that identify and record of one of the ownership and the storage criteria:

Ownership

1.   The dividing up of the cultivated land via systems of walls, fences, palisades or ditched associated with the settlement

2.   Evidence of animal penning associated with the settlement

3.   Walls used to section of area of cultivation associated with a dwelling(s)

4.   Fences/palisades used to section of area of cultivation associated with a building(s)

5.   Ditches used to section of area of cultivation associated with a dwelling(s)

6.   Animal penning via associated with a domestic building(s)

7.   Walls used to section of area of cultivation associated with a domestic dwelling(s)

8.   Fences/palisades used to section of area of cultivation associated with a domestic building(s)

9.   Ditches used to section of area of cultivation associated with a domestic dwelling(s)

10.   Animal penning via associated with a domestic building(s)

Food storage

1.   The domestic storage of a surplus amount of food. Surplus indicating more food that would be required for the estimated habitants of such a dwelling

2.   smoking, curing or drying of a large amount of meat or fish associated with domestic dwelling(s)

3.   storage of excess food in a domestic setting via:

- pottery

- hermetically sealed pottery

- granary,

- grain bin

- silo

- additional storage house

4.   Larger domestic dwelling(s) associated with surplus food storage via large amount of stored or charred seeds or grains in niches, pottery, baskets or grain bins (processed and unprocessed)

5.   larger domestic dwelling(s) associated with the storage of animal remains via large amount of stored or charred animal bones with indication of butchering

6.   Secure storage area for surplus food; located in the inner section of house or under the floor

7.   Larger domestic dwelling(s) associated with cooking food storage via large amount of charred seeds

8.   Larger domestic dwelling(s) associated with the cooking of animal remains via large charred animal bones with indication of butchering

9.   Evidence of feasting associated with a domestic dwelling(s)

6.   Evidence of permanent settlement: this category is recorded in terms of: 0 = absent, 1 = present.

eHRAF: In the eHRAF database each culture is classified as evidence of permanent settlement come from (1) the description of groups as settled and/or sedentary; (2) the description of permanent structures for domestic, ritual and community purposes; (3) the description of groups as engaging in intensive agriculture including domesticated croups or animals; and (4) the description of groups as engaging in a long-term food storage strategy at one location involving storehouses and silos. Therefore, evidence of permanent settlement is recorded form the available sources that identify and record the subsistence strategy, agricultural intensity, storage practices, settlement plan and mobility patterns for each culture.

Archaeology: for the archaeological site-phases, the evidence of permanent settlement is recorded form the available sources in relation to the identification/recording of 4 of 37 material culture criteria:

1.   No occupation of natural shelters via low amount of artifacts, single heath and lithic scatter and no evidence of camp construction

2.   Evidence of permanent occupation with via high amount of artifacts, heaths and lithic scatter

3.   Dedicated areas of crop cultivations; larger than garden

4.   Dedicated areas for domesticated animals; penning area(s)

5.   Evidence of domesticated stables e.g. wheat or corn

6.   evidence of domesticated animals—particularly, cattle

7.   Community focused on a smaller number of resources; e.g particular crops

8.   Evidence of long-term food storage strategy via pottery, store rooms, cists, granaries or silos

9.   Evidence of long-term domestic food storage strategy via pottery, store rooms, cists, granaries or grain bin and the drying, curing or smoking of protein source

10.   Evidence of long-term community food stores via pottery, store rooms, cists, granaries or silos and the drying, curing or smoking of protein source

11.   Evidence of processing of domesticated resources (plants)

12.   Evidence of secondary produce from domesticated animals e.g. milk use via study of residues in pottery

13.   Evidence of processing of domesticated resources (animals)

14.   Evidence of long-term occupation with via high amount of artifacts, heaths and lithic scatter

15.   Evidence of processing of domesticated resources (plants and animals)

16.   Evidence of more complex, elaborate technology e.g. water or wind technology

17.   Large amount of artifacts due to:

•   period of occupation of site

•   reflects that all activates are carried out at site

•   Accumulation of personal possessions

18.   Craft specialisation for example, stone tools, pottery and other artifacts

19.   Evidence of site divisions that reflect craft specialisation for example, stone tools, pottery and other artifacts

20.   Evidence of difficult to transport artifacts; large and heavy

21.   Construction of permanent monuments, ceremonial structures

22.   Construction of community structures e.g. store rooms or meeting houses

23.   Nucleated settlement pattern

24.   Structures rectangular in plan

25.   Structures rectangular in plan allowing for or with augmentation

26.   Locally sourced transported material used in construction

27.   Definite foundations and modification of ground surface for construction

28.   Landscape altered for domestic or monumental construction of

29.   Construction may include: wattle and daub, use of mud or other types of bricks

30.   Roof and sides are often different material e.g. thatched roof and wooden or mud brick walls

31.   Evidence of social or political hierarchy reflected in larger domestic buildings and special burials (grave goods etc.)

32.   Uniform burial practices

33.   Dedicated burial area

34.   Foci such as square or plaza

35.   Long-term labour investment in domestic structures:

•   Maintenance and Renovation e.g. plastering, repainting or reroofing

36.   Long-term labour investment in communal structures:

•   Large amount of people (team; some with different skills) require for construction

•   Large amount of time require for construction

•   Maintenance and renovation e.g. plastering, repainting or reroofing

37.   Presence of mouse (*mus musculus*) bones, indicative of sedentary groups

7.   Evidence of temporary settlement: this category is recorded in terms of: 0 = absent, 1 = present.

eHRAF: In the eHRAF database each culture is classified as representing temporary settlement from (1) the description of groups as mobile, semi-mobile or nomadic; (2) the description of temporary structures for domestic, ritual and community purposes; (3) the description of groups as engaging in mobile hunting-gathering as primary food source or nomadic pastoralists; and (4) the description of groups as engaging in a more short-term food storage strategy involving consuming relatively soon after hunting, gathering or slaughtering mobile livestock. Therefore, evidence of temporary settlement is recorded form the available sources that identify and record the subsistence strategy, storage practices, settlement plan and mobility patterns for each culture.

Archaeology: for the archaeological site-phases, the evidence of temporary settlement is recorded form the available sources in relation to the identification/recording of 4 of 34 material culture criteria

1. Evidence of diet supplemented by hunting

2. Evidence of diet supplemented by gathering

3. Group focused on a large number of resources; e.g. particular crops

• Stable isotope evidence indicates use of varied plant food sources or indicates both terrestrial and marine diet elements

4. Evidence of garden cultivation

5. Evidence of domesticated plants but not necessarily stables

6. Evidence of domesticated animals such a sheep and goat but not cattle

7. Evidence of diet supplemented by seasonally available wild resources

8. Evidence of processing of wild resources

9. Evidence of seasonal use of resources e.g. seasonal wild plants, summer fish caching, young animal bones indicting winter slaughtering.

10. No large scale community food stores e.g. store rooms, granaries or silos

11. Settlement located near a critical resource e.g. water source

12. No dedicated areas of crop cultivations; larger than garden

13. No dedicated areas for domesticated animals; penning area(s)

14. No evidence of domesticated stables e.g. wheat or corn

15. No evidence of domesticated animals—particularly, cattle

16. No evidence of long-term domestic food storage strategy via pottery, store rooms, cists, granaries or grain bin and the drying, curing or smoking of protein source

17. No evidence of long-term community food stores via pottery, store rooms, cists, granaries or silos and the drying, curing or smoking of protein source

18. No evidence of more complex, elaborate technology e.g. water or wind technology

19.   Evidence of low occupation field camp via low amount of artifacts, single heath and lithic scatter

20.   Evidence of occupation of natural shelters via low amount of artifacts, single heath and lithic scatter and no evidence of camp construction

21.   Structures mainly circular and semi-circular in plan

22.   Generally locally sourced material used in construction rather than transported material

23.   Little evidence of foundation and modification of ground surface; often only modification to ground surface maybe circular or semi-circular pots holes

24.   Construction may include: brush and stick frame, local vegetation, and, occasionally, some wattle and daub elements.

25.   No use of mud or other types of bricks

26.   some craft specialisation for example, stone tools, pottery and other artifacts

27.   No evidence of site divisions that reflect craft specialisation for example, stone tools, pottery and other artifacts

28.   No evidence of difficult to transport artifacts; large and heavy

29.   No construction of permanent monuments, ceremonial structures

30.   No nucleated settlement pattern

31.   No alteration of the landscape for domestic, community or monumental construction

32.   No evidence of social or political hierarchy reflected in larger domestic buildings and special burials (grave goods etc.)

33.   No long-term labour investment in domestic structures:

•   Maintenance and Renovation e.g. plastering, repainting or reroofing

34.   No long -term labour investment in communal structures:

•   Large amount of people (team) require for construction

•   Large amount of time require for construction

•   Maintenance and renovation e.g. plastering, repainting or reroofing

- No dedicated burial area

8. Evidence of settled forager activity

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the *Subsistence practices s*ection above

9. Evidence of nomadic pastoralism

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the *Subsistence practices s*ection above

10. Evidence of large(r) domestic dwellings: this category is recorded in terms of: 0 = absent, 1 = present.

This category is used to record evidence of large(r) domestic dwelling(s) in the eHRAF dataset and at each archaeological site-phase. The presence of large(r) domestic dwelling(s) is associated with (1) hierarchical organisation of the group; (2) social inequality; (3) resource monopolization via storage and/or control of distribution. These dwelling(s) can range from slightly larger huts for a group elder or opulently decorated domestic dwelling(s) for regional leader.

eHRAF: For each eHRAF culture, evidence of large(r) domestic dwelling(s) is indicated by the examination of 35 criteria relating directly to the presence of communal buildings, in the eHRAF database: Reference to or description of:

1. presence of large(r) domestic dwelling(s)

2. design of large(r) domestic dwelling(s)(structural)

3. large foundation work involving heavy manipulation of ground surface

4. architecture of large(r) domestic dwelling(s) (structural)

5. construction of large(r) domestic dwelling(s)

6. Labour in terms of time for construction

7. Labour in terms of the number of people for construction

8.   Labour in terms of the different craft specialists

9.   interior design of large(r) domestic dwelling(s)(ostentations)

10.   interior architecture of large(r) domestic dwelling(s) (ostentations)

11.   decoration of large(r) domestic dwelling(s) (ostentations)

12.   comparative size of large(r) domestic dwelling(s)

13.   courtyard of large(r) domestic dwelling(s)

14.   Garden of large(r) domestic dwelling(s)

15.   walls of large(r) domestic dwelling(s)

16.   gates of large(r) domestic dwelling(s)

17.   the ownership of large(r) domestic dwelling(s)

18.   the location of large(r) domestic dwelling(s)

19.   water source for large(r) domestic dwelling(s)

20.   sanitation for large(r) domestic dwelling(s)

21.   position of fire place or hearth in large(r) domestic dwelling(s)

22.   organisation of events at large(r) domestic dwelling(s)

23.   events attended at large(r) domestic dwelling(s)

24.   the convening of secular gatherings at large(r) domestic dwelling(s)

25.   secular gatherings attended at large(r) domestic dwelling(s)

26.   the convening of ceremonial gatherings at large(r) domestic dwelling(s)

27.   ceremonial gatherings attended at large(r) domestic dwelling(s)

28.   storage of materials at large(r) domestic dwelling(s)

29.   processing of food at large(r) domestic dwelling(s)

30.   partaking in the processing of food at large(r) domestic dwelling(s)

31.   supervision of the processing of food at large(r) domestic dwelling(s)

32.   storage of food at large(r) domestic dwelling(s)

33.   partaking in the storage of food at large(r) domestic dwelling(s)

34.   supervision of the storage of food at large(r) domestic dwelling(s)

35.   position of the storage of food area in large(r) domestic dwelling(s)

Archaeology: Although this is difficult to determine in archaeological contexts. This category was employed as a possible way to examine social inequality in the archaeological record.

This section is for the recording of buildings that are larger than the typical domestic building at a site-phase but are considered to be domestic due to (1) non-ritual associations; (2) not large enough for community building; and (3) not considered a production workshop for pottery, tools etc. In general, these are identified in the archaeological record by the presence of:

- large domestic buildings that are considered well-crafted structures

- large domestic buildings with a high number of decorative artefacts such as decorated pottery or figurines

- large domestic buildings with evidence of the domestic storage of a surplus amount of food, domestic

- large domestic buildings with evidence of courtyards and segregation via walls or fences were examined

Large in this case refers to buildings that are bigger that the typical domestic buildings at the site. For the archaeological site-phases the evidence of communal structures (1 = present) is recorded form the available sources that identify and record of 3 of 27 material culture criteria. Recording of:

1. presence of large(r) domestic dwelling(s) compared to other domestic buildings by area (m2)

2. large(r) domestic dwelling(s) requiring substantial labour investment in terms of time for construction

3. large(r) domestic dwelling(s) requiring substantial labour investment in terms of the number of people for construction

4. large foundation work involving heavy manipulation of ground surface

5. use of mud-brick or stone for wall construction

6. evidence of high quality craft work; stone or wood work

7. evidence of different craft specialists to construct large(r) domestic dwelling(s)

8. interior design of large(r) domestic dwelling(s)(ostentations)

9. interior architecture of large(r) domestic dwelling(s) (ostentations)

10. decoration of large(r) domestic dwelling(s) (ostentations)

11. courtyard of large(r) domestic dwelling(s)

12. garden of large(r) domestic dwelling(s)

13. distinctive divisional feature compared to other buildings

• Walls

• Court yard

14. Different material used for roof and sides

15. large(r) domestic dwelling(s) associated with the presence of high craft goods such as pottery or basket, figurines

16. large(r) domestic dwelling(s) associated with decorative pottery

17. large(r) domestic dwelling(s) associated with decorative wall installations (e.g. carvings or painted features)

18. large(r) domestic   dwelling(s) associated with decorative anthropomorphic figurines

19. large(r) domestic dwelling(s) associated with decorative zoomorphic figurines

20. large(r) domestic   dwelling(s) associated with surplus food storage via large amount of stored or charred seeds or grains in niches, pottery, baskets or grain bins (process and unprocessed)

21. large(r) domestic dwelling(s) associated with the storage of animal remains via large amount of stored or charred animal bones with indication of butchering

22. Secure storage area for food; located in the inner section of house or under the floor

23. large(r) domestic   dwelling(s) associated with cooking food storage via large amount of charred seeds and inner hearth

24.   large(r) domestic dwelling(s) associated with the cooking of animal remains via large charred animal bones with indication of butchering and inner hearth

25.   large(r) domestic dwelling(s) not associated burial(s)

26.   evidence of luxury items such as pottery or figurines from another region

27.   similar buildings at other site-phases in the region. This is used to consider a shared belief or ritual practices across a number of sites which may be indicative of ritual standardisations.

11.   Evidence of feasting: this category is recorded in terms of: 0 = absent, 1 = present.

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the *General ritual/religious characteristics* section abov

12.   Evidence of craft specialisation: this category is recorded in terms of: 0 = absent, 1 = present. This category related to the recording of different crafts/trades. This includes:

1.   artisan crafts such as bead, pottery, leather, basket production and woodworking

2.   weapon production

3.   larger projects involving a number of crafts e.g. boat building and construction

eHRAF: For each eHRAF culture, evidence of craft specialisation in the group comes for the examination of 33 criteria in the eHRAF database: Reference to or description of:

1.   a workshop or workshops

2.   description of different trades

3.   trade guilds and organisations

4.   training/practicing and apprenticeships

5.   duties of apprentice

6.   duration of training

7.   training/educational facilities

8.   Organised production of pottery, weapons, and baskets etc.:

- In a particular non-domestic setting (area in the group territory)

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

9.   Storage of raw/basic material such as clay or stone, reeds, minerals, ores, etc.

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

10.   Storage of large amount of unfinished of pottery, figurines, glass, beads, weapons, metal ingots tool blanks and baskets etc.

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

11.   storage of large amount of finished pottery, figurines, glass, beads, weapons, and baskets etc.

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

12.   Displaying of finished pottery, figurines, glass, beads, weapons and baskets etc.

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

13.   distribution of pottery, figurines, glass, beads,, weapons, and baskets etc.:

•   from a particular non-domestic setting

•   from a particular domestic setting

•   from a particular secular building where the storage and distribution is controlled

by group agents or an organisation

•   from a particular religious communal building where the storage as distribution is

controlled by religious leader(s)

14.   Evidence of a furnace or heat source for production

15.   Description of smelting for metal production

16.   Description of a pottery wheel

17.   description of a drying kiln

18.   Descriptions of wood turning

19.   Sale of pottery, weapons, and baskets etc.

20.   Exchange of pottery, weapons, and baskets etc.

21.   Uses of pottery, weapons, and baskets etc.

22.   Requirement for pottery, weapons, and baskets etc.

23.   Area of a domestic building(s) associated with craft such as tool productions

24.   Spoil heap or dumping area associated with craft such as tool productions

25.   pottery, weapons, and baskets at market

26.   Bidding for pottery, weapons, and baskets etc.

27.   Exchange for pottery, weapons, and baskets etc.

28.   Payment for pottery, weapons, and baskets etc.

29.   Fishing requiring specific types of boats

30.   Domestic construction projects involving different crafts/trades

31.   Communal construction projects involving different crafts/trades

32.   Regional construction projects involving different crafts/trades

33.   Payment of craft specialist

Archaeology: For the archaeological site-phases evidence of craft specialization (1 = present) is recorded form the available sources that identify and record of 2 of 12 material culture criteria relating to evidence of craft specialization:

1. Storage of raw/basic material such as clay or stone, reeds, minerals etc.

• In a particular non-domestic setting

• In a particular domestic setting

• In a particular secular building

• In a particular religious communal building

2. Storage/caching of large amount of unfinished of pottery, figurines, glass, beads, weapons, tool blanks and baskets etc.

• In a particular non-domestic setting

• In a particular domestic setting

• In a particular secular building

• In a particular religious communal building

3. Storage/caching of large amount of finished pottery, figurines, glass, beads, weapons and baskets etc.

• In a particular non-domestic setting

• In a particular domestic setting

• In a particular secular building

• In a particular religious communal building

4. Area of a settlement associated with craft such as tool productions via, for example, scattering of stone blanks or debitage

5. Area of a building(s) associated with craft such as tool productions via, for example, scattering of stone blanks or debitage

6. Stone or bone scrapers for hides/skin

7. Bone awls and bone and antler needles and awls and points for hides/skin

8. Spoil heap or dumping area associated with craft such as tool productions

9. Discovery of boats indicating boat carpentry

10.   Domestic construction projects involving different crafts/trades: For example different material for sides and roof e.g. stonemasonry and carpentry

11.   Specialised architectural features

12.   Communal construction projects involving different crafts/trades (as above)

13.   Evidence of pottery :

This category is recorded in terms of: 0 = absent, 1 = present.

Pottery was included in the social complexity category as pottery:

1.   it is a defining feature of the Neolithic transition enabling us to track the trajectory of the Neolithic transition

2.   indicates a technical innovation that is directly associated with the Neolithic transition

3.   it indicates the development of an organised storage system be it food or other aspects of material.

4.   the presence of pottery enables us to examine aspects of craft specialization, food storage strategy, private food storage, resource monopolization (social inequality), exchange networks and possible storage of cultural knowledge.

The presence of pottery at a site can be as a result of production by the group or exchange with groups that have pottery technology.

eHRAF: For each eHRAF culture, evidence of pottery in the group comes for the examination of 36 criteria in the eHRAF database: Reference to or description of:

1.   Pottery workshop or workshops

2.   Trade guilds and organisations associated with pottery production

3.   Training/practicing and apprenticeships associated with pottery production

4.   Duties of apprentice associated with pottery production

5.   Duration of training associated with pottery production

6.   Training/educational facilities associated with pottery production

7.   Organised production of pottery

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

8.   Storage of raw material (clay):

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

9.   Storage of large amount of unfinished of pottery:

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

10.   Storage of large amount of pottery:

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

11.   Displaying of pottery:

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

12.   Distribution of pottery:

- From a particular non-domestic setting

- From a particular domestic setting

- From a particular secular building where the storage and distribution is controlled by group agents or an organisation

- From a particular religious communal building where the storage as distribution is controlled by religious leader(s)

13. Evidence heat source for production of pottery

14. Description of a pottery wheel

15. Description of drying kiln

16. Different pottery designs; pot shape and size

17. Sealed pottery

18. Unsealed pottery

19. Different designs on the pottery

20. descriptions of glazing

21. Spoil heap or dumping area associated with pottery production

22. Sale of pottery

23. Exchange of pottery between individuals

24. Items exchanged for pottery between individuals

25. Exchange of pottery between groups

26. Items exchanged for pottery between groups

27. Exchange of pottery technology between individuals

28. Exchange of pottery technology between groups

29. Uses of pottery for storage of food

30. Storage of liquid in pottery e.g. water or wine

31. Uses of pottery for storage of non-food items

32. Request for pottery

33. Commissioning of pottery

34. Patronage of pottery production

35. Bidding for pottery

36. Pottery at markets

37. Payment for pottery

38. Domestic use of pottery

39. Secular use of pottery

40. Ritual/religious use of pottery

41. Burial ceremonies involving pottery

Archaeology: For the archaeological site-phases evidence of pottery (1 = present) relates to

1. Evidence of pottery at a site-phase

2. Evidence of the production of pottery

3. Evidence of the use of pottery for storage og food and non-food resources

4. Evidence of the use of pottery in ritual/religious practices

The presence of pottery is recorded form the available sources that identify and record of 2 of 19 material culture criteria:

1. Evidence of pottery at a site-phase

2. The presence of raw material (clay):

• In a particular non-domestic setting

• In a particular domestic setting

• In a particular secular building

• In a particular religious communal building

3. The presence of unfinished of pottery:

• At the site-phase

• In a particular non-domestic setting

• In a particular domestic setting

• In a particular secular building

- In a particular religious communal building

- Associated with the interment of human remains

4. The presence of finished pottery:

- At the site-phase

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

- Associated with the interment of human remains

5. The presence of broken of pottery:

- At the site-phase

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

- Associated with the interment of human remains

6. The use of pottery for food storage—indicated by preservation (e.g. hermetically

sealed pottery charred remains or residues:

- At the site-phase

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

- Associated with the interment of human remains

7. The use of pottery for non-food storage:

- At the site-phase

- In a particular non-domestic setting

- In a particular domestic setting

- In a particular secular building

- In a particular religious communal building

- Associated with the interment of human remains

8. spoil heap or dumping area associated with pottery production

9. Evidence of exchange of pottery between groups via stylistic differences

14. **Evidence of exchange networks**: this category is recorded in terms of: 0 = absent, 1 = present. This section is used to examine the level of connectedness between the group being recorded and other groups through the exchange of information, technology and material among groups, or institutions. This section focuses on the exchange (transmission and receiving) of:

- Information (secular and religious)

- Technology

- Resources

- Raw materials

- Commodities

- weapons

- Gifts

eHRAF: For each eHRAF culture, evidence in the group comes for the examination of 30 criteria in the eHRAF database: Reference to or description of:

1. Exchange networks described in the sources

2. Reliance/inter-dependence between groups via exchange

3. Geographic distribution of exchanged items

4. Regional influence of a particular group

5. Exchange of:

- knowledge

- technology

- resources

- raw materials

- commodities

- weapons

- food

- gifts

6.   Selling of:

- knowledge

- technology

- resources

- raw materials

- commodities

- weapons

- food

- gifts

7.   Transport of:

- technology

- resources

- raw materials

- commodities

- weapons

- food

- gifts

8.   Delivery of:

- technology

- resources

- raw materials

- commodities

- weapons

- food

- gifts

9. Receiving/buying:

- knowledge

- technology

- resources

- raw materials

- commodities

- weapons

- food

- gifts

10. Distribution/dissemination of exchanged (new):

- knowledge

- technology

- resources

- raw materials

- commodities

- weapons

- food

- gifts

11. Formal instruction on new technology or knowledge

12. Informal instruction on new technology or knowledge

13. Arranged exchange between groups

14. Payment for exchange

15.   Reciprocal exchange

16.   Alliance exchanges; for the purpose of defence/conflict

17.   Control of exchange

18.   Exchange taxes and tariffs

19.   Accounting systems and/or records associated with exchange

20.   Rules and regulations of exchange

21.   Enforcement of rules and regulations of exchange

22.   Formal contracts associated with exchange

23.   Social contracts associated with exchange

24.   Arbitration associated with exchange

25.   Returning of exchanged items

26.   Markets associated with exchange

27.   Exchange routes

28.   People associated with exchange

29.   Warehouses associated with exchange

30.   Ports or docks associated with exchange

Archaeology: Although, it is possible that the presence of non-local material culture or natural resources at a site-phase may indicates trade or exchange, this was not used in relation to the archaeological samples as this evidence could relate to the spoils of war or raiding. For the archaeological site-phases evidence of exchange networks (1 = present) relates to the recording of:

(1) shared aspects of material culture between site-phases in a regional or supra-regional context In this sense we are looking at shared material culture that can be examined typological/stylistically to demonstrate connectedness or a network associated with exchange or trade, i.e.:

- Technology e.g. farming techniques or water technology

- Architecture

- Commodities: pottery etc.

- Weapons

- Ritual/religious items

- Ritual/religious practices

The recording of exchange networks can be examine

1. where previous network analysis has been undertaken in a region

2. where analysis of artefacts demonstrates increasing geochemical diversity in a material (e.g. obsidian) and an increasing density of non-local beads, indicating increased and geographically wider trading activities through time

3. Where there is evidence that material culture and practices are shared between sites

The evidence for exchange networks relates tom the identification of 4 of 28 criteria:

1. Similar buildings at other site-phases in the region or in larger geographical area

2. Similar exterior architecture of domestic dwelling(s)

3. Similar interior architecture of domestic dwelling(s))

4. Similar decoration of domestic dwelling(s) (ostentations)

5. Similar exterior architecture of communal buildings(s)

6. Similar interior architecture of communal buildings(s)

7. Similar decoration of communal buildings(s) (ostentations)

8. Similar exterior architecture of communal ritual buildings(s)

9. Similar interior architecture of communal ritual buildings(s)

10. Similar decoration of communal ritual buildings(s) (ostentations)

11. Similar of symbols associated with communal ritual buildings(s) (ostentations)

12. Similar artefacts associated with communal ritual buildings(s) (ostentations) this includes caching or presence of figurines or decoded pottery etc.

13.   Similar architecture of communal monuments buildings(s); this includes totems, megaliths, barrows and henges etc.

14.   Similar of symbols associated with communal monuments

15.   Similar artefacts associated with communal monuments this includes caching or presence of figurines or decoded pottery etc.

16.   Stylistic similarities in relation to pottery including:

- Shape

- Decoration

- Designs on the pottery

17.   Stylistic similarities in relation to weapons including:

- The materials used

- Shape

- Decoration

- Designs on the weapon

18.   Similar burial/interment practice at other site-phases in the region or in larger geographical area:

- Similar location of burials/interments associated with burial/interment location

- Similar orientation of burials/interments associated with a particular burial/interment location

- Similar interment type associated with a particular burial/interment location:

➢   grave cuts in the ground,

➢   cists,

➢   urns

➢   barrow(s),

➢   burial mound(s)

➢   interment in a monument/tomb e.g. megalithic tomb(s)

19.   Similar burial/interment of the body associated with a particular location:

- Flexed inhumation

- Extended inhumation

- Articulated

- Disarticulated

- Single inhumation burial/interment

- Group inhumation burial/interment

- Level of completeness of inhumation

- Single Cremation

- Comingled cremation

- Level of completeness of cremations

20.   Similar of grave goods associated with a particular burial/interment location. Including:

- beads

- weapons

- pottery

- utilitarian object

- carved stones

- human bone relics

- animal bone

21.   Similar of bodily adornment associated with a particular burial/interment location.

22.   Similar of primary burial practice in a particular location

23.   Similar of secondary burial practice in a particular location. Including

24.   repetition/diffusion/standardisation of design associated with a particular burial/interment location

25.   Similar architecture associated with a particular burial/interment location

26.   Similar ritual symbols associated with a particular burial/interment location

27.   Similar grave markers used at a particular burial/interment location

28.   Evidence of a port that is associated with exchange. i.e. a ship wreck with material for export or import

15.   Storage of cultural knowledge: this category is recorded in terms of: 0 = absent, 1 = present.

The storage of cultural knowledge refers to direct actions to externally maintain or store cultural knowledge; knowledge that is stored, normally, for the purposes of preserving and transmitting. This relates to the storage of information relating to group history, mythology, beliefs, social practices, ritual/religious practices and technology. This category can range from the storage of historic or cultic objects in a home to curation in a formal setting such as a museum or educational institute to organised educational systems. This section is used to record the evidence of an attempt to actively store cultural knowledge.

eHRAF: For each eHRAF culture, evidence in the group comes for the examination of 35 criteria in the eHRAF database: Reference to or description of:

1.   libraries

2.   museums

3.   communal buildings for display

4.   communal buildings cultural events

5.   re-enactments and reconstructions

6.   oral tradition re storage and dissemination of history, music, myths and practices

7.   community historian

8.   community storyteller

9.   community bard

10.   formal education systems

11.	places of education

12.	apprenticeships

13.	religious educational/instruction centres

14.	subjects covered in educational system

15.	length of time in educational system

16.	start of education

17.	end of education

18.	formal educations

19.	informal education

20.	standards of education

21.	inspection of education

22.	writing system

23.	secular system of characters/depictions

24.	secular system of characters/depictions

25.	books, parchment etc.

26.	maps

27.	carving and engraving

28.	sculpting and art

29.	depictions or inscriptions relating to history, myths or beliefs in public areas e.g.

plaques, cenotaphs, monuments, tombs or tapestries

30.	depictions, inscriptions or writing relating to history, myths or beliefs in domestic

settings e.g. in books, parchment, on pottery or tapestries

31.	educators/teachers/instructors

32.	formal dissemination of group history

33.	formal dissemination of group myths

34.	formal dissemination of group beliefs

35.	religious education/instruction

36.	rites of passage associated with receiving knowledge

Archaeology: For the archaeological site-phases evidence of the storage of cultural knowledge (1 = present) relates to the recording of 3 of 21 criteria:

1.   Storage or caching of figurines at communal building(s)

2.   Storage or caching of decorated pottery at communal building(s)

3.   Use of wall painting at communal building(s)

4.   Use of at wall carvings/reliefs at communal building(s)

5.   Repeated use of symbols at communal building(s)

6.   Storage or caching of figurines at communal ritual building(s)

7.   Storage or caching of decorated pottery at communal ritual building(s)

8.   Use of wall painting at a communal ritual building(s)

9.   Use of at wall carvings/reliefs at communal ritual building(s)

10.   Repeated use of symbols at communal ritual building(s)

11.   The presence of megalith(s)

12.   Use of wall painting at megaliths

13.   Use of at wall carvings/reliefs at megaliths

14.   Repeated use of symbols at megaliths

15.   The presence of henge(s)

16.   Use of wall painting at henge(s)

17.   Use of at wall carvings/reliefs at henge(s)

18.   Repeated use of symbols at henge(s)

19.   The presence of totems

20.   Use of at wall carvings/reliefs at a number of grave markers

21.   Repeated use of symbols associated with grave markers

16.   levels of religious hierarchy: this category is recorded in terms of an ordinal scale: 0, 1, 2, 3, >3 *

For the eHRAF cultures the evidence for the purpose of recording are outlined in the *General ritual/religious characteristics* section above

17.   Evidence of interpersonal violence: this category is recorded in terms of: 0 = absent, 1 = present

This section is used to examine the evidence of interpersonal violence within a group and between the groups. Interpersonal violence is taken as the deliberate use of physical force against an individual, group or community that results in or has a high probability of resulting in physical injury, death or psychological trauma.

eHRAF: For each eHRAF culture, evidence in the group comes for the examination of 36 criteria in the eHRAF database: Reference to or description of:

1.   Interpersonal violence

2.   Attacks on individuals

3.   Attacks by individuals

4.   Warriors or army

5.   Taking part in attack or conflict

6.   Volunteering for conflict

7.   Conscription

8.   Attacks on groups

9.   Attacks by groups

10.   Episodes of conflict

11.   Types and reasons for conflict:

•   Conflict within groups

•   Conflicts between groups

•   Conflict for resources

•   Conflict for prestige

•   Conflict for revenge

1. Preparing for conflict people e.g. training

2. Preparing for attack or conflict weapons and resources (logistics)

3. Fortifications

4. Types of Weapons

5. Weapon production

6. Weapon training

7. Issuing and distribution of weapons

8. Destruction and violence as a result of attack or conflict

9. Destruction of property during attack or conflict e.g. burning

10. Trophies or tokens from attack or conflict (material and resources including slaves)

11. Trophies or tokens from attack or conflict (e.g. head taking)

12. Spoils of attack or conflict

13. Wounds and physical trauma as a result of attack or conflict

14. Treatment of wounds trauma as a result of attack or conflict

15. Disability as a result of attack or conflict

16. Victims or dead following attack or conflict

17. Death following attack or attack or conflict

18. Retrieving or repatriation of dead following attack or conflict

19. Ceremonies associated with the dead following attack or conflict

20. Burial of the dead following attack or conflict

21. Mass graves associated with the dead following attack or conflict

22. Recording of the dead following attack or conflict

23. Monuments for the dead following attack or conflict

24. Remembering the dead following attack or conflict

25. Ceremonial violence e.g. associated with rites of passage

26. Ceremonial violence (human sacrifice)

27. Rules associated with attack or conflict

28.   Laws associated with attack or conflict

29.   Arbitrations before conflict

30.   Arbitrations after conflict

31.   Sanctions associated with attack or conflict

32.   Punishment associated with attack or conflict

33.   Reparations/compensations associated with attack or conflict

34.   Treaties/ settlements associated with attack or conflict

35.   Resolutions associated with attack or conflict

36.   Revenge associated with attack or conflict

Archaeology: Although, it is possible to examine the presence and production of weapon at a site, it was decided to specifically examine direct/definite evidence of interpersonal violence. Thus, evidence of interpersonal violence in the archaeological record was examined by the presence of human remains with evidence of violent peri- and antemortem traumatic injuries associated with violet incidents. A Perimortem injury refers to trauma at or near the time of death. For in perimortem injuries, the bone will not have any evidence of healing. Antemortem trauma refers to trauma before the time of death. For ante mortem injuries, bone shows evidence of healing. Thus, is distinguished from perimortem trauma by the appearance of new bone deposits, resulting in callus formation or bevelled edges. Evidence of interpersonal violence was examined via the skeletal record relating to human remains in:

1.   the settlement

2.   isolated burials

3.   Mass graves

4.   Non-sectioned off location

5.   Any sectioned-off specific location for burial/interment containing human remains; physical barriers include walls, ditches or palisades:

•   in the settlement the settlement

- in the surrounding landscape

6. Domestic buildings

7. Communal building(s)

8. Communal ritual building(s)

9. Burial mound (s), barrow(s)

10. Monument(s)/tombs e.g. megaliths

Interpersonal violence (1 -= present) was recorded in relation to the identification of any peri- and antemortem traumatic injuries from blunt and/or sharp-force trauma through the palaeopathological identification of:

(1) Fractures; as a result of abnormal forces or tension, compression, torsion, bending, or shearing applied to the bone

(2) Crushing injuries: as a result of abnormal forces causing compression of the body

(3) Dislocation: when surfaces that once were continuous no longer meet or they meet at an unnatural angle

(4) Bone wounds caused by sharp instruments e.g. cut marks

(5) Evidence of soft tissue injury or wounds in the context of preserved soft issue including:

- Contusion (hematoma)

- Abrasions

- Puncture wounds

- Lacerations

- Avulsion defects

18.   Evidence of single individual burial: this category is recorded in terms of: 0 = absent, 1 = present.

For the eHRAF cultures and the archaeology the evidence for the purpose of recording are outlined in the *Mortuary practices* section above

19.   **Evidence of grave goods**: this category is recorded in terms of: 0 = absent, 1 = present.

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the *Mortuary practices* section above

20.   **Evidence of special burial treatment**: this category is recorded in terms of: 0 = absent, 1 = present.

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the *Mortuary practices* section above

21.   **Evidence of cemeteries**: this category is recorded in terms of: 0 = absent, 1 = present.

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the *Mortuary practices s*ection above

Sharing Avoidance

This section of the database was used to record the evidence and level of sharing avoidance or theft control recorded in eHRAF culture and archaeological site-phase. For the eHRAF cultures, a specific set of OCM codes (Table 5) were used. This section used categories of absence or presence to identify and record the level of sharing avoidance in each culture or site-phase. Following the pilot study, it was decided to add a separate sub-category focussing on the evidence of sharing avoidance to the social complexity category. The presence of communal food storage was used to indicate a low level of sharing avoidance. The evidence of domestic food storage was used to indicate an increased/high level of sharing avoidance or theft control. The evidence of communal cooking was used to indicate a low level of sharing avoidance/theft control. The evidence of domestic cooking was used to indicate an increased/high level of sharing avoidance or theft control. The categories were recorded as:

1.   Evidence of communal food storage

2.   Evidence of domestic/private food storage

3.   Evidence of communal cooking

4.   Evidence of domestic/private cooking

TABLE 5. The eHRAF OCM codes for sharing avoidance

OCM Code	Description
251	preservation and storage of food
252	food preparation
261	gratification and food control
264	eating
341	architecture
342	dwellings
362	housing

1. **Evidence of communal food storage**: this category is recorded in terms of: 0 = absent, 1 = present. This section refers to any food source that is stored in an area that can be accessed by other members of the group examples include: community store houses, granaries or silos.

eHRAF: For each eHRAF culture, evidence of communal food communal storage is scored in relation to the examination of 33 criteria:

1. Large supra-domestic buildings for communal food storage

2. Description of communal storage strategy employed by a group

3. Communal storage used to supplement food source in times of scarcity

4. Design/architecture of communal food storage area/building

5. Construction of communal food storage area/building

6. Location of communal food storage area/building

7. Communal food storage by placing food in:

- pit(s)

- cist(s)

- pottery

- Jars

- basket(s)

- granary/granaries

- silo(s)

- storage house(s)

8. Processing of food source for communal storage (preparation)

9. Preservation of food source for communal storage

10. Drying, curing or freezing of meat and fish for storage for communal storage

11. Types of food sources stored in communal area/building

12. Hanging of food ,for example peppers, in a communal storage area/building

13. Communal storage of wild (gathered) fruit, nut, seeds, plants etc and

14. Communal storage cooking of processed wild (hunted) animals

15. Communal storage of domesticated crops

16. Communal storage of harvest yield

17. Organisational aspects of communal food storage

18. Records and accounts associated with communal food storage

19. Sharing or dividing out of food stored in communal area/building

20. Access to communal food store

21. Raiding of communal food store

22. Destruction of communal food store

23. Security of communal food store

24. Rules associated with communal food storage

25. Laws associated with communal food storage

26. Sanctions associated with communal food storage

27. Punishment associated with communal food storage

28. Reparations/compensations associated with communal food storage areas

29.   Symbols associated with associated with communal food storage areas

30.   practices, ceremonies and dedications attended at communal food storage areas

31.   Practices, ceremonies and dedications performed at communal food storage areas

32.   Myths and beliefs associated with the practices of communal food storage

33.   Myths and beliefs associated with the location of communal food storage

Archaeology: For the archaeological site-phases evidence of communal food storage (1 = present) relates to the storing of wild or domesticated plants or animals in an area that (1) contains more than one kin-group; (2) is considered is considered as a communal building (permanent or temporary); and (3) can be accessed readily by many (if not all) the members of a community. This generally related to the locations such as community storehouses or the storage of food in squares or in front of one or a group of domestic dwellings or a community building (permanent or temporary). The identification of communal food storage relates to the recording of 3 of 18 criteria:

1.   Evidence of large supra-domestic buildings with evidence of communal food storage

2.   Storage of food in community accessible structures such as

●   granary/granaries

●   silo(s)

●   storage house(s)

3.   Storage of food in communal storehouse in:

●   Pit(s)

●   Cist(s)

●   pottery

●   Jars

●   Basket(s)

●   On racks such as smoked, cured or dried of meat or fish

4.   Storage of food community accessible areas (outside domestic or communal dwellings or in a square) in:

- pit(s)

- cist(s)

- pottery

- jars

- basket(s)

- on racks such as smoked, cured or dried of meat or fish

5.   Communal building(s) associated with surplus food storage via large amount of stored or charred seeds or grains in niches, pottery, baskets or grain bins (processed and unprocessed)

6.   Communal building(s) associated with the storage of animal remains via large amount of stored or charred animal bones with indication of butchering

7.   Communal building(s) associated with the storage of smoked, cure or dried of meat or fish associated with a domestic dwelling(s)

2.   Evidence of domestic/private food storage: this category is recorded in terms of: 0 = absent, 1 = present. This section refers to any food source that is stored in a domestic/private setting that can be only accessed by certain members of the group examples include: pits, granaries, grain bin or domestic outhouses. In general, the food source is not shared with people outside a certain family or kin group

eHRAF: For each eHRAF culture, evidence of domestic/private food storage is scored in relation to the examination of 35 criteria:

1.   Part of a domestic buildings used for food storage

2.   Description of domestic/private storage strategy employed by an individual

3.   Description of domestic/private storage strategy employed by a group

4.   Domestic/private storage used to supplement food source in times of scarcity

5. Design of domestic/private food storage area

6. Construction of domestic/private food storage area

7. Location of domestic/private food storage area

8. Additions/augmentations to domestic house for the purpose of domestic/private food storage

9. Additional outhouse for the purpose of domestic/private food storage

10. Domestic/private food storage by placing food in:

- pit/pits

- cists

- pottery

- Jars

- baskets

- granary/granaries or

- grain bin(s)

- outhouse

11. Processing of food source for domestic/private storage (preparation)

12. Preservation of food source for domestic/private storage

13. Drying, curing or freezing of meat and fish for storage for domestic/private storage

14. Types of food sources stored in domestic/private area/building

15. Hanging of food in a domestic/private storage area/building

16. Domestic/private storage of wild (gathered) fruit, nut, seeds, plants etc.

17. Domestic/private storage cooking of processed wild (hunted) animals

18. Domestic/private storage of portion of a harvest yield

19. Organisational aspects of domestic/private food storage

20. Records and accounts associated with domestic/private food storage

21. Sharing or dividing out of food stored in domestic/private area

22.   Access to domestic/private food store

23.   Raiding of domestic/private food store

24.   Destruction of domestic/private food store

25.   Security of domestic/private food store

26.   Rules associated with domestic/private food storage

27.   Laws associated with domestic/private food storage

28.   Sanctions associated with domestic/private food storage

29.   Punishment associated with domestic/private food storage

30.   Reparations/compensations associated with domestic/private food storage areas

31.   Symbols associated with associated with domestic/private food storage areas

32.   Practices, ceremonies and dedications attended at domestic/private food storage areas

33.   Practices, ceremonies and dedications performed at domestic/private food storage areas

34.   Myths and beliefs associated with the practices of domestic/private food storage

35.   Myths and beliefs associated with the location of domestic/private food storage

Archaeology: For the archaeological site-phases evidence of domestic food storage (1 = present) relates to the storing of wild or domesticated plants or animals in an area that (1) is considered as a domestic dwelling used by one family group (permanent or temporary); (2) cannot be access readily by other members of a community. This generally related to the location of a food storage area inside a more secure area of a house such as under the floor or separated from the access point to the dwelling by room(s)or wall(s)

The identification of communal food storage relates to the recording of 1 of 5 criteria

1.   Storage of food in a domestic setting via:

- pottery

- jar

- granary

- grain bin

- silo

- niches,

- cists

- baskets

- additional storage house-extension

2.   Domestic dwelling(s) associated with surplus food storage via large amount of stored or charred seeds or grains in niches, pottery, baskets or grain bins (processed and unprocessed)

3.   Domestic dwelling(s) associated with the storage of animal remains via large amount of stored or charred animal bones with indication of butchering

4.   Domestic dwelling(s) associated with the storage of smoked, cure or dried of meat or fish associated with a domestic dwelling(s)

5.   Secure storage area for surplus food; located in the inner section of house

- No. of rooms Between Dwelling Entry Point and Food Storage Area <1

- No. of Walls Between Dwelling Entry Point and Food Storage Area <1

3.   Evidence of communal cooking area: this category is recorded in terms of: 0 = absent, 1 = present. This section refers to cooking food in an area that can be accessed by other members of the group examples include: community heaths, stoves and cooking houses. Generally, the (1) cooking of the food is shared or rotated and (2) cooked food is shared with other group members.

eHRAF: For each eHRAF culture, evidence of communal cooking is scored in relation to the examination of 28 criteria:

1.   Description of communal cooking

2.   Communal cooking used to supplement food source in times of scarcity

3.   Design/ of communal cooking area

4.   Construction of communal cooking area

5.   Location of communal cooking area

6.   Communal cooking using:

- pit/pits

- hearth(s)

7.   Preparation of food for communal cooking

8.   Preservation of food source for communal cooking

9.   Communal storage of cooking implements

10.   Types of food sources cooked in communal area

11.   Communal cooking of wild (gathered) fruit, nut, seeds, plants etc.

12.   Communal cooking of processed wild (hunted) animals

13.   Communal cooking of domesticated crops

14.   Communal cooking of harvest yield

15.   Organisational aspects of communal cooking

16.   Records and accounts associated with communal cooking

17.   Sharing or dividing out of food cooked communally

18.   Destruction of communal cooking area

19.   Security of communal cooking area

20.   Rules associated with communal cooking

21.   Laws associated with communal cooking

22.   Sanctions associated with communal cooking

23.   Punishment associated with communal cooking

24.   Symbols associated with associated with communal cooking areas

25.   Practices, ceremonies and dedications attended at communal cooking areas

26.   Practices, ceremonies and dedications performed at communal cooking areas

27.   Myths and beliefs associated with the practices of communal cooking

28.   Myths and beliefs associated with the location of communal cooking

Archaeology: For the archaeological site-phases evidence of communal cooking (1 = present) relates to the cooking of wild or domesticated plants or animals in an area that (1) contains more than one kin-group could use in a given season (2) is considered as a communal building (permanent or temporary) (3) can be accessed readily by many (if not all) the members of a community. This generally related to the locations such as community squares or in front of one or a group of dwellings or a domestic or community building(s) (permanent or temporary). The identification of communal cooking relates to the recording of 2 of 11 criteria:

1.   Evidence of large supra-domestic buildings with evidence of communal cooking

2.   Cooking of food inside community accessible structures via

•   pit/pits

•   hearth(s)

•   fire place(s

•   stove(s)

3.   Cooking of food outside community accessible structures via

•   pit/pits

•   hearth(s)

•   fire place(s

•   stove(s)

•   This can be indicated by the presence of many hearth(s)/pit(s)/fire place(s)/stove(s) in close proximity or one large hearth etc.

4.   Cooking of food in a community accessible area such as a square or plaza such as:

•   pit/pits

•   hearth(s)

•   fire place(s

•   stove(s)

- this can be indicated by the presence of many hearths etc. in close proximity or one large hearth etc.

5.   Cooking of food outside a group of domestic dwellings (temporary or permanent) in a:

- pit/pits

- hearth(s)

- fire place(s

- stove(s)

- this can be indicated by the presence of hearth or hearths etc. in close proximity or one large hearth etc.

6.   inside or outside of domestic building(s) associated with evidence of plant cooking via charred seeds or grains in associated with a hearth(s) etc.

7.   Inside or outside of Communal building(s) associated with the cooking of animal remains via charred animal bones with indication of butchering

8.   Area of a settlement with evidence of plant cooking via charred seeds or grains in associated with a hearth(s) etc.

9.   Area of a settlement with evidence the cooking of animal remains via charred animal bones with indication of butchering associated with a hearth(s) etc.

10.   Inside or outside of domestic dwelling(s) associated with evidence of plant cooking via charred seeds or grains in associated with a hearth(s) etc.

11.   Outside of domestic dwelling(s) associated with the cooking of animal remains via charred animal bones with indication of butchering

4.   Evidence of domestic/private cooking area: this category is recorded in terms of: 0 = absent, 1 = present. This section refers to any food source that is cooked in a domestic/private setting that can only be accessed by certain members of the group

examples include: heaths, fire places and stoves. For the most part, the cooked food is not shared with people outside a certain family or kin group.

eHRAF: For each eHRAF culture, evidence of domestic/private cooking is scored in relation to the recording of 33 criteria:

1. Domestic buildings in which cooking takes place

2. Description of domestic/private cooking by a family member

3. Description of domestic/private cooking by a group

4. Domestic/private cooking used to supplement food source in times of scarcity

5. Design of domestic/private cooking area

6. Construction of domestic/private cooking area

7. Location of domestic/private cooking area

8. Additions/augmentations to domestic house for the purpose of domestic/private cooking

9. Additional outhouse for the purpose of domestic/private cooking

10. Domestic/private cooking using:

- pit/pits

- hearth(s)

- fire place(s

- stove(s)

11. Preparation of food source for domestic/private cooking

12. Preservation of food source for domestic/private cooking

13. Domestic/private storage of cooking implements

14. Domestic/private cooking of wild (gathered) fruit, nut, seed, plant resources

15. Domestic/private cooking of wild (hunted) animals

16. Domestic/private cooking of domesticated crops

17. Domestic/private cooking of portion of a harvest yield

18. Organisational aspects of domestic/private cooking

19.   Records and accounts associated with domestic/private cooking

20.   Sharing or dividing out of food cooked in domestic/private area

21.   Access to domestic/private cooking area

22.   Raiding of domestic/private cooking area

23.   Destruction of domestic/private cooking area

24.   Security of domestic/private cooking area

25.   Rules associated with domestic/private cooking

26.   Laws associated with domestic/private cooking

27.   Sanctions associated with domestic/private cooking

28.   Punishment associated with domestic/private cooking

29.   Symbols associated with associated with domestic/private cooking areas

30.   Practices, ceremonies and dedications attended at domestic/private cooking areas

31.   Practices, ceremonies and dedications performed at domestic/private cooking areas

32.   Myths and beliefs associated with the practices of domestic/private cooking

33.   Myths and beliefs associated with the location of domestic/private cooking

Archaeology: For the archaeological site-phases evidence of domestic cooking (1 = present) relates the cooking of food in an area that (1) is considered as a domestic dwelling used by one family group (permanent or temporary); (2) cannot be access readily by other members of a community. This generally related to the location of a food cooking area inside a more secure area of a house separated from the access point to the dwelling by room(s) or wall(s)

The identification of communal food storage relates to the recording of 1 of 4 criteria

1.   Cooking of food in a domestic setting via:

- pit/pits

- hearth(s)

- fire place(s

- stove(s)

- additional storage house-extension

2.   Evidence of domestic cooking by charred remains of processed plants in the context of a hearth inside a domestic dwelling

3.   Evidence of domestic cooking by charred animal bones with indication of butchering

4.   Secure cooking area for heath/ stove/pit fire; located in the inner section of house:

- No. of rooms Between Dwelling Entry Point and Food Storage Area <1

- No. of Walls Between Dwelling Entry Point and Food Storage Area <1

* recorded only for archaeological site-phases

* recorded only for eHRAF cultures

Community, Ritual, and Monumental Architecture

This section of the database was used to record the evidence of community, ritual and monumental architecture connected with each eHRAF culture and archaeological site-phase. For the eHRAF cultures, a specific set of OCM codes (Table 6) were used. Following the pilot study, it was decided to add a separate sub-category focussing on the evidence of community, ritual and monumental architecture to the social complexity category. This section used categories of absence presence to identify and record the level of evidence of community, ritual and monumental architecture. The four categories used to identify the presence of community, ritual and monumental architecture were:

1.   Evidence of communal building(s)

2.   Evidence of communal ritual structures

3.   Evidence of communal ritual monuments/monuments in the landscape

4.   Evidence of large statues (and totems)

TABLE 6. The eHRAF OCM codes for architecture

OCM Code	Description
340	structures
341	architecture
344	public structures
346	religious and educational structures
621	community structures
628	inter-community relations

1.   Evidence of communal building(s): this category is recorded in terms of: 0 = absent, 1 = present. This category is used to record communal buildings used for communal activity such as (1) convening meetings; (2) community administration; (3) craft such as tool, pottery or basket production and (3) food storage or processing.

eHRAF: For each eHRAF culture, evidence of communal buildings (1 = present) is indicated by the examination of 20 criteria relating directly to the presence of communal buildings, in the eHRAF database: Reference to or description of:

1.   presence of communal building(s)

2.   design of communal building(s)

3.   construction of communal building(s)

4.   use of communal building(s)

5.   the convening of meetings at communal building(s)

6.   meetings attended at communal building(s)

7.   organisational aspects of meetings at communal building(s)

8.   architecture of communal building(s)

9.   production of materials at communal building(s)

10.   partaking in the production of materials at communal building(s)

11.   supervision of the production of materials at communal building(s)

12.   processing of animals at communal building(s)

13.   partaking in the processing of animals at communal building(s)

14.   supervision of the processing of animals at communal building(s)

15.   processing of food at communal building(s)

16.   partaking in the processing of food at communal building(s)

17.   supervision of the processing of food at communal building(s)

18.   storage of food at communal building(s)

19.   partaking in the storage of food at communal building(s)

20.   supervision of the storage of food at communal building(s)

Archaeology: This section is for the recording of buildings that were used by the community but probably not for rituals. In general this is identified in the archaeological record by the presence of large, supra-domestic buildings that are associated with communal activity such as (1) the ability to house meetings (2) craft such as tool, pottery or basket productions (3) food storage or processing. Large in this case refers to buildings

that are bigger (area) that the typical domestic buildings at the site. For the archaeological site-phases the evidence of communal structures (1 = present) is recorded form the available sources that identify and record of 2 of 14 material culture criteria. Recording of:

1. large supra-domestic buildings

2. large supra-domestic buildings associated with craft such as tool, pottery or basket productions; via scattering of debitage or incomplete products.

3. large supra-domestic buildings associated with a number of finished or unfinished pottery

4. large supra-domestic buildings associated with a number of finished or unfinished stone tools

5. large supra-domestic buildings associated with finished or unfinished pottery

6. large supra-domestic buildings associated with a number of finished or unfinished anthropomorphic figurines

7. large supra-domestic buildings associated with a number of finished or unfinished zoomorphic figurines

8. large supra-domestic buildings associated with food processing via large amount of stored or charred seeds or grains (process and unprocessed)

9. large supra-domestic buildings associated with food storage via large amount of stored or charred seeds or grains in niches, pottery, baskets or silos (process and unprocessed)

10. large supra-domestic buildings associated with animal processing via large amount of stone tools associated with animal process—especially if microware analysis indicates animal processing

11. large supra-domestic buildings associated with animal processing via large amount of stored or charred animal bones with indication of butchering in the building or an associated spoil heap

12. large supra-domestic buildings not associated burial(s)

13. large supra-domestic buildings not associated with skull caching, painting or plastering

14. similar buildings at other site-phases in the region. This is used to consider a shared belief or ritual practices across a number of sites which may be indicative of ritual standardisations.

2. Evidence of communal ritual structures: this category is recorded in terms of: 0 = absent, 1 = present.

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the *General Ritual* section above

3. Evidence of communal ritual monuments/monuments in the landscape: this category is recorded in terms of: 0 = absent, 1 = present.

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the *General Ritual* section above

4. Evidence of large statues (and totems): this category is recorded in terms of: 0 = absent, 1 = present.

For the eHRAF culture and the archaeology the evidence for the purpose of recording are outlined in the General Ritual section.